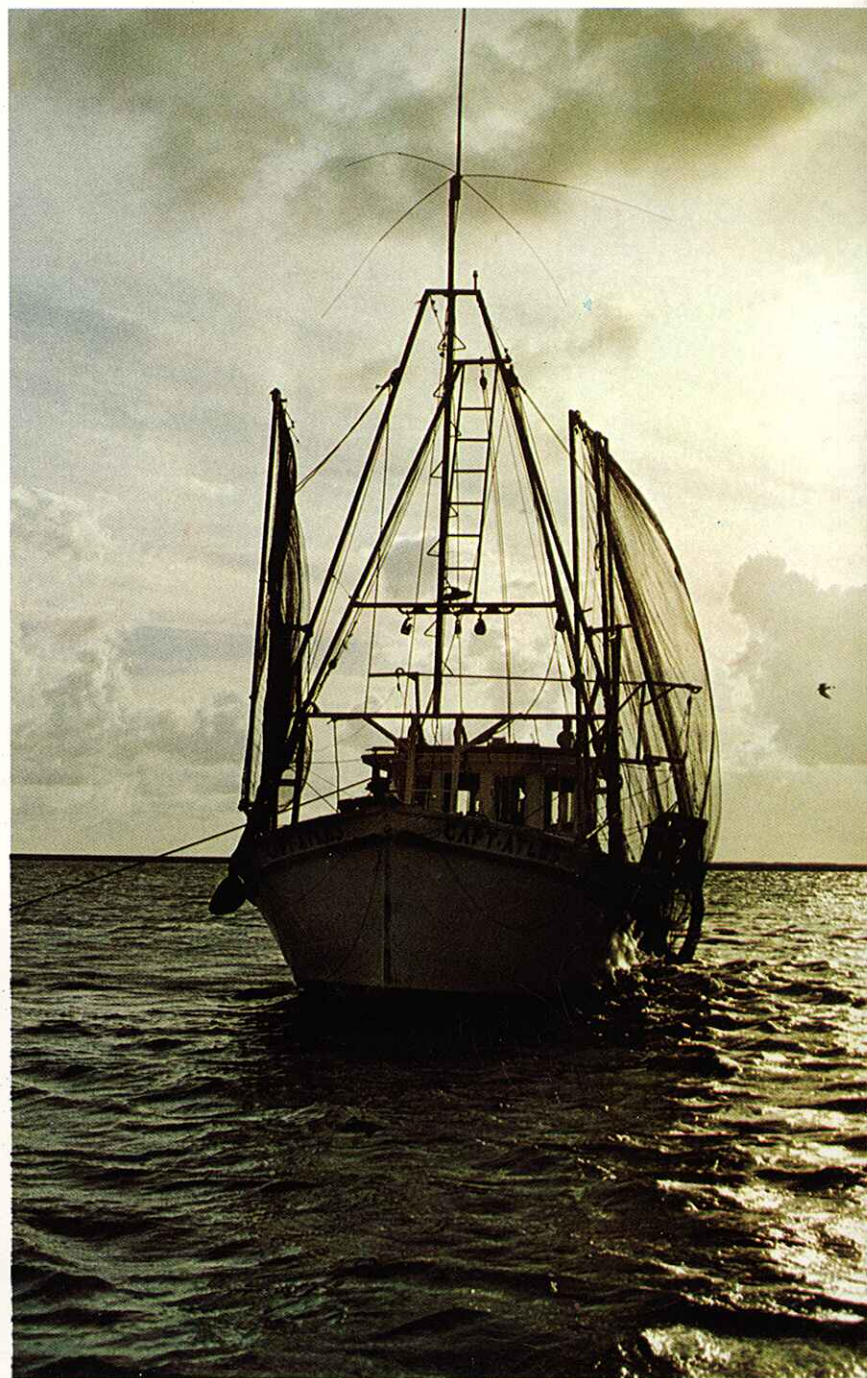
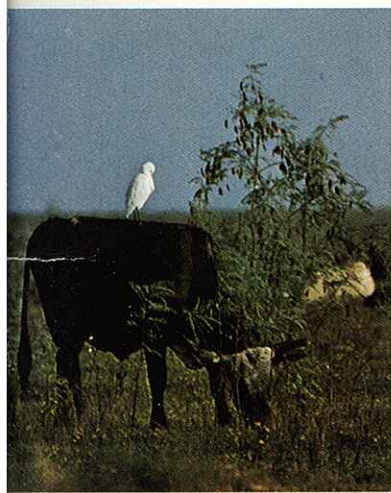




Wetlands '73: Toward Coastal Zone Management in Louisiana



Photographs by Donald M. Bradburn, Charles Fryling Jr., Lloyd Poissnot and Lyle S. St. Amant

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**WETLANDS '73:
TOWARD COASTAL ZONE MANAGEMENT
IN LOUISIANA**

**Annual Report
of**

**Louisiana Advisory Commission
on
Coastal and Marine Resources**

March, 1973

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LOUISIANA ADVISORY COMMISSION
COASTAL and MARINE RESOURCES

52-60 Law Center, LSU
 Telephone 504 389-2254
 Baton Rouge, La. 70803

March 31, 1973

Marc J. Hershman
 Executive Director

COMMISSIONERS

Lyle S. St. Amant
 Chairman
 State Government

Lawrence K. Benson
 Vice Chairman
 Land-Owners

Donald M. Bradburn
 Conservation Groups

Alva H. Harris
 Marine Scientist

Charles Janvier
 Oil and Gas

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 Labor

Oliver G. Salinovich
 Fisheries

Manson Saltzman
 Agriculture

Jack R. Van Lopik
 Marine Scientist

McVey F. Ward
 Water Transportation

STAFF

Paul H. Temple
 Scientific Associate

To the Governor and Legislators of Louisiana:

We are pleased to submit herewith the second annual report of the Louisiana Advisory Commission on Coastal and Marine Resources, entitled "Wetlands '73: Toward Coastal Zone Management in Louisiana."

The report is submitted in accordance with Act 35 (1971) which requires a report in March of each year analyzing state government activities affecting coastal and marine resources.

Much progress has been made toward developing a coastal zone management plan for Louisiana. This report focuses on two critical needs of the state: an ongoing coastal zone planning effort designed to take advantage of the federal Coastal Zone Management Act and financial support for research and education directly affecting use of our vast coastal and marine resources. We respectfully request your attention to these two matters during the 1973 legislative session.

We are convinced that a strong coastal zone management program in Louisiana will enable full productive use of our coastal and marine resources in a manner compatible with the unique wetlands environment of south Louisiana.

Lyle S. St. Amant
 Lyle S. St. Amant
 (state government
 resource administrator)

L. K. Benson
 L. K. Benson
 (attorney--land
 owner interests)

Donald M. Bradburn
 Donald M. Bradburn
 (private conservation
 organizations)

Alva H. Harris
 Alva H. Harris
 (marine scientist--
 Nicholls State U.)

Charles Janvier
 Charles Janvier
 (oil and gas industry)

Davy P. Laborde, Sr.
 Davy P. Laborde, Sr.
 (labor unions and
 workers)

Manson Saltzman
 Manson Saltzman
 (agriculture)

Oliver G. Salinovich
 Oliver G. Salinovich
 (commercial fisheries)

Jack R. Van Lopik
 Jack R. Van Lopik
 (marine scientist--
 LSU)

McVey F. Ward
 McVey F. Ward
 (transportation industry)

Marc J. Hershman
 Marc J. Hershman
 (executive director)

SUMMARY OF RECOMMENDATIONS

The Commission recommends that the state take full advantage of the Federal Coastal Zone Management Act and begin development of a coastal zone management plan acceptable under the Federal Act. Louisiana should become a national leader in coastal zone management because of the extent, riches, and uniqueness of its coastal zone. The Commission further recommends that the state insure swift and thorough compliance by appropriating sufficient funds for continued coastal zone management planning. Such planning may well be handled through the State Planning Office, with the assistance of the Louisiana Advisory Commission on Coastal and Marine Resources, the Louisiana Sea Grant program, and the Louisiana Wild Life and Fisheries Commission.

discussed in text on page 2, and
in Appendix I.

The Commission strongly recommends the Legislature provide specific matching funds for maximum support of the Louisiana Sea Grant Program during the 1973 fiscal session.

discussed in text on page 4, and
in Appendix III.

Concerning the Nicholls State University marine science teaching and research laboratory at Port Fourchon:

The Commission recommends suitable arrangement be made to permit the use of this facility by other university faculty and students and the Legislature provide funds for purchase of needed laboratory equipment.

discussed in text on page 4, and
in Appendix III.

INTRODUCTION

The Louisiana Advisory Commission on Coastal and Marine Resources is charged with preparing a coastal zone management plan for the long-term, orderly conservation and development of Louisiana's coastal and marine resources. Three major reports must be prepared by the Commission under its enabling statute: an annual report each year of its two-year existence and a final report entitled "Coastal Zone Management Plan." This document constitutes the Commission's second annual report. The Commission's final report will be prepared by September 1973, and distributed widely throughout the state.

The past year brought many changes. Governor Edwards has infused state government with new ideas. There is more work toward reorganizing state government than there has been in many years. The Louisiana Constitutional Convention is well underway and beginning to address questions of state priorities and state agency functions.

At the federal level, the Coastal Zone Management Act, passed by Congress late in 1972, is being implemented. Louisiana's economic and recreational dependence upon its coastal and marine resources makes the full implementation of the Coastal Zone Management Act within Louisiana a necessity.

Perhaps the most significant development this past year has been the added public attention given to big projects planned for the coastal zone. Whether they be highways, navigation projects, land development proposals or conservation programs, many citizens and interest groups are expressing their views on these projects. Louisianans are no longer willing to sit back while government agencies make the decisions. They want to be involved. They are expressing the need for new concepts of regional planning and the development of a strong coastal zone management program in Louisiana.

Since the 1973 legislative session will deal almost exclusively with fiscal matters, the Commission has given primary attention to fiscal matters in this report. Because Louisiana's coastal zone is so important to the state's future, the Commission recommends that the state take full advantage of the federal Coastal Zone Management Act by providing sufficient funds to continue coastal zone management planning efforts, thus enabling an early and substantial grant request of the federal agency administering the program.

The Commission also believes marine research and education must be given strong support by the legislature if the basic work for coastal zone management planning is to proceed. The Commission recommends financial support to the Louisiana Sea Grant Program on a regular basis and support to the Nicholls marine laboratory at Port Fourchon for purposes of research and applied sciences related to coastal zone problems.

In addition to recommendations, this report provides a preview of the more fundamental coastal zone management issues with which the Commission will deal in its final report. Each of the concepts of coastal zone management discussed very briefly in this report will be expanded and developed in the Commission's report in September, 1973.

The Commission greatly acknowledges the assistance of the following individuals and organizations during its past year of work: The LSU Center for Wetland Resources, directed by Dr. Jack R. Van Lopik, provided essential assistance to the Commission over the past year. Thanks also to Professor Ted B. Ford of the Department of Marine Sciences of L.S.U. Special thanks to Dean Paul M. Hebert of the L.S.U. Law Center for allowing use of law school facilities for the Commission's staff. Many knowledgeable and experienced officials in Louisiana state government and federal agencies provided invaluable guidance and assistance in handling special matters relating to our study.

The following individuals directly assisted in the preparation of this report: Paul H. Templet, assistant director of the Commission and scientific associate; J. Arthur Smith III, attorney and research associate of the Sea Grant Legal Program; Bobbie Holmes, Nita Laverdet and Marilyn Miller, all of the staff of the Louisiana Advisory Commission on Coastal and Marine Resources; and Billie Morgan of the Sea Grant Legal Program.

Marc J. Hershman
Executive Director
March, 1973

Wetlands '73: Toward Coastal Zone Management in Louisiana

The Louisiana Advisory Commission on Coastal and Marine Resources has continued its efforts over the past year to develop a plan for the long-range, orderly conservation and development of Louisiana's coastal zone.

The commission believes coastal zone management is vital to the state if coastal zone resource conflicts are to be resolved. This can only be done if coastal zone management includes elements of interest group participation, citizen involvement in the planning process, adequate scientific and technical support and intensive analysis of specific problem areas. The Commission's work over the year has stressed these elements. Committee reports have been reviewed and certain coastal zone management concepts have emerged. These points are developed in subsequent paragraphs and in appendices. Three recommendations for action are set forth.

CONFLICT RESOLUTION THROUGH COASTAL ZONE MANAGEMENT

Most conflicts over the use of the coastal zone center upon major project proposals. Some of these projects, particularly navigation improvement, drainage, irrigation, and water resource projects, are promoted, planned, funded, and constructed by federal agencies. Congress, at the urging of local interests, instructs federal construction agencies to develop the plans for a project. Funds are provided for planning, public hearings are held, contracts are let, and the construction of the project begins. However, this process often takes many years from inception to completion, 10 to 20 years not being uncommon.

Other projects, such as for residential development, industrial development, and land reclamation, may be essentially private development projects which are initiated in conjunction with state and local governmental bodies.

Projects have been sought after and have seldom met with opposition. In the past, objections were raised primarily by wildlife and fisheries interests.

During the past several years, developments have occurred which could profoundly affect projects currently planned for our coastal zone. These developments are: 1) the passage of the National Environmental Policy Act of 1969 which requires environmental impact statements on any federal project which will have a significant impact on the environment; and 2) the awakening of environmental consciousness by the environmental movement of the late '60s and early '70s.

All across the country projects and programs are being challenged on the basis of the environmental impact of the action. These challenges have led to the cancellation of offshore leasing for oil exploration along the California Coast at Santa Barbara, a delay in offshore leasing off Louisiana's coast, a delay in construction of the Alaska pipeline, the denial of funds for the SST, and others too numerous to mention.

There is growing opposition to many projects in Louisiana's coastal zone. For example:

(1) there is vigorous opposition by residents of St. Bernard Parish to the proposed shiplock and channel, and widening and deepening of the Mississippi River Gulf Outlet. The proponents of the project say it is necessary to keep the Port of New Orleans competitive with other ports in the nation while the opponents of the project urge it be drastically modified or abandoned altogether due to possible adverse environmental impacts.

(2) the opposition to and postponement of construction of the section of hurricane flood protection levee in St. Charles Parish through efforts of the St. Charles Environmental Council. The Council is calling for a moratorium on all projects in Lake Pontchartrain until a regional comprehensive impact statement is prepared.

(3) the opposition of some residents on the north shore of Lake Pontchartrain to continued commercial sand and shell dredging in the lake.

(4) the opposition by Morgan City officials to the Soil Conservation Service's Lake Verret Watershed Project.

(5) the opposition by the Terrebonne Parish Police Jury and some sportsmen to the proposed new channel from Morgan City to the Gulf.

Opponents of projects have spoken at public hearings calling for significant modifications or changes in the projects. Many of these speakers have indicated their willingness to take their grievances to court.

These situations, brought on by increased environmental concern and citizen involvement, may lead to a classic confrontation involving heated debate, stalemate in projects, and protracted litigation. Indeed, the Commission finds conflicts of opinion with respect to almost every project planned for our coastal zone.

Besides conflicts resulting from citizens' opposition, conflicts are also inadvertently generated by federal agencies which have responsibilities for regulating particular aspects of natural resource use in the coastal zone. Traditional resource management by federal agencies has been piecemeal, focusing on one resource (e.g., oil, fish, agriculture, land) at a time, thus ignoring the singularly important fact that there have often been conflicts between users of different resources. Further, there has been little coordination among federal agencies and their actions often appear to be at odds with one another.

It is therefore becoming increasingly apparent that there are inadequate governmental procedures to resolve these conflicts and to reach rational compromise solutions. Unless such governmental procedures are developed, the Commission believes the confrontation will continue and result in stalemate. Louisiana cannot afford such a stalemate. Its resources are too bountiful, and too important to its people, that they should be the subject of such conflict.

It is the role of coastal zone management to provide a mechanism by which conflicts are avoided or reconciled by building into a management plan all necessary procedures and safeguards which would diminish and, if possible, eliminate conflicts and reduce or eliminate adverse environmental impacts. Coastal zone management must consider all costs and benefits of each proposed action in order to establish its true worth.

Under the federal Coastal Zone Management Act, (See Appendix I) grants to states for coastal zone management are contemplated. States which take advantage of this act can better assert their resources management priorities and objectives when federal actions are proposed which affect their coastal zone.

Coastal zone management can balance developmental and environmental interests and provide a common forum so issues may be resolved in a rational and intelligent manner with the least legal, social, environmental, developmental and economic disruption. Only in this way can Louisiana hope to obtain the best possible quality of life for its citizens.

The Commission recommends that the state take full advantage of the Federal Coastal Zone Management Act and begin development of a coastal zone management plan acceptable under the Federal Act. Louisiana should become a national leader in coastal zone management because of the extent, riches, and uniqueness of its coastal zone. The Commission further recommends that the state insure swift and thorough compliance by appropriating sufficient funds for continued coastal zone management planning. Such planning may well be handled through the State Planning Office, with the assistance of the Louisiana Advisory Commission on Coastal and Marine Resources, the Louisiana Sea Grant program, and the Louisiana Wild Life and Fisheries Commission.

The alternative to comprehensive coastal zone management is piecemeal management by federal and state agencies with the characteristic single purpose objectives which have led us into the present situation of conflict. Louisiana must do better.

ELEMENTS OF A COASTAL ZONE MANAGEMENT PROGRAM

Any coastal zone management program must contain the following elements if it is to be effective and successful:

1. Representation of Diverse Interest Groups
2. Citizen Involvement
3. Utilization of Best Scientific Assistance
4. Intensive Analysis of Problem Areas

The following briefly discusses how these elements were addressed and fulfilled by the Commission.

Diverse Interest Group Representation

The cornerstone of the Commission's work has been the unique opportunity for all concerned interests to work together toward solutions mutually beneficial to all Louisianans. The composition of the Commission—10 members chosen from the oil and gas industry, agriculture, landowners, the water transportation industry, state natural resource administrators, marine scientists, environmental groups, fishermen and labor unions—directly lends itself to broad-based coastal planning where all important interests are considered. For the first time in Louisiana government various and diverse interest groups are recommending procedures for the rational long-range management and effective solutions to many critical economic development-environmental protection issues. This type of cooperation between diverse interest groups is abundantly beneficial and will undoubtedly work to the benefit of the state and the overall public good.

Moreover, the Commission has acted as a forum for diverse groups and individuals to make known their viewpoints. Technical presentations by federal agency heads, state resource officials, university professors and environmental citizen group leaders were begun in the early phases of the Commission's operations in late 1971 and were concluded in June of 1972. For more detailed information on the presentations of the orientation phase, see Appendix II.

Citizen Involvement in the Planning Process

Another keynote of the Commission's activities has been citizen involvement in the planning process. Various technical presentations by citizen groups were an important part of this involvement.

Citizens participated in public hearings held in five coastal communities during the year. The hearings exposed the Commission and staff to the public and the public to the Commission. Citizens were given the opportunity to contribute to the Commission's efforts and direction. Hearings were well attended. Statements were presented by public officials, conservationists, farmers, fishermen, industry representatives and private individuals. Concern was expressed over the erosion of the Louisiana coast and barrier islands, salt water intrusion into the estuaries, the alteration of marshlands by construction projects, the silting of the Atchafalaya Basin, pollution, fishery harvests, recreational access problems, and general concern over the deterioration of wetlands. For more detailed information on the hearings see Appendix II.

Scientific and Technical Assistance

The Commission has actively sought the knowledge and advice of experts in many fields. A very favorable and beneficial liaison has been established with the Louisiana Sea Grant Program, the Louisiana Wild Life and Fisheries Commission, the Corps of Engineers, and many others.

Presentations were received by the Commission during its orientation phase from numerous experts on aspects of coastal zone management in Louisiana. (See Appendix II).

The Commission received a detailed briefing from Dr. Sherwood M. Gagliano of LSU's Center for Wetland Resources explaining the results of his five-year coastal zone management study. This study, sponsored by the Corps of Engineers and the Sea Grant program, proposes a coastal zone management plan based upon an analysis of environmental management units to determine their intrinsic suitability for certain types of land-use. Such an analysis would result in the production of atlas-type maps delimiting the environmental characteristics of the region. These maps, perhaps color-coded, would then be used by local planners and developers to assist and direct development in the coastal zone.

To gain further technical advice and assistance, the staff and commissioners have studied the approaches of other states in coastal zone management. Texas and Florida were given special attention. Florida has developed an atlas showing preferred land uses in three broad categories: preservation, conservation and development. Texas has developed an environmental geology atlas of its coastal zone and made a number of recommendations to the state legislature for legal reforms in use of state-owned waterbottoms and barrier beaches. Many other state programs, such as those in California, Delaware and Maine have also been analyzed.

The Commission believes coastal zone management requires extensive technical and scientific support if it is to be successful. There is a strong need for ongoing basic research into the natural and human processes at work in Louisiana's coastal zone. The basic research must be analyzed and synthesized and put into a form useful to planners, developers and conservationists.

A significant part of this technical and scientific support has come from the Louisiana Sea Grant Program. If the Sea Grant program is to continue providing coastal zone research and advisory services to the state, the one-third matching fund requirement of this program must be fully met by a legislative appropriation.

The Commission strongly recommends the Legislature provide specific matching funds for maximum support of the Louisiana Sea Grant Program during the 1973 fiscal session.

There is an immediate need for a marine science teaching and research laboratory available for use by all state universities. Nicholls State University has recently constructed a small laboratory of this type at Port Fourchon.

The Commission recommends suitable arrangement be made to permit the use of this facility by other university faculty and students and the Legislature provide funds for purchase of needed laboratory equipment.

For more information concerning marine education and research and the Louisiana Sea Grant Program, see Appendix III.

Committee Work and Intensive Analyses

The Commission's eight committees have met a number of times and have provided invaluable assistance to the Commission. They have reviewed working papers and have added significant insights into the analysis of coastal zone processes and problems. The committees prepared well-documented reports which were reviewed and critiqued by the full Commission. More information on committees and their work is in Appendix II.

Since a major requirement of the Commission under Act 35 is to recommend the best state governmental structure to handle coastal zone management, the Commission's staff has conducted an outgoing intensive analysis of state agencies which have responsibilities over resource use in the coastal zone. This provides a reliable analysis of current government operations and responsibilities in the coastal zone. With this background, better recommendations can be made for future government activities.

The Commission's first annual report presented the results of an extensive analysis of 23 major agencies operating in the coastal zone. The analysis of five new agencies or subagencies has been completed:

- 1) The Environmental Protection Section of the Office of the Attorney General.
 - 2) The Governor's Atchafalaya Basin Commission and the Atchafalaya Basin Division of the Department of Public Works.
 - 3) The Louisiana Regional Airport Authority
 - 4) The Deep Draft Harbor and Terminal Authority of Louisiana (the Superport Authority).
 - 5) The Governor's Council on Environmental Quality and the Citizens Advisory Board.
- See Appendix IV for the detailed analyses.

Concepts of Coastal Zone Management

During discussions over the past year some recurring themes or concepts have emerged. The concepts are operational principles or methods by which coastal zone management in Louisiana can proceed. They do not necessarily represent the exact form or substance of the recommendations that will be included in the Commission's final report. They do reflect the current thinking of the Commissioners.

1. Planning for Coastal Zone Use—Environmental Management Units

The state must define environmental management units within its coastal zone. This refers to such geographic features as corridors which transect the coastal zone, flood plains within the coastal zone and low-lying marshes and swamps. Environmental management units are critical tools in determining both the environmental impact of certain kinds of projects and the best and most suitable use for particular areas in the future. Such a division of the state's coastal zone into environmental management units is a highly technical responsibility requiring much information and visual depiction on maps. Once delineated, these environmental units would provide basic reference materials for planning future coastal zone use. The LSU Center for Wetland Resources has begun such a project under Sea Grant and Corps of Engineers funding.

2. Decision Making Criteria for Coastal Uses

The decision making process must be guided by: the management unit concept discussed above; a thorough understanding of how the ecosystem functions; a determination of the stresses the ecosystem can bear; and, an analysis of intrinsic land-use suitability. These broad considerations must be further amplified by specific guidelines, priorities, policy statements, etc., by which the manager is guided in his decision making. An overriding consideration in any decision-making process is maintaining the viability and productivity of the natural system. The key to understanding the ecosystem, and thus to maintaining its productivity, lies in research efforts directed at understanding the effects of particular activities on the ecosystem. Any regulatory process for coastal management must include these considerations.

3. Development Encouraged in Corridors

Heavy land uses for industry, commerce, residential development and transportation should be limited as far as possible to corridors and other areas most suitable for development in the coastal zone. Long-term growth should be planned, where possible, to remain within those corridors or other areas suitable for development. Establishing areas suitable for development implies there would be areas where development should be discouraged. These also need to be delineated and should be used primarily for living resource, recreational development and other compatible uses.

4. Use of Weirs, Dams and Water Control Structures

Whenever marsh disturbance projects are necessary (such as oil and gas access canals and pipeline canals) the best engineering devices in weirs, dams and water control structures should be used for controlling salt water intrusion, reducing erosion and managing water cycles to enhance biological productivity. The Commission recognizes many operators in the coastal zone follow such procedures. Some do not. There is no surveillance by the state of the long-term maintenance of such structures. This needs to be rectified through an expanded program for monitoring and maintaining water control and erosion control structures built in the marsh.

5. River Diversion Projects

Coastal zone management in Louisiana should recognize positive engineering programs to enhance our coastal zone. Diverting Mississippi River water for delta building and fresh water introduction into estuaries for salinity control should be developed. Such river diversion proposals need extensive study and analysis. Major efforts in this direction would probably involve a cooperative program between local, state and federal agencies—notably the Corps of Engineers. Such an engineering program would need its own indepth analysis and study. Much work has been done already by the Corps of Engineers, the LSU Center for Wetland Resources and local and state agencies.

6. Action Programs

The Commission believes coastal zone management is not simply a regulatory program imposing restraints on activities in the marshlands. It must have positive elements since the long-term orderly growth and conservation is as much a goal as environmental protection. The Commission is considering the following action programs:

A. Recreation in the coastal zone might be expanded and diversified consistent with other uses. Indications are New Orleans is the only highly developed tourist attraction in Louisiana. Such tourist promotional activities must be coupled with transportation links and facilities for travelers.

B. Mariculture in Louisiana's coastal zone has tremendous potential. Experiments are now going on with a few species. The mariculture activities proposed are those which use existing water bodies of low productivity rather than flooding, dredging or otherwise modifying productive marshes and estuaries. Hence we are looking toward an increase in fisheries and wildlife production over what we currently have, rather than substituting traditional fisheries production with mariculture production.

C. Since so many pipeline canals are found within the coastal zone, a special review of potential multiple uses of such canals should be made. Mariculture may be one of those uses. Other uses should be reviewed as well.

D. A special management program for the Lake Pontchartrain estuary should be established. The impact of a highly urbanized area such as New Orleans must be given special recognition since it is such a pervasive factor. Many proposals are being advanced for development projects within the lake.

E. A special, well-funded, research and education program should be established in Louisiana to address coastal and marine affairs. This will provide the public with information about the coastal zone and its intricate processes. It will also provide needed personnel in the future for the management of coastal resources and the specific and timely research needed to solve coastal problems as an aid to the decision-maker. Such a program should include a marine laboratory available to all universities in Louisiana.

7. Assessing Cumulative Impact

Coastal management must include techniques or procedures by which the cumulative impact of many small, seemingly diverse and unconnected projects, can be assessed. It is recognized that the cumulative impact of small projects may have severe adverse impacts upon the ecosystem supporting living resources in particular areas of the coastal zone.

8. The Value of Undisturbed Wetlands

All public works projects should include the value of undisturbed wetlands in the cost-benefit analysis for each of those projects. The value of such undisturbed wetlands must be a realistic figure based upon its contribution to the productivity of the ecosystem and its specific value for commercial and sport fishing and hunting. In the past this value has not been considered in determining the cost-benefit ratio of particular projects.

Conclusion

Since its last annual report, the Commission has endeavored to identify the problems in managing Louisiana's coastal zone and to list how the problems arose and what possible solutions may be available. This annual report indicates the progress we have made so far. Our final report, due in September, 1973, will present all of our findings and a proposed governmental structure for coastal zone management in Louisiana. Our hope is that the implementation of our recommendations will help resolve conflicts and lead toward the orderly conservation and development of our coastal zone. In this way, the best quality of life can be maintained for all the citizens of Louisiana.

APPENDIX I

Federal Coastal Zone Management Legislation: Its Impact Upon Louisiana

...This appendix provides an overview of the federal statute and its requirements, the reasons why Louisiana should take full advantage of the federal statute, the state's current actions to comply with the federal statute, and a brief statement regarding coastal zone management aspects of other federal programs.

By Act 35 (1971), the Louisiana Advisory Commission on Coastal and Marine Resources is specifically directed to consider the initiative of the federal government in coastal zone management as part of its study effort. Section 1365 A(L) states:

A . . . the Commission . . . shall recommend policies for adoption by administrative or legislative action considering the following specific elements:

... (L) any system of coastal zone management adopted by the federal government."

In addition section 1365 C provides as follows:

The Commission shall review state and federal plans, studies, and legislation in the field of conservation and development of coastal and marine resources, and shall thereafter recommend to the Governor and the Legislature the most appropriate form of state organization for participation in any system of coastal zone management adopted by the federal government.

When Act 35 was being drafted, Congress was actively debating federal legislation on coastal zone management. Louisiana, looking ahead toward potential federal legislation, required that the details of that legislation be considered as Louisiana developed its own plans.

On October 27, 1972, President Nixon signed the Coastal Zone Management Act of 1972 (PL 92-583). An analysis of that Act is reprinted at the end of this Appendix.

In brief, the Act provides grants to states to plan and administer coastal zone management programs. These programs must determine guidelines for land and water uses in the coastal zone, priority of uses for coastal regions, laws to insure state government has ultimate power over local coastal resources decisions and a governmental structure to insure the implementation of the management program.

The Commission recommends that the state take full advantage of the Federal Coastal Zone Management Act and begin development of a coastal zone management plan acceptable under the Federal Act. Louisiana should become a national leader in coastal zone management because of the extent, riches and uniqueness of its coastal zone. The Commission further recommends the state insure swift and thorough compliance by appropriating sufficient funds for continued coastal zone management planning. Such planning may well be handled through the state Planning Office, with the assistance of the Louisiana Advisory Commission on Coastal and Marine Resources, the Louisiana Sea Grant Program and the Louisiana Wild Life and Fisheries Commission.

The most important reason for full compliance with the Coastal Zone Management Act is also the most obvious. A substantial part of Louisiana is its coastal zone. Our major population and industrial base is in our coastal zone. An extensive recreational and commercial fishery industry relies upon our vast marshlands and estuaries for annual replenishment. An important and productive oil, gas and chemical industry uses our coastal zone. Our coastal zone provides access to the sea for a large and vital shipping industry. Numerous other valuable activities go on in our coastal zone. To insure maximum benefit from each and sustain long-term values, a rational management program for these resources must be undertaken by the state.

Using all available federal dollars to assist state programs is a necessity for Louisiana. Our revenues will be shrinking in the years to come as oil and gas production declines. When the federal government asserts an interest in a region such as the coastal zone, it behooves Louisiana to be able to take full advantage of the available federal dollars. The federal act is broadly worded and the proposed guidelines implementing it are general, insuring that the peculiarities of Louisiana's coast can be recognized under the umbrella of the federal act.

Taking advantage of the federal program would allow for comprehensive rather than piecemeal planning for the coast. State and federal agencies and private developers now plan uses of the coast on a project-by-project basis. The purpose of the federal Coastal Zone Management Act is to identify the regional implications of projects planned for the coastal zone and to provide that promoters of projects, whether they be public, private, local or regional, consider the overriding state values in the coastal zone. This implies a resource inventory and analysis of the coastal area to provide the best long-term uses for all the citizens of the state.

The federal program recognizes the state, and not some federal agency, is primarily responsible for the comprehensive planning for the coast. If a state does not do the planning encouraged under the Act, federal agencies will be doing the planning for the state via the feasibility and environmental impact studies of federally funded projects within the coastal zone. Not only does this place the burden of planning with the wrong entity, it further emphasizes piecemeal planning.

Federal lands within a coastal zone of a state are subject to that state's management program under the federal Coastal Zone Management Act. Louisiana's coastal zone contains significant acreages of federally owned or controlled refuges or game preserves, making it vital that management programs on the state and federal lands be fully compatible.

A state with an approved management program is in a better position to assert its interest when the federal government proposes new legislation affecting use of the coastal zone. Two such measures currently being debated in Congress relate to superport development and power plant siting legislation. An approved management program can address these questions prior to federal legislation and a state's views on these matters can be incorporated. Such new federal developments would be subject to a state's management program.

Louisiana needs a cooperatively developed coastal zone management program to protect itself from possible arbitrary or uni-purpose action of federal agencies operating within its coastal zone. The federal government, through the constitutionally established navigation servitude, can exert substantial influence over water areas in coastal Louisiana. Although these federal programs may be compatible with Louisiana's goals, frequently there are conflicts between interests within the state and federal agencies. A coastal zone management program, approved by the federal office, is a tool by which the state asserts its interest in its coastal zone.

Recently the question of a federal agency attempting to determine the rules for dredging in Louisiana's coastal zone arose. The Department of Interior, Bureau of Sport Fisheries and Wildlife, circulated a preliminary draft of guidelines regarding dredging in wetlands throughout the United States. These guidelines were promulgated under the federal Wildlife Coordination Act. Although the guidelines were appropriate for many parts of the country, their application in Louisiana would have halted virtually all dredging activities. For example, no dredging would have been permitted in waters less than ten feet deep. This would preclude dredging in ninety per cent of the waterbottoms of Louisiana. Considering the extent of oil and gas operations in the state, a substantial conflict would have arisen between the state and the federal agency. Although controls and limitations on dredging may be necessary for the state, Louisiana's unique situation may not fit under proposed federal guidelines. In this circumstance, if Louisiana had an approved coastal zone management program which addressed the question of dredging in marshlands and waterbottoms, it could assert this management program in defense of proposed federal guidelines which might conflict.

Louisiana should be able to take advantage of technical advice and services, as well as standardized techniques, developed by the federal agency administering the coastal zone management program. This would provide some uniformity of approach which would be valuable to Louisiana in dealing with other Gulf of Mexico states. It would also make the services of many federal agencies more readily available to the state.

Finally, the federal coastal zone management effort may become linked to a national land use program now being considered by Congress. The Coastal Zone Management Act has specific language requiring specific coordination with the coastal zone effort. If federal executive reorganization comes about, these two programs will be closely linked. At some point in the future, they may be administered together. It is important for Louisiana to be firmly grounded in the coastal zone effort so integration with subsequent land use measures may be able to flow more easily.

In Louisiana, coastal management has generally been on a resource-by-resource and problem-by-problem basis with little overview authority. Individual agencies have developed expertise with respect to a particular resource but there is no agency with the overview responsibility—an understanding of the total social, economic and environmental context for use of dwindling quantities of coastal resources under ever increasing demands for use. Our state agencies have a great deal of information on wildlife and fisheries resources, water resources, minerals, transportation and economic development needs. The LSU Coastal Studies Institute and Sea Grant Program and the Basin Planning Division of the New Orleans District of the U.S. Army Corps of Engineers have initiated comprehensive studies of the Louisiana coastal zone. The purpose of coastal zone management under the federal Coastal Zone Management Act is to synthesize much of this information and develop management tools allowing land-use decisions to be made with consideration of all the technical information which is available.

Hence, when the legislature created the Louisiana Advisory Commission on Coastal and Marine Resources under Act 34 of 1971, the detailed work of coastal management was well under way. The Commission was not originally designed to be a technical group which could synthesize all of this information and develop management tools. It was designed to provide a **policy base** for coastal management in Louisiana to recommend future governmental organization. The next logical step for the Commission, if its technical base is expanded, is to synthesize the work which preceded it, with a view toward translating those materials into working tools for planners, developers and conservationists in the coastal zone. It is precisely this function which the federal Coastal Zone Management Act is designed to assist through grants-in-aid. Hence, Louisiana is in a superb position to take advantage of the federal program.

To properly achieve this job of synthesis and creation of management tools, four additional steps must be taken by the state to comply with the federal program.

First, a substantial inventory of environmental factors in the coastal zone must be conducted. This inventory must be related to specific geographic areas and outlined on maps. Such an effort has begun under Corps of Engineers and Sea Grant sponsorship at the Center of Wetland Resources at LSU in Baton Rouge. The inventory of land and water uses must be completed for the entire coastal zone.

Second, the state must identify areas of particular concern in its coastal zone. A methodology for determining the criteria for designating such an area must be established. Examples of an area of particular concern might include: wetland areas where urban expansion is most likely; particular areas of the marsh environment where dredging and industrial and mining activities have been intensive; areas of unique environmental value in certain regions of the coastal zone; and areas where coastal erosion and land loss is great. These examples are listed simply to show the kinds of decisions this state must make to comply with the "areas of particular concern" requirement of the federal statute. This work has yet to be done.

Third, the state must list all coastal zone uses which have a direct and significant impact on coastal waters. Again, these uses must be related to specific geographic areas. Linking specific uses to geographic areas again requires an extensive mapping program. An atlas indicating such uses should be produced by the state and will probably be necessary to comply with the federal coastal zone management guidelines.

Fourth, the federal statute requires that the state determine guidelines for priority of uses for areas of particular concern. This requires a specific methodology for determination of those guidelines. Some techniques used for developing guidelines include: "resource capability", or the type of uses most compatible with the intrinsic or natural characteristics of a particular resource; recognition of the trends in growth and conservation within a state and developing guidelines conforming to those trends; and delimitation of environmental management units, areas which should be viewed as a unit in determining the impact different types of uses may have upon it and the development uses most suited to the area.

To begin taking advantage of the federal program, Louisiana should establish in its executive budget for FY 73-74 a special line item for coastal zone management planning at a level sufficient to match the maximum federal funding of \$300,000 on a $\frac{1}{3}$ state- $\frac{2}{3}$ federal basis. Such an effort would allow a fast and efficient effort at finishing the work listed above.

The Governor recently designated the State Planning Office as the lead agency for coastal zone management in Louisiana. In a letter to the federal agency administering the program, Governor Edwards recognized the importance of coastal zone management and made it an integral part of the overall state planning effort.

To insure that Louisiana's views are adequately considered in the evolving federal program, the Advisory Commission adopted a resolution urging that the Secretary of Commerce, Frederick L. Dent, appoint Dr. Lyle S. St. Amant, chairman of the Commission and the assistant director of the Louisiana Wild Life and Fisheries Commission, to a position on the 15-man coastal zone management advisory committee established under the federal Coastal Zone Management Act. The Commission feels that the vast, rich, and unique wetlands of Louisiana's coastal zone requires that Louisiana be adequately represented on the new advisory committee. Many people throughout Louisiana have supported Dr. St. Amant in this appointment. With one of our key state officials closely involved in the federal program, it is believed Louisiana can maintain a prominent and effective position in the national coastal zone management effort.

This appendix has dealt exclusively with Louisiana's role under the new federal Coastal Zone Management Act. However, other federal programs could assist a Louisiana coastal zone management effort. As indicated earlier, the initial aspects of coastal zone management planning began under other federal programs—water resource development, Corps of Engineers planning, commercial fisheries research, Sea Grant, etc. Louisiana should continue to take advantage of federal funds, from whatever source, when such funds can be applied to achieving coastal zone management goals.

New federal programs could assist coastal zone management planning. The federal Water Quality Act (PL 92-500) may provide assistance for aspects of coastal zone management—those where water quality is affected by dredging and sedimentation. The land use management program being debated in Congress could apply to Louisiana's effort since much of coastal zone management is related to land use decisions. Federal proposals for deep water port development, power plant siting, national energy policy, and others, should be monitored as potential data sources for coastal zone management needs. In pursuing these other programs, especially deep water port development, coastal zone management concepts should be incorporated.

A good example of incorporating coastal zone management into other programs can be seen in the Louisiana Deep Draft Harbor and Terminal Authority Act passed in 1972. An Environmental Protection Plan must be promulgated prior to building any superport under state authority. Concern over Louisiana's unique coastal environment resulted in a procedure whereby deep water port development can proceed but only under strict environmental protection guidelines. In effect, coastal zone management has been built into the superport development program. Louisiana was the first state in the nation to adopt such a procedure.

THE FEDERAL COASTAL ZONE MANAGEMENT ACT OF 1972

An analysis

by

Marc J. Hershman

Sea Grant Legal Program

LSU Law Center

On October 27, 1972, President Nixon signed the Coastal Zone Management Act of 1972, perhaps the most significant environmental management measure to come out of Congress this year. If the Act is properly funded and implemented, Louisiana and all other coastal states and territories will be encouraged to develop tools for the long-term planning and management of invaluable and irreplaceable coastal resources.

"Louisiana Coastal Law" presents this expanded issue dealing exclusively with a description and interpretation of the new law.

HISTORICAL FACTORS. Over the past five or ten years many events have heightened attention to the U.S. coastal areas and created demands for more aggressive governmental action. Oil pollution on California's coast, particularly the Santa Barbara channel, raised considerable nation-wide concern for the coastal regions. Construction of second homes, apartments and hotels in coastal areas has grown rapidly in recent years. Many coastal communities and industries have grown with haphazard planning and insufficient environmental controls. Bays, harbors and estuaries have been polluted. Wetlands and marshes have been dredged and filled at an alarming rate. As demands on the coastal region have grown, increasing conflicts between users have arisen.

Paralleling the concern for environmental quality was a concern by many over the lack of a concerted U.S. program for harvesting the valuable resources of the world's oceans. It was argued that the United States should increase its ocean resource activities and develop a national oceans policy. Legislation in 1966 created a special commission, known as the Stratton Commission, to study and recommend a national oceans policy. At the same time, the national Sea Grant Program was initiated—providing grants to universities and other programs to conduct research in coastal and marine resource activities. The Stratton Commission's final recommendations (1969) suggested a federal coastal zone management program. Environmental concerns of recent years have added weight to that recommendation. The combined forces of those pushing for a national oceans program and those concerned with the protection of the coastal environment have borne fruit in the Coastal Zone Management Act of 1972.

Coastal zone management has been going on for a long time and at all levels of government—federal, state and local. However, traditional coastal zone management efforts have suffered from three major problems. First, they separated projects, such as port development, draining of wetlands and growth of new communities from controls over the projects, such as dredging controls, water quality controls and land use restrictions. Different agencies and personnel dealt with separate incidents of control and controls normally came long after the projects had been planned. Second, traditional coastal zone management focused on single resources at a time, such as fish, agriculture, ground water, oil production, etc. Third, traditional coastal zone management activities lack specific long-term and short-term goals. Since there were no goals, governments and private individuals competed amongst themselves for short-term advantage. Many of these problems are addressed in the Coastal Zone Management Act of 1972.

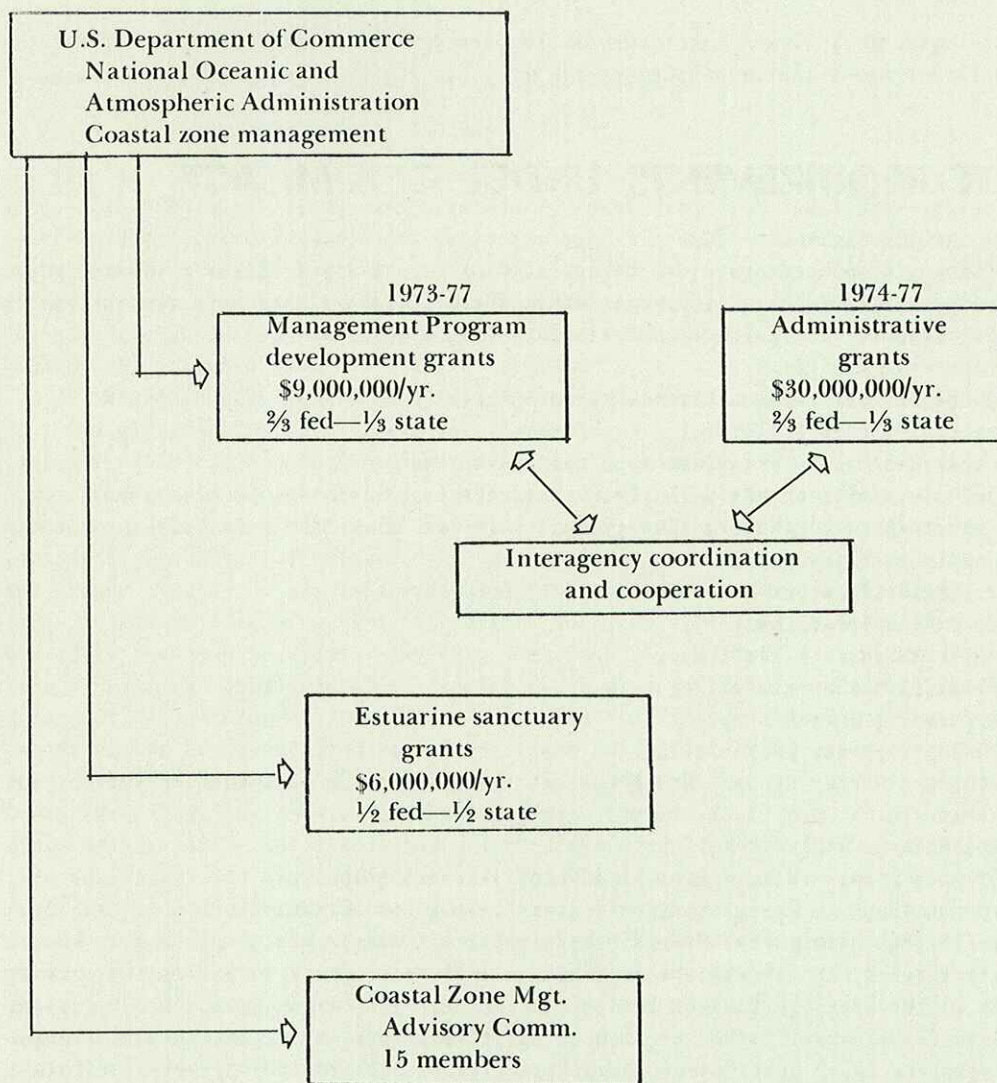
OVERVIEW. Under the Act, state governments are the focal point for coastal zone management. To assist the states in their work, a two-stage federal granting program is established. Grants to assist the state in developing a management program are followed by grants to assist the state in administering that program.

The coastal zone management program will be administered by NOAA (National Oceanic and Atmospheric Administration) in the U.S. Department of Commerce, thus permitting full coordination with other ocean related programs such as the National Sea Grant program.

Only those coastal lands which have a direct and significant impact on coastal waters may be regulated under the coastal zone management act, thus insuring compatibility with future land use legislation.

The legislation does not require state participation. The incentive to participate is the desire for federal money. As an additional incentive, a participating state has an advantage in dealing with the federal government if it has an approved coastal zone management program, since all federal projects and permits must conform to the state's approved management program. If there is no approved management program, a federal project could be commenced against state wishes.

FEDERAL PROGRAMS UNDER C. Z. M. ACT



Under the federal program states first receive **planning grants** to develop a management program. Once the management program is approved, states receive **administrative grants**. The Secretary of Commerce exercises continual approval authority over both the creation and administration of the state's coastal zone management program. If the Secretary believes the purposes of the Act are not being met, grants to that state may be discontinued.

Under the interagency coordination and cooperation provisions, the views of affected agencies must have been considered by the state prior to the Secretary's approval of the management program. Once the management program is approved, federal agency activities must be consistent with the coastal management program of that state, to the maximum extent practicable. Applicants for federal licenses or permit must get a certification from the state that the activity needing the federal license or permit is consistent with the approved management program. State or local projects receiving federal assistance must be consistent with the approved management program.

Grants are available to assist states acquire "estuarine sanctuaries" for long-term scientific observation and analysis.

A coastal zone management advisory committee of 15 members is created to assist in the development of the federal coastal zone management program.

STATE REQUIREMENTS UNDER C. Z. M. ACT

States develop management programs:

" . . . a comprehensive statement in words, maps, illustrations, or other media of communication, prepared and adopted by the coastal state . . . setting forth objectives, policies and standards to guide public and private uses of lands and waters in the coastal zone."

Management programs must include:

Boundaries of the coastal zone subject to management program

Inventory of areas of particular concern

Broad guidelines on priority of uses in areas of particular concern

List of permissible land and water uses which have a direct and significant impact on coastal waters

Governmental structure to implement management program, plus description of interrelationships of various levels of government

Controls over permissible land and water uses including legal means to:

- regulate land and water use
- control development in coastal zone
- resolve conflicts among competing users
- acquire property interests

One or more of following general techniques:

- state standards and criteria, local implementation, state administrative review and enforcement
- state land & water use planning & recreation
- state veto power over all projects and land and water use regulations

Under this act the state's management program must address the **method of control** over land and water use in the coastal zone. It must define **what** those land and water uses should be. States may develop a management program in segments to devote immediate attention to those coastal areas urgently needing management programs. Public hearings must be held in the development of the management program. The governor must approve the management program. A single state agency must receive and administer the grants for the program. Local governments, interstate agencies, and areawide agencies must participate in the development of the coastal management program. States must recognize the national interest in considering the siting of facilities to meet requirements which are other than local in nature. The management program must provide procedures for designating certain areas for preservation or restoration. Finally, the air pollution and water pollution control portions of the management program must be those required under existing federal environmental acts.

DEFINITION OF COASTAL ZONE UNDER C. Z. M. ACT

"Coastal Zone" includes:

coastal waters

- measurable quantity of sea water
- sounds, bays, lagoons, bayous, ponds, estuaries

adjacent shorelands and shore lines, transitional and intertidal areas, salt marshes, wetlands and beaches

"Coastal Zone" extends

seaward to limit of U.S. territorial sea (Great Lakes to U.S. International boundary)

inland only to extent necessary to control shorelands, uses of which have a direct and significant impact on coastal waters

"Coastal Zone" excludes lands federally owned or controlled

The "coastal zone" as defined in the act uses the term **coastal waters** as a key component. Controls over land and water uses are permitted only where there is a direct and significant impact on coastal waters. Thus, coastal management programs may only address uses which have an impact on features of the coastal zone which are unique to it—estuaries, bays, lagoons, beaches, etc. The definition will be subject to interpretation but the intent is clear that only those resources close to the oceans fall within the purview of the Act. This is designed to insure compatibility with land use legislation—which is expected to be passed in the next session of Congress.

INTERPRETIVE COMMENTS. Louisiana and other coastal states should keep some salient points in mind about the federal coastal zone management legislation. First, the act relates primarily to laws and government agency organization at the state and local levels. Hence, specific state legislative action and perhaps judicial interpretations will be necessary to comply with the act. Second, the act does not tell a state **what** it should do in the coastal zone, it only encourages state government to be involved directly in the coastal decision-making process. The act does not specify the types of uses preferred in the coastal zone. A state could emphasize preservation or development. Third, defining "shorelands" and the landward extent of the coastal zone will be a difficult task. States should strive for a landward boundary that can be administered (i.e., considers boundaries of existing governmental planning units) and a landward boundary which is identifiable (can be delineated clearly and precisely on a map). Fourth, each state should take advantage of coastal management work already done by agencies and universities in the state. The federal act should be flexible enough to accommodate and enhance state efforts that have preceded it. Fifth, states should plan a coastal management program which is compatible with a state land use management program. Land use controls will probably be required under federal law in the near future. Hence, the definition of the landward extent of the coastal zone is less important when a state views coastal and land use management together. However, for purposes of requesting grants from the federal government, distinctions will have to be made at the outset between coastal and land use management. Finally, a state need not apply for grants under the program nor develop a coastal management plan. It could ignore the federal program. However, this would leave state government ill-equipped to deal with federally funded or controlled activities in its own coastal zone. It would also deny to its coastal zone citizens the potential benefits available by a state-level overview of economic and environmental activities in the coastal zone.

APPENDIX II

ACTIVITIES OF THE COMMISSION FROM MARCH '72 THROUGH FEBRUARY '73

This Appendix will catalog some of the activities of the Commission from March '72 through February '73. See "Louisiana Government and the Coastal Zone—1972", the Commission's first annual report, for more background information.

A. The orientation phase, begun in December 1971, and reported in the first annual report, was concluded at the commission meeting on June 21, 1972. Technical presentations of the orientation phase are outlined below.

Dr. Sherwood M. Gagliano (December 13, 1971) of the LSU Sea Grant Program presented an overview of the Louisiana coastal zone from a geological and hydrological perspective.

Dr. Lyle S. St. Amant, (January 18, 1972) assistant director of the Louisiana Wild Life and Fisheries Commission, delivered a presentation to the commission concerning living resources production and management.

Mr. Gene Cretini (February 29, 1972) of the Louisiana Department of Commerce and Industry discussed the present and future magnitude and role of industry (other than oil industries) in Louisiana's coastal zone.

Mr. Robert Flaherty (February 29, 1972) of the Mid-Continent Oil and Gas Association addressed the Commission concerning oil and gas operations, past, present and future in the Louisiana coastal zone.

Dr. Doyle Chambers, (March 21, 1972) director of the Louisiana Agriculture Experiment Station, spoke on agricultural concerns in the coastal zone.

Mr. William C. McNeal, (March 21, 1972) chairman of the American Waterways Operators, Inc., addressed the Commission concerning needs and benefits of the water transportation industry in coastal Louisiana.

Mr. Gillis Long (April 5, 1972) of the Louisiana Superport Task Force made a presentation to the Commission describing the economic and environmental consequences of a superport for Louisiana.

Mr. Frederick Chatry (May 3, 1972) of the New Orleans District, U.S. Army Corps of Engineers, discussed water resources projects in Louisiana's coastal zone from a federal perspective.

Mr. Daniel Cresap (May 3, 1972) Chief Engineer of the Louisiana Department of Public Works, discussed water resources management from the state's perspective.

Dean Gerald McLindon, (May 31, 1972) dean of the LSU-BR School of Environmental Design, addressed the Commission on educational and cultural aspects of the coastal zone.

Mr. Richard Bryan Jr., (May 31, 1972) of the Louisiana Wildlife Federation and a member of the Louisiana Council on Environmental Quality discussed the recreational and environmental facets of the coastal zone.

Mr. W. L. Manning (June 21, 1972) of the Louisiana Land and Exploration Company discussed coastal zone management from the landowner perspective.

Mr. William Beller (July 27, 1972) head of Environmental Protection Agency's Ocean Islands Program, discussed general coastal zone management principles and related his experiences in directing the creation of coastal management programs for Hawaii, the Virgin Islands, and Puerto Rico.

Concurrent with the technical presentations, discussions of legal matters concerning land use laws, amendments to Act 35, federal regulatory programs and the newly passed federal Coastal Zone Management Act of 1972 were completed.

B. During the past year, the Commission held public hearings in five coastal communities to give citizens the opportunity to contribute to the Commission's efforts and direction. The hearings were well attended and statements were given by public officials, conservationists, agriculturists, commercial and sports fishermen, industry representatives and private individuals.

The public hearings were called to discuss issues relating to the management of natural resources in the coastal zone of Louisiana including, but not limited to, agriculture, hunting and fishing (commercial and sport), mineral development, public works projects, quality of the environment, recreation, tourism and culture, and transportation.

There were several objectives in holding the hearings:

1. To receive input from citizens with respect to specific aspects of natural resource usage and problems of a local nature.
2. To insure that all viewpoints were heard and considered;
3. To inform the citizens of the coastal zone that regional planning is taking place which might affect their interests;
4. To educate the public on the need for coastal zone management;
5. To act as a public information tool to inform the public of the role of the Louisiana Advisory Commission on Coastal and Marine Resources.

Schedule of the hearings is given below:

Lafayette—September 7, 1972—Angelle Hall Auditorium, USL Campus, 3:00 p.m.

Thibodaux—September 21, 1972—Powell Hall Auditorium, Nicholls State University, 3:00 p.m.

Lake Charles—October 5, 1972—Courtroom A, Calcasieu Parish Courthouse, 3:00 p.m.

Chalmette—October 19, 1972—Main Courtroom of the St. Bernard Parish Courthouse, 3:00 p.m.

Morgan City—November 9, 1972—Municipal Auditorium, 3 p.m.

C. In June, 1972, the Commission entered its analysis/writing phase. This phase of the planning effort involved the creation of committees which would consider selected problem areas. Five standing committees and three special committees were created for this purpose. The standing committees are: 1) Living Resources (all fisheries and wildlife and agriculture, coastal ecology); 2) Industrialization and Urbanization (commerce and industry, oil and gas operations, land development, labor, growth, urban spread, power needs); 3) Water Resources (flood and hurricane protection, watershed projects, fresh water

supply, ground water quality and waste treatment); 4) Transportation (water, highway, rail and air transportation, including navigation and oil and gas access canals and pipelines); and 5) Recreation, Tourism, and Culture (recreational aspects of the coastal zone, tourism, enhancing cultural characteristics).

The responsibilities of the standing committees involve: a) the review, revision and approval of staff-prepared bibliography and reference sources and the addition of new reference sources as needed; b) the solicitation of additional comments and statements from individuals or groups as desired; c) the development of a set of statements indicating the items of significance which inhibit, threaten or are consistent with the orderly, long-range development of the resources of Louisiana's coastal zone.

The committees were to devise principles which would form the basis of a coastal zone management system to address whatever problems were stated by the committee and to prepare a written report which was due on December 1, 1972. The report was to set forth the approved bibliography and reference sources and the adopted statements of problems, the proposed principles of a coastal zone management system and a general review of the committee's operations since its initial meeting.

In addition to the five standing committees, three special committees were created. These are 1) Managing Authority Committee (to investigate alternative governing authorities for implementing coastal zone management, boundaries of the coastal zone, actions to be regulated and promoted, legislative and administrative needs); 2) the Research and Education Committee (to determine the needs of research as related to the coastal zone, curriculum, overall educational program for the state); 3) Ocean Engineering and Development Committee (to investigate alternative methods of enhancing ocean engineering practices and curricula, technical needs, training requirements, promotional activities).

As of this writing the five **standing** committees have each met a number of times, completed their deliberations and submitted their final reports to the full commission for evaluation and approval. Of the **special** committees, the Research and Education Committee has completed its report and submitted it to the Commission for approval. The other two special committees are in the process of meeting and preparing their reports.

APPENDIX III

RESEARCH AND EDUCATION

The great area and economic importance of Louisiana's coastal zone make the effective management of its lands, waters, and resources a vital concern of both the state and nation. Effective management depends on a variety of scientific, technologic, legal, political-institutional, and socio-economic factors or capabilities. Among these are (a) fundamental understanding of complex coastal zone eco-systems, (b) valid techniques for predicting economic and environmental impacts—both singly and in concert—of a diversity of activities and developments proposed by man and (c) efficient institutional arrangements, regulations and enforcement provisions. None of these capabilities or goals can be achieved without knowledge—obtained through research—and sufficient numbers of well-trained personnel to implement and conduct needed activities. **The Commission believes that the present level of knowledge concerning Louisiana's coastal zone and the number of trained personnel actively engaged in well-organized or focused marine and coastal programs are totally inadequate to satisfy public needs.** This situation has resulted from (a) lack of mechanisms to develop state agency-University-industry cooperation for effective overview, planning and conduct of marine and coastal research programs, (b) deficiencies in—or lack of—marine-related curricula in secondary and vocational schools and universities, and (c) late development and inadequate state support of existing marine-related programs and facilities.

It is generally agreed that a public university represents a resource that should be utilized in grappling with major problems confronting agencies, citizens and industries of the state. Little consensus is found, however, on the question of how this can be accomplished without adversely affecting the educational role of the university and in full recognition of the fact that the university cannot serve as the only source of assistance. Nevertheless, it seems clear the university must bring itself to the user and the state has every right to expect the university to take the initiative in making its resources available to appropriate agencies, publics and industries. Since an objective of specific efforts in this area is to build confidence and establish supportive relationships, care should be taken to assure that (a) the needed competence exists within the university for proposed work and (b) the commitment is not merely to cooperatively study a problem, but to follow through with assistance in implementing a solution within a user-dictated time frame. There is no question this type of activity will create many organizational, financial and personnel problems within the University but it is the Commission's belief that the university should respond to coastal zone management and other public service needs—and assume initiative in meeting these challenges.

Louisiana's marine heritage and great dependence on marine and coastal resources is not reflected at any level in the state's educational system. The Commission believes the system is particularly deficient at the secondary and vocational-technical school levels. Introduction of marine and coastal resource material as part of a formal course in the eighth grade science curriculum of the public schools should be a high priority project. Another high-priority need is for vocational training to qualify individuals for job openings in the marine service fields. Critical manpower shortages have developed in marine welding, diving, diving tenders, hyperbaric medicine tenders and highly trained boat handling personnel. At the university level, the Commission does not recommend expansion in the marine science field or development of new degree programs until the job market is better defined and existing programs are adequately funded.

There is an immediate need for a marine science teaching and research laboratory available for use by all state universities. Nicholls State University has recently constructed a small laboratory of this type at Port Fourchon. **It is recommended that suitable arrangements be made to permit the use of this facility by other university faculty and students and that the Legislature provide funds for purchase of needed laboratory equipment.**

The Commission recognizes the Sea Grant Program as a unique and opportune mechanism to focus the capabilities of state universities on practical marine and coastal zone problems and to foster cooperation among universities, industries and state agencies. The program is sponsored by the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce and is administered in Louisiana by Louisiana State University at Baton Rouge. It is, however, a statewide program and, funds permitting, any university in the state can participate. LSU-BR and Nicholls State University have participated on a continuing basis since the program's inception in 1968; whereas, University of Southwestern Louisiana and Northwestern State University researchers have conducted specific one- or two-year projects. Cooperative activities with state agencies and industrial association are encouraged and several programs are being conducted with state agencies and commercial fishery organizations. The Commission believes Louisiana's unique coastal and marine resource needs make it imperative to maximize state participation in the national Sea Grant Program or to unilaterally conduct programs of this type. A major obstacle to desired participation and growth has been the lack of "hard cash" state monies to meet the program's one-third matching requirements. **Consequently, the Commission strongly recommends that the Legislature provide specific matching funds for maximum support of the Louisiana Sea Grant Program.**

APPENDIX IV

CONTINUATION OF REVIEW OF STATE COASTAL ZONE AGENCIES*

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*Twenty-three agencies were analyzed in the Commission's first annual report, "Louisiana Government and the Coastal Zone — 1972".

ENVIRONMENTAL PROTECTION SECTION OF THE OFFICE OF THE ATTORNEY GENERAL

A. Legal Authority

La. Const. Art. 7, Section 56; R.S. 56:1444; R.S. 40:2214; R.S. 51:1061; R.S. 13:5036.

B. General Purposes

The Environmental Protection Section of the Office of the Attorney General has been charged with the responsibility of attending to all legal matters relating to environmental protection in which the State has an interest. This charge encompasses being the attorneys by statute for the Stream and Air Control Commissions, the State Parks and Recreation Commission, and the State Land Office. It also includes acting in an advisory capacity for the various state agencies which retain in-house counsel but whose functions directly affect the environment.

C. Coastal and Marine Activities

The Environmental Protection Section has no specific responsibility regarding coastal and marine resources but has taken an active interest in coastal protection the preservation since its formation in August, 1972.

It is the responsibility of the Environmental Protection Section to prosecute enforcement actions for violations of rules, regulations and standards of the Stream Control Commission. Many of these violations might affect coastal zone waterways.

The staff of the environmental protection section has actively participated in the affairs of the Louisiana Advisory Commission on Coastal and Marine Resources by attending and speaking at its public hearings, by reviewing federal coastal zone legislation and by consulting with commission staff members on matters of mutual interest.

They have also attended public hearings and prepared comments for some of the various public works projects being pursued in the coastal zone by the Corps of Engineers, the Department of Public Works and the Department of Highways.

D. Administrative Organization

The Environmental Protection Section is staffed by two full-time attorneys who have had experience in environmental law. The Attorney General has plans to seek funds to hire additional personnel to staff the section.

The Attorney General has appointed a Scientific Advisory Committee which includes individuals with expertise in the areas of: water pollution, aquatic biology, estuarine and marsh ecology, and medicine. A staff member of the Louisiana Advisory Commission on Coastal and Marine Resources serves as one of the scientific advisors. This Scientific Advisory Committee acts as technical consultants to the section to aid the section in the determination of policy.

On the recommendation of the Sea Grant Legal Program, the Attorney General is considering establishment of a Coastal Zone Section within his office.

Governor's Atchafalaya Basin Commission and the Atchafalaya Basin Division of the Department of Public Works

A. Legal Authority

La. R.S. 38:2351-2361 (1972)

B. General Purposes

The Governor's Commission on the Atchafalaya Basin is comprised of the Governor as ex officio member and 24 other members: three members representing the Louisiana Wildlife Federation, one member representing the Land and Royalty Owners of Louisiana, one member representing the Louisiana Forestry Association, one member representing the Mid-Continent Oil and Gas Association, two members representing commercial fisheries, one representing the AFL-CIO, one member representing the NAACP, one member at large, five ex officio legislators who are chairmen of various legislative committees, and one representative from each of the following parishes: Iberville, St. Martin, Iberia, St. Mary, St. Landry, Avoyelles, Assumption, and Pointe Coupee.

The basic purposes of the commission are to preserve the present environmental quality in the Basin, to develop facilities permitting the enjoyment of the scenic and educational features of the Basin, to maintain and enhance the economic value of the region, to secure funding for the preservation of the Basin and for the orderly development thereof and to plan for the construction of the necessary structures and facilities in the Basin.

C. Coastal and Marine Activities

In carrying out the general statutory purposes, the commission is authorized to: manage state-owned lands (excluding mineral rights), negotiate with private land owners in the Basin for the use of their lands for recreational and preservation purposes, set aside areas of scenic beauty, and acquire by purchase or lease areas which should be preserved for scenic beauty, recreational benefit and pleasure.

In addition, the Commission and Division must prepare a land and water use plan for the Basin and areas surrounding access points to the Basin. The land and water use plan is to include an interpretive center with approximately 1,000 acres accessible to I-10 for recreation, education, and tourism purposes; game management areas with facilities for hunting; recreation areas with facilities for hiking, camping, picnicking, boating, nature trails, fishing, wildlife sanctuaries, and bird watching; and efforts to improve commercial fishing and crawfishing.

The Commission is authorized to issue general obligation bonds not to exceed \$5,700,000.

Upon completion of the planning, acquisition, and construction of the facilities and programs, the Commission must turn them over to other state agencies for maintenance and operation, namely: game management areas to the Wild Life and Fisheries Commission, recreational facilities and interpretive center to the State Parks and Recreation Commission and the water management program to the Department of Public Works. However, the Commission is to continue in an advise and consent role with respect to the water management program.

The Atchafalaya Basin Commission has had several general orientation meetings, has appointed a staff and is well underway with its work.

The Commission has approved a resolution giving consent to its director to proceed with the development of a program to create a game management area on state-owned lands in the Basin. The Commission is holding public hearings throughout the state on the proposed game management area.

The Commission is currently proceeding with the selection of professional design team or teams to do the planning, architectural and engineering work necessary to build the recreational facilities required by statute.

The Commission has been working closely with the Army Corps of Engineers with respect to the Corps' Atchafalaya Basin Water and Land Resources Study.

Louisiana Regional Airport Authority

A. Legal Authority

La. R.S. 2:651-659 (1972 Supp.) [Act 753 of 1972]

B. General Purposes

The establishment, maintenance and operation of a regional airport by means of orderly planning is the general purpose of the Regional Airport Authority. The statute attempts to balance various considerations in the establishment of a board of commissioners, with a specified number from each of the multiparish areas which a regional airport would serve. New Orleans would have the greatest number of commissioners.

C. Coastal and Marine Activities

The Regional Airport Authority has not yet been appointed nor has it begun to function. The Aviation Division of the Department of Public Works is currently the coordinating agency for airport development in the state, and according to a spokesman for that agency¹, no commissioners will be appointed to the Regional Airport Authority until after a site is selected.

A feasibility study by a New Orleans firm² has concluded that a single regional airport for southeast Louisiana is not practical.² The study was based on demand analysis and did not include environmental or coastal zone management considerations. The study suggested two airports be constructed: a "major long haul" airport to serve the New Orleans area and a new "short haul" metropolitan airport for the Baton Rouge area. Since the statute which created the authority authorizes planning for other transportation projects to be coordinated with a regional airport, it is unclear what effect this feasibility study will have on the Regional Airport Authority.

¹Dave Blackshear, Division of Aviation, Department of Public Works, Telephone Interview, Feb. 25, 1973.

²Feasibility Report, Air Carrier Needs Southeast Louisiana, 1980-2000, Louisiana Airport System Plan, December 12, 1972. Prepared by Grimball, Grimball, Gorrondona, Kearny and Savoye, Architects, Engineers and Planners, Inc.

Deep Draft Harbor and Terminal Authority of Louisiana

A. Legal Authority

La. R.S. 34:3101-3114 (1972 Supp.) (Act 444 of 1972)

B. General Purposes

The Deep Draft Harbor and Terminal Authority was created as a political subdivision of the State of Louisiana to promote, plan, finance and construct a deep draft harbor and terminal (Superport) off the Gulf Coast. The Authority is to be governed by a board of nine individuals appointed by the Governor; one of these appointees must be an environmentalist by the terms of the statute. The Authority's jurisdiction lies in the "coastal waters of Louisiana" extending three nautical miles from the coastline. The Authority may acquire waterbottoms by lease or purchase, it may grant contracts, borrow money, issue bonds and is generally vested "with exclusive and plenary authority to do any and all things necessary or proper to promote, plan, finance, develop, construct, control, operate, maintain and modify . . ." superport development. Throughout all phases of the development of a Superport, the Authority must have an environmental protection plan in existence which is to be formulated by the Director of Louisiana Wild Life and Fisheries, the Director of LSU's Center for Wetland Resources and the Executive Director of the Port Authority.

C. Coastal and Marine Activities

A preliminary assessment of the environmental impact of a superport on the southeastern coastal area of Louisiana has been prepared by the LSU Center for Wetland Resources. An environmental protection plan to reflect the preliminary assessment is currently being formulated. The anticipated impact of a Superport on land-based industrial growth and development will probably be great. Coastal zone management principles should be considered in every stage of its development and operation. The Environmental protection plan required by the statute is one method of integrating coastal zone management policy into the operation and regulation of a Superport.

D. Administrative Organization

The Authority is currently operating with a streamlined staff consisting of an executive director, an assistant director and clerical personnel. A major contract has been granted to a management consultant firm to coordinate all research and promotional activities surrounding superport development. A grant has also been given to the Center for Wetland Resources at LSU in Baton Rouge to write the environmental protection plan required by the statute.

Governor's Council on Environmental Quality and Citizens Advisory Board

A. Legal Authority.

La. R.S. 40:2351-2355 (1972 Supp.) [Act 460 of 1972]
Executive Order 22 (1973)

B. General Purposes.

The Governor's Council on Environmental Quality, composed of three members appointed by the Governor, was created to advise the Governor on pollution control, natural resource management and land use activities. The Council is authorized to serve as a coordinating body for various state agencies, and as a clearinghouse for Environmental Impact Statements prepared or reviewed by state agencies in accordance with the National Environmental Policy Act.¹ The Governor's Council also has the duty of developing interrelated environmental quality criteria and long range environmental quality goals.

The Citizen's Advisory Board is an 18-member board, six appointed by the Governor, six by the Speaker of the House of Representatives, and six by the Lieutenant Governor. Like the Council, its duties are strictly advisory; the Board is required to review laws, standards, regulations and activities of the environmental agencies of the state and to make recommendations in the form of an annual report to make recommendations in the form of an annual report to the Governor and the legislature.

C. Coastal and Marine Activities

On January 11, 1973, the CEQ became operational. On January 15, 1973, the Governor signed Executive Order 22, a broadly-worded document designed to implement Act 460 of 1972. The order refers to CEQ as a coordinating body for all state activities in the field of environmental protection and as a "clearing house" for all environmental impact statements prepared or reviewed by state agencies in accordance with the National Environmental Policy Act. The order also requires all state agencies with responsibility for environmental protection and/or conservation to submit "to the CEQ for review and comment all environmentally related grants, permits, priorities, impact statements, proposed regulations or guidelines, citations, environmental planning, enforcement proceedings and variances from regulations."

D. Administrative Organization

The Board of Liquidation granted \$67,000 as an interim budget for the CEQ. According to the chairman a "substantial budget" will be requested from the legislature next year to provide salaries for 15 to 20 "extremely technical people".² Currently, the CEQ has a director, assistant director, and clerical personnel.

E. Findings

The mechanics of CEQ activities must be integrated with activities of the various enforcement agencies. If the CEQ is to review and comment upon virtually all environmental matters facing the state (as Act 460 and Executive Order 22 indicate), procedures must be designed to implement a review process which does not impede decision making, delay execution thereof or duplicate efforts of other agencies.

¹42 U.S.C. §4321 (1969)

¹42 U.S.C. §4321 (1969)

¹42 U.S.C. §4321 (1969)

² *Times-Picayune*, February 25, 1973, p. 14