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THE LEGAL-ADMINISTRATIVE VIEW

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TEXAS MARINE RESOURCES

THE LEGAL-ADMINISTRATIVE VIEW

A Consensus Report of
"MARINE RESOURCES: THE LAW AND ADMINISTRATION OF THE COASTAL ZONE"
A Workshop held at the Bates College of Law
University of Houston

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FOREWORD

In May, 1970, the Sea Grant Program of Texas A&M University and the University of Houston, jointly sponsored a workshop on the legal-administrative problems of the coastal zone. This booklet represents a summary statement of the topics explored and recommendations made at that workshop.

The statement issued here is one of consensus. Each participant had the opportunity to review a draft copy of the statement, with the exception of Dr. W. M. Chapman, who served as Chairman for the Natural Resources session. Dr. Chapman was taken fatally ill shortly after the workshop. It should not be assumed that all the ideas presented here were unanimously voiced by all participants or that each individual subscribes to every detail.

We acknowledge the assistance of the Bates College of Law, University of Houston, which provided meeting rooms and other facilities for the workshop. Dean John Neibel and Professor Eliezar Erel, of the College of Law, were responsible for the program of the meeting.

It is the intention of the Sea Grant Program that this statement may stimulate interest in the area of law and public administration in the coastal zone of the state. Comments and discussion on the material presented here are welcome.

JOHN C. CALHOUN, JR.
Director, Sea Grant Program
Texas A&M University

July 1970



INTRODUCTION

The Pell-Rogers Act, Public Law 89-688, titled the National Sea Grant Colleges and Program Act of 1966, as amended by Public Law 90-477, administered by the National Science Foundation, aims at initiating and supporting activities resulting in the "gainful use, enjoyment, and development of marine resources through education, research and advisory services." The Act recognizes that the multiuse of marine and coastal resources gives rise to conflicting demands and stresses the task of reconciling these competing uses by cooperation among universities, industries, and government.

In 1968 Texas A&M University became one of the first six universities in the nation to receive institutional support from the National Science Foundation Sea Grant Program. In accepting the award, the university has agreed to serve the needs of the Texas Gulf coast region in identifying the educational, research, and training goals of the region, for advancing the development of marine resources and in building a program of activities to be responsive to those needs. In implementing the program, Texas A&M University has sought the assistance of other institutions, industry, and government. The Sea Grant Program of Texas A&M University focuses on the coastal zone of the state, an area of intense concentrations of people, a rapidly growing industrial complex, and an area of many uses and vast potential for growth and development.

Legislative activity relating to the coastal zone is being conducted at both the Federal and state levels of government. The President's Commission on Marine Science, Engineering, and Resources recommended Federal grants-in-aid to facilitate the establishment of state coastal zone authorities empowered to manage the coastal waters and adjacent lands. Congress, as well as the present Administration, began to implement the Commission's recommendation through various bills now pending before the Congress. Almost a dozen bills concern themselves with Federal assistance to states in developing coastal zone management plans. The Administration's bills, S.3183 in the Senate, and H.R. 14845 in the House of Representatives, would amend the Federal Water Pollution Control Act. Cited as the National Estuarine and Coastal Zone Management Act of 1970, the bills authorize the Secretary of the Interior to make grants to coastal states for the development of comprehensive management plans for coastal land and water resources and for implementation of such plans if approved by the Secretary. Other bills would amend the Marine Resources and Engineering Development Act of 1966 by creating coastal zone authorities, giving the National Council on Marine Resources and Engineering Development the authority to administer the program.

At the State level, in 1969 Texas began the study of a comprehensive Coastal Resources Plan to guide the orderly development of coastal resources through the Interagency Natural Resources Council, chaired by Governor Preston Smith. The planning effort is to consider, *inter alia*, "legal research," and provides a more detailed task description of that topic. The Interagency Natural Resources Council is directed to solicit the advice, counsel, guidance and participation of appropriate agencies as well as educational institutions, and submit its final report to the Governor and the Legislature by December 1, 1972, together with its findings and recommendations for appropriate legislation. The Council is to prepare a progress report no later than December 1, 1970, together with any recommendations for legislation to carry out the purposes of the Council's studies.

The 61st Legislature also established interim study committees to investigate various questions which have a bearing on coastal zone development. Of particular significance are the Interim Study Committee on a Texas Institution for Oceanography, chaired by Representative Ray Lemmon (Houston), and the Interim Beach Study Committee, chaired by Senator A. R. Schwartz (Galveston).

Furthermore, the Governor of Texas, recognizing the importance of wisely utilizing and conserving the resources of the ocean, and intending to make Texas the leading state in oceanography, has called a conference in Houston, September 10-11, 1970, co-sponsored by the Texas A&M University Sea Grant Program, to support this objective. Entitled "Goals for Texas in the Coastal Zone and the Sea," the conference will focus, among other topics, on the law and new administrative arrangements that problems and opportunities in coastal oceanography will require.

These developments, coupled with the purpose of the Sea Grant Program to explore all avenues of marine resources development, led to this workshop. The Bates College of Law of the University of Houston, in cooperation with the Texas A&M University Sea Grant Program, agreed to invite select representatives of the bar, the academic community, industry and government to a two-day workshop on May 18-19. The purpose of the meeting was to elicit, through discussion, exchange of opinions, and conclusions, an evaluation of the problems and needs posed by the multiuse of the Texas coastal zone. The identification of gaps and inadequacies in the legal-administrative framework enabled the 41 workshop participants to reach a consensus and make recommendations in three distinct, but inter-related areas:

Planning for the coastal zone of Texas involves management programs to assure proper usage of natural resources.

1. The scope of legal research, and the need or desirability of advisory and information services that colleges of law should provide within the precepts of the Sea Grant Program and the activities of the State of Texas relating to the law and administration of the coastal zone resources.

2. Existing problems relating to law and administration for consideration by the Governor's conference scheduled in September.

3. Cooperation between colleges of law, the bar, industry, and the state and local governments for continuing assessment and recommendations relating to the legal-administrative framework for Texas coastal zone resources.

Nelson Jones, vice president and director, Humble Oil and Refining Co., served as chairman of the workshop advisory committee which also included Houston attorneys David Searls and Leon Jaworski, president-elect of the American Bar Association, and Professor Eliezar Erel of the College of Law.

The Workshop was one in a series of sessions conducted by the Texas A&M University Sea Grant Program designed to explore the problems and needs of various groups involved in marine resource development in the state. Other workshops have been related to industrial needs, educational programs, tourism and recreation uses, and port and waterway development.

THE PANEL PRESENTATIONS

The first day of the workshop was devoted to presentations of background information through two panel presentations: Governmental Programs and Resource Users Views. Leaders from state and Federal government, the bar, educational institutions, and major industrial users participated in the panel discussions.

President Phillip Hoffman, University of Houston, welcomed the meeting and explained the university's planning effort in marine development. An 18-member University of Houston advisory group, called the Marine Resources and Environmental Council, will report to Dr. Hoffman the first elements of an overall plan for university efforts on July 1.

Dean John Neibel, Bates College of Law, told participants that the law school was developing a comprehensive program in law and administration which would emphasize teaching, research, and advisory services to the legal profession and explained that the workshop was aimed toward "development of parameters of these elements before beginning a program at the University of Houston through the Sea Grant Program."

Dr. John C. Calhoun, Jr., Director of the Texas A&M University Sea Grant Program, presented a brief explanation of the National Science Foundation and the University Sea Grant Programs. He pointed out that at Texas A&M approximately 50 percent of Sea Grant funds were currently directed toward research, while education and training receives 26 percent, advisory services, 15 percent, and program direction and development, 9 percent.

Governmental Programs: Participants in the Governmental Programs panel were: Robert B. Abel, head, Sea Grant Program, National Science Foundation; Thomas Clingan, General Counsel, House Subcommittee on Oceanography, Washington, D.C.; H. Crane Miller, Counsel on Oceanography for the Senate Commerce Committee; Attorney General Crawford Martin, State of Texas; and William Stoll, Office of the Governor, State of Texas.

Mr. Abel pointed out that during the first year of the NSF Sea Grant program only two law projects were initiated but since then more than half a dozen institutions have begun to develop marine law programs.

Dr. Clingan's presentation dealt with the House of Representatives' view of coastal zone management. He related the philosophy which led to the Congressional Coastal Zone Management Conference in October, 1969. "Out of the October hearing came a more or less strong message," Dr. Clingan said, "that a federally-assisted state program, operating within federal guidelines adequate to protect the national interest, would probably be the best approach."

After a review of the points expressed at the meeting, the Subcommittee on Oceanography of the House Merchant Marine and Fisheries Committee began to develop bills to implement the suggestions and guidelines as set out in the President's Commission on Marine Resources and Engineering report, *Our Nation and the Sea*. Since that time a number of bills have been introduced which would establish coastal zone management authorities within the states.

In developing plans for coastal zone management, Dr. Clingan pointed out that certain questions have been raised. Specifically he cited:

- The definition of "coastal zone"
- Problems of states in zoning, related both to power to zone and funds for the acquisition of lands and easements
- Tax problems
- Internal conflicts within the state
- Jurisdictional problems, within both the state and federal structures

Mr. Miller, Counsel for the Senate Subcommittee on Oceanography, briefly described three Senate bills on coastal zone management, pointing out that the Administration has given the coastal zone a top priority rating. The problems of definition of coastal zone are also evident in the Senate deliberations. Several states have arbitrary definitions for coastal zones, according to Mr. Miller. In Maine, the 131 minor civil divisions bordering the coastline have been designated. California is considering a definition of the coastal zone in two jurisdictional categories—primary, which extends seaward to the limits of the states jurisdiction and landward one-mile, and secondary jurisdiction, which extends landward from the one-mile limit of the primary zone to the highest elevation of nearest coastal mountain range. In Virginia the coastal planning regions, some consisting of seven counties, make up the coastal zone. He cited the need for stronger federal and local participation in the planning process for the coastal and estuarine zone.

Texas Attorney General Martin pointed out the difficulties involved in the definition of the coast line for the state and described the duties of the Attorney General's office in marine resource development. He said that the office served in an advisory capacity to agencies, provided information for use in agency testimony in Federal hearings, assisted in securing federal grants in aid, and served as general counsel for interim study committees. Three divisions of the Attorney General's Office are related to the coastal area: the Water Division, Enforcement Division, and the Oil and Gas Division.

The activities of the Office of the Governor were outlined by Mr. Stoll. He commented that a tentative coastal zone boundary had been defined as the first two tiers of coastal counties—about 50 miles inland—and 10.5 miles seaward. The area is inhabited by more than 3 million persons. He said that the agencies involved in marine resource development in Texas were responsible for a coastal resources management plan which would achieve "a balance between economic development and conservation in the Texas coastal zone." Eight state agencies are involved.

Four major pieces of legislation of importance to coastal zone development have been passed by the Texas legislature within the past few years, according to Mr. Stoll. These include the Reagan de la Garza Act, a plan which authorizes industrial zoning areas; the Clean Beaches Act, which permits the state to make grants to coastal counties for beach clean-up activities; an act permitting counties to establish beach parks; and the legislation creating the Interagency Natural Resources Council, which is authorized to make a comprehensive study and analysis of coastal and submerged lands.

Discussions following the Government Panel presentations indicated that the problems of coastal zone administration must be solved through scientific as well as legal means. Cecil Morgan, Dean Emeritus, School of Law, Tulane University, pointed out that forty years ago the oil and gas industry set a precedent for engineering and legal interaction which might be a helpful model for marine resource development.

Dr. W. M. Chapman pointed out that coastal zone management work must be done on a local basis. "To understand the problems of the Texas coastal zone," he said, "Texas must put some money into the problems."

Participants felt that preventative law must be flexible enough to take a long-range view of the problems. Professor Eliezer Erel, University of Houston, suggested that a law center is needed to work

with legislature, regional planning agencies, industries, and others to achieve continuity.

Other comments concerned development of coastal zone laboratories. It was suggested that since Sea Grant institutional programs were already carrying on this function, the laboratory initiative should be placed under Sea Grant and local and regional coastal zone laboratories should be connected with the Sea Grant Colleges of the future. In order to be successful, the emphasis must be placed on state participation in determining goals and priorities.

Resource User Views. Four presentations were made expressing the views of developers and industrialists in the coastal zone. Participants included: Harvey Weil, Corpus Christi attorney; C. R. Patterson, Esso Production Research Company; W. M. Chapman, Ralston Purina Company; and Northcutt Ely, Washington, D.C. attorney.

Mr. Weil is the legal counsel for the Port of Corpus Christi, the ninth largest port in the nation. He described the activities of Corpus Christi area citizens in the development of an area land use plan. Through the Coastal Bend Planning Commission, a plan for land areas has been adopted but no plans have been made for the water areas of the region—Nueces Bay, Corpus Christi Bay, the Laguna Madre, or the Gulf of Mexico.

Cooperative efforts among city officials, citizens, and oil companies have resulted in cluster groupings of oil wells in the Corpus Christi Bay but other planning is needed, according to Mr. Weil. He raised such questions as to the need to define land-water boundaries, disposal of dredging spoils, the need to deepen shipping channels, and the need for a state agency with which landowners and cities can deal. He urged action for over-all coastal zone planning, including both land and water areas.

Remarks by Mr. Patterson reflected the multiuse problems of the Texas offshore and coastal zone as viewed by the petroleum industry.

"The most critical problems that are either known or anticipated for multiple use," he said, "relate to:
(1) the protection of environmental quality, and
(2) potentially widespread overly restrictive uses of the coastal zone and offshore areas."

Because of the uncertain nature of oil and gas locations, Mr. Patterson pointed out that the petroleum

industry would not favor restrictive zoning that would deny access to oil and gas areas and that a system assigning portions of the coast to single purpose uses would create more problems that it would solve.

"Guidelines should be established that will promote maximum multiple use consistent with appropriate environmental controls, thereby permitting the state and the nation to realize maximum benefits," he said.

In discussing regulatory controls for the oil and gas industry, he said, "I do not think that it would be practical to attempt to place all regulatory authority pertaining to the petroleum industry within a single coastal zone agency." He suggested that in Texas the industry must be regulated by the Texas Railroad Commission, regardless of whether the industry operates in the coastal zone or elsewhere. He also pointed out that the leasing of submerged lands should remain the responsibility of the General Land Office.

The chronological development of the California Interagency Council on Ocean Resources was reviewed by Dr. Chapman. He traced the history of the Council from its beginning as the Governor's Advisory Committee on Ocean Resources in 1964 until the present time.

Early in 1969 the state undertook a re-organization plan which changed the Department of Harbor and Watercraft to the Department of Navigation and Ocean Research and which made the Interagency Council on Ocean Resources operational rather than advisory. Active planning began on California's Ocean Area Plan for the coastal zone and nearshore. The group is heavily involved with coastal zone policy and particularly with lands immediately to the seaward of the land-water interface. Much attention is being paid to the landside of the coastal zone as a real estate problem.

Mr. Ely presented an overview of demand (as represented by population) versus supply (as represented by coastal resources). He also spoke on the general subject of how jurisdictional elements could be distributed and suggested that there probably was a new body of law emerging—the law of the environment.

Discussions following the panel discussion indicated that many questions must be dealt with in the determination of coastal zone law and administration. Among these are:

- What do we know, where are the boundary lines, and what are the natural processes involved?
- With whom do we deal, particularly at the state level?
- How do we plan together effectively?
- How will we achieve a decision as to the use of upriver dams and reservoirs?
- Are there mutually exclusive or single purpose uses which will preclude other uses of the coastal zone?
- How are problems of the coastal land development to be handled, particularly as they relate to submerged lands?
- Is it possible to divide the coastal zone problems into two issues—one dealing with the land side and the other dealing with the seaward side?
- The spectrum of jurisdictional problems seems to run the gamut of man's experience through history all the way from the freedom of the open oceans to the restricted nature of the urban coastal city. Can a single entity resolve all these jurisdictional problems at the present?
- Is it possible to apply what we have learned from the oil and gas industry in tackling the problems of marine resources? Perhaps we can learn much from the way Texas and other states handled conservation law and correlative rights in the 1920's and 30's with respect to oil and gas resources.

Three workshop sessions following the panel presentations were directed toward: Natural Resources Development, chaired by Dr. Chapman, with David S. Browning as Reporter; Land Use and Transportation, Chaired by Mr. Weil, with Professor John Mixon as Reporter; and Permanent Institutional Arrangements, co-chaired by Dean Neibel and Dr. Calhoun, with Professor Ereli and Willis Clark as Reporters.

Each workshop session directed its attention to such questions as:

1. What are the legal problems that arise from conflicting use?
2. What are the administrative problems arising from such use?
3. What should be the priority in research and evaluation of problems relating to:
 - a. Law—common, maritime and statutory;
 - b. Administration — multiplicity of agencies and jurisdictions, both state and federal?
4. The extension and information services that are necessary or desirable.
5. Should legal, and especially administrative, problems be solved by:
 - a. Better coordination between existing agencies and jurisdictions, or
 - b. A new framework of reference?
6. What machinery or arrangements should prove conducive to the continuous assessment and implementation of the Conference recommendations relating to legal research and information services?

State and Federal views on coastal zone problems were exchanged by Rep. Ray Lemmon (l.), Texas Legislature, and Robert Abel, head, NSF Sea Grant Program.





NATURAL RESOURCES DEVELOPMENT

Participants in the Natural Resources workshop chaired by Dr. Chapman began with the recognition that any investigation of natural resources would begin with an assessment of the availability of the resource, the natural variability in the resource, the effects of man upon it, and the interrelationships between a particular resource and others around it.

More specifically, the group agreed upon seven recommendations for natural resource development as it relates to legal and administrative problems in the coastal zone. The following paragraphs represent a consensus statement relative to each of these recommendations.

Review Process. In October, 1968, a Conference on Law and the Coastal Margin co-sponsored by Gulf Universities Research Corporation and Texas Tech University held at Bayview, Texas, made a number of recommendations. Workshop participants felt these should be reviewed and implemented. The most pertinent of the recommendations are as follows:¹

- Study of the origins and present validity of the doctrine that navigation is the superior use of the water.
- Evaluation of the necessity of regulations for priority of use of water areas for various purposes other than navigation.
- Recommendations concerning governmental bodies and agencies that should have the responsibility and authority for water use management.
- Study of the necessity of regulations or ordinances for preservation of the aesthetic values of coastal areas and waters.
- Coordination and uniform study of present land and water use of the coastal zone.
- Preparation of an inventory and analysis of laws and regulations affecting the coastal zone, including review of existing inventories.
- Preparation of an inventory of living and mineral resources of the coastal zone as a background for evaluation of activities in coastal areas having unique legal requirements.
- Evaluation of the scope, magnitude and problems of marine recreation.
- Evaluation as to cause and legal implications of salt water intrusion into fresh water supplies, both surface and sub-surface.

¹*Law and the Coastal Margin.* Texas A&M University Sea Grant Program, TAMU-SG-70-108, April, 1970.

Environmental Controls. There is a need for the establishment of administrative machinery suitable to maintain desired control of interrelated environments such as river basins, bays, lagoons, estuaries and open sea.

Administrative machinery established for the purpose of attempting to control the environment should take into account that activities carried on in one geographic area may in some situations have a significant impact upon environments in other different areas, for example, harmful substances dumped into a river 300 miles inland may have adverse effects upon the coastal bay into which the river empties. The machinery should also take into consideration that the environments themselves are highly variable from natural causes, such as changes in weather, and that it is very difficult to separate the effects of man's activities from the effects of natural changes.

The discharge of rivers and streams has a significant effect upon the marine environment. The effect of polluted discharge into bays and estuaries is not yet fully understood. Another problem that has not received adequate attention is the effect on the marine environment from the construction of dams which cut off fresh water discharge into coastal areas.

The river problem does not arise only from rivers within or flowing through the state of Texas. The Mississippi River has a very significant effect upon circulation, pollution, sedimentation, and other natural processes occurring in offshore Texas. Problems arising from major river systems such as the Mississippi will probably have to be dealt with through some type of interstate or federal cooperation. Some river basins are already covered by various state and federal agencies dealing with water and air quality control. In some cases, these agencies have apparently been rather successful in their activities. Further investigation should be made of the extent to which such agencies have been successful, and whether such agencies are operating in Texas. It may be that significant progress could be made in controlling the use of coastal areas through the establishment of adequate water quality control standards.

Boundary Research. Legal research should be conducted regarding the locations and relationships of the three dimensional contiguous boundaries in the coastal zone. These boundaries are important in determining the rights of individuals, companies and governments in various parts of the seabed, the overlying water and the atmosphere. Difficulties

Navigation is the predominant use of coastal waters but dredging activities which accompany ship channels have led to conflicts of use.

have arisen with regard to the establishment of a possible limit for the extent of national continental shelf jurisdiction over the seabed. A related question is to determine the extent to which continental shelf jurisdiction may affect rights in the superjacent water.

Another question is the location of the exact boundary between federal and state jurisdiction over the continental shelf. There are also uncertainties regarding the continental shelf boundaries between adjacent states, such as Texas and Louisiana, and adjacent nations, such as the United States and Mexico.

There are a number of complicated boundary problems along the coastline. For example, problems have arisen with regard to the seaward extent of governmental subdivisions such as cities, counties, navigation districts, and school districts. There are also difficulties in determining the exact boundaries between privately held coastal land and publicly held land, such as the location of the "vegetation line." A related question is the present nature of the law of accretion in Texas, and whether or not it is adequate to meet present and future problems. A related general question is that of public access to the beaches. Although it may be assumed that the public has a right to use the state-owned beaches, such beaches are generally exposed only during periods of low tide. Thus, at periods of high tide, the public may have no access to these beaches.

Conflicts of Use. Research should be conducted regarding legal problems that will arise from intensified multiple use of the coastal zone. Areas of most intense possible conflicts should be identified. In some cases, different uses will be so relatively insignificant or so separated in geographic area that there will be little conflict. For example, it is doubtful that offshore sulphur mining has much effect upon the exploitation of living resources.

On the other hand there are some significant conflicts, such as those between shell dredgers and commercial oyster fishermen. There is considerable controversy regarding the harm, if any, caused to live oyster reefs by commercial dredging. Biologists apparently are not in agreement on the harm caused by commercial dredging. The problem is made more complex by the variability of natural factors such as circulation patterns and weather.

Conflicts have also arisen between the petroleum industry and the dredgers. The petroleum industry has encountered conflicts with navigation too, but a number of these problems have been settled among the industries themselves.

Although navigation has been a predominant use from a historical and economic standpoint, growing recreational use and pressures might bring future conflicts between these two.

Conflicting use problems will probably be more intense close to urban areas such as Beaumont, Houston and Corpus Christi. Some investigation should be made concerning the effect of municipal planning and urban activities upon the coastal environment.

Availability of Funds. Suitable funds should be made available for conducting the scientific and legal-administrative research needed to aid appropriate governmental agencies in making plans and evaluating decisions.

A number of state and local government agencies have had to make decisions regarding dredging, disposition of spoil, destruction of habitat, and other matters, without having adequate scientific understanding of what would happen.

In some cases, a considerable amount of knowledge is available, but it is not organized and it is not communicated to the persons needing it. However, there is some basic information that is not available, such as the effect of waste disposal in the marine environment; stress on the environment resulting from zoning actions; and the effect on the coastal environment of development of recreation. In this regard, it was pointed out that the development of coastal housing units gives rise to serious sewage disposal problems because of the use of septic tanks which eventually overflow, saturating the soil, and finally seeping into bay water.

The suggested scientific and legal investigations should be concerned with what is going on in the entire ocean system. Useful answers may depend upon larger forces and factors than are present in a particular or narrowly defined geographic area.

Another area of information deficiency is in the field of beach control and protection. Considerable work has been done in this area, but certain fundamental data are still lacking, such as the variability of long shore currents and their effects.

The present availability of funds for this purpose should be investigated. It is possible that some funds may be available, but not fully utilized.

Agency Responsibilities. There should be a reduction in the number and complexity of administrative agencies necessary to deal with coastal zone problems. One question is whether various administrative agencies such as coastal commissions should have planning authority.

For example, the petroleum industry encounters a number of administrative agencies during the process of drilling an offshore well. The lease is obtained from the General Land Office; then, the Railroad Commission enters the picture, the Corps of Engineers, the Department of the Interior, the Coast Guard, and others. The Texas Parks and Wildlife Commission also may have a voice. Many times the company involved may have to go to a particular agency a number of times with regard to a particular offshore structure. It would facilitate offshore mineral operations to have some centralization of administrative authorities.

There is a need to determine exactly which agencies have coastal zone jurisdiction, their source of legislative or constitutional authority, and their activities and functions.

Legislative and regulatory machinery should be left flexible enough to adjust to changing patterns of multiple use of the coastal zone. An examination of existing agencies might reveal certain overlaps,

gaps, possible obsolescence of frameworks, and other problems. However, it must be kept in mind that existing agencies through reorganization might be able to move faster and more efficiently than could a completely new organization. An overhaul of existing agencies may prove preferable to the establishment of a completely new administrative framework. Nevertheless, some centralization of authority should be established.

Information Systems. An adequate system should be established for the dissemination of information resulting from the suggested studies in a timely fashion to prospective users in governmental, industrial and academic circles, as well as to the general public.

An examination should be made of the number of educational institutions engaged in marine affairs. Some mechanism should exist for at least a minimum amount of coordination among these institutions.

LAND USE AND TRANSPORTATION

In the workshop session chaired by Mr. Weil, participants discussed jurisdictional problems in coastal lands and waters, urged greater state effort toward the establishment of a coastal zone authority, recognized the problem areas identified with pollution control, and outlined several areas where greater coordination and control is needed in coastal land use.

Coastal Management Authority. It was the consensus of the group that a coastal management authority is needed for planning the multiple uses of the coastal zone. The authority should be statewide or regional in nature. The group noted that immediate action is essential if state autonomy is to be retained.

Problems concerning this activity were identified:

- The questions concerning the appropriate scope of responsibility for such an agency.

- How far its jurisdiction should extend into the sea.
- How far its jurisdiction should extend inland.
- Whether a land use zoning system is needed
- Whether land use regulations should be imposed by police power (uncompensatory) regulations or through eminent domain (compensatory) regulations.

In the management authority a range of controls may be appropriate, such as land use regulations through easements, restrictive covenants, acquisitions by condemnation of interests in land of fee or less than fee estates. There are issues concerning the proper role for the federal government and for state and local authority and agency activities, including a specification of the goals to be achieved



by the activity of each. A feedback system needs to be utilized to keep planning and control activities current and in accord with the factual situation existing in the region.

Before some of these issues can be resolved, it is essential that there be a study in depth of the scope of authority and the functions of present agencies, both within the twelve mile limit and outside the twelve mile limit.

There is a continuing problem concerning pollution of waters and beaches by oil and other pollutants, including community and industrial waste. Planning and control issues concern:

- Who should make control rules?
- What rules (e.g., double hull vessels) are appropriate to solve the problems?
- What should be the cost allocation for preventive measures?
- Who should pay for cleanup?

There are problems concerning the provision of adequate fresh water supplies for industries and for residential use. The group suggested that the state water plan be coordinated with the coastal zone management plan.

Agency Coordination: A framework within which the activities of the various agencies can be coordinated is needed. There needs to be a coordinator or coordinating agency. The group discussed what form this should take, including the issues of who should control and whether the functions should be advisory only. They felt that the powers of the coordinator should be studied and there should be permit authority during planning stages. An interstate compact for coordinating planning or adjoining states was mentioned as an additional possibility.

Political Sovereignty: The group also recognized a problem concerning political sovereignty over submerged lands within the twelve mile limit (a federal-state jurisdictional overlap) and beyond the twelve mile limit (a national-international jurisdictional overlap).

Specific problems concern an identification of authority and responsibility for issuing permits for construction of structures offshore, including consideration of environmental impacts, and the responsibility for installing and maintaining aids to navigation on these structures. Specifically, whether the Coast Guard, Corps of Engineers or other federal agencies should have these responsibilities; who should have final authority in deciding location and

width of sea lanes and location of structures within or near sea lanes within the twelve mile limit; and whether authority should extend beyond the twelve mile limit.

There is an unresolved problem concerning the authority of the United States and the states to grant private rights in submerged lands, or to reserve submerged lands for exclusive public use, in areas other than the established rights to explore and to produce oil, gas and other minerals. Specifically, there are questions with respect to the ownership and location of facilities for offshore shiploading, offshore manufacturing and similar industrial uses. Similar problems arise concerning private recreational, residential and commercial uses.

Coastal Land Use. Participants pointed out the need for statutory authority for an appropriate state agency to work out agreements with land developers as to the boundary between state and private land, with authority to straighten out meandering boundaries. A similar authority in reaching agreement as to the line of vegetation along a Gulf beach is needed.

Another need is for the development of an appropriate framework for allocating available land among private and public claimants, including the demand for recreational lands.

A system for identifying and setting aside land for industrial sites needs to be developed also. This may include planning for inland sites or for creating offshore sites through use of materials dredged from deepwater channels.

There is also a problem concerning planning for port expansion and for coordination of activities among ports. The interrelationships among ports in the region should be studied to facilitate the planning and coordination function.

Institutional Framework. The group recommends that there be further inquiry into the general problems raised by the conference. In terms of institutional framework there is a need for research and education. An agency is needed to perform research into social, technological and legal, including administrative problems, to publish the products of their studies, to make recommendations and to train specialists to fill existing and future policy making and implementing positions.

In particular there is a need for inquiry into the practical and legal problems raised by the elusive land-water contact point caused by erosion, accretion, and change in the vegetation line, and the re-

Recreational areas along the Texas Gulf coast should receive high priority in planning for land uses.

sulting jurisdictional uncertainty. Possible solutions for these problems lie in a special commission or special judicial system which could establish and make use of fixed points as base references instead of the present system which relies upon shifting boundaries.

On the federal level, the group recognized a need for better organization, such as contemplated in the creation of a National Oceanic and Atmospheric Agency and a National Advisory Committee on Oceans and Atmosphere.

At the state level, participants saw a need for some state agency or political subdivision of the state to have authority to furnish to the U.S. the assurances of local cooperation (i.e., right-of-way, hold harmless agreements) required for districts, as, for example, the widening and deepening of the Gulf Intra-coastal Waterway.

A revision is needed in state laws which in some instances—such as dredging—contemplate permits from various agencies for some uses but not for other uses.

INSTITUTIONAL ARRANGEMENTS

Considered within the context of the purpose of the workshop, which was to identify and define legal aspects of marine concern in the Texas coastal zone, the question of the needs of the state in terms of institutional arrangements was discussed by the workshop on Permanent Institutional Arrangements.

The law usually develops in response to everyday needs of society in a generally evolutionary process. Law schools acquire new resources gradually as the body of law builds up to meet these new requirements. The marine and coastal legal-administrative problems require, however, a more dynamic approach since they call for a new legal framework, and should involve government, academic institutions, and industry. Eventually the legal capabilities of institutions involved in marine concerns of the state should be coordinated with the needs and long range goals of the state to deal with land use and development for a variety of purposes—industrial, commercial, and recreational; the development of ports and navigation; the exploration of mineral and living resources; pollution, and taxation. These activities cut across many jurisdictional boundaries and a host of administrative agencies—city, county, special districts, state, and federal—and relate to the proposed coastal management authority. The decision as to the functions and organization of such an authority should follow an orderly study and

evaluation of the existing legal-administrative situation and difficulties.

Viewed in this sense, institutional arrangements contain several categories of problems. The workshop participants recognized this, but found it difficult to deal with the broader concerns because of the complexity of the many issues involved. The question of the academic role of institutions received considerable attention. It was determined that at other localities programs in ocean law and legal aspects of marine affairs had been instituted to meet "expected" needs.

The discussion brought out that law programs being conducted through Sea Grant Programs in other states differ considerably and are designed to serve special purposes. The University of Miami School of Law offers an ocean law program of interdisciplinary study to qualify the attorney as an advanced specialist in legal problems of the ocean environment. At Louisiana State University legal studies are conducted in conjunction with the university's Sea Grant project. The legal activities support the research and are not a formal element of the law school curriculum.

The need to achieve an interdisciplinary character in any type of legal training program was noted often. Scientists and engineers perform proficiently in their own domain but they are continually

in need of legal guidance and clarification in the interpretation of laws affecting their work. Conversely, people in the legal profession and those in government and regulatory bodies cannot satisfactorily perform their function without guidance and advice from competent personnel in the engineering and scientific professions.

Curricula Development. Out of this phase of the discussion grew a consensus statement to the effect that the responsibilities of the law schools to their students, the needs of the state, and the changing environment make it desirable to utilize the Sea Grant Program for adding new courses dealing with marine and coastal resources, as well as for reviewing the content of existing courses. Course additions should not be necessarily for the purpose of a special degree but to make knowledge available to the law student as well as other graduate students.

Participants suggested that perhaps the legal institutions of the state should first address themselves to broader aspects of marine concerns throughout the state which can be met by involvement of the institution in extension, advisory activities, and research projects—and that through the body of knowledge gathered in these activities there will be a natural evolution of curricula with relevant course work and course content.

Questions were raised as to whether a law school should pick out specific geographic areas in which to concentrate its effort and develop a competence or whether it was more appropriate to approach legal concerns on a subject oriented basis. For example, the Bates College of Law could provide support to people and organizations involved in the marine oriented activities which are concentrated in the Houston-Galveston area. On the other hand, it was recognized that there are many substantive problems concerning subjects such as shoreline use and development, inclusive or common uses of water areas, exclusive use of the shoreline seabed, and environmental protection of the shoreline.

These, among others, can be considered on a multi-institutional basis using the legal competence found at several institutions in the state.

Research Needs. It was recognized generally that legal and administrative research studies should be coordinated with the development of any state plan for coastal and marine resources. Five points were set forth as representing the minimum effort that should take place in the immediate future in the field of research.

- The Bates College of Law should continue its cooperation with Texas A&M University and other institutions based on Sea Grant funds and undertake a research program centering on conflict of jurisdiction and uses.
- Legal research should involve an inventory of law, governmental entities, and uses and should identify problems and make recommendations to appropriate governmental agencies and other users.
- The research program should seek an advisory board and consultants as may be appropriate.
- The research program should take into account the needs as well as the stated goals and objectives of the state. The research results should be available to the federal, state, and local governments.
- Implementation of the recommendations of the workshop may make it desirable to create a center for the study of the law and its administration as they relate to coastal and marine resources.

A Working Committee. The range, variety, and complexity of the legal-administrative studies require the participation of law professors at the various schools in the state and the advice and supervision of many lawyers and public functionaries from many areas of the state. The development of a program would require that funds be made available from federal and state sources. These funds suggest that a single vehicle to achieve the research and extension function be created, *i.e.* a center for the study of the law and administration of Texas marine and coastal resources. The center would be an entity representing the combined legal capabilities, interests, and efforts of the various schools of law within the state of Texas. The functions of such a center might initially be to:

1. Determine, in cooperation with appropriate agencies, the need for legal research and activities, in view of the plans and goals of the state.
2. Obtain financial resources—state, federal and non-governmental—to carry out such studies.
3. Mobilize legal talent from all law schools in Texas to undertake such studies and to enlist statewide evaluation groups to advise and evaluate the completeness and accuracy of the research and its recommendations.
4. Publish and disseminate information obtained from research activities.
5. Encourage the participation of students in the research program and its translation into present and new course offerings.

SUMMARY OF RECOMMENDATIONS

Throughout the two days of the workshop, participants explored questions relating to the legal and administrative problems of the Texas coastal zone. Specifically, three major areas of concern were reviewed: Natural Resources Development, Land Use and Transportation, and Permanent Institutional Arrangements.

Recommendations from the groups were concerned, in general, with the administrative mechanism by

which the state could maintain its direction and control over coastal zone activities; with legal research needs; with development of curricula for coastal law; with the importance of cooperation among scientists, engineers, industrialists, academic institutions, and the bar; and with the machinery to implement the recommendations. Suggestions from the workshop are presented in summary form below.

THE GOVERNMENTAL EFFORT

A coastal management authority is needed for planning the multiple uses of the coastal zone and for assuring that legislative and regulatory machinery is flexible enough to adjust to changing patterns.

Administrative machinery suitable to achieve desired understanding of inter-related environments such as river basins, bays, lagoons, estuaries, open sea and contiguous lands should be established.

A revision is needed in state laws relating to coastal lands, submerged lands, and the land-water interface, and a framework within which the administration of such lands can be coordinated and evaluated should be developed. The number and complexity of administrative agencies necessary to deal with coastal zone programs should be reduced.

Statutory authority for an appropriate state agency to work out agreements with land developers on boundary disputes is needed, as well as an appropriate framework for allocating available land among private and public claimants.

Some state agency or political subdivision is needed to have authority to furnish the United States government the assurances of local cooperation required for federal navigation projects.

The coastal zone laboratory system should be established under the National Sea Grant Program as recommended by the Commission on Marine Science, Engineering, and Resources. The system should be designed to be responsive to state and local government needs, yet amenable to federal support (e.g. the Sea Grant Program and any other programs which could support the system). It should be capable of undertaking research in any or all of the areas related to coastal zone, management decisions.

THE INSTITUTIONAL EFFORT

New legal courses dealing with marine and coastal resources should be developed under the Sea Grant Program.

A multi-university research program centering on conflicts of jurisdiction and uses should be undertaken, involving an evaluation of law, governmental entities and uses, the implementation of the conference recommendations, and responsive to the state's needs, plans, and goals.

To achieve these ends, a center for the study of the law and its administration as they relate to Texas coastal and marine resources should be created. Pertinent recommendations from prior conferences dealing with coastal zone law and administration should be reviewed and implemented. Further inquiry into the general problems raised by the conference is recommended.

An adequate system for the dissemination of information resulting from legal-scientific research studies should be established.

An analysis of the techniques used by the oil and gas industry, oil regulatory agencies, and petroleum technologists in establishing conservation rules and equitable procedures for the conservation of oil and gas and related natural resources should be conducted in order to identify mechanisms that might be applied to marine resource development.

THE RESEARCH EFFORT

There should be made available suitable funds for the conduct of complementary legal and scientific research and analysis of information needed to aid appropriate governmental agencies in making and evaluating decisions.

An in-depth study of the scope of authority and the functions of present agencies, both within the twelve-mile limit and outside the twelve-mile limit is needed.

A system for identifying and setting aside land for industrial sites needs to be developed.

The interrelationships among ports in the region should be studied to facilitate the planning and coordination of marine transportation activities.

Legal research should be conducted regarding the locations and relationships of the three dimensional contiguous boundaries in the coastal zone.

Research should be conducted regarding legal problems that will arise from intensified multiple use of the coastal zone, and areas of most intense possible conflicts should be identified.

The legal and administrative studies should be coordinated with the development of the state plans for the coastal and marine resources and should concentrate on the functions and framework of the coastal and marine resources and should concentrate on the functions and framework of the coastal management authority through an examination of existing laws, regulations and governmental agencies, both within and outside the twelve-mile limit.

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