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COMMUNITY LEGAL PROBLEM SERVICES

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I. THE NEED FOR MARINE AND ESTUARINE SANCTUARIES

A. Introduction

It has been estimated that fifty-three percent of the population of the United States (some 106 million people) live within fifty miles of the coasts of the Atlantic and Pacific Oceans, the Gulf of Mexico and the Great Lakes. It is projected that eighty percent of the population or 225 million people will occupy that same area by the year 2000.¹ The increasing and often competitive demands of industry, commerce, resource development, recreation, waste disposal and other interests must be balanced against the harmful and often irreversible impact such activities have on the scenic beauty and fragile ecological systems of the Coastal Zone.²

One of the best ways to protect the natural values that remain in order to insure adequate overall protection for coastal water areas is to select and set aside areas as permanent preserves or sanctuaries.

Scientifically, sanctuaries are defined as specifically delineated areas of estuaries, contiguous lands and marine waters that are set aside for the purpose of controlled use for scientific research and education.³

The Coastal Zone Management Act of 1972⁴ defines Estuarine Sanctuaries as follows:

Estuarine Sanctuary means a research area which may include any part or all of an estuary, adjoining transitional areas and adjacent uplands, constituting to the extent feasible a natural unit, set aside to provide scientists and students the opportunity to examine over a period of time the ecological relationships within the area.

The Marine Protection, Research and Sanctuaries Act of 1972⁵ defines as Marine Sanctuaries:

. . . those areas of the ocean waters, as far seaward as the edge of the Continental Shelf, as defined in the Convention on the Continental Shelf⁶ of other coastal waters where the tide ebbs and flows, or of the Great Lakes and their connecting waters, which the Secretary of Commerce determines necessary for the purpose of preserving or restoring such areas for their conservation, recreational, ecological or esthetic values.

B. Purpose of Sanctuaries

On both the Federal and State Level, Coastal Sanctuaries may be established for the following purposes:⁷

1. Scientific:

(a) To establish baselines and monitor change. In order that wise decisions may be made in environmental management, it is necessary that there be adequate understanding of the function of natural systems and their reaction to change, man-induced or otherwise. It is essential that relatively undisturbed natural areas form the basic research tool for the establishment of baselines for understanding and comparison. There is a need for a comprehensive natural areas

system to be preserved, managed and catalogued, using the full range of natural area types in the marine and estuarine environment.

(b) To serve as reservoirs of biological species, physical phenomena, naturally functioning communities and existing habitats. The advent of civilized man and his manipulation and modification of natural systems has resulted in the extinction of many species, each a unique and irreplaceable library of genetic information. Many physical phenomena, such as unique marine canyons and geological formations are irreplaceable if altered or destroyed. Sanctuaries may come to provide the only assured examples of some existing populations and communities. Sites with endangered species or with unique biological, physical, chemical, geological or archeological attributes merit exceptional attention for these purposes.

2. Educational Purpose:

There is a need for areas that have educational activities as their controlling use to provide the opportunities for educating and training individuals in the field of environmental sciences. Such training requires appropriate sites for undergraduate experience with coastal and marine components and processes, and for graduate education to train students to search for new knowledge. Appropriate locations for

environmental education are also essential to increase the awareness of ecological principles for students in elementary, educational programs secondary and

3. Be

Areas must be provided to establish a platform for controlled research by any or all of the marine scientists. A proper understanding of system function can not occur unless scientists are allowed to apply proper research methods to the system in question. Research not only provides information and monitors significant changes in the environment, but it also serves as a means of forecasting future impacts.⁹

4. Public Enjoyment and Recreation:

Water based recreation including fishing, water hunting, swimming and boating depend heavily on coastal areas. Of all man's activities in the land-water ecotone, recreation would appear to be the most compatible with maintenance of environmental quality and least detrimental to other life and biotic communities. The point has now been reached, however, where intensified use of these areas for water recreation not only threatens environmental quality but also interference with plant and animal communities but also interferes with man's own enjoyment through overcrowding. Maximum recreational use of shores and underwater areas

the populace must be carefully balanced with preservation. The fragility, intricacy and the narrowness of the waters edge requires a precise and delicate adoption of recreational use to the environment in each individual instance if environmental quality is not to suffer.

5. Aesthetic Purpose:

Aesthetic areas must be preserved and protected against modification or encroachment resulting from occupation, development or other use which destroys these natural conditions. Scenic qualities should be restored and maintained. Understanding and appreciation of these areas should be promoted.

5. Multiple Use:

The natural environment can be protected and still provide multiple public benefits. Areas should be designated which are not considered critical to ecological balance. These areas can serve as a buffer zone for preservation areas and retention of use options for future generations. Multiple use may include the fishing industry, which contributes directly to the nation's food supply. It is in the interest of all to develop and protect living aquatic resources. This entails maintenance of high water quality standards and protection of fish habitats--spawning, feeding and nursery grounds. Water fowl hunting is another use that is compatible with the environment. The sand and gravel industry should be considered

as long as there are sufficient controls as to area and duration. The public benefits include improvements of navigation, adding sand to beaches and providing construction aggregates.¹¹

II. EXISTING STATE LEGISLATION FOR MARINE AND ESTUARINE SANCTUARIES

A. Marine Sanctuaries

As of the present time only a few have enacted specific marine legislation for preserving coastal zone areas. The general trend has been for states to deal with natural resources as separate systems rather than elements of a fully integrated ecosystem. Most conservation measures taken in the past have been in the form of fish and game law, soil and water conservation laws, wetlands protection or state park and recreation provisions. However, Florida, Massachusetts, Hawaii and California have enacted specific legislation.¹³

1. Florida

The state of Florida has recognized the need for setting aside areas as marine sanctuaries so that these areas may be preserved in their natural condition so that their ecological and aesthetic values may endure for the enjoyment of future generations.

Extensive areas of Florida's tidal water bottoms, probably ten percent of the total, have been formally set

aside by the state as parks, preserves or sanctuaries of one type or another. One hundred thousand acres, including 48,000 acres outside the presumed territorial boundary of the state, comprise the Key Largo Coral Reef Preserve, a part of the John Pennekamp Coral Reef State Park. Other large acreages are contained in the thirty-one units of Florida's Aquatic Preserve System. In addition, efforts are now under way to incorporate adjacent submerged land into thirty-one more state parks located on Florida's tidal waters.¹³

John Pennekamp Coral Reef State Park in Key Largo was the first Underwater State Park in the United States. The Park and the adjoining Key Largo Reef Preserve were established by coordinated actions of the state and federal government in 1959 and 1960. The idea developed out of a 1957 conference to consider problems threatening the natural resources of the Everglades National Park and environs. The object of the preserve-park was to provide needed protection and management for a prime part of North America's most spectacular living coral reef. This was done by the promulgation of new rules and regulations by each of the two levels of government and by the regulatory efforts of the state park staff.¹⁴

The park and the preserve are managed by the Florida Division of Parks and Recreation as a single unit. The park management provides recreational experiences to its visitors

but there are strict regulations which include an absolute prohibition of spearfishing and taking of coral and also for the protection of the underwater habitats.¹⁵

Unfortunately, the Coral Reef Preserve and John Pennekamp Park are in serious trouble, not because of bad management but because of things happening both inside and outside the park. Time has shown that 120 square mile of submerged tidal land can't be managed as a typical upland state park. Problems of overuse and misuse have arisen which not only have detracted from legitimate visitor enjoyment but also have seriously degraded the prime resource itself, the coral reef.¹⁶

In order to remedy this problem and protect these areas, the state of Florida has put forth two solutions:¹⁷

(1) The promotion of needed research work to throw more light on the nature and causes of the indicated problems of resource deterioration.

(2) Implementation of new management measures for the state park by the Department of Natural Resources, Division of Recreation and Parks.

An effort has been made this year to institute a number of new management steps, especially the licensing of commercial dive boats operating within the Coral Reef Preserve. This move has been complicated by questions over the relative

jurisdiction of the state of Florida and the United States.¹⁸

At the present time, there is no satisfactory solution to the complex management problems of the Coral Reef Preserve. Much depends on exactly where the state's territorial boundary lies. Within its territorial limits the state seems to have a greater jurisdictional authority than the federal government has either inside or outside that boundary. There is a hopeful possibility for creating a workable jurisdictional entity for this vulnerable area through the Marine Protection, Research and Sanctuaries Act,¹⁹ and this is currently being investigated through the National Oceanic and Atmospheric Administration.²⁰

The other Florida program is the state system of Aquatic Preserves. The aquatic preserve concept assumes that some of Florida's coastal areas are of special value to the state in their natural condition and should be dedicated in perpetuity as aquatic preserves, to be managed so as to protect and enhance their basic natural qualities for public enjoyment and utilization.²¹ An aquatic preserve is characterized as being one or a combination of three interrelated types:

- 1) Biological--to preserve or promote certain forms of animal or plant life.

2) Aesthetic--to preserve certain scenic qualities or amenities.

3) Scientific--to preserve certain features, qualities or conditions, which may or may not include biological and aesthetic, for scientific or educational purposes.

The preserves are defined so as to include only land or water bottoms owned by the state, though neighboring private lands may later be added pursuant to arrangements negotiated with the state.²³ Florida now has 123,900 acres of land and 667,970 acres of salt water in the aquatic preserve system.²⁴

Florida's state-wide system of aquatic preserves was established by the Governor and Cabinet in 1969 sitting as the Trustees of the Internal Improvement Fund. These ~~preserves mean that no more submerged land will be sold and~~ no dredge-fill permits to create waterfront real estate will be issued. Traditional uses such as boating, swimming, sport and commercial fishing, bona fide navigation channels and docks will be allowed or continued. The trustees also have vast authority concerning the fixing of bulkhead lines, and the power to negotiate oil and gas leases.²⁵

Thirty areas of submerged land were dedicated as aquatic preserves. Other aquatic preserves may be established at any time by action of the Board of Trustees.²⁶ Unfortunately,

the dedication of a given area of submerged land as an aquatic preserve does not presently provide absolute protection of that land. Since the Cabinet and Governor, sitting as Trustees, established the aquatic preserve system by administrative act, these preserves or some of them could be abolished by a future cabinet. It is submitted that aquatic preserves should be permanently established by statute so that they will not be subject to administrative change.

It is interesting to note that in 1972, the Florida legislature established an aquatic preserve in Pinellas County, Florida,²⁷ and in 1974, declared Biscayne Bay in Dade and Monroe counties an aquatic preserve.²⁸ These bills have similar provisions. They both provide for administration by the Board of Trustees of the Internal Improvement Trust Fund; preserve riparian rights of upland owners within or adjacent to the preserves; provide restrictions on the sale and use of lands and waters in the preserve; provide for reasonable bulkhead lines and restrict dredging and filling. The Biscayne Bay Act further provides that no wastes or effluents shall be discharged into the preserve. Both bills allow traditional public uses of the preserves, such as commercial and sport fishing, boating and swimming.²⁹ Only the Biscayne Bay Act includes a penalty for violation. Section 7 has a provision which provides that the Department of Legal Affairs is

authorized to bring an action for civil penalties of \$5,000 per day against any person, natural or corporate who violates the provisions of the Act. By comparison, the Board of Trustees Resolution which established the aquatic preserve system in Florida provides no such protection.

2. Massachusetts

Massachusetts has established four Ocean Sanctuaries which encompass state owned submerged lands in certain areas of the state. Chapters 132A, Sections 13 through 16 of the Massachusetts General Laws contain the provisions for the Commonwealth's Ocean sanctuaries.

The first sanctuary established was the Cape Cod Ocean sanctuary in 1970.³⁰ It is contiguous to the Cape Cod National Seashore and was intended primarily to serve as a protective buffer to that area.

A provision of the statute states:

The Cape Cod Ocean Sanctuary . . . shall be protected from any exploitation, development or activity that would seriously alter or otherwise endanger the ecology or the appearances of the ocean, the seabed or subsoil thereof, or the adjacent Cape Cod National Seashore.³¹

The mandate to protect the Cape Cod Sanctuary is given to the Massachusetts Department of Natural Resources. The following activities are expressly prohibited:

(1) the building of any structure on the seabed or under the subsoil;

2) the removal of any sand, gravel or other minerals, gases or oils with the exception of sand and gravel extraction for the purposes of shore protection and beach restoration provided that such projects are limited to public beaches adjacent to the sanctuary.

3) Commercial advertising and the dumping of any commercial or industrial wastes as well as drilling for subsoil minerals, gases or oils are also prohibited.³²

Activities that are allowed include the laying of cables; channel and shore protection projects such as public beach restoration; navigation aids or improvements with appropriate federal and state approval and harvesting of fish and shellfish. Contemplated here were aquaculture enterprises which would require placing structures on the seabed. Also, permits for temporary educational and scientific projects are expressly permitted.

The second sanctuary is called the Cape Cod Bay Ocean Sanctuary.³⁴ This bill was enacted in 1971 and contains many of the same prohibitions as the previous bill. It expressly prohibits the building of any structure on the seabed or under the subsoil, commercial advertising, the construction of electric generating stations, the extraction of minerals, gases, soil, sand and gravel. Sand and gravel is again excepted for purposes of beach restoration.³⁵ However, here there is no requirement that the sand and gravel be used only on beaches adjacent to Cape Cod, so sand could be transported

to other areas for the purpose of beach restoration.

As in the previous legislation, there is an express provision allowing for cables, channel and shore protection projects and navigation aids. There is also an express provision allowing aquacultural ventures, harvesting of fish by any means and educational and scientific projects. The Act includes a new provision allowing projects to be deemed of public necessity and convenience if they are conducted by municipalities, government districts or the federal government and have the appropriate federal and state licenses and approval.³⁶

The Cape and Islands Ocean Sanctuary³⁷ was also enacted in 1971 and includes Nantucket Sound and Buzzards Bay.

The following activities are prohibited, as in the other sanctuaries; the building of structures on the seabed or under the subsoil, refuse incineration on vessels, extraction of sand, gravel, minerals, gases and oils. The prohibition of the discharge of industrial coolant in conjunction with electrical power does not have any data as it did in previous legislation and is allowed within this sanctuary by permit from the Massachusetts Division of Water Pollution Control. Again, there is an express allowance for cables, channel and shore protection, navigation aids and the activities allowed in other sanctuaries.³⁸

The fourth and last Massachusetts sanctuary was established in 1972³⁹ and is called the North Shore Ocean Sanctuary. It encompasses the area from Cape Anne north to the New Hampshire border.

The provisions for this sanctuary are the same as the others except that the extraction of sand and gravel and other mineral resources is allowed if the Department of Natural Resources grants a permit or license. The reason for this is that the Department felt that mineral resources could be extracted without a significant biological effect or conflict with other users. The area for mineral extraction is that area north of Cape Cod Bay to the New Hampshire line. However, the Massachusetts legislature has passed a moratorium against marine mining until more precise scientific information is obtained to evaluate the situation.⁴⁰

Enforcement of all four of these sanctuaries is left to the Massachusetts Attorney-General. Jurisdiction lies with the Supreme Court in equity, therefore making injunctions possible. Injunctions are the only effective toll in that there is no fine or penalty provided in any of the sanctuary bills for violation of their provisions.⁴¹ This would seem to be a serious disadvantage of the Acts.

It should be noted that two other sanctuary bills were introduced in 1972 at the same time as the North Shore Ocean

Sanctuary, but failed to pass because of a general feeling in the legislature that the entire Massachusetts marine area would be one giant sanctuary.⁴² It is submitted that an overall coastal zone management type of plan would be better than this segmenting of the coastline.

Another problem is that since these sanctuaries include areas that are not within Massachusetts territorial waters, they may be open to challenge in the future. At the present time, Massachusetts has legislatively claimed an area in the middle of Nantucket Sound under the historic bay principle. As yet, the point has not been disputed by the federal government even though there is some conflict as to whether it is under state or federal control.⁴³

3. Hawaii

Hawaii has two mechanisms for establishing coastal zone sanctuaries; the Marine Life Conservation Program⁴⁴ and the Natural Area Reserve System.⁴⁵ Both of these areas may be established by the Board of Land and Natural Resources. Three areas have been established under these provisions, two Marine Life Conservation Districts and one Natural Area Reserve. These areas have very restrictive regulations which, with the exception of hook and line fishing in one subarea, forbid any taking of animal or plant life and any activity which will interfere with or hazard animal or plant life.

All these areas are managed as much as possible to retain them as undisturbed natural areas and are not recreationally orientated.⁴⁶

(a) Marine Life Conservation Program:

All marine waters of the state constitute a marine life conservation area to be administered by the Department of Land and Natural resources. This Department may establish and modify the limits of one or more conservation districts in each county and may declare all waters within any county a conservation district.⁴⁷ The Department also has the power to make rules and regulations governing the taking or conservation of fish, lobster, crab, squid or other marine life

~~if it determines this will further the public policy of~~

conservation or supplement and increase the state's marine resources. The rules also establish open and closed seasons, designate areas in which all or anyone or more of certain species of fish or marine life may not be taken and prescribe and limit the methods of fishing, including the type and mesh and other descriptions of nets, traps and appliances. No person is allowed to fish for or to take any fish, crab, lobster, squid or other marine animal within these districts without a permit.⁴⁸

In order to protect these sanctuaries, the statutes provide a penalty for violation of the rules or regulation

of \$100 or 30 days in jail, or both.⁴⁹

(b) Natural Area Reserves System:

This program is based on the concept that the state of Hawaii possesses unique natural resources, such as geological and volcanological features and distinctive marine and terrestrial plants and animals, many of which occur nowhere else in the world and that they are highly vulnerable to loss by the growth of population and technology.⁵⁰

The statute provides that

these unique natural assets should be protected and preserved, both for the enjoyment of future generations and to provide base lines against which changes which are being made in the environments of Hawaii can be measured.⁵¹

Scientifically, the above provision is very important because baseline sanctuaries should be virtually undisturbed areas so that they may be used as long-term natural reference sites and as monitoring sites for detection and measurement of large scale changes.

The intent of the statute is to strengthen the present system of preserves and sanctuaries, and to set aside additional areas of land and shoreline that is suitable for preservation.⁵²

The Department of Land and Natural resources has the authority to designate and bring under its control and management various areas as follows:⁵³

1) State of Hawaii owned land under the jurisdiction of the Department may be set aside as a natural area reserve by resolution of the Department, subject to the approval of the Governor by executive order setting the land aside for such purpose.

~~New natural area reserves may be established by:~~
gift, devise, purchase, eminent domain or by the Governor of land owned by Hawaii.

Hawaii has recognized the need for marine sanctuaries and responded to this need through specific legislation. These two statutes are short and not complex. Their primary purpose is to protect outstanding and irreplaceable examples of the state's natural land and water resources and marine life. Thus far, there have been no court cases in conflict with this legislation.

4. California

California has an extensive system of underwater parks established along the entire coast. These underwater recreation areas consist of areas in the underwater environment selected and developed to provide surface and subsurface water-orientated recreational opportunities while preserving

generations.

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These parks are primarily under local o

but the State Division of Parks, through

Advisory Board coordinates the overall program. This Board is very active and includes strong leadership from various scuba organizations.⁵⁴

Also, California's Department of Fish and Game has established a series of relatively small preserves to protect certain endangered species, such as certain fish and salamanders.⁵⁵ Some of these preserves are set aside specifically for scientific purposes.

A number of marine sanctuaries have been established in California for the purpose of excluding new oil and gas leasing within the area. The areas so designated within California extend from the high water line to the three mile limit. Those areas include San Diego and Orange County; Los Angeles County; San Clemente and Santa Catalina Islands; Santa Barbara County; San Luis Obispo County; Monterrey and Santa Cruz Counties; Humboldt and Mendocine Counties; and Islands of Anacapa, Santa Cruz, Santa Rosa and San Miguel. In addition, the tidelands of San Francisco Bay and those off Del Norte County are established as "oil sanctuaries" until March 1975.⁵⁶

The only regulation pertaining to the "sanctuary" statutes of these lands is a prohibition of oil and gas leasing. Provision was made in the legislation establishing the sanctuaries to initiate leasing in the event drainage of

oil reserves is threatened by wells in adjacent areas.⁵⁷ Other than the specific prohibition excluding oil and gas exploration, these reserves might be considered multiple purpose reserves.

Another program for Marine Sanctuaries in California is the Natural Land and Water Reserve System,⁵⁸ under the direction of the University of California.

The program is designed to protect diverse samples of California's natural land and water areas for study and conservation with emphasis on the value of ecological diversity as a scientific resource. The Natural Land and Water Reserve System expects to gather over 50 reserves. The reserves are managed by various branches of the University of California.

The location for these reserves are well distributed along California's 1200 miles of coastline. The reserves tend to be more frequent in regions having high concentrations of colleges and universities such as near San Francisco, Monterey Bay and Los Angeles. Generally, each was chosen to include a particularly unique land or water feature. In total, they encompass the largest number of different coastal and estuarine habitats.⁵⁹ Many include extensive offshore portions and many are closely associated with existing parks and recreational areas. In each case, metes and bounds were

established and these usually do not include an entire bay. Because California has a long and diversified coastline, the coastline was divided into a series of six regions built strategically around the major seaports and educational institutes. Each recommended reserve includes an assessment of the kinds of habitats available--offshore areas, estuarine conditions, rocky shores. Some of the reserves are set aside for research purposes only, not to be modified.⁶⁰

Three types of reserves were established to serve California's need in higher education:

- (1) Areas to be used exclusively for research
- (2) Areas for general field instruction
- (3) Reserves set aside as a base for technological education; mariculture; experimental modification of the environment, and serving and berthing for seagoing vessels.⁶¹

In 1972, the California Legislature enacted the California Coastal Zone Conservation Act.⁶² The purpose of the Act was to strike a balance between the interests which seek to exploit and develop the coastal zone and the need to conserve its bounty and preserve its beauty.⁶³ The act declares that the coastal zone in California is a distinct and valuable resource, existing as a delicately balanced ecosystem and that it is necessary to preserve and protect it for present and succeeding generations.⁶⁴

The California act intends to protect the Coastal Zone through a statewide master plan. The act requires that the plan be consistent with four stated objectives: 1) the overall quality of the coastal zone environment including its

their vast areas. For much of our history, the estuaries have been largely untouched by permanent in-roads. We have left them mainly to their natural denizens...shellfish, crustacea, finfish and wildlife.⁶⁷

Pollution of estuarine waters by soluble and solid wastes is taken in inevitable toll in reduced estuarine productivity. The pollution problem, though, is not unique to estuaries, and its solution in the coastal zone must almost necessarily be part of a larger scheme of management and control.⁶⁸

There is another source of restricted estuarine productivity, at the same time more tractable than water pollution and more localized in origins to the coastal zone: i.e., physical alterations by man that reduce acreage of estuarine marshes and open waters. In 1967, the U.S. Fish and Wildlife Services tabulated a twenty year record loss of fish and wildlife estuarine habitat along the ocean coasts and Great Lake shores. Their estimates showed that during the period over 7 per cent of "the basic area of important habitat" had been destroyed by dredging and filling. The percentage of habitat destroyed ranged from a high of 10 per cent in New Hampshire to 10.3 per cent in Connecticut, 13.1 per cent in New Jersey, 15 per cent in New York and 67 per cent in California.⁶⁹ In the years since 1967 when this report

was made, the percentages have no doubt increased. Thus, one can see the importance and need for Estuarine Sanctuaries, not only for research but also for habitat preservation.

Several coastal states have legislation that provides for setting aside estuarine areas for research purposes. However, it must be noted that generally the research activity is restricted to specific marine resources such as fish or shellfish rather than general ecological relationships.⁷⁰

1. Maine

Legislation has been enacted in Maine providing that the Commissioner of Sea and Shore fisheries may acquire land and water areas no more than two acres in extent for the purpose of scientific research relative to fish and shellfish. The Commissioner may hold any lands so acquired for ten years only.⁷¹

Low levels of funding for land acquisition or regulation programs have often hampered state estuarine activities. However, the state of Maine has spent \$5 million for parklands plus \$20,000 annually for water fowl wetlands. Twenty-three miles of waterfront valued at \$30 million are owned by the State Park Commission and another \$4 million was authorized by the legislature.⁷²

In addition to general water pollution control and pesticide control legislation, Maine's principal regulatory

controls for estuarine protection involve a 1967 coastal wetlands alteration permit law.⁷³ The 1967 wetland control law, as amended in 1971 and 1973, prohibits filling, removing, dredging, or draining of sanitary sewage into wetlands bordering coastal waters, without a permit from the municipality or county affected, and it must be issued with the approval of the Board of Environmental Protection.⁷⁴

The 1970 Maine legislature enhanced the protection of estuarine and coastal waters by enacting laws that prohibit discharge of oil into coastal waters, and requires all commercial or industrial development proposals which may substantially affect the environment to be approved by the State Environmental Improvement Commission.⁷⁵

2. Illinois

Special provision is made in the Illinois statutes for setting aside "nature preserve" areas for scientific purposes.⁷⁶ The Department of Conservation has authority to acquire land and water areas which may be used for the public purposes of scientific research and education.

"Nature preserve" is defined as an area of land or water in public or private ownership, which is formally dedicated to being maintained in its natural condition. The area should retain to some degree its primeval character though it

~~need not be completely natural and undisturbed and may include such things as~~

the dedication, or have unusual flora, fauna, geological or archaeological features of scientific or educational value. The area must be used in a manner and under limitations consistent with its continued preservation, without unreasonable impairment, disturbance or development. The purpose of the "nature preserve" is for scientific research, education, aesthetic enjoyment and for providing habitat for plant and animal species and communities and other natural objects.⁷⁷

Acquisition of these areas from private owners may be through eminent domain.⁷⁸ The only court case to date involved the question of whether the Eminent Domain Act was effective to vest jurisdiction in county courts to hear and determine eminent domain proceedings, notwithstanding the fact that the Act did not expressly mention a grant of jurisdiction to county courts to hear such cases.⁷⁹ The Department of Conservation may also acquire such areas by gift, purchase, grant, exchange or dedication.⁸⁰

The statute provides that areas may be set aside for scientific research in fields including exology, taxonomy, genetics, forestry, agriculture, geology, soil science and archaeology; for the teaching of natural history, conservation and other subjects; as habitats for rare and vanishing species of plants and animals; and for the gathering and dissemination of information regarding them.⁸¹

There is no specific provision for a penalty for violation of the Act except that the Department is authorized to provide procedures to be used in case of violation of the dedication.

3. Wisconsin

The Wisconsin Scientific Areas Program was begun in the early 1950's in an effort to provide natural areas for research and preservation of native species. The original statute had no provision for staff, but recently the State Board for the Preservation of Natural Areas has obtained legislation providing for a trained permanent staff and operating expenses for an expanded field program. The areas which have been investigated by the Council include several sites on the Great Lakes, including forests, beach and dune areas, marshes and wetlands.⁸²

The statute provides for a scientific areas preservation council which has the authority to:

(1) Determine the acceptance or rejection of areas of special scientific interest offered as donations by individuals or organizations for preservation.

(2) Make recommendations to appropriate federal agencies or national scientific organizations of areas in the State that are considered worthy to be listed as scientific areas of national importance.

(3) Advise the department of natural resources and other agencies on matters pertaining to the

acquisition, development, utilization and maintenance of scientific areas, including determinations as to the extent of multiple use that may be allowed on approved, scientific areas that are part of a state park, state forest, public hunting ground or similar property of the department.

(4) Prepare and publish an official state list of scientific areas available for research and the teaching of conservation and natural history, and recommend publication of studies made in connection with these areas.

(5) Cooperate with Federal agencies, other states, counties or organizations concerned with similar purposes.

(6) Take such other action as is deemed advisable to facilitate the administration, development, maintenance or protection of the scientific area system . . . 83

The Wisconsin Scientific Areas Program is very comprehensive and has adequate restrictions to accomplish its purpose. Although the areas are established primarily to enable scientific and educational activities, the statute does allow the Council to determine the extent of multiple use that may be allowed in these areas. Basically, however, the activities and presence of men are severely restricted and regulated.

4. Indiana

The Indiana Nature Preserve System was established by legislation in March, 1967. The bill provided for the establishment of the Division of Nature Preserves, under the Department of Natural Resources, whose duty is to maintain

a registry of actual and potential preserves and preservation of these areas. The preserves are intended to retain for the people of Indiana the opportunity to benefit from not only the scientific but also the aesthetic and cultural values of the areas.⁸⁴

The statute states that as part of the continuing growth of the population and the development of the economy it is necessary and desirable that areas of unusual natural significance be set aside and preserved for the benefit of present and future generations before they have been destroyed. Once destroyed they cannot be wholly restored. Such areas are irreplaceable as laboratories for scientific research, as reservoirs of natural materials, as habitats for plant and animal species and biotic communities whose diversity enriches the meaning and enjoyment of human life, as living museums where people may observe natural biotic and environmental systems of the earth and the interdependence of all forms of life, and as reminders of the vital dependence of the health of the human community upon the health of the natural communities of which it is an inseparable part.⁸⁵

The Department is authorized to acquire nature preserves by gift, devise, purchase, exchange or condemnation. In addition, the Department has the power to select, use, manage and protect the nature preserves.

The primary intent of the statute is to provide areas for scientific research, and teaching and to establish aesthetic areas in which regulations are designed to protect the general quality of the area rather than a specific resource.

5. Ohio

Ohio legislation established the Natural Areas Act in 1970.⁸⁷ Its primary purpose is to protect outstanding and irreplaceable examples of the state's native landscape and to that end it directs the Department of Natural Resources to acquire a "system of nature preserves."⁸⁸

Prior to the passage of the Act there was no coordinated state wide program for the preservation of Ohio's natural area resources. A few such areas were publicly owned but most were privately owned with no guarantee of preservation. Even public ownership was no guarantee of protection since such areas could readily be used for other public purposes such as roads, dams and reservoirs. The "highest and best use" of these areas was not necessarily natural area preservation. Certain conservation minded private organizations had actively been engaged in protection through purchase and conveyance of natural areas to universities, museums and other agencies. The Division of Parks, Wildlife and Forestry had some power of protection over those natural areas located in

areas within their jurisdiction, but the priorities of recreation, timber growth and cutting and public hunting threatened the more delicate of these natural areas. With the passage of the Natural Areas Act in 1970, nature lovers may now hope that a state wide protective program can exist within the Department of Natural Resources.⁸⁹

The Natural Areas Act covers a broad variety of uses and purposes:

- (A) For scientific research . . . ;
- (B) For the teaching of biology, natural history, ecology, geology, conservation . . . ;
- (C) As habitats for plant and animal species . . . ;
- (D) As reservoirs of natural materials;
- (E) As places of natural interest and beauty;
- (F) For visitation whereby persons may observe and experience natural, biotic and environmental systems . . . ;
- (G) To promote understanding and appreciation of the aesthetic, cultural, scientific and spiritual values of such areas . . . ;
- (H) For the preservation and protection of nature preserves against modification or encroachment resulting from occupation, development or other use which would destroy their natural or aesthetic conditions.⁹⁰

Areas may become part of the nature preserve system by three related methods. The Department of Natural Resources may purchase areas and dedicate them as preserves; private land owners may dedicate areas as preserves with the concurrence of the Council and Department of Natural Resources; and any department, agency, state, county, township,

municipality, park and conservation district, college or university may dedicate natural areas under their jurisdiction.⁹¹

The Act has been given substantial funding. In 1971 \$400,000.00 was appropriated primarily for natural areas acquisition and organizational expense. In 1972, twice that amount was requested. The Department of Natural Resources has used part of that money to acquire some land for dedication. It has found that many natural areas are reasonably priced, even cheap, because, being mostly bogs, swamps, marshes, dunes and gorges, they are not the most fertile or developable land.⁹²

Instead of having only one broad "natural areas class," the Department has established a three class system for natural areas: (A) Scientific Nature Preserves; (b) Interpretive Nature Preserves; (c) Scenic Nature Preserves. Each class has separate criteria for inclusion and different levels of protection and use.

For example, the Scientific Nature Preserves includes areas which are restricted and entrance is by written permission only. The regulations for use of these areas are highly protective. The Interpretive Nature Preserves can withstand moderate use for educational purposes in addition to research. Access is limited to supervised groups, guided tours, and by permission only. Hiking trails are permitted

in buffer areas only. The last class, Scenic Nature Preserves, is defined in such a way as to allow even greater use. Moderate to heavy use is allowed in some areas.⁹³

A comparison of other state systems of Nature Preserves shows that Ohio's classification scheme offers the best protection to these valuable sanctuaries.

6. Minnesota

Sanctuary legislation in Minnesota authorizes the Commissioner of Conservation to acquire, establish, and maintain scientific areas and to adopt rules and regulations for them.⁹⁴

The land or water areas may be acquired by gift, lease, easement or purchase. The areas may be used for: (1) a living museum; (2) a site for scientific study; (3) an area for teaching natural history and conservation; and (4) a habitat for rare and endangered species of plants and animals. Land designated as a "scientific and natural area" may not be altered in designation or use without holding a public hearing on the matter.⁹⁵

7. Florida

Florida's extensive estuarine and marine submerged lands are one of the state's most significant natural resources. In Florida's system of Aquatic Preserves, some areas are established primarily to enable scientific and

educational activities to take place. The Board of Trustees of the Internal Improvement Fund, as holder of title to all state owned submerged land, can set aside exceptional areas of state owned land and associated waters. Regulations, which are primarily anti-dredge and fill, are designed to keep the areas in the same condition as at the time of preserve designation.⁹⁶

Old and large conveyances of submerged land by the state to private individuals or firms and conveyances or actual submerged land as swamp and overflow land (because of erroneous meander line surveys) reportedly remain as major problems in estuarine conservation and management in Florida. As a remedy to these problems, statewide coastal planning and zoning have been considered.⁹⁷

Estuarine State Land Acquisition is authorized by Florida Statute § 373-139 (1972) which provides that the governing board of the district is empowered to acquire title to real property for preservation of wetlands, streams and lakes...

C. Summary of State Programs

The state coastal sanctuaries fall into six general categories. These categories are not mutually exclusive because other categories may occur to a greater or lesser extent within a given sanctuary or regulated area.⁹⁸

1. Scientific:

Areas established to enable scientific and educational activities included in this category are habitat preserves for the preservation, protection and management of essential or specialized habitats utilized by endangered plant and animal species or representative habitats of outstanding quality. In these areas the quantity and type of public access is limited, and controlled in the wilderness area to protect the values for which the preserve was created. States which may be placed in this category are: Wisconsin Scientific Areas; some of Florida's Aquatic Preserves; Maine's estuarine sanctuaries for scientific research relative to fish and shellfish; California's Research Areas and Illinois nature preserve areas that are set aside specifically for scientific research.

2. Natural:

Areas set aside to preserve in the natural or wilderness state; activities and presence of man are severely restricted and regulated. Included in this category are Hawaii's Natural Area Reserves and Marine Life conservation Districts; Wisconsin Scientific Areas Program and some of Florida's Aquatic Preserves.

3. Esthetic:

Areas in which regulations are designated to protect the general quality of an area rather than a specific resource.

Ohio and Indiana's Nature Preserves fit into this category, as do some of Florida's aquatic preserves and to some extent California's and Massachusetts' Ocean Sanctuaries.

4. Recreational

Areas set aside primarily for recreational purposes and for public enjoyment with regulations to ensure the protection and preservation of the resources providing the recreational experience. Many recreation activities conflict with the concept of wilderness preservation, so great care is taken not to destroy the environmental quality and the ecological balance in these areas. Examples are Ohio's nature preserves, California's underwater parks and John Pennekamp Coral Reef State Park, Key Largo, Florida.

5. Multiple Use:

Areas in which specific activities are either prohibited or closely regulated such as California's Oil Sanctuaries and Massachusetts' Ocean Sanctuaries.

6. Species Preserves:

Areas in which regulations are designed to protect a given species or group of species such as Virginia's Crab Sanctuary and all of the States waterfowl refuge programs. Also included are California's preserves to protect endangered species and Hawaii's Marine Life Conservation Program. The establishment of these preserves maintains species

populations and communities for restocking other areas and for reestablishment purposes in the future.

III. LEGAL PROBLEMS ASSOCIATED WITH THE ESTABLISHMENT OF STATE SANCTUARIES

A. Conflicts with International Law

There is a problem of the mixture of jurisdictions to be confronted in establishing any sanctuary. From the international standpoint, a marine sanctuary may present several problems with respect to international rights such as passage of ships through coastal waters, fishing rights and immigration laws.

The Submerged Lands Act of 1953 granted to coastal states "title to and ownership of the lands beneath navigable waters within the boundaries of the respective states."¹⁰⁰ These boundaries were confirmed as a line three geographical miles distant from the respective states' coastlines. Texas and Florida [Gulf Coast] subsequently received grants of nine miles under judicial interpretation of historic data as provided in the Act.¹⁰¹

Under principles of international law, three geographic miles is the presently recognized width of the United States territorial sea.

The territory subject to the jurisdiction of the United States includes all land areas under its dominion and control, the ports, harbors,

bays and other enclosed arms of the sea along
the coast and a marginal belt of the sea
extending from the coastline outward a marine
league, or three geographical miles.¹⁰²

Ocean areas seaward of the three mile limit are high seas and are considered to be the common property of all nations. It is possible that in the future the United States will adopt a twelve mile territorial sea width.¹⁰³

Within this three mile wide territorial sea, United States authority is very broad and is similar to the authority exercised in inland waters. The most obvious right enjoyed by foreign flag vessels is the right of innocent passage, codified in 1958 under the Convention on the Territorial Sea and the Contiguous Zone.¹⁰⁴ It is a distinct possibility that conflicts pertaining to navigation rights may arise within this three mile joint Federal-State jurisdiction with the establishment of marine sanctuaries.

International fishing rights may also be affected by the establishment of marine sanctuaries. In 1945, President Truman issued a presidential proclamation declaring that the United States deemed it proper to establish conservation zones in areas of the high seas contiguous to the nation's coast where fishing activities have been or in the future may be developed and maintained on a substantial scale.¹⁰⁵ This was done to provide for the protection and perpetuation of fisheries resources contiguous to the nation's coast. The

proclamation cited no specific boundary line. In addition, the United States conceded that all states had the right to establish these conservation zones off their shores provided only that these states recognized the right of the United States to do so also.¹⁰⁶

In 1964, Congress enacted legislation prohibiting all fishing activities by foreign states within United States territorial water without specific authority from appropriate United States government agencies.¹⁰⁷ Two years later Congress established an explicitly defined fishery zone contiguous to the territorial sea of the United States.¹⁰⁸ Within this zone the United States exercises the same rights with respect to fisheries as it has exercised in the territorial sea. The United States does however, recognize rights of traditional fishing activities of foreign ships. The inner boundary of the contiguous zone is the outer limit of the territorial sea and its outer limit is defined as a line drawn so that every point of it is nine nautical miles from the nearest point on the inner boundary.¹⁰⁹

Under the Convention on the Territorial Sea and the Contiguous Zone, signatories are authorized to exercise the control necessary to prevent infringement of customs, fiscal, immigration or sanitary regulations. They may also punish infringement of the regulations committed within its territorial sea.¹¹⁰

At the present time, rights exercised by foreign flag vessels in the United States Territorial Sea and Contiguous Zone under treaty conditions are many and varied. The United States has at least 38 fishing treaties with 58 different nations.¹¹¹ If marine sanctuaries are established within the areas protected by fishing treaties as, for example, habitat or species preserves, there will be serious conflicts in the field of international law.

Under the Convention on the Continental Shelf,¹¹² the United States exercises sovereign rights over its shelf for the purposes of exploration for and exploitation of its natural resources. Natural resources for purposes of the Convention are mineral, non-living resources of the seabed and subsoil and sedentary species of living organisms. Sedentary species are those organisms which, at the harvestable stage are either immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or subsoil.¹¹³

The other principle document governing United States policy on its Continental Shelf is the Outer Continental Shelf Lands Act.¹¹⁴ Under this Act, the United States has extended its laws, jurisdiction, and authority to all seabed and subsoil regions on and under the shelf. The Act is aimed at setting up an administrative process through the Secretary

of the Interior whereby mineral extraction may be regulated in such a manner that rights of fishing and navigation are unaffected.

For purposes of the Convention, it will be assumed that establishment of a Marine Sanctuary beyond the three mile limit and on the continental shelf is tantamount to "exploitation of natural resources." The conflict arises because Article 5, § 1 of the Convention expressly prohibits "any unjustifiable interference with navigation, fishing, conservation of living resources or fundamental oceanographic research."

As far as Scientific Research is concerned, the Convention expressly states that consent is necessary but the littoral state shall not normally withhold consent if the request is submitted by a qualified institution for purely scientific research. The coastal state has a right to be represented or participate in such research.¹¹⁵

Although Texas and Florida's rights in submerged land extend three marine leagues or nine nautical miles, it could be argued that their rights are limited beyond the three geographical mile limit by the United States international obligation under the Convention. This would rule out any establishment of a marine sanctuary in the seaward six miles of the states' three marine league grant. However, clear legal authority might be developed for the concept that

subordinate jurisdictions of the United States have the right, in spite of national obligations under the Convention on the Continental Shelf to exercise broad regulatory powers in an area beyond the territorial sea of the United States.

Under the convention, the possibility exists that the establishment of a marine sanctuary would probably interfere with navigation, fishing or oceanographic research. One solution to this problem would be to have consultations with foreign governments prior to the establishment of a sanctuary.

B. State and Federal Conflicts

Another jurisdictional problem arises where there are contiguous Federal and State Sanctuaries at the three mile limit, where state jurisdiction ends and federal jurisdiction begins. If a unique commodity such as sponge or coral is under both federal and state protection, a situation may arise whereby state enforcement officials find themselves in federal waters. In such a case, if the offender is apprehended, the state has jurisdiction over the proceedings for its citizens.

in Skiriotes v. Florida,¹¹⁶ a 1940 United States Supreme Court case, the defendant was convicted in the Florida courts of using diving equipment in the taking of sponges from the Gulf of Mexico in violation of a state statute which forbid the use of diving suits or helmets when taking sponges from the Gulf of Mexico or other waters within the territorial

limits of the state. The defendant contended that Florida had no criminal jurisdiction over him because he was outside the territorial waters of the state. The Court held that: "A state has power to govern the conduct of its citizens upon the high seas with respect to matters in which the state has a legitimate interest and where there is no conflict with acts of Congress."

By analogy then, a state can enforce its laws outside the three mile limit but within the twelve mile limit. The requirements therefore are a legitimate state interest plus the absence of conflict with acts of Congress. The primary question is the legitimacy of the interest of the state. If both the state and the federal government have established that protection of the unique commodity is recognized public policy, then to effectively carry out state policy, the state should not be restricted to enforcement within the three mile limit.

When its action does not conflict with federal legislation, the sovereign authority of the state over the conduct of its citizens upon the high seas is analogous to the sovereign authority of the United States over its citizens in like circumstances.¹¹⁷

The second question is whether there are conflicting federal laws. State police power may be exercised within the federal jurisdiction so long as such enforcement is not destructive of the declared policy of the federal government.

In a situation such as Skירותes v. Florida presents, state enforcement should be encouraged. Where state and federal policy coincide, no argument for restriction of the state's power should prevail. An argument for restriction should prevail only where state policy conflicts with federal policy.

Where state policy supports and compliments federal policy, prosecutions brought in state courts for offenses committed outside the three mile limit should never be dismissed for jurisdictional technicalities. Such would be destructive of the declared policy of both the United States and the state. Until Congress specifically excludes state enforcement from federal waters under these circumstances, state enforcement must be allowed for the protection of the

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resource.

Natural resources do not adhere to jurisdictional boundary lines. To protect a resource effectively both within and outside the three mile limit there must be prompt prosecution and conviction of offenders. The state should be permitted to apprehend offenders whether the offense is within or without the three mile limit so long as the policies of the state and the United States with respect to protection of the commodity coincide. If the state is denied the ability to effectively enforce outside the three mile limit, it will ultimately defeat the state's efforts within the limit.

As a result, abuse of natural resources would thereby be encouraged by jurisdictional technicalities and the ultimate loser will be the people of the United States.¹¹⁹

C. Conflicts with Federal Programs and Laws

The establishment of Estuarine and Marine Sanctuaries in coastal zone areas may present a fertile ground for potential conflicts with already existing federal regulatory programs. One example is the Corps of Engineer's permit program for navigable waters. Under this program, the Corps of Engineers has the responsibility of evaluating permit applications for the construction of dams and dikes across waterways; the building of piers and dredging in waterways; the building of structures on the outer continental shelf and improvements in navigable rivers.¹²⁰

The Environmental protection agency's general laws regarding environmental protection is another source for potential conflicts. Still others are the Coast Guard's regulations over shipping; the federal power commission, which is responsible for licensing non-federal hydro-electric projects and for issuing certificates for the construction and operation of natural gas pipeline facilities and the federal Water Pollution Control Act.

The Coast Guard regulations, E.P.A.'s general laws and the Corps of Engineers permit programs would have a direct

impact on Marine Sanctuaries and would have to be an integral part of whatever is set up. Under the Coastal Zone Management Act, the onus appears to be on the coastal states to resolve estuarine sanctuary establishment conflicts with appropriate federal agencies.¹²¹

D. Conflicts with Private Interests

If private ownership occurs within an area designated for a sanctuary and the private owner is deprived of the use of his land, he may have a potential lawsuit for damages based upon the condemnation of his land by the state.

Massachusetts has enacted authority to acquire lands by condemnation if a "taking" is found by the court which reviews proposed wetland regulations.¹²² Connecticut, New York and North Carolina also have legislative authority for condemnation of estuarine lands. Most of the state programs, however, must rely on voluntary acquisition.¹²³

In Florida, if private property falls within a preserve area, the Trustees have authority to exchange lands.¹²⁴ Florida's state wide system of aquatic preserves includes a plan for acquisitions. Cabinet Resolution 69-11 provides that an aquatic preserve shall include

. . . such private lands or water bottoms as may be specifically authorized for inclusion by appropriate instrument by the owner. Any

included land or water bottoms to which a private ownership claim might subsequently be proved shall upon adjudication of private ownership be automatically excluded from the preserve, although such exclusion shall not preclude the state from attempting to negotiate

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an arrangement with the owner by which the land or water bottoms might be again included within the preserve.

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This process of regulation can be construed as a form of

condemnation.¹²⁵

IV. RECOMMENDATIONS FOR MEETING THE NEED FOR MARINE AND ESTUARINE PRESERVES

A. Legal Recommendations for the Establishment of Preserves

1. Estuarine Sanctuaries:

The Coastal Zone Management Act of 1972¹²⁶ provides incentive to the states to enact legislation for coastal zone management and establishes guidelines for the kind of state programs which will qualify for federal assistance. Section 1461 provides for the creation of estuarine sanctuaries.

Estuarine sanctuaries should be tied very closely with the rest of the Coastal Zone Management Act. They should be viewed as one part of coastal zone management and the guidelines for both should be integrated. There should be a clear indication that the planning for coastal management is under way prior to receiving money for the sanctuary under the federal program.

The type of research should be bona fide and relate to the rest of the coastal zone management program in a direct fashion, but it need not be defined specifically. The size of the sanctuary should be the amount needed for the type of research contemplated. The research should be the type that requires the particular acquisition mode contemplated. In other words, if a research area is planned for the purpose of polluting it or destroying it, then it would have to be

purchased. However, if you want a particular sanctuary for the purpose of observation or taking samples, then a lease may be sufficient or an agreement with the owner, or the purchase of a less-than-fee simple interest in the property. Certainly, the boundaries of the sanctuary should be defined.¹²⁸

The procedures for terminating a sanctuary should be specified. There is always a possibility that research priorities will change and the area in which you do the research may need to be different, thus one zone may be abandoned for another. Provisions for changes in the future should always be included.¹²⁹

Finally, there should be close consideration of the use of marine sanctuaries and estuarine sanctuaries together in a related fashion so that they complement one another, rather than going separate ways on two programs.¹³⁰

2. Marine Sanctuaries

Marine sanctuaries may be modeled after the National Parks Service and the National Landmarks program. It is important that marine sanctuary implementation procedures be integrated with state coastal zone management programs and other federal programs. Federal permit programs or a state management program should be used to protect the upland areas adjacent to marine sanctuaries. Otherwise the use of the shore adjacent to a marine sanctuary may result in the

deterioration of it and undermine its purpose. For example, the Corps of Engineers could regulate the use of the shore adjacent to the marine sanctuary by agreement. Guidelines for marine sanctuary implementation should clearly allow anyone in the private or public sector, or federal agencies to come forth with a proposal for a marine sanctuary.¹³¹

B. Management of Preserves

If the research within an estuarine sanctuary is manipulative, there should be a buffer zone surrounding the research area to protect the sanctuary itself and the area outside of it. The types of manipulation that might occur are: diking it off and varying water flows; digging it up in a certain way or polluting the area by dumping oil for the purpose of a controlled study. The buffer zone could be established using the Coastal Zone Management Program.¹³²

The negative effects outside the area would have to be analyzed and permits would be needed if the pollution would affect the environment surrounding the sanctuary area.

If damage occurs following the research, there should be some procedure for settlement of claims.

In order to effectively manage a sanctuary, there must be close integration with other state and federal programs. Since sanctuaries and coastal zone management should not be separated, then sanctuary provisions should be administered

through the Coastal Zone Management Program.

Enforcement of the sanctuary area to ensure that controls are met is a crucial point. Management can accomplish this through educational programs and through public relations programs.¹³³

C. Conclusion

Each sanctuary should have a stated management program which would be consistent with both the goals of the particular sanctuary and with federal procedures. The program should clearly specify the controlling functions of the sanctuary, the means of accomplishing the stated purposes and the mechanisms for managing the sanctuary. Provisions should be made for approval of projects and programs as well as for termination of them and for resolution of conflicts and for modifications of the uses of the sanctuary.

Any proposed environmental modification in the vicinity of the sanctuary should be critically reviewed by responsible local, state and federal agencies and should be prohibited if ~~it has an adverse effect on the sanctuaries.~~

The boundaries of each sanctuary should be clearly marked and the region should be properly policed to insure that the guidelines governing sanctuary operations are not violated.

FOOTNOTES

1. S. Rep. No. 753, 92d Cong. 2nd Sess. 2 [1972].
2. Note, Saving the Seashore; Management Planning for Coastal Zone, 25 HAST. L.J. 191 [1973].
3. M. Lynch, MARINE AND ESTUARINE SANCTUARIES, [Special Scientific Report No. 70, Va. Institute of Marine Science 1974].
4. P.L. 92-583; 16 U.S.C. § 1453(e) (Supp. 1973).
5. P.L. 92-532; 16 U.S.C. § 1431 (Supp. 1973).
6. 15 U.S.T. 74; T.I.A.S. 5578 (1958).
7. LYNCH, supra, note 3 at 170.
8. Id. at 171.
9. Id.
10. Note, Saving the Land-Water Edge from Recreation for Recreation, 14 ARIZ. L. REV. 39 [1972].
11. LYNCH, supra, note 3 at 43.
12. Id. at 28.
13. Id. at 92.
14. Id.
15. Id. at 36.
16. Id. at 92.
17. Id.
18. Id. at 93.
19. P.L. 92-532; 16 U.S.C. § 1431 (Supp. 1973).
20. LYNCH, supra, note 3 at 93.
21. Note, Estuarine Conservation Legislation in the States, 5 LAND AND WATER L. REV. 351 [1970].

22. Id. at 366.
23. FLORIDA INTER-AGENCY ADVISORY COMM. ON SUBMERGED LAND MANAGEMENT, A PROPOSED SYSTEM OF AQUATIC PRESERVES [Rep. No. 2 to Trustees of the Internatl Improvement Fund, 1968].
24. LYNCH, supra, note 3 at 36.
25. Cabinet Resolution No. 69-11, State of Fla. 3 [1969].
26. LYNCH, supra, note 3 at 93.
27. FLA. LAWS 933, Ch. 72-663 § 1 [1972].
28. FLA. LAWS 364, Ch. 74-171 § 1 [1974].
29. Id.
30. MASS. GEN. LAWS ch. 132A § 13 [1970].
31. Id. at 214.
32. Id.
33. Id.
34. MASS. GEN. LAWS ch. 132A § 14 (1971) as amended [Supp. 1974].
35. Id. at 215.
36. Id.
37. MASS. GEN. LAWS ch. 132A § 15 (1971) as amended [Supp. 1974].
38. Id. at 216.
39. MASS. GEN. LAWS ch. 132A § 16 (1972).
40. LYNCH, supra, note 3 at 79.
41. MASS. GEN. LAWS, ch. 132A §§ 13-16.
42. LYNCH, supra, note 3 at 79.

43. Id. at 80.
44. HAWAII REV. LAWS § 190-1 (1955) as amended [19610.
45. HAWAII REV. LAWS § 195-1 (1970).

46. LYNCH, supra, note 3 at 36.
47. HAWAII REV. LAWS, supra, note 44 §-2 at 308.
48. Id. §-4 at 308.
49. Id. §-5 at 309.
50. HAWAII REV. LAWS, supra, note 45, §-1 at 136.
51. Id. §-2 at 137.
52. Id.
53. Id., §-5 at 137.
54. CAL. PUB. RES. CODE § 5001.5 [West 1971].
55. CAL. PUB. RES. CODE § 10500 [West 1957].
56. LYNCH, supra, note 3 at 35.
57. Id.
58. Id.
59. Id. at 87.
60. CAL. PUB. RES. CODE, supra, note 54 at 596.
61. LYNCH, supra note 3 at 88, 89.
62. CAL. PUB. RES. CODE §§ 27000-650 [West Supp. 1973].
63. Saving the Seashore, supra, note 2 at 193.
64. CAL. PUB. RES. CODE, supra, note 62 § 27001.
65. Id. § 27302.
66. Id. § 27304.

67. Estuarine Conservation, supra, note 21 at 351.
68. Id. at 352.
69. Id.
70. LYNCH, supra note 3 at 28.
71. ME. REV. STAT. ANN. §§ 12-4701 to -4702 [1964] as amended (Supp. 1974).
72. Estuarine Conservation, supra, note 21 at 358.
73. ME. REV. STAT., supra, note 71 at 578.
74. Id. § 4702 at 580.
75. ME. REV. STAT. §§ 38-541 to -557, 38-481 to -488 [1970].
76. ILL. REV. STAT. ch. 105 § 465 (1965).
77. Id. § 465(a) at 99.
78. Id. § 466 at 99.
79. Dept. of Public Works v. Lanter, 413 Ill. 581, 110 N.E.2d 179.
80. ILL. REV. STAT., supra, note 76 § 466(a) at 99.
81. Id.
82. LYNCH, supra, note 3 at 37.
83. WIS. STAT. ANN. § 23.27 [1969].
84. IND. STAT. ANN. ch. 5 § 14-4-5 (1967).
85. Id. at 434, 435.
86. Id. at 436.
87. OHIO REV. CODE ANN. ch. 1517.01-.09 [page supp. 1970].
88. Comment, Ohio's Park System: An Appraisal, 32 Ohio State L.J. 825 (1971).
89. Id.

90. OHIO REV. CODE ANN. supra, note 87 § 1517.05.
91. Id. § 1517.08.
92. Ohio's Park System, supra, note 88 at 829.
93. Id. at 830.
94. MINN. STAT. ANN. § 84.033 (1967).
95. Id.
96. FLA. INTER-AGENCY, supra, note 23.
97. Estuarine Conservation Legislation, supra, note 21 at 366.
98. LYNCH, supra, note 6 at 38.
99. 67 STAT. 29; 43 U.S.C. §§ 1301-1315 (1953).
100. Id. § 1311(a).
101. U.S. v. Florida, 363 U.S. 121 (1960).
102. LYNCH, supra, note 3 at 44.
103. Note, Proposed Systems of Coastal Zone Management; An Interim Analysis, 3 Nat'l Res. L. 599 (1970).
104. 15 U.S.T. 1606 (1958).
105. 10 F.R. 12304 (1945).
106. LYNCH, supra, note 3 at 45.
107. P.L. 88-300; 78 STAT. 194 (1964).
108. P.L. 89-658; 80 STAT. 908 (1966).
109. LYNCH, supra, note 3 at 45.
110. Id.
111. Id.
112. U.N. Doc. A/Conf. 13/L.88 (1958).
113. Id.

114. O.C.S.L.A., P.L. 83-212; 67 STAT. 462 (1958).
115. U.N. Doc., supra, note 112.
116. 313 U.S. 69, 61 S. Ct. 1093 (1940).
117. Id. at 78-79.
118. LYNCH, supra, note 3 at 56.
119. Id.
120. 33 U.S.C. § 401, 403, 407, 565; 43 U.S.C. § 1333(f).
121. LYNCH, supra, note 3 at 51.
122. MASS. GEN. LAWS ch. 130 § 105 (1932).
123. Estuarine Conservation Legislation, supra, note 21 at 357.
124. Fla. Stat. § 253.42.
125. MASS. GEN. LAWS ch. 130 § 105 (1932).
126. 16 U.S.C. §§ 1451-64 (Supp. 1973).
127. LYNCH, supra, note 3 at 155.
128. Id.
129. Id. at 156.
130. Id.
131. Id.
132. 16 U.S.C., supra, note 126.
133. LYNCH, supra, note 3 at 157.