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AREAS OF PARTICULAR CONCERN AND PRIORITY OF USES

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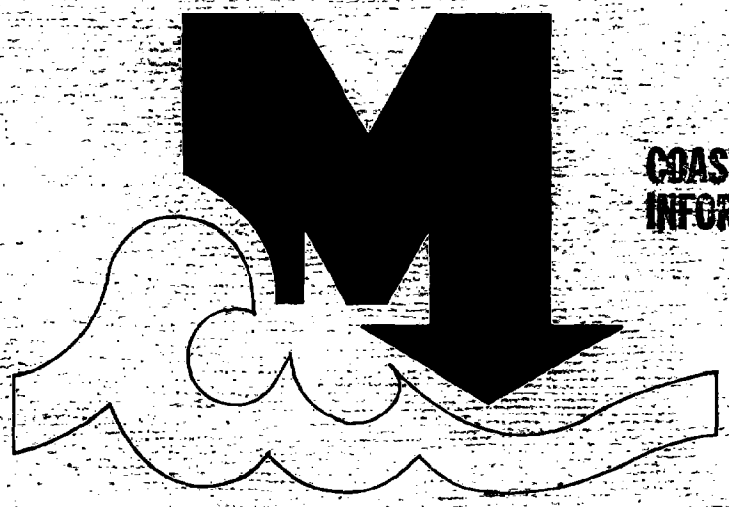

COASTAL ZONE
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MISSISSIPPI MARINE RESOURCES COUNCIL

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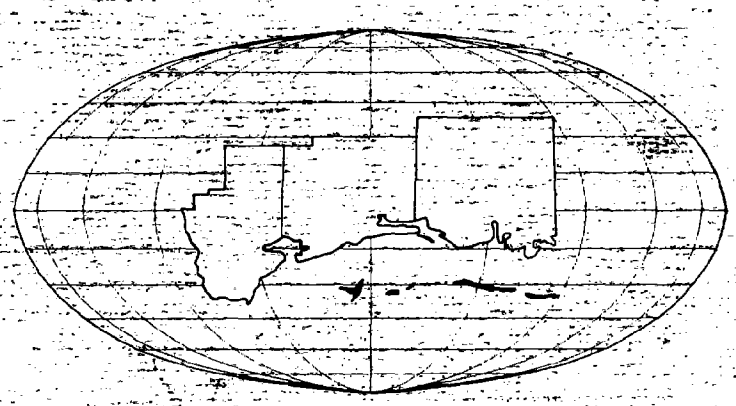

GULF REGIONAL PLANNING COMMISSION

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1976

AREAS OF PARTICULAR CONCERN
&
PRIORITY OF USES

For Mississippi Coastal Zone Management Program

U.S. DEPARTMENT OF COMMERCE NOAA
COASTAL SERVICES CENTER
2234 SOUTH HOBSON AVENUE
CHARLESTON, SC 29405-2413

by

GULF REGIONAL PLANNING COMMISSION

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Gulfport, Mississippi

1976

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Prepared for
MISSISSIPPI MARINE RESOURCES COUNCIL
Long Beach, Mississippi

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INTRODUCTION

". . . . . nor shall private property be taken for public use without just compensation." These twelve words, introduced by our founding fathers in the U. S. Constitution (Amendment V), have historically been the source of much litigation. Land use regulations applied to a wide spectrum of varying objectives, have been employed by numerous forms of government. Throughout the years, land use regulations that have been politically feasible and economically sound have been upheld by the courts but the "taking issue" continues to generate much controversy. As summarized in The Taking Issue: An Analysis of the Constitutional Limits of Land Use Control, prepared for the Council on Environmental Quality,"it is an American fable or myth that a man can use his land any way he pleases regardless of his neighbors. The myth survives, indeed thrives, even though unsupported by the pattern of court decisions" (Bosselman et al, 1973:318).

In The Quiet Revolution in Land Use Control, again for the Council on Environmental Quality, Bosselman and Callies indicated that "conservationists describe the changing attitude toward land by saying that land should be considered as a resource rather than a commodity. But while this correctly indicates the direction of the change, it ignores the crucial importance of our constitutional right to own land and to buy and sell it freely. It is essential that land be treated as both a resource and a commodity" (1971:315). It appears that the intent of Congress, in part, through enactment of the Coastal Zone Management Act of 1972, directly addresses this issue ". . . to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations".

Since the judicial process is clearly established to prevent the taking of private property for public use without just compensation, the concern being expressed today on

Coastal Zone Management (often with the idea that CZM means zoning and/or taking ones property) could very well be founded on emotional issues. Before such a program is turned down as unacceptable, the merits of such a program should be seriously considered. Areas of particular concern specify certain resources, in existence along the Coast of Mississippi, that should be identified and if need be, either "preserved, protected, developed, or restored". When these resources are regarded in this manner, then, and only then, can management and the type of management be considered.

The first part of this report addresses potential and recommended types of areas of particular concern (APC) while the second part is concerned with the priority of uses within the APCs. The work was conducted under Contract No. 76-29E between the Mississippi Research and Development Center and the Gulf Regional Planning Commission for the Mississippi Marine Resources Council.

PART I

AREAS OF PARTICULAR CONCERN

Section 305(b)(3) of the Coastal Zone Management Act of 1972 requires that a state's management program include "an inventory and designation of areas of particular concern within the coastal zone". The purpose of Part I is to aid Mississippi Marine Resources Council in determining "geographic areas of particular concern" by providing information which can assist in the delineation of APCs. The purpose is fulfilled by compiling a comprehensive list of APCs,by specifying criteria for their designation and delineation, and by citing those areas presently receiving special attention by either federal, state, or local regulatory agencies.

The scope of the work involved the compilation and analysis of the following information: Existing and proposed state laws, existing federal laws, data generated by other states developing similar Coastal Zone Management plans, other pertinent literature, and information obtained from interviews with local/state agency officials.

METHODOLOGY

Guidelines provided by the National Oceanic and Atmospheric Administration clearly indicate that different states will undoubtedly vary in their perceptions of areas of particular concern. For instance, crags in northern California or high altitude recreation areas in New Hampshire are of no concern in Mississippi's Coastal Zone due to their absence. On the other hand, unique areas in Mississippi such as oyster reefs and live oaks should be considered as possible areas of particular concern. But as general guidelines, those offered by NOAA were given strong consideration. They were:

1. Areas of unique, scarce, fragile, or vulnerable natural habitat, physical feature, historical significance, cultural value, and scenic importance;

2. Areas of high natural productivity or essential habitat for living resources, including fish, wildlife, and the various trophic levels in the food web critical to their well-being;

3. Areas of substantial recreational value and/or opportunity;

4. Areas where developments and facilities are dependent upon the utilization of or access to, coastal waters;

5. Areas of unique geologic or topographic significance to industrial or commercial development;

6. Areas of urban concentration where shoreline utilization and water uses are highly competitive;

7. Areas of significant hazard if developed, due to storms,slides, floods, erosion, settlement, etc.; and

8. Areas needed to protect, maintain or replenish coastal lands or resources, such areas including coastal flood plains, aquifer recharge areas, sand dunes, coral and other reefs, beaches, offshore sand deposits, and mangrove stands.

Requests for information were made to 28 states concerning their procedures in developing Coastal Zone Management plans. Upon review of data received from 23 states, a general listing of 87 potential areas of particular concern was developed. These elements were further grouped into three specific major categories: physiographic, biologic, and socio-economic areas of particular concern.

As specific definitions and criteria were compiled for the 87 initial elements, it became obvious that certain elements were either repetitious or that they were not actually applicable to Mississippi. The results are depicted in Tables 1, 2, and 3 addressing Physiographic, Biologic, and Socio-Economic Areas of Particular Concern, respectively.

The three tables are similar in that they each contain the same headings. Initial attention was focused on applicable state and/or federal laws addressing the specific APC under discussion. Titles and dates of enactment are included to assist the interested reader in further research efforts. As indicated in the three tables, 18 of 31 APCs presented have already been addressed by specific laws. The remaining APCs are included in the hope that each will receive consideration for inclusion and adoption in the Coastal Zone Management Plan.

TABLE I
PHYSIOGRAPHIC AREAS OF PARTICULAR CONCERN

MAJOR ELEMENT	SUB-ELEMENT	APPLICABLE REGULATION	PURPOSE	DEFINITION	CRITERIA
HYDROLOGY	Coastal Wetlands	Mississippi Code of 1972, Title 49, Chapter 27, Coastal Wetlands Protection Law	It is declared that coastal wetlands within the State of Mississippi have been lost or despoiled by unregulated dredging, dumping, filling & like activities & that the remaining wetlands of this state are in jeopardy of being lost or despoiled by these activities, that such loss or despoilation will adversely affect, if not entirely eliminate the value of such wetlands as sources of nutrients to finfish, crustaceous & shell fish of significant economic value & that such loss or despoilation will destroy such wetlands as habitats for plants & animals or significant economic value & will substantially reduce marine commerce, recreation & aesthetic enjoyments & that such loss or despoilation will in most cases, disturb the natural ability of tidal wetlands to reduce flood damage & adversely affect the public health & welfare, that such loss or despoilation will substantially reduce the capacity of such wetlands to absorb silt & certain types of pollution & will thus result in the increased silting & pollution of channels & harbor areas to the detriment of free navigation & public health.[1]	"Coastal wetlands" means all publicly owned lands subject to the ebb & flow of the tide & which are below the watermark of ordinary high tide & all publicly owned accretions above the watermark of ordinary high tide.[2] "Coastal wetlands" shall be interpreted to include all water bottoms from the watermark of ordinary high tide & extending to the seaward boundary of the State of Mississippi.[3] The term "coastal wetlands" shall be interpreted to include the flora & fauna on the wetlands and in the wetlands.[4]	Coastal wetlands in Mississippi have been delineated by the Mississippi Marine Resources Council.
	Estuary	Coastal Zone Management Act of 1972, U. S.	Demands upon water resources of the Gulf Coast are rapidly producing damaging alterations in estuarine areas. Increased need for fresh water, much of it for human consumption, is hastening construction of dams and diversions and results in reduced flows to Gulf estuaries. Exploitation of mineral resources, provisions for water-borne commerce, and recreational facilities are altering circulation and interchange patterns in the estuaries by channel construction and spoil placement. Flood control and hurricane protection structures modify existing conditions. The effects of these modifications upon the estuarine biota are noticeable.[5]	"Estuary" means that part of a river or stream or other body of water having unimpaired connection with the open sea, where the sea water is measurably diluted with fresh water derived from land drainage.[6]	
	Estuarine Sanctuary	Coastal Zone Management Act of 1972, U. S.	To provide scientists and students the opportunity to examine over a period of time the ecological relationship within the area.[7]	"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.[8]	
	Flood Hazard Area	National Flood Insurance Act of 1968, U. S.	Was enacted as a means of making flood insurance, which was previously unavailable from the private insurance industry, available at reasonable rates through a joint Government-industry program, within communities that meet eligibility requirements by adopting certain flood plain management regulations, consistent with Federal criteria, to reduce or avoid flooding in connection with future construction in their flood plains.[9]	Land within a community in the flood plain, which is subject to a one percent chance of flooding annually.[10]	Flood hazard areas have been delineated by the Federal Insurance Administration.
	Flood Plains	National Flood Insurance Act of 1968, U. S.	(Same as above.)	"Flood plain" or "flood-prone area" means any normally dry land area that is susceptible to being inundated by water from any source.[11] "Flood plain area having special flood hazards" means that maximum area of the flood plain that, on the average, is likely to be flooded once every 100 years (i.e., that has a 1-percent chance of flood occurrence in any given year).[12]	
	Floodways	National Flood Insurance Act of 1968, U. S.	Floodways serve as the main channel for the passage of flood waters. Development within the floodway may increase the potential of flood damage & unreasonably endanger life & property.[13]	"Floodway" means the channel of a river or other watercourse & the adjacent land areas that must be reserved in order to discharge the 100 year flood without cumulatively increasing the water surface elevation more than one foot at any point.[14]	
	Selected Freshwater Swamps & Marshes		Because of the ecological significance of these areas, their value for hydrologic purposes & their intrinsic unsuitability for intensive development, they should be preserved in essentially their natural state. The state & federal governments presently have only limited authority to ensure this, except in wildlife refuges, state & national parks, state wilderness areas, areas subject to flowage easements, or other areas in public ownership. The majority of fresh water swamps & marshes in the coastal zone are in private ownership with very few effective controls on their use. Development in swamp & marsh areas has a high initial cost & a high continuing cost that is often borne by government. Such problems as periodic flooding, poor stability of roads & streets, creation of health hazards, & subsequent expenditures of tax money for corrective measures are often encountered in such areas. Development in fresh water swamps & marshes, therefore, is likely to become an unnecessary tax burden.[15]	These are areas having a high water table, predominantly internal drainage, & supporting extensive stands of water-tolerant vegetation. Such areas are unsuitable for intensive land uses without major alteration. They are usually of substantial ecological importance & serve as natural retaining mechanisms for surface water storage. Some swamps & marshes may also function as aquifer recharge areas.[16]	

TABLE I
PHYSIOGRAPHIC AREAS OF PARTICULAR CONCERN
(cont'd.)

MAJOR ELEMENT	SUB-ELEMENT	APPLICABLE REGULATION	PURPOSE	DEFINITION	CRITERIA
	Aquifer	Safe Drinking Water Act of 1974, U. S.	Because of these three major functions - as a reservoir, as a filter, & as part of the hydrologic cycle-aquifers are important public resources. (1) Aquifers are natural reservoirs for groundwater used for drinking and irrigation. (2) Aquifers are natural filters for groundwater used for drinking and related purposes. (3) Aquifers are interconnected with surface water systems in lakes, streams, and wetlands. Some aquifers depend for part or all of their recharge upon seepage from lakes & streams. Likewise, some streams and ponds, & many wetlands, depend upon flow from aquifer-fed springs or seeps for supplementary water during dry periods. [17]	A body of rock or soil that contains sufficient saturated permeable material to conduct groundwater & to yield economically significant quantities of groundwater to wells and springs. [18]	It is necessary to know the type of aquifer & the particular hazards to it, the boundaries of the primary recharge area, and the amount and rate of infiltration necessary to maintain its water yield. Much of the technical information may already be available through the work of the Soil Conservation Service or the U. S. Geological Survey. [19]
		Groundwater Act of 1975, Miss., Proposed at Regular Session 1975.	The general welfare & public interest of the State require that the water resources of the State be put to beneficial use to the fullest extent to which they are capable, subject to reasonable regulation in order to conserve these resources & to provide & maintain conditions which are conducive to the development & use of water resources. [20]	A geologic formation, group of formations, or part of such a formation that is water bearing. [21]	As delineated by appropriate State-Federal agencies.
	Surface Waters	Mississippi Code of 1972, Title 51, Chapter 3, Surface Waters-Regulation and Control	The general welfare of the people of the State of Mississippi requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable, that the waste or unreasonable use, or unreasonable method of use, of water be prevented, that the conservation of such water be exercised with the view to the reasonable & beneficial use thereof in the interest of the people, and that the public & private funds for the promotion & expansion of the beneficial use of water resources shall be invested to the end that the best interests and welfare of the people are served. [22]	Water occurring in any watercourse, lake, or other natural water body of the state is hereby declared to be among the basic resources of this state and subject to appropriation in accordance with the provisions of this chapter; & the control & development & use of water for all beneficial purposes shall be in the state, which, in the exercise of its police powers, shall take such measures as shall effectuate full utilization & protection of the water resources of Mississippi. [23]	As delineated by the Board of Water Commissioners.
	Watersheds of Municipal Water Supplies		The quality of water which is used for human consumption is a major concern to towns everywhere. Improper siting of facilities & activities in the watershed areas of town or city supply ponds or rivers can contaminate water systems & threaten the health of hundreds of people. For this reason the watershed area of each water supply source should be outlined. [24]		Water supply sources & locations of intakes can possibly be obtained from town officials. Watershed boundaries may then be determined by following drainage patterns & ridgelines on U.S. Geological Survey 7.5 & 15 minute topographic maps. The watershed boundary therefore generally encloses all land which drains into water supplies. [25]

MAJOR ELEMENT	SUB-ELEMENT	APPLICABLE REGULATION	PURPOSE	DEFINITION	CRITERIA
	Water Quality Classifications	State of Miss. Water Quality Criteria for Intrastate, Interstate & Coastal Waters (Adopted Nov. 12, 1974).	To protect existing water quality or to upgrade or enhance water quality within the State of Mississippi. [26]	Public Water Supply: Water in this classification is for use as a source of raw water supply for drinking & food processing purposes. The water treatment process shall be approved by the Mississippi State Board of Health. The raw water supply will be such that after approved treatment process it will meet the Public Health Service Drinking Water Standards (latest edition). Shellfish Harvesting Areas: Water classified for this use are for propogation & harvesting shellfish for sale or use as a food product. These waters will meet the requirements set forth in the latest edition of the National Shellfish Sanitation Program, Manual of Operations, Part I, Sanitation of Shellfish Growing Areas, as published by the U. S. Public Health Service. Recreation: Waters in this classification are to be used for recreational purposes, including such water contact activities as swimming & water skiing. The waters shall also be suitable for use for which waters of lower quality will be satisfactory. Fish & Wildlife: Waters in this classification are intended for fishing & for propogation of fish, aquatic life, & wildlife. [27]	Standards are established by the Mississippi Air and Water Pollution Control Commission.
	Natural Rivers: Wild	Wild & Scenic Rivers Act of 1968, U. S. (Mississippi Natural Streams Act, Proposed at Regular Session 1976)	That certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, & that they & their immediate environments shall be protected for the benefit & enjoyment of present & future generations. [28]	Those rivers or sections of rivers that are free of impoundments & generally inaccessible except by trail, with watersheds or shorelines essentially primitive & waters unpolluted. These represent vestiges of primitive America. [29]	A wild, scenic or recreational river area eligible to be included in the system is a free-flowing stream & the related adjacent land area. Every wild, scenic or recreational river in its free-flowing condition, or upon restoration to this condition, shall be considered eligible for inclusion in the national wild & scenic rivers system &, if included, shall be classified, designated & administered as either wild, scenic, or recreational. [30]
	Natural Rivers: Scenic	(Same as above.)	(Same as above.)	Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive & shorelines largely undeveloped, but accessible in places by roads. [31]	(Same as above.)
	Natural Rivers: Recreational	(Same as above.)	(Same as above.)	Those rivers of sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, & that may have undergone some impoundment or diversion in the past. [32]	(Same as above.)
PEDOLOGY	Excessive Erosion Areas		The principle of soil loss prediction gives the conservationist and landowner or operator a means for precisely evaluating the effectiveness of conservation treatments on the land. [33]	Areas where geologic & soil conditions are such that there is substantial possibility of excessive erosion or seismic activity, as identified by the State Geologist & Soil Conservation Service. [34]	It is possible to make reasonable estimates of erosion losses under many conditions. The Soil Loss Prediction for Mississippi manual presents principles of soil loss prediction & contains information to be used.
	a.) Coastal Inlet Lands		The particular location of the inlet channel is a temporary one, as such channels are subject to extensive migration. Coastal inlet lands are extremely dynamic land areas that are highly susceptible to becoming completely displaced by water. [35]	Defined as the natural zone of migration of coastal inlets. Such a zone covers all areas that are expected to be eroded by future inlets & inlet migration. [36]	As identified by the State Geologist based on scientific determinations using the best available studies, including relevant historical photography & survey maps. [37]

TABLE I
PHYSIOGRAPHIC AREAS OF PARTICULAR CONCERN
(cont'd.)

MAJOR ELEMENT	SUB-ELEMENT	APPLICABLE REGULATION	PURPOSE	DEFINITION	CRITERIA
	b.) Ocean Erodible Areas		Ocean erodible areas are extremely dynamic lands highly susceptible to becoming completely displaced by water.[38]	Defined as the area bounded by mean high water & a recession line within which area excessive erosion has a high probability of occurring.[39]	Such a recession line shall be located by the State Geologist in incremental steps of 25, 50 and 100 years.[40]
	c.) Estuarine & Sound & River Erodible Areas		The estuarine & sound & river erodible areas are natural hazard areas especially vulnerable to erosion. Development within this type area of environmental concern is subjected to the damaging process of erosion unless special development standards and preventive measures are employed.[41]	Defined as the land area extending from the mainland-water interface landward to a prediction line indicating the probable shoreline location 100 years hence.[42]	As identified by the State Geologist.
GEOLOGY	Unique Geological Formations		Unique geological areas provide surface or near surface exposures of unique geologic formations or processes of the coastal area. They are important educational, scientific, or scenic resources that would be jeopardized by uncontrolled or incompatible development.[43]	These places contain surface or near surface formations that are either themselves unique or are especially unusual or notable examples of geologic formations or processes in the coastal area.[44]	Areas containing unique geological formations will be identified by the State Geologist.[45]
	Significant Beaches		Sand deposits of ocean beaches & shorelines represent a dynamic zone which does not afford long term protection for development. The nature of tidal action & the force of storms is such that they cause the beach areas to constantly shift. Littoral drift is a natural phenomenon whereby sand is removed from beaches by wave action & littoral currents & is deposited upon a different stretch of the beach. The action also shifts the line of high tide & low tide. Ocean beaches & shorelines are valuable for public & private recreation & are located within a natural hazard area. Development within this dynamic zone may result in loss of property & possible loss of life.[46]	These are defined as land areas without vegetation covering, consisting of unconsolidated soil material that extends landward from the mean low tide to a point where any one or combination of the following occur: (1) vegetation or (2) a distinct change in predominant soil particle size or (3) a change in slope or elevation which alters the physiographic land form, & this constitutes the transition into dunes or wetlands.[47]	In addition to being extremely vulnerable to physical changes, beaches offer obvious attractions for recreation. All sand beach areas do not offer similar values for recreation. The size of a given beach, quality of scenery viewed from the beach, ownership & accessibility all affect its direct value as a recreation resource.[48]
	Spoil Islands		Such areas often become covered with mangroves & other salt-tolerant vegetation & serve as bird resting & feeding areas. They may also serve as water-oriented recreation areas.[49]	These are artificial islands created with material dredged from state-owned lands to create or deepen channels.[50]	Being developed under the Corps of Engineers' Dredged Material Research Program.
MINEROLOGY	Minerals		In considering the value of minerals it should be borne in mind that the value of certain minerals can change very drastically & very suddenly. New technology can create a tremendous market for materials which were otherwise worthless. Technological advances can also increase the efficiency of extracting low grade ores in cases where mining would not otherwise be economically feasible. Therefore, the pattern of areas which offer valuable minerals can change quickly as market conditions & technology change.[51]	Mineral resources are considered to be areas where the deposit is of sufficient size or significance to be of more than just local importance, where the mineral is apt to be exploited in the near future and where mining or excavation operations would cause disruption of land use of activities at the site.[52]	Based on market value and demand.

TABLE II
BIOLOGIC AREAS OF PARTICULAR CONCERN

MAJOR ELEMENT	SUB-ELEMENT	APPLICABLE REGULATION	PURPOSE	DEFINITION	CRITERIA
HABITATS OF MAJOR FISHERIES	Shellfish	Mississippi Code of 1972, Title 49, Chapter 15, Seafood	The public policy of this state shall be to recognize the need for a concerted effort to work toward the protection, propagation and conservation of its seafood and aquatic life in connection with the revitalization of the seafood industry of the State of Mississippi.[53]	1. "Natural reefs" shall be defined as any bottom of one or more acres on which oysters grow naturally, or have grown naturally, in a quantity sufficient to warrant commercial fishing. 2. "Tonging reefs" are defined as any bottom of one or more acres on which oysters grow naturally, and where they have been taken by the use of hand tongs in commercial quantities for a period of ten years next preceding the time at which such bottoms may come up for determination by the Mississippi Marine Conservation Commission.[54]	As designated by the Mississippi Marine Conservation Commission.
	Saltwater Fish	Mississippi Code of 1972, Title 49, Chapter 15, Seafood	(Same as above.)	All seafoods existing or living in waters within the territorial jurisdiction of the State of Mississippi not held in private ownership legally acquired, and all beds & bottoms of rivers, streams, bayous, lagoons, lakes, bays, sounds & inlets bordering on or connecting with the Gulf of Mexico or Mississippi Sound within such territorial jurisdiction, including all oysters & other shell fish & parts thereof grown thereon, either naturally or cultivated shall be, continue, and remain the property of the State of Mississippi.[55]	As designated by the Mississippi Marine Conservation Commission.
	Freshwater Fish	Mississippi Code of 1972, Title 49, Chapter 3, Fisheries and Wildlife Research	The legislature hereby finds & declares: The fish indigenous to the state constitutes a vital segment of the natural resources available in Mississippi, & that the economic progress of Mississippi depends in large measure upon the development and use of the natural resources of the state.[56]	Freshwater Fish are those regulated by the Mississippi State Game & Fish Commission. (Not those regulated by Mississippi Marine Conservation Commission or the Gulf Coast Research Laboratory.)	As designated by the Mississippi State Game and Fish Commission.
WILDLIFE HABITATS	Game & Fish Management Areas	Mississippi Code of 1972, Title 49, Chapter 3, Fisheries and Wildlife Research	It has been and continues to be the public policy of this state to preserve and insure for all times adequate habitats for wildlife. Such lands are of value to the citizens of the state as sources of recreation & solitude, as reminders of our natural & cultural heritage, as sources of beauty & aesthetic pleasure & as locations where natural processes of production may be maintained.[57]	"Game & Fish Management Areas" are those lands purchased or leased by the Mississippi Game & Fish Commission for the purpose of game & fish management projects or game & fish hunting & fishing refuges.[58]	As designated by the Mississippi State Game and Fish Commission.
	Wildlife Refuges	(Same as above.)	(Same as above.)	"Wildlife Refuges" are those lands purchased or leased by the Mississippi Game & Fish Commission for the purpose of game and fish management projects, wherein no hunting is allowed.[59]	As designated by the Mississippi State Game and Fish Commission.
	Areas that Sustain Remnant Species	Mississippi Code of 1972, Title 49, Chapter 5, Fish, Game & Bird Protection Refuges	It is the policy of the state to manage certain nongame wildlife for human enjoyment, for scientific purposes, & to insure their perpetuation as members of ecosystems.[60] The continued survival of certain animals in the coastal area that are now rare or endangered cannot be assured under the relatively few areas providing necessary habitat conditions are protected from development or land uses that might alter these conditions.[61]	These are areas where species or subspecies of wildlife indigenous to this state which may be found to be endangered within the state should be accorded protection in order to maintain and to the extent possible enhance their numbers.[62]	As designated by the State Game & Fish Commission.
SIGNIFICANT FLORA	Champion Big Trees	"Champion Big Tree Listing" of the Mississippi Forestry Commission	The purpose of the BIG TREE Program is to encourage the protection of the largest trees of various species now growing in Mississippi against unnecessary destruction or damage by the owners or the general public.[63]	CHAMPION BIG TREES are trees that have the largest combined total points on the basis of girth, height, and crown spread by species.[64]	CHAMPION BIG TREES are determined on the basis of points awarded in the following manner: a. One (1) point for each inch in circumference at a point 4½ feet above the ground. b. One (1) point for each foot in height (measured to the nearest foot. c. One-fourth (¼) point for each foot in average crown spread. Mississippi CHAMPION BIG TREES which score total points in excess of those currently listed in the American Forestry Association's REGISTRY OF BIG TREES IN THE UNITED STATES are forwarded to the AFA for consideration by the Mississippi Forestry Commission.[65]
	Other Trees	Society of Trees, Ocean Springs, Mississippi	(1) To preserve trees of all species which possess a living association with historic events of the area; (2) To conserve & protect trees & groups of trees which by their existence enhance the aesthetic & environmental values of the area; (3) To promote the culture, distribution & appreciation of trees; (4) To promote interest in the conservation & preservation of trees.[66]	These are trees contained in official and permanent registry of the SOCIETY OF TREES maintained in the archives of the Garden Club of Ocean Springs, Mississippi.[67]	As delineated by the Society of Trees. Establishing agency of the Society is the Ocean Springs Garden Club, Ocean Springs, Mississippi.[68]
		Live Oak Society, New Orleans, Louisiana	To promote the culture, distribution, and appreciation of the Live Oak.[69]	Live Oaks (Quercus virginiana).	Live Oak (Quercus virginiana) one hundred years old or older.[70]
	Unique Flora		Unique flora provides a valuable natural, educational, and scientific resource. However, its' existance cannot be assured unless the relatively few areas in existence are protected from destruction by development or non-conforming land uses.[71]	These are areas that support native plants and provide habitat conditions conducive to the survival of existing populations of unique, rare, and endangered species within the coastal zone.[72]	Areas primarily determined by natural landmark studies either conducted by universities or state and federal service personnel.

SOCIO-ECONOMIC AREAS OF PARTICULAR CONCERN

MAJOR ELEMENT	SUB-ELEMENT	APPLICABLE REGULATION	PURPOSE	DEFINITION	CRITERIA
HISTORIC PRESERVATION	Historical & Archaeological Sites	Mississippi Code of 1972, Title 39, Chapter 7, Antiquities	It is hereby declared to be the public policy & in the public interest of the State of Mississippi to locate, protect & preserve all sites, objects, buildings, shipwrecks, & locations of historical, archeological, educational or of scientific interest.[73]	Includes, but not limited to, prehistoric & historical American Indian or aboriginal campsites, dwellings, and habitation sites, archeological sites of every character, treasure imbedded in the earth, sunken or abandoned ships & wrecks of the sea.[74]	As designated by the State Department of Archives & History.
RECREATIONAL AREAS	State Parks	Mississippi Code of 1972, Title 55, Chapter 3, State Parks & Forests	State Parks are operated for the purpose of providing outdoor recreational activities & enjoyment for the citizens of the State of Mississippi & for the purpose of attracting visitors to the state.[75]	These are areas devoted to outdoor recreational activities of various types to enhance the recreation & conservation interests of the state.[76]	Existing sites that have been dedicated or projected for use as state parks by the Mississippi Park Commission and other special recreation districts.
	Local Public Parks	City/County Ordinances	To provide outdoor recreational activities and enjoyment primarily for the citizens of the community.	These are areas devoted to outdoor recreational activities of various types to enhance the recreation & conservation interests of the community.	Existing sites that have been dedicated for use as community parks & maintained by cities or counties.
GROWTH AREAS	Demographic		To assist in the identification of areas of urban development where potential conflict might occur with physiographic or biologic areas of particular concern.	Low Population Density: Areas containing 0-500 persons per square mile. Medium-Low Population Density: Areas containing 500-1000 persons per square mile. Moderate Population Density: Areas containing 1000-2500 persons per square mile. Medium-High Population Density: Areas containing 2500-5000 persons per square mile. High Population Density: Areas containing over 5000 persons per square mile.	Existing 1975 and projected year 2000 population densities provided by Mississippi Marine Resources Council.
	Water Related Activities		To assist in the identification of areas of commercial & industrial development with access to & the need of access to coastal waters where potential conflict might occur with physiographic or biologic areas of particular concern.	Commercial Development: Those uses which are involved in wholesale or retail trade, services or other business activities. Such activities are generally intensive use of space & usually require extensive service facilities such as parking to accommodate customers.[77] Industrial Development: Those uses which are involved in the manufacturing, processing, or assembling of any agricultural or manufactured products and any storing or warehousing of products derived from agriculture, mining, and manufacturing sources.[78]	Commercial & industrial activities can be identified by using the Standard Land Use Coding Manual issued by the U. S. Department of Transportation.
SCENIC AREAS	Significant Scenic Vistas and Areas		The intangible & sometimes values to be realized from preserving the character of these areas is becoming increasingly evident, especially in areas undergoing rapid urbanization. Unfortunately, as urbanization occurs, the long-term intangible values of scenic vistas and areas generally are sacrificed for immediate economic interests unless these areas are in public ownership or are subject to scenic easements.[79]	These are peripheral parcels of land and/or water having exceptional scenic or aesthetic values. Such areas may include bluffs, hills or other vantage points that offer a unique scenic perspective.[80]	Areas of scenic significance, either in their natural state or man-made, can include the following: coastal wetlands, estuaries, freshwater swamps and marshes, natural rivers, unique geological formations, significant beaches, islands, wildlife habitats, significant flora, historical and archaeological sites, recreational areas, scenic roads and unique structures.

PART II

PRIORITY OF USES

Section 305(b)(5) of the Coastal Zone Management Act of 1972 requires that the state's management program include broad guidelines on priority of uses in particular areas, including specifically those uses of lowest priority. This requirement is closely associated to the requirements in Sec. 305 (b)(2) (permissible land and water uses which have a direct and significant impact on coastal waters) and Sec. 305(b)(3) (geographic areas of particular concern). The purpose of Part II is to assist the Mississippi Marine Resources Council in determining priority of uses within the areas of particular concern as specified in Part I. The purpose is fulfilled, in part, through the compilation of a two dimensional matrix depicting functional uses and areas of particular concern.

The scope of the work involved the determination of a comprehensive listing of functional uses, derived from the literature search. Since the matrix reflects the viewpoint of a single agency, a second chart is provided for the interested reader to compile a different set of values for consideration within the framework of the Coastal Zone Management Plan. Such input should be submitted to the Mississippi Marine Resources Council, P. O. Drawer 959, Long Beach, Mississippi 39560.

METHODOLOGY

The stated purpose for each Area of Particular Concern (as illustrated in Tables I, II, and III) was used as a foundation to determine priority of uses and the following general guidelines obtained.

Coastal Wetlands & Estuaries

Mississippi now requires that uses within the Coastal Wetlands favor the preservation of the natural state of the coastal wetlands and estuaries and their ecosystems and to prevent the despoilation and destruction of them, except where a specific alteration of specific coastal wetlands would serve a higher public interest in compliance with the public purposes of the public trust in which coastal wetlands are held.

Estuarine Sanctuary

Uses within this area should be for research purposes to provide scientists and students the opportunity to examine over a period of time the ecological relationships within the area.

Freshwater Swamps & Marshes

These areas are usually of substantial ecological importance and serve as natural retaining mechanisms for surface water storage. Some swamps and marshes may also function as aquifer recharge areas. Therefore, uses should protect and conserve these areas in essentially their natural state.

Flood Prone Areas

Uses within these areas are controlled by communities that have adopted flood plain management regulations, consistent with the Federal Insurance Administration, to reduce or avoid flooding in connection with future construction in their flood plains. Development within the floodway may increase the potential of flood damage and unreasonably endanger life and property.

Aquifer

To insure its availability, groundwater should be treated as a sensitive renewable resource. The pollution or depletion of available and used groundwater can make a community instantly aware of the importance of this resource. Therefore, land uses should not impair the continued sustenance of water quality and quantity for present and future water demands.

Watersheds of Municipal Water Supplies and Surface Waters

Land uses within this area must not contaminate the quality of ground or surface waters used for domestic and industrial uses. Improper siting of facilities and activities in the watershed areas can contaminate these waters and threaten public health and local economies.

Water Quality Classifications

One purpose of the Mississippi Air and Water Pollution Control Commission is to protect water quality and to upgrade or enhance the quality of water within the state. In this endeavor, all waters have been classified and their primary uses are for either public water supply, shellfish harvesting, recreation, or fish and wildlife uses. Activities and/or developments along the watercourses of the state should not impair the established water quality standards.

Natural Rivers

Uses should protect these area's immediate environments for the benefit and enjoyment of present and future generations. These environments possess remarkable scenic, recreational, geologic, fish and wildlife, historic, and cultural values.

Excessive Erosion Areas

Erodible areas are natural hazard areas especially vulnerable to erosion. Development uses within this type area of environmental concern is subjected to the damaging process of erosion and/or becoming completely displaced by water unless special de-

velopment standards and preventive measures are employed. Water quality and navigation are often impaired due to sedimentation.

Unique Geological Formations

These areas provide surface or near surface exposures of unique geologic formations or processes of the coastal area. They have important educational, scientific, or scenic resource uses that would be jeopardized by uncontrolled or incompatible development.

Significant Beaches

Beaches are valuable for public and private recreation, and they are located within a natural hazard area extremely vulnerable to physical changes. Certain development within this dynamic zone may result in loss of property and life.

Spoil Islands

These areas become stabilized when covered with salt tolerant vegetation and serve as fish and wildlife resting and feeding areas. They may also be used as water-oriented recreational areas. Other uses would appear to be unsuitable due to the areas extremely limited physical features. Spoil islands are within MMRC's jurisdiction.

Mineral Resource Areas

All permissible uses would be permitted as prescribed by applicable laws.

Shellfish and Saltwater Fish

Uses within shellfish and saltwater fish habitats are controlled by Mississippi Marine Conservation Commission, Mississippi Marine Resources Council, and Mississippi Air and Water Pollution Control Commission. It has been public policy of the state to recognize the need for a concerted effort to work toward the protection, propagation and conservation of seafood and aquatic life in connection with the revitalization of the seafood industry of the State of Mississippi. Therefore, all uses within this area must be directed toward the achievement of the public policy.

Freshwater Fish

The legislature has declared the fish indigenous to the state constitutes a vital segment of the natural resources available in Mississippi, and that the economic progress of Mississippi depends in large measure upon the natural resources of the state.

The freshwater fish habitats are managed by the Mississippi Game and Fish Commission. However, all uses within this area are not managed. Uses permitted must protect and enhance the freshwater fish habitats for the preservation of the state's natural resources.

Game and Fish Management Areas

These are areas managed by the Mississippi Game and Fish Commission for the purposes of game and fish management projects, game and fish hunting, or fishing refuges. Uses are controlled.

Wildlife Refuges

Wildlife refuges are used for game and fish management projects by the Mississippi Game and Fish Commission, wherein no hunting is allowed. Uses are controlled.

Areas that Sustain Remnant Species

It is the policy of the state to manage certain nongame wildlife for human enjoyment, for scientific purposes, and to insure their perpetuation as members of ecosystems. Uses should be in accordance with this policy.

Unique Flora

Because of the scarcity and importance of the areas in existence, uses must conserve the natural, educational, and scientific values associated with unique flora areas.

Historical and Archeological Sites

Priority should be given only to those uses that will protect and preserve the sites, objects, building, and shipwrecks of historical, archeological, educational or scientific interest.

Recreational Areas

These areas are devoted to outdoor recreational activities of various types. Uses permitted must therefore be compatible with the recreational interest of the area.

Growth Areas

Development is not occurring homogeneously throughout the coast region. In some areas, residential growth is pronounced while in other areas it is insignificant. The identification of growth areas, for either residential, commercial, industrial, or agricultural uses, can assist in the determination of potential conflicting uses within areas of particular concern.

Significant Scenic Vistas & Areas

Unfortunately, as urbanization occurs, the long-term intangible values of scenic vistas and areas are generally sacrificed for immediate economic interests. Uses in these areas should serve to preserve the intangible values associated with the character of the areas.

PRIORITY OF USES EVALUATION MATRIX

Six major categories of land uses have been identified for the purposes of this study. They are domestic, food and fiber production, mining and energy, manufacturing, transportation, and recreation uses. Within each major category, subcategories have been established to further refine the levels of detail. All such uses then become functional uses that may or may not impact the area or region upon which applied.

In order to evaluate the degree of significance between varied functional uses and specific areas of particular concern, a specified numeric grading system was used. Although other types of grading systems are available (i.e. alpha, symbolic) with varying class ranges, a numeric system was considered more applicable. The one employed uses three specific classes as follows:

CLASS	PRIORITY OF USE
1	Permissible
2	Undesirable
3	Insignificant

Permissible use is defined as a generally acceptable land use activity within a designated area of particular concern but subject to any and all regulatory measures in force. Permissible uses <u>are not</u> expected to adversely impact such designated areas.

Undesirable use is defined as a generally prohibited land use activity within a designated area of particular concern. Undesirable uses <u>are</u> expected to adversely impact such designated areas.

Insignificant use is defined as a land use activity which, by its very nature, usually cannot be conducted within a designated area of particular concern.

The two dimensional matrix as illustrated in Table IV contains 1,540 combinations (28 APC entries by 55 functional uses). Since some degree of bias is introduced by any individual completing such a matrix, a blank matrix is included in this document (Table V) for the reader to fill out and submit to the Mississippi Marine Resources Council for consideration.

TABLE IV
PRIORITY OF USES EVALUATION MATRIX

AREAS OF PARTICULAR CONCERN	Residential	Water	Non-Water	Sewage	Solid Waste	Other	Forestry	Crop Farming	Ranching & Dairying	Agricultural Waste Disposal	Finfishing	Shrimping	Shellfishing	Other
PHYSIOGRAPHIC ELEMENTS														
Coastal Wetlands & Estuary	2	1	2	1	2		1	3	3	1	1	1	1	
Estuarine Sanctuary	2	2	2	2	2		3	3	3	2	2	2	2	
Freshwater Swamps & Marshes	2	1	2	2	2		1	1	1	2	1	3	3	
Flood Prone Areas	1	1	1	2	2		1	1	1	2	3	3	3	
Aquifer	1	1	3	2	2		1	1	1	2	3	3	3	
Watersheds of Municipal Water Supplies	1	1	1	2	2		1	1	1	2	3	3	3	
Surface Waters	3	3	3	1	2		3	3	3	1	1	1	1	
Water Quality Classifications														
1. Public Water Supply	1	1	3	2	2		1	1	1	2	3	3	3	
2. Shellfish Harvesting	3	3	3	2	2		3	3	3	2	1	1	1	
3. Recreation	1	1	3	2	2		3	3	3	2	1	1	1	
4. Fish & Wildlife	1	1	3	1	2		3	3	3	1	1	1	1	
Natural Rivers	2	2	2	2	2		1	2	2	2	2	2	2	
Excessive Erosion Areas	1	1	1	2	2		1	1	1	2	3	3	3	
Unique Geologic Formations	2	2	2	2	2		1	2	2	2	3	3	3	
Significant Beaches	2	1	2	2	2		3	3	3	2	3	3	3	
Spoil Islands	2	1	2	2	2		3	3	3	2	3	3	3	
Mineral Resource Areas	1	1	1	1	1		1	1	1	1	1	1	1	
BIOLOGIC ELEMENTS														
Habitats of Major Fisheries														
1. Shellfish	2	1	2	2	2		3	3	3	2	1	1	1	
2. Saltwater Fish	2	1	2	2	1		3	3	3	2	1	1	1	
3. Freshwater Fish	2	1	2	2	1		3	3	3	1	1	1	1	
Wildlife Habitats														
1. Game & Fish Management Areas	2	2	2	2	2		1	1	1	2	1	3	3	
2. Wildlife Refuges	2	2	2	2	2		1	1	1	2	3	3	3	
3. Areas that Sustain Remnant Species	2	2	2	2	2		1	1	1	2	3	3	3	
Significant Flora	2	2	2	2	2		2	2	2	2	2	2	2	
SOCIO-ECONOMIC ELEMENTS														
Historic Preservation	2	2	2	2	2		2	2	2	2	3	3	3	
Recreation Areas	2	2	2	2	2		1	1	1	2	3	3	3	
Growth Areas	1	1	1	1	2		1	1	1	1	1	1	1	
Significant Scenic Vistas & Areas	1	1	1	2	2		1	1	1	2	3	3	3	

AREAS OF PARTICULAR CONCERN	Oil & Gas Wells	Sand, Gravel & Shell Mining	Sea Chemical Extraction	Other Mineral Extraction	Power Plants	Other	Water	Non-Water	Petroleum Refining	Chemicals & Allied Products	Metals & Related Fabrication	Paper & Allied Products	Timber & Tree Product Production	Food & Kindered Products	Major (State)	Minor (Other)	Industrial Disposal	Other
PHYSIOGRAPHIC ELEMENTS																		
Coastal Wetlands & Estuary	1	1	1	1	1		1	2	1	1	2	1	2	2	1	1	1	
Estuarine Sanctuary	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	
Freshwater Swamps & Marshes	1	2	3	1	2		2	2	2	2	2	2	2	2	2	2	2	
Flood Prone Areas	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	2	
Aquifer	3	3	3	2	3		1	1	1	1	1	1	1	1	3	3	2	
Watersheds of Municipal Water Supplies	1	1	3	1	1		1	1	1	1	1	1	1	1	1	1	2	
Surface Waters	1	1	1	1	1		1	3	1	1	1	1	1	1	1	1	1	
Water Quality Classifications																		
1. Public Water Supply	1	2	3	2	1		1	3	1	1	1	1	1	1	1	1	2	
2. Shellfish Harvesting	1	2	2	1	3		1	3	3	3	3	3	3	3	1	1	2	
3. Recreation	1	1	1	1	3		1	3	1	1	1	1	1	1	1	1	2	
4. Fish & Wildlife	1	1	1	1	1		1	3	1	1	1	1	1	1	1	1	1	
Natural Rivers	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	
Excessive Erosion Areas	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	2	
Unique Geologic Formations	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	
Significant Beaches	2	2	2	2	2		2	2	2	2	2	2	2	2	1	1	2	
Spoil Islands	1	2	3	3	1		2	2	2	2	2	2	2	2	2	2	2	
Mineral Resource Areas	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	
BIOLOGIC ELEMENTS																		
Habitats of Major Fisheries																		
1. Shellfish	1	1	2	2	3		2	2	3	3	3	3	3	3	1	1	2	
2. Saltwater Fish	1	1	1	1	3		1	2	1	1	1	1	1	1	1	1	2	
3. Freshwater Fish	1	1	3	1	1		1	1	1	1	1	1	1	1	1	1	1	
Wildlife Habitats																		
1. Game & Fish Management Areas	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	
2. Wildlife Refuges	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	
3. Areas that Sustain Remnant Species	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	
Significant Flora	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	
SOCIO-ECONOMIC ELEMENTS																		
Historic Preservation	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	
Recreation Areas	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	
Growth Areas	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	
Significant Scenic Vistas & Areas	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	

AREAS OF PARTICULAR CONCERN	Inland Navigation	Coastal Navigation	+ 35,000 ADT *	- 35,000 ADT	Main Connector	Spur	Military	Public	Private	Other
PHYSIOGRAPHIC ELEMENTS										
Coastal Wetlands & Estuary	1	1	1	1	1	1	2	2	2	
Estuarine Sanctuary	2	2	2	2	2	2	2	2	2	
Freshwater Swamps & Marshes	2	3	1	2	1	2	2	2	2	
Flood Prone Areas	3	3	1	1	1	1	2	2	2	
Aquifer	3	3	3	3	3	3	1	1	1	
Watersheds of Municipal Water Supplies	1	3	1	1	1	1	1	1	1	
Surface Waters	1	1	1	1	1	1	2	2	2	
Water Quality Classifications										
1. Public Water Supply	2	3	1	1	1	1	3	3	3	
2. Shellfish Harvesting	3	1	1	2	1	2	3	3	3	
3. Recreation	1	1	1	1	1	1	3	3	3	
4. Fish & Wildlife	1	1	1	1	1	1	3	3	3	
Natural Rivers	2	2	2	2	2	2	2	2	2	
Excessive Erosion Areas	3	3	1	1	1	1	1	1	1	
Unique Geologic Formations	3	3	2	2	2	2	2	2	2	
Significant Beaches	1	1	2	2	2	2	2	2	2	
Spoil Islands	3	3	3	3	3	3	3	3	3	
Mineral Resource Areas	1	1	1	1	1	1	1	1	1	
BIOLOGIC ELEMENTS										
Habitats of Major Fisheries										
1. Shellfish	1	1	1	1	1	1	2	2	2	
2. Saltwater Fish	1	1	1	1	1	1	2	2	2	
3. Freshwater Fish	1	3	1	1	1	1	2	2	2	
Wildlife Habitats										
1. Game & Fish Management Areas	1	3	1	1	1	1	1	2	1	
2. Wildlife Refuges	1	3	1	2	1	2	2	2	2	
3. Areas that Sustain Remnant Species	2	2	1	2	1	2	2	2	2	
Significant Flora	3	3	1	1	1	1	2	2	2	
SOCIO-ECONOMIC ELEMENTS										
Historic Preservation	2	2	1	1	2	2	2	2	2	
Recreation Areas	1	1	1	1	2	2	2	2	2	
Growth Areas	1	1	1	1	1	1	1	1	1	
Significant Scenic Vistas & Areas	1	1	1	1	1	1	2	2	2	

AREAS OF PARTICULAR CONCERN	Motor Boating	Water Skiing	Sailing	Canoeing	Boat	Pier	Wading	Big & Small Game	Water Fowl	Boat (Based)	Trailer	Tent	Swimming & Other Water Contact Activities	Horseback Riding	Organized Sports	Automotive	Motorcycles	Passive Recreational Activities	Other
PHYSIOGRAPHIC ELEMENTS																			
Coastal Wetlands & Estuary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Estuarine Sanctuary	2	2	1	1	1	1	1	3	2	2	3	3	1	3	2	3	3	1	
Freshwater Swamps & Marshes	1	2	3	1	1	1	1	1	1	1	1	1	1	3	3	2	2	1	
Flood Prone Areas	3	3	3	3	3	3	3	1	1	3	1	1	3	1	1	1	1	1	
Aquifer	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Watersheds of Municipal Water Supplies	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Surface Waters	1	1	1	1	1	1	1	3	1	1	3	3	1	3	1	3	3	1	
Water Quality Classifications																			
1. Public Water Supply	1	1	1	1	1	1	1	1	1	1	3	3	1	3	1	3	3	1	
2. Shellfish Harvesting	1	1	1	1	1	1	1	3	1	1	3	3	1	3	1	3	3	1	
3. Recreation	1	1	1	1	1	1	1	3	1	1	3	3	1	3	1	3	3	1	
4. Fish & Wildlife	1	1	1	1	1	1	1	1	1	1	3	3	1	3	1	3	3	1	
Natural Rivers	1	1	1	1	1	2	1	3	1	1	3	1	1	1	1	2	2	1	
Excessive Erosion Areas	3	3	3	3	3	1	3	3	3	3	1	1	3	1	1	2	2	1	
Unique Geologic Formations	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Significant Beaches	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2	1	
Spoil Islands	1	1	1	1	1	1	1	3	1	1	1	1	1	2	1	2	2	1	
Mineral Resource Areas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
BIOLOGIC ELEMENTS																			
Habitats of Major Fisheries																			
1. Shellfish	1	1	1	1	1	1	1	3	1	1	3	3	1	3	3	3	3	1	
2. Saltwater Fish	1	1	1	1	1	1	1	3	1	1	3	3	1	3	1	3	3	1	
3. Freshwater Fish	1	1	1	1	1	1	1	3	1	1	3	3	1	3	1	3	3	1	
Wildlife Habitats																			
1. Game & Fish Management Areas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2. Wildlife Refuges	1	1	1	1	3	3	3	2	2	2	1	1	1	1	1	1	1	1	
3. Areas that Sustain Remnant Species	2	2	2	1	1	1	1	2	2	2	1	1	1	1	2	2	2	1	
Significant Flora	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
SOCIO-ECONOMIC ELEMENTS																			
Historic Preservation	3	3	3	3	3	3	3	3	3	3	1	1	3	3	3	1	1	1	
Recreation Areas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Growth Areas	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	
Significant Scenic Vistas & Areas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

* ADT - Average Daily Traffic

TABLE V
PRIORITY OF USES EVALUATION MATRIX

AREAS OF PARTICULAR CONCERN / FUNCTIONAL USES

DOMESTIC USES
- Residential
- Commercial: Water; Non-Water
- Domestic Disposal: Sewage; Solid Waste; Other

FOOD & FIBER PRODUCTION USES
- Forestry
- Crop Farming
- Ranching & Dairying
- Agricultural Waste Disposal
- Commercial Fishing: Finfishing; Shrimping; Shellfishing; Other

MINING & ENERGY PRODUCTION USES
- Oil & Gas Wells
- Sand, Gravel & Shell Mining
- Sea Chemical Extraction
- Other Mineral Extraction
- Power Plants
- Other

MANUFACTURING USES
- Industrial: Water; Non-Water
- Petroleum Refining
- Chemicals & Allied Products
- Metals & Related Fabrication
- Paper & Related Products
- Timber & Allied Products
- Food & Tree Product Production
- Food & Kindered Products
- Ports: Major (State); Minor (Other)
- Industrial Disposal
- Other

TRANSPORTATION USES
- Marine: Inland Navigation; Coastal Navigation
- Highway: + 35,000 ADT *; - 35,000 ADT; Main Connector; Spur
- Rail
- Air: Military; Public; Private; Other

RECREATION USES
- Boating: Motor Boating; Water Skiing; Sailing; Canoeing
- Fishing: Boat; Pier; Wading
- Hunting: Big & Small Game; Water Fowl
- Camping: Boat (Based); Trailer; Tent
- Swimming & Other Water Contact Activities
- Horseback Riding
- Organized Sports
- Driving: Automotive; Motorcycles; Off-Road Vehicles
- Passive Recreational Activities
- Other

PHYSIOGRAPHIC ELEMENTS
- Coastal Wetlands & Estuary
- Estuarine Sanctuary
- Freshwater Swamps & Marshes
- Flood Prone Areas
- Aquifer
- Watersheds of Municipal Water Supplies
- Surface Waters
- Water Quality Classifications
  1. Public Water Supply
  2. Shellfish Harvesting
  3. Recreation
  4. Fish & Wildlife
- Natural Rivers
- Excessive Erosion Areas
- Unique Geologic Formations
- Significant Beaches
- Spoil Islands
- Mineral Resource Areas

BIOLOGIC ELEMENTS
- Habitats of Major Fisheries
  1. Shellfish
  2. Saltwater Fish
  3. Freshwater Fish
- Wildlife Habitats
  1. Game & Fish Management Areas
  2. Wildlife Refuges
  3. Areas that Sustain Remnant Species
- Significant Flora

SOCIO-ECONOMIC ELEMENTS
- Historic Preservation
- Recreation Areas
- Growth Areas
- Significant Scenic Vistas & Areas

* ADT - Average Daily Traffic

FOOTNOTES

1. Coastal Wetlands Protection Law, Mississippi, Chapter 385, (1973).

2. Ibid.

3. Ibid.

4. Ibid.

5. Gulf Coast Research Laboratory, Cooperative Gulf of Mexico Estuarine Inventory and Study, Mississippi, (Ocean Springs: Gulf Coast Research Laboratory, 1973), p. 6.

6. Coastal Zone Management Act of 1972, U. S. Title III, Sec. 304(d)(1972).

7. Ibid. (e)(1972).

8. Ibid.

9. Federal Insurance Administration, "National Flood Insurance Program, Proposed Criteria", Federal Register; March 26, 1975, p. 13420.

10. Ibid. p. 13424

11. Ibid.

12. Ibid.

13. Coastal Resources Commission, State Guidelines for Local Planning in the Coastal Area, (Morehead City, North Carolina, 1975), p. 66.

14. op. cit., Federal Insurance Administration, p. 13425.

15. Coastal Coordinating Council, Recommendations for Development Activities in Florida's Coastal Zone, (Florida, Department of Natural Resources, 1973), p. 4.

16. Ibid.

17. U. S. Environmental Protection Agency, Performance Controls for Sensitive Lands: A Practical Guide for Local Administrators, (Washington, D. C., U. S. Environmental Protection Agency, 1975) EPA #60015-75-005, pp.110-113.

18. Ibid. p. 432.

19. Ibid. p. 147.

20. Groundwater Act, Mississippi, Section 2(a)(1975), (Proposed).

FOOTNOTES continued

21. Ibid. Section 3(6).

22. "Surface Waters - Regulation and Control", Miss. Code, Title 51, Chapter 3, Sec. 1 (1972).

23. Ibid.

24. State Planning Office, "Specific Criteria and Data Sources used in Production of Areas of Particular Concern Maps",(Augusta, Maine, 1975), p. 17 (Draft).

25. Ibid.

26. Mississippi Air and Water Pollution Control Commission, Water Quality Criteria for Intrastate, Interstate and Coastal Waters, (Jackson: Mississippi Air and Water Pollution Control Commission, 1974), p. 1.

27. Ibid. pp.3-9.

28. Wild and Scenic Rivers Act, U. S., Sec. 1271 (1968).

29. Ibid., Sec. 1273.

30. Ibid.

31. Ibid.

32. Ibid.

33. Soil Conservation Service, Soil Loss Prediction for Mississippi, (Jackson, U. S. Department of Agriculture, 1973), p. i.

34. op. cit., Coastal Resources Commission, p. 69.

35. Ibid.

36. Ibid.

37. Ibid.

38. Ibid. p. 70.

39. Ibid.

40. Ibid.

FOOTNOTES continued

41. Ibid. p. 72.

42. Ibid. pp. 71-72.

43. Ibid. p. 61.

44. Ibid.

45. Ibid.

46. Ibid. pp. 65-66.

47. Ibid. p. 65.

48. op. cit., State Planning Office, p. 12.

49. op. cit., Coastal Coordinating Council, p. 5.

50. Ibid.

51. op. cit., State Planning Office, p.6.

52. Ibid. p. 5.

53. "Seafood", Miss. Code, Title 49, Chapter 15, Sec. 1 (1972).

54. Ibid. Sec. 3.

55. Ibid. Sec. 5.

56. "Fisheries and Wildlife Research", Miss. Code, Title 49, Chapter 3, Sec. 3 (1972).

57. "Fish, Game and Bird Protection and Refuges", Miss Code, Title 49, Chapter, 5, Sec. 61 (Editor' Note) (1972).

58. Ibid. Sec. 13.

59. Ibid. Sec. 7.

60. Ibid. Sec. 103.

61. Coastal Resources Commission, State Guidelines for Local Planning in the Coastal Area,(Morehead City, North Carolina, 1975), p. 60.

62. op. cit., "Fish, Game and Bird Protection and Refuges", Sec. 103.

63. Mississippi Forestry Commission, "Big Trees of Mississippi", MFC Publication #35, 1975.

FOOTNOTES continued

64. Ibid.

65. Ibid.

66. "Societe des Arbres", Ocean Springs, Mississippi, 1972.

67. Ibid.

68. Ibid.

69. Archives of the Louisiana Garden Club Federation, "The Live Oak Society", (New Orleans, Louisiana, 1966).

70. Ibid.

71. op. cit., Coastal Resources Commission, p. 60.

72. Ibid.

73. "Antiquities", Miss. Code, Title 39, Chapter, 7, Sec. 3 (1972).

74. Ibid.

75. "State Parks and Forests", Miss. Code, Title 55, Chapter 3, Sec. 33 (1972).

76. Ibid.

77. Coastal Coordinating Council, Recommendations for Development Activities in Florida's Coastal Zone, (Florida Department of Natural Resources, 1973), p.4.

78. "Agriculture and Industry Program", Miss. Code, Title 57, Chapter 3, Sec. 1, (1972).

79. op. cit., Coastal Coordinating Council, p. 6.

80. Ibid.

SELECTED BIBLIOGRAPHY

Coastal Resources Commission. State Guidelines for Local Planning in the Coastal Area. Morehead City, North Carolina, 1975.

Coastal Wetlands Protection Law of 1973. Mississippi.

Coastal Zone Management Act of 1972. U. S.

Council on Environmental Quality. The Quiet Revolution in Land Use Control. Washington, D. C., 1973.

Council On Environmental Quality. The Taking Issue: An Analysis of the Constitutional Limits of Land Use Control. Washington, D. C., 1973.

Federal Insurance Administration. "National Flood Insurance Program, Proposed Criteria." Federal Register, March 26, 1975.

Florida Department of Natural Resources. Recommendations for Development Activities in Florida's Coastal Zone. Tallahassee, Florida, 1973.

Groundwater Act of 1975. Mississippi (proposed).

Gulf Coast Research Laboratory, Cooperative Gulf of Mexico Estuarine Inventory and Study, Mississippi. Ocean Springs, Miss., 1973.

Mississippi Air and Water Pollution Control Commission. Water Quality Criteria for Intrastate, Interstate, and Coastal Waters. Jackson, Miss., 1974.

Mississippi Code of 1972, Annotated.

Soil Conservation Service. Soil Loss Prediction for Mississippi. Jackson, Miss., 1973.

State Planning Office. "Specific Criteria and Data Sources Used In Production of Areas of Particular Concern Maps." Augusta, Maine, 1975. (Draft).

U. S. Environmental Protection Agency. Performance Controls for Sensitive Lands: A Practical Guide for Local Administrations. Washington, D. C., 1975.

Wild and Scenic Rivers Act of 1968. U. S.

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