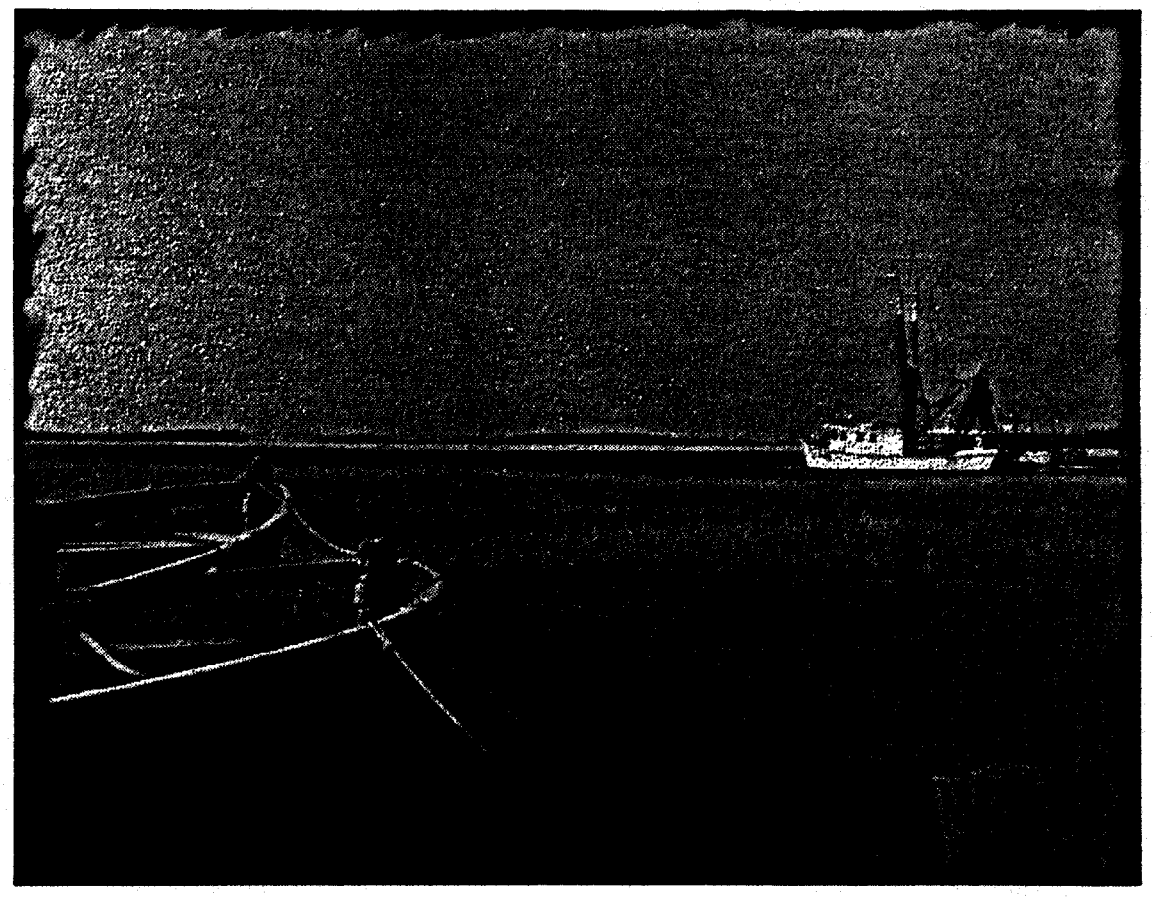
Policies and Procedures

of the South Carolina Coastal Management Program

- An excerpt of the South Carolina Coastal Management Program Document -



OFFICE OF
OCEAN AND COASTAL
RESOURCE MANAGEMENT

South Carolina Department of Health and Environmental Control

Updated July 1995

POLICIES AND PROCEDURES

of the South Carolina Coastal Management Program

~ An Excerpt of the South Carolina Coastal Management Program Document ~

Office of Ocean and Coastal Resource Management
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Updated July 1995

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PREFACE

This document is an excerpt from South Carolina's Coastal Management Program Document which was approved by the State's General Assembly and the Federal government in 1979. It contains the specific goals, objectives and policies necessary for staff review of development activities taking place in the eight-county coastal zone of South Carolina (Horry, Georgetown, Berkeley, Charleston, Dorchester, Colleton, Beaufort, and Jasper Counties). It also contains the basic procedures involved in the management of specific coastal resources, such as endangered species, archaeological and historical resources, and others, as well as procedures for dock master plans, wetland master plans, mitigation, and appeals. In contrast, the complete Coastal Management Program Document contains findings of fact and summary justification, provides background data on coastal resources, and fully describes the administrative process of the program, in addition to all of the procedures and policies. Any noticeable differences in the language of the full S.C. Coastal Management Program Document and this excerpted version are due to changes in law, reorganization of State government, or minor editorial changes which in no way alter the goals, objectives and policies adopted by the S.C. General Assembly. The sole intent of this excerpt is to provide all users with a more useable, manageable and updated policy document. If any question arises, consult the full program document for clarification.

The Appendix is an excerpt from South Carolina's Beachfront Management Plan dated December 11, 1992. The goals, objectives and policies contained therein were approved in accordance with the State Administrative Procedures Act and provide further guidance and policies for beachfront management and beach access. Please consult the full Beachfront Management Plan for clarification.

INTRODUCTION

The Office of Ocean and Coastal Resource Management, a division of the South Carolina Department of Health and Environmental Control, was originally established in 1977 as the S.C. Coastal Council pursuant to the State's Coastal Zone Management Act (Act 123). The legislation mandated the agency "to protect the quality of the coastal environment and to promote the economic and social improvement of the coastal zone and of all the people of the State" through the implementation of a coastal management program. Culminating a two-year effort, which included wide public involvement, a comprehensive management program for the eight-county coastal zone was approved by the South Carolina General Assembly on February 14, 1979. Eight months later, on September 19, 1979, the program was approved by the Federal government.

The scope of the coastal management program is based on the jurisdiction areas of responsibility and the specific coastal resource which must be managed. And this is further based on the two management tools or authorities defined by the law to implement the program. First, OCRM has direct permitting authority over the "critical areas" of the coast, defined as coastal waters, tidelands, and beach/dune system. Secondly, indirect management authority of coastal resources is granted to OCRM throughout the eight coastal counties (Horry, Georgetown, Berkeley, Charleston, Dorchester, Colleton, Beaufort, and Jasper), defined as the "coastal zone." The coastal zone includes coastal waters and submerged bottom seaward to the State's jurisdictional limits, as well as the lands and waters of the eight coastal counties. Within the coastal zone, the program provides authority to review any project requiring a state permit (certification), a federal permit or license, or federal funding as well as direct federal activities (consistency determination) to determine if the project is consistent with the policies and procedures of the *South Carolina Coastal Management Program.*

GLOSSARY

A-95: Office of Management and Budget Circular A-95; an interagency notification and review process by which state, local and regional levels of government have an opportunity to comment on proposed projects or programs involving federal funding. The goal is to avoid federal or federally-assisted actions which would not be in keeping with state or local efforts, plans, or policies, or would work against other federal efforts.

Beaches: Those lands subject to periodic inundation by tidal and wave action so that no nonlittoral vegetation is established.

Certification: The procedure of OCRM review and approval or disapproval of the permit applications processed by other State agencies (in the coastal zone) based on determination of the project's compliance with policies of the Coastal Management Program.

Coastal Waters: The navigable waters of the U.S. subject to the ebb and flood of the tide and which are saline waters, shoreward to their mean high-water mark.

Coastal Zone: By law, the coastal zone in South Carolina consists of all the lands and waters out to the three-mile limit of State jurisdiction in eight counties: Beaufort, Berkeley, Charleston, Colleton, Dorchester, Horry, Jasper and Georgetown.

Consistency Determination: A decision made with respect to a direct federal activity/development project, a federal permit or license, or a federal funding or assistance program, which ascertains whether such federal-level action is in compliance with policies of the Coastal Management Program ("consistent to the maximum extent practicable"). See Chapter V in the full program document.

Critical Areas: By law, the critical areas of South Carolina are the coastal waters, tidelands, and beach/dune system. In these areas OCRM has direct jurisdiction for permits to perform any alteration.

Feasible (feasibility): As used within the coastal program (for example, "unless no feasible alternative exists"), feasibility is determined by OCRM with respect to individual project proposals. Feasibility in each case is based on the best available information, including technical input from relevant agencies with expertise in the subject area, and considering factors of environmental, economic, social, legal and technological suitability of the proposed activity and its alternatives. Use of this word includes the concept of reasonableness and likelihood of success in achieving the project goal or purpose. "Feasible alternatives" applies both to locations or sites and to methods of design or construction, and includes the no action alternative.

GAPC: Geographic Area of Particular Concern. See Chapter IV.

Networking: Linking together the legal authorities of the various State agencies with jurisdiction in the coastal zone to enable comprehensive management of coastal resources. This is accomplished through application of the certification process, mandated in *Sections 70(A)* and *80(B)(11)* of the S.C. Coastal Management Act of 1977.

OCRM: Office of Ocean and Coastal Resource Management, a division of SCDHEC.

OCS: Outer Continental Shelf, specifically, used in reference to off-shore oil and gas developments.

Previously undisturbed wetlands: Those having no visible, physical evidence of previous impoundment, that is, separation from adjacent rivers or estuaries by artificial diking.

SCDHEC: South Carolina Department of Health and Environmental Control.

The Department: SCDHEC.

Tidelands: All areas which are at or below mean high tide and coastal wetlands, mudflats, and similar areas that are contiguous or adjacent to coastal waters and are an integral part of the estuarine systems involved. Coastal wetlands include marshes, mudflats, and shallows and means those areas periodically inundated by saline waters whether or not the saline waters reach the area naturally or through artificial water courses and those areas that are normally characterized by the prevalence of saline water vegetation capable of growth and reproduction.

Water-Dependent: A facility which can demonstrate that dependence on, use of, or access to, coastal waters is vital to the functioning of its primary activity.

Water-Related: Significantly enhanced economically by proximity to the shoreline (water).

CHAPTER III

MANAGEMENT OF COASTAL RESOURCES

A. GOALS AND OBJECTIVES

The policy of the State of South Carolina in the Coastal Zone Management Act of 1977 is "to protect the quality of the coastal environment and to promote the economic and social improvement of the coastal zone and of all the people of this State."

In an effort to guide the State's coastal management program in keeping with this policy, the following goals and objectives have been developed by the Office of Ocean and Coastal Resource Management (OCRM):

GOAL:

Development of a management program that will achieve a rational balance between economic development and environmental conservation of natural resources in the coastal zone of South Carolina.

Objectives:

1. To protect and conserve coastal land and water areas of a significant resource value, including those of scientific, geologic, hydrologic and biologic importance.

2. To encourage and assist in research pertaining to coastal natural resource systems and economic and social impacts in order to develop a comprehensive data base to aid in making rational decisions.

3. To protect and sustain the unique character of life on the coast that is reflected in its cultural, historical, archeological, and aesthetic values.

4. To promote increased recreational opportunities in coastal areas and increased public access to tidal waters in a manner which protects the quality of coastal resources and public health and safety.

5. To develop and institute a comprehensive beach erosion policy that identifies critical erosion areas, evaluates the long-term costs and benefits of erosion control techniques, seeks to minimize the effects on natural systems (both biological and physical), and avoid damage to life and property.

6. To encourage new coastal development to locate in existing developed areas, capable of accommodating additional growth, and in areas determined to be more environmentally and economically suitable for development.

7. To resolve existing use conflicts and minimize potential conflicts among activities through improved coastal management reflecting the public's desires, natural resource capacity, and expected costs and benefits.

8. To encourage new water-dependent activities to locate in shoreline areas where adverse social, economic and environmental impacts can be minimized and to encourage the inland siting of facilities which are not water-dependent.

9. To promote employment of thorough assessments of probable energy benefits, positive and negative economic effects and probable social and environmental impacts as the basis for decisions on development of energy resources; and to ensure that affected local governments obtain sufficient financial and technical assistance to adequately cope with these impacts.

10. To support the wise commercial development of harbors, rivers and waterways for trade and commerce in locations and using methods which maintain the natural environmental integrity of the coastal region.

11. To protect and, where possible, to restore or enhance the resources of the State's coastal zone for this and succeeding generations.

12. To develop a coastal program with flexibility for revision and improvement with the evolution of increased knowledge and experience in managing coastal resources.

GOAL:

To develop a permitting system for activities in critical areas of the coastal zone (beach/dune system, tidelands, and coastal waters) that will serve to implement the goals and objectives of the management program and promote the best interests of all citizens of South Carolina.

Objectives:

1. To develop and implement a streamlined and simplified permitting system for activities in critical areas which maintains the integrity and purpose of the management program.

2. To include conditions and stipulations in permits for activities approved for critical areas in order to minimize negative impacts on water quality, marine productivity, beach and shoreline stability, and other environmental aspects.

3. To give full consideration to the Rules and Regulations for Permitting, as promulgated by OCRM, in thorough and comprehensive reviews of all permit applications.

4. To specify environmentally suitable methods of design, construction and development in critical areas and assist permit applicants to incorporate these environmentally suitable alternatives in their proposals.

GOAL:

To promote intergovernmental coordination and public participation in the development and implementation of the coastal management program for South Carolina.

Objectives:

1. To provide full opportunity for participation by relevant Federal, State, and local government agencies, concerned organizations, and the general public in the development, implementation, and updating of the Coastal Management Program.

2. To increase public awareness and encourage public participation in the development of OCRM's management program and decisions made pursuant to that program.

3. To strengthen the planning and decision-making capabilities of cities and counties in the coastal zone through provision of financial, technical and other assistance, and provide for coordination of local comprehensive plans and ordinances with the policies and rules and regulations of the coastal management program.

4. To promote coordination and use of existing State programs to minimize duplication of efforts, conflicting actions and permit processing delays, and to achieve coastal management objectives and policies.

5. To provide adequate representation of the interests of the State of South Carolina in Federal agency decisions and actions affecting the coastal zone.

B. COASTAL ZONE BOUNDARY

(See pages III-3 - III-4 of the full program document.)

C. USES OF MANAGEMENT CONCERN

1. **CONSIDERATION OF NATIONAL INTEREST**
(See pages III-5 - III-7 of the full program document.)

2. **ACTIVITIES OF REGIONAL BENEFIT**
(See pages III-8 - III-10 of the full program document.)

3. **RESOURCE POLICIES**

GUIDELINES FOR EVALUATION OF ALL PROJECTS

I. In review and certification of permit applications in the coastal zone, OCRM will be guided by the following general considerations (apply to erosion control and energy facility projects, as well as activities covered under Resource Policies):

1) The extent to which the project will further the policies of the South Carolina General Assembly which are mandated for OCRM in implementation of its management program these being:

a) "To promote the economic and social improvement of the citizens of this State and to encourage development of coastal resources in order to achieve such improvement with due consideration for the environment and within the framework of a coastal planning program that is designed to protect the sensitive and fragile areas from inappropriate development and provide adequate environmental safeguards with respect to the construction of facilities in the critical areas of the coastal zone;

b) To protect and, where possible, to restore or enhance the resources of the State's coastal zone for this and succeeding generations." *(Sections 48-39-30(B)(1) and (2)*, S. C. Coastal Management Act of 1977).

2) The extent to which the project will have adverse impacts on the "critical areas" (beach/dune system, coastal waters, tidelands).

3) The extent to which the project will protect, maintain or improve water quality, particularly in coastal aquatic areas of special resource value, for example, spawning areas or productive oyster beds.

4) The extent to which the project will meet existing State and Federal requirements for waste discharges, specifically point sources of air and water discharge, and for protection of inland wetlands.

5) The extent to which the project includes consideration for the maintenance or improvement of the economic stability of coastal communities.

6) The extent to which the project is in compliance with local zoning and/or comprehensive plans.

7) The possible long-range, cumulative effects of the project, when reviewed in the context of other possible development and the general character of the area.

8) The extent and significance of negative impacts on Geographic Areas of Particular Concern (GAPCs). The determination of negative impacts will be made by OCRM in each case with reference to the priorities of use for the particular GAPC. Applications which would significantly impact a GAPC will not be approved or certified unless there are no feasible alternatives or an overriding public interest can be demonstrated, and any substantial environmental impact is minimized.

9) The extent and significance of impact on the following aspects of quality or quantity of these valuable coastal resources:

i) unique natural areas -- destruction of endangered wildlife or vegetation or of significant marine species (as identified in the Living Marine Resources segment), degradation of existing water quality standards;

ii) public recreational lands -- conversion of these lands to other uses without adequate replacement or compensation, interruption of existing public access, or degradation of environmental quality in these areas;

iii) historic or archeological resources -- irretrievable loss of sites identified as significant by the S. C. Institute of Archeology and Anthropology or the S. C. Department of Archives and History without reasonable opportunity for professional examination and/or excavation, or preservation.

10) The extent to which the project is in the national interest.

II. In critical areas of the coastal zone, it is OCRM policy that, in determining whether a permit application is approved or denied, OCRM "shall base its determination on the individual merits of each application, the policies specified in *Sections 48-39-20* and *48-39-30* (of the Act), and be guided by the following general considerations:

1) The extent to which the activity requires a waterfront location or is economically enhanced by its proximity to the water.

2) The extent to which the activity would harmfully obstruct the natural flow of navigable water. If the proposed project is in one or more of the State's harbors or in a waterway used for commercial navigation and shipping or in an area set aside for port development in an approved management plan, then a certificate from the South Carolina State Ports Authority declaring the proposed project or activity would not unreasonably interfere with commercial navigation and shipping must be obtained by OCRM prior to issuing a permit.

3) The extent to which the applicant's completed project would affect the production of fish, shrimp, oysters, crabs or clams or any marine life or wildlife or other natural resources in a particular area including but not limited to water and oxygen supply.

4) The extent to which the activity could cause erosion, shoaling of channels or creation of stagnant water.

5) The extent to which the development could affect existing public access to tidal and submerged lands, navigable waters and beaches or other recreational coastal resources.

6) The extent to which the development could affect the habitats for rare and endangered species of wildlife or irreplaceable historic and archeological sites of South Carolina's coastal zone.

7) The extent of the economic benefits as compared with the benefits from preservation of an area in its unaltered state.

8) The extent of any adverse environmental impact which cannot be avoided by reasonable safeguards.

9) The extent to which all feasible safeguards are taken to void adverse environmental impact resulting from a project.

10) The extent to which the proposed use could affect the value and enjoyment of adjacent owners." (*Section 48-39-150*, S. C. Coastal Management Act of 1977, as amended)

RESOURCE POLICIES

The following pages contain Resource Policies for each of the identified "Activities Subject to Management." These policies are organized into three categories. Category (1) consists of policies which pertain to the entire coastal zone - both the critical areas where the Office of Ocean and Coastal Resource Management (OCRM) has direct permitting authority as well as that portion outside the critical areas in which OCRM has indirect authority (i.e., review and certification authority). Category (2) consists of policies (i.e., rules and regulations - *R.30-1*, et. seq., S. C. Code of Laws of 1976, as amended) which pertain to the critical areas only. Category (3) consists of recommended or enhancement policies which are endorsed by the Office of Ocean and Coastal Resource Management.

The policies contained in *Sections (1)* and *(2)* are those which OCRM is authorized to enforce through the authority of the coastal program and the S. C. Coastal Management Act of 1977. These policies are highlighted in the text with a bold outline along the margins.

I. RESIDENTIAL DEVELOPMENT

Policies

1) In the coastal zone, OCRM review and certification of State and Federal permits and comments on residential projects will be based on the following policies:

a) Adequate sewage disposal service (septic tanks or treatment systems) which meet the Environmental Protection Agency, South Carolina Department of Health and Environmental Control, and local health department standards must be provided in residential development plans. Septic tanks should be permitted, where feasible, in low density residential developments when they are designed properly and soils are adequate to insure against pollutants leaching into surface or groundwater resources. Septic tanks must be situated a safe distance from the shoreline to ensure proper drainage and filtering of the tank effluents before they reach the water's edge with special attention given in identified erosion areas. Policies for sewage treatment plants and associated facilities appear in IX (A) of this section.

b) Residential development which would require filling or other permanent alteration of salt, brackish or freshwater wetlands will be prohibited, unless no feasible alternatives exist or an overriding public interest can be demonstrated, and any substantial environmental damage can be minimized. These marshes are

valuable habitat for wildlife and plant species and serve as hydrologic buffers, providing for absorption of stormwater runoff and aquifer recharge, and therefore, their destruction for residential purposes must be avoided whenever possible.

c) Location of new residential development in flood-prone river or other hazard areas is discouraged. When development does occur in flood hazard areas, the inclusion of natural, vegetated buffers between developed areas and the shoreline must be incorporated wherever possible to help absorb flood water surges. Within designated flood zone areas of participating communities residential development must meet existing Federal Flood Insurance Administration national building standards and insurance requirements. Local governments in the coastal zone are urged to actively participate in the National Flood Insurance program.

d) Where appropriate, particularly adjacent to a critical area, drainage plans and construction measures for residential development shall be designed so as to control erosion and sedimentation, water quality degradation, and other negative impacts on adjacent water and wetlands. Example techniques include buffering and filtering runoff water; use of permeable surfacing materials for roads, parking and other paved areas within a subdivision; and grass ditching, surface drainage contours, or catchment ponds rather than direct stormwater discharge. Best Management practices (and any resultant regulations) designed to control nonpoint source runoff that are developed and implemented as part of the 208 Water Quality Planning process also apply to new housing projects. Developers proposing residential development activities should contact and work closely with local 208 planning agencies and local Soil and Water Conservation Districts.

e) Other activities associated with a residential development or subdivision will be subject to the policies for that activity, for example, dredging, docks and piers, marinas, commercial buildings, parking facilities or transportation access.

f) When local ordinances and plans applying to the critical areas are submitted to OCRM for review, pursuant to *Section 48-39-100(B)* of the Act, such ordinances, plans or subdivision regulations must include provisions for insuring:

i) adequate non-critical area vehicular access to each subdivision lot,

ii) adequacy of septic tank or sewage treatment system disposal for each lot.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM **recommends** that the following policies be considered in planning residential development in the coastal zone:

a) Local governments are encouraged to develop local plans and procedures which promote clustering of residential development where growth is most compatible with coastal resources and where necessary public services can be most easily provided with least adverse impacts on these resources. Criteria to judge those areas most capable of accommodating new growth with minimal impact on coastal resources would be included in local plans.

b) Developers are encouraged to incorporate common-use recreational areas in proposals for large-scale residential developments. With regard to water and boat access, "Developers of subdivisions and multiple family dwellings are encouraged to develop joint-use or community docks when their plans are in the development stage" [*R.30-12(A)(2)(h)*], combined with building covenants to limit the proliferation of individual docks and piers.

Management Authority

If located in the critical areas, as defined by the S.C. Coastal Management Act, proposed new residential uses would require a permit from OCRM before beginning construction.

Outside the critical areas, OCRM will review a number of State agency permits required for certain residential developments to determine that issuance of these permits is consistent with the preceding coastal management policies. This review and certification process is mandated in *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the Coastal Management Act.

A S.C. Department of Health and Environmental Control (DHEC) State navigable waters permit is required for the filling of waters or wetlands below mean high water (MHW) in that part of the State outside OCRM permitting jurisdiction.

S.C. Department of Health and Environmental Control (DHEC) water and sewer permits are required for the construction of subdivision water supply and waster disposal systems. Because of the rural and suburban character of much of the coastal zone, there are large areas not served by public water or sewer systems. This DHEC authority will bring a majority of new residential developments under the OCRM certification process.

DHEC is the State agency responsible for administration of the National Pollution Discharge Elimination System (NPDES) permit process. This permit is required not only for effluent discharges, such as from a sewage treatment facility, but in some instances for such point-source discharges as storm drainage pipes. DHEC is also the S.C. agency responsible for "401" water quality certifications (*Section 48-1-50(15)*, S.C. Code of Laws (1976)), which are determinations of allowable water pollution levels required for any activity involving another Federal permit.

In addition to State management authority, major residential developments receiving some form of Federal financial assistance will be subject to the A-95 review process for which OCRM is a commenting agency. Some projects will also require the submittal of Environmental Impact Statements, thereby having further OCRM review. Federal permits will be required for any proposed housing construction in the wetland or water areas under jurisdiction of *Section 404* (*33CFR Section 323*) of the Federal Water Pollution Control Act, as amended in 1976.

II. TRANSPORTATION FACILITIES

A. PORTS

Policies

In the coastal zone, OCRM evaluation of critical area permits or review and certification of permit applications for port development will be based on the approved ports plan and the following policies:

1) New port development should take place in existing industrialized areas where sufficient support facilities are available including public utilities, rail and highway transportation access, and navigational channels which are already maintained, unless there are no feasible alternatives or an overriding public interest can be demonstrated, and any substantial environment damage can be minimized.

2) Port development should occur in areas that have adequate high ground (non-wetland) acreage for proposed current development and near-term expansion plans, and related facilities. Port development should be located in areas where the filling of productive salt, brackish or freshwater wetlands will not be required or can be minimized. If site preparation does require filling in these wetlands, it must be clearly demonstrated that no other feasible alternatives exist or an overriding public interest can be demonstrated, and any substantial environment damage can be minimized.

3) To the extent feasible, port development and expansion should locate on existing channels so that the need for initial and maintenance dredging can be minimized.

4) New port development that will require maintenance dredging must identify adequate upland (non-wetland) spoil areas, ocean disposal, or other environmentally-acceptable alternative disposal techniques to meet the long-term demands for spoil disposal.

5) Port areas must provide for the handling of dangerous and volatile cargoes and materials in relatively isolated or restricted areas, so that in the event of accident, measures can be implemented to contain any spills or other contamination with minimal environmental damage and limited threat to the health, safety and welfare of the public.

6) Wharves, piers, mooring dolphins and other port-related structures should not restrict or block navigation or alter the natural pattern of water currents.

7) Proposed port development or expansion and operation must meet existing air and water quality standards, as regulated by the Federal Environmental Protection Agency and the South Carolina Department of Health and Environmental Control.

8) Port facilities developed by the State Ports Authority (SPA), as well as by private developers, must be sited, constructed and operated in a manner that is consistent with local and State development objectives as set forth in public documents such as comprehensive plans, zoning ordinances and performance standards.

9) Potential negative impacts on navigation which might restrict port and harbor activities in the area will be considered in evaluation of permits for marinas, docks and piers, transportation facilities (especially bridges), cables and pipelines and other relevant activities.

10) Port development or expansion plans must include provision for necessary breakwater or other wake protection measures along major navigable ship channels where appropriate in order to reduce erosion damage. These structures must be in compliance with other applicable policies and Rules and Regulations.

11) All bulkheads associated with a port area must meet the policies as stated in the Erosion Control Program [Chapter IV(C)].

12) All dredging and dredge spoil disposal policies, as stated in VIII (A) and (B) of the Resource Policies will be applied to port activities.

13) All piers and dockage must meet the policy requirements as stated in VI (C) of the Resource Policies.

14) Transportation projects associated with port development must follow the transportation policies stated in II (B)-(E) of the Resource Policies.

15) The policies for manufacturing will apply to port development and related industrial development (III (D) of the Resource Policies).

Recommended Policies

OCRM also recommends that the following policies be considered for port and harbor development projects in the coastal zone:

1) Encouraging comprehensive study of potential secondary impacts of port and harbor development projects.

2) Maximizing the use of existing developed port areas, when feasible, before establishing new facilities in relatively undeveloped areas.

3) Encouraging the State Ports Authority (SPA) to diversify their activities and areas of concern to include the promotion of sports and commercial fisheries and other marine activities.

Management Authority

In the critical areas, all new port facilities are under the direct permitting authority of the OCRM and subject to the Rules and Regulations thereunder. Both within and outside of the critical area, in instances where the permit of another State agency is required, the review and certification of OCRM will apply.

While not a permit agency, the South Carolina State Ports Authority (SPA) has the responsibility for the planning, construction, maintenance, and operation of the State's port system. Cooperative efforts between OCRM and the Ports Authority, not only on project

proposals, but also on long-range planning and policy development, are the best means to implement sound coastal management policies. The Legislature recognized the need for this cooperation when it mandated in *Section 48-39-110* of the Coastal Management Act of 1977 (the Act) that the Ports Authority prepare and submit to OCRM a management plan for port and harbor facilities and navigation channels. The port plan, upon approval of OCRM, became a part of the comprehensive management program.

Section 48-39-150(A)(2) of the Coastal Management Act states that:

> If the proposed project is in one or more of the State's harbors or in a waterway used for commercial navigation and shipping or in an area set aside for port development in an approved management plan, then a certificate from the South Carolina State Ports Authority declaring the proposed project or activity would not unreasonably interfere with commercial navigation and shipping must be obtained by the Department prior to issuing a permit.

In addition, the Memorandum of Agreement (MOA) between the two agencies is written so as to provide for cooperative efforts. Port projects and plans are subject to review and comment, and direct OCRM permitting in the critical areas, where applicable, based on the preceding policies. A further legal mandate for cooperative and consistent implementation of the two agencies' programs is found in the Act in *Section 48-39-70(A)* and is further explained in the Legal Authorities and Networking section, Chapter V(A).

A majority of port and navigation projects also require Federal permits, and these permit reviews are subject to the Federal consistency provisions of the coastal program. Those projects involving Federal Funding are subject to the Federal Office of Management and Budget (OMB) Circular A-95 review, and frequently to EIS review, under the National Environmental Policy Act.

B. ROADS AND HIGHWAYS (including bridges and transit facilities)

Policies

1) In the coastal zone, OCRM review and certification of relevant State and Federal permit applications and comments on road or highway proposals will be based on the following policies:

a) Road and highway routes shall be aligned to avoid salt, brackish and freshwater wetlands wherever feasible. Where they cannot be avoided, bridging of these wetlands and all navigable waterways, rather than filling to create roadbeds, will be required wherever feasible. The use of existing fill areas or embankments for widening or improvement projects will be required wherever feasible. Whenever feasible, median and right-of-way widths shall be limited where they will impact salt, brackish, and freshwater wetlands.

b) Road structures through salt, brackish or freshwater wetlands or water bodies must be designed so as not to cause substantial changes in natural waterflow and circulation.

c) Bridges over navigable water bodies must provide adequate clearance for commercial or pleasure craft, where appropriate.

d) Care should be taken in design of roads to minimize direct drainage of roadway runoff into adjacent water bodies. Inclusion of techniques for filtering runoff water, such as grass ditching or vegetative buffers, must be considered. During construction and in later maintenance, roadway embankments should be stabilized to minimize erosion and water quality degradation due to sedimentation problems.

e) Road, highway and bridging projects in wetland or water areas are strongly encouraged to include provision for placement of other utilities, such as cables or transmission lines, in their design to reduce the need for future disruption of adjacent wetlands or waterways.

f) Construction of private roadways for private access shall be aligned to avoid salt, brackish and freshwater wetlands wherever feasible , and, where applicable, must provide bridges, culverts or other means to maintain circulation and water flow. When practicable, permeable surfaces such as gravel or shell should be used rather than pavement.

g) When applicable to highway projects that require spoil disposal areas, the policies for dredge material disposal (Resource Policies VIII (B)) shall apply to that portion of the project proposal.

h) Road or bridge projects involving the expenditure of public funds to provide access to previously undeveloped barrier islands will not be approved unless an overwhelming public interest can be demonstrated, for example, provision of access to a public recreation area or other public facility.

i) Where feasible, new roads and bridges in the coastal zone should be designed to accommodate bicycle and foot paths and fishing catwalks and platforms.

j) OCRM will cooperate and coordinate with the S.C. Department of Transportation in development and implementation of State policy and long-term planning for transportation in the coastal zone, through such mechanisms as the State Highway Action Plan.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM **recommends** that the following policies be considered for road and highway projects in the coastal zone:

a) Encouraging comprehensive study of the potential for secondary growth inducement from new road and highway construction.

b) Study of mass transit alternatives to road or highway construction in urban areas.

c) Encouraging project designs and route alignments which consider the impacts on locally-designated "Scenic Highways" and on other aesthetic considerations, for example, enhancement and protection of scenic vistas and preservation of unique tree canopies and other natural areas.

Management Authority

In the critical areas, roads and highways, both public and private, are under the direct permitting authority of OCRM and subject to the Rules and Regulations thereunder.

While not a permit agency for highway construction, the authority for planning, construction, maintenance and operation of the State's highway system rests with the South Carolina Department of Transportation. Roadway projects by the Department are subject to review and comment by OCRM based on the preceding policies, as outlined in the Memorandum of Agreement between the two agencies. In instances where the permit of another State agency is required for a roadway project, the review and certification process of OCRM will apply.

Cooperative efforts between OCRM and the Department of Transportation, not only on project proposals, but also on long-range planning and policy development, are the best means to implement sound coastal management projects. The Memorandum of Agreement (MOA) between these agencies is written so as to allow such cooperation. The legal mandate for cooperative and consistent implementation of the two agencies' programs is found in the Coastal Management Act of 1977 (*Section 48-39-70(A)*), and is further explained in the Legal Authorities section of the full program document.

The State Department of Commerce, with the mandate of improving trade, commerce and employment opportunities in South Carolina, also has the authority to build or acquire roads and highways as part of the promotion of transportation systems in the State. Any projects proposed by the Department of Commerce in the coastal zone would involve coordinated planning efforts with OCRM based on the preceding policies, as mandated by the Act and outlined in the MOA. (Further legal analysis of this authority is provided in the Legal Authorities section of the full program document.)

A majority of road and highway projects also require Federal permits, and these permit reviews are subject to the Federal consistency provisions of the coastal program. Those projects involving Federal funding are subject to the Federal Office of Management and Budget (OMB) Circular A-95 review, and frequently to EIS review, under the National Environmental Policy Act.

Section 48-39-150(A)(2) of the Coastal Management Act states that "If the proposed project is in one or more of the State's harbors or in a waterway used for commercial navigation and shipping or in an area set aside for port development in an approved management plan, then a certificate from the S.C. State Ports Authority declaring the proposed project or activity would not unreasonably interfere with commercial navigation and shipping must be obtained by the Department prior to issuing a permit."

C. AIRPORTS

Policies

1) In the coastal zone, OCRM review and certification of airport permit applications will be based on the following policies:

a) To the extent feasible, new airport facilities shall not encroach into salt, brackish or freshwater wetlands. Permit applications involving dredge or fill to construct these facilities in wetland areas generally will be denied, unless no feasible alternatives exist or an overriding public interest can be demonstrated, and any substantial environmental damage can be minimized.

b) To the extent feasible, the best available techniques and methods shall be used during design, construction and maintenance of airports to avoid erosion or sedimentation problems and prevent concentrated runoff water from aircraft use areas, parking areas and support facilities from directly entering and degrading adjacent surface water bodies or underground resources.

c) Proposals for airport facilities must demonstrate that they will meet applicable Federal and State air quality and noise control guidelines.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following policies be considered for airport projects in the coastal zone:

a) Consideration of the existing and planned transportation system or network in the area, for example, relationship to other airports and access to adequate transportation service by other modes.

b) Encouragement of joint-use or regional airport facilities where feasible (for example, joint military and civilian airports).

c) Compatibility with character and use of the area; local governments are encouraged to develop plans and procedures which maintain appropriate, compatible use areas around **existing** airports.

d) Alignment of approach corridors and corresponding noise zones during airport planning should consider any bird rookeries located in the area.

Management Authority

OCRM has direct permit authority for all activities or alterations in the critical areas of the coastal zone. This jurisdiction would include any proposed airport facilities located in the critical areas - beach/dune system, coastal waters and tidal wetlands (salt and brackish).

The Department of Commerce has direct regulatory authority over the design, layout, location and other aspects of landing fields and landing strips for the State. Certificates of approval are required from the Department in order to operate or establish an airport. After approval of the coastal management program by the Governor and General Assembly, a system of review and certification of other State agency permits and actions has been implemented. Department of Commerce certificates in the coastal zone will be reviewed by OCRM, based on the preceding policies, as mandated in *Sections 48-39-70(A)* and *48-39-80(B)(11)*. A Memorandum of Agreement facilitates the cooperative efforts of the two agencies.

Most airport facilities also involve Federal Aviation Administration (FAA) approval and/or financing, so these activities will be subject to A-95 review by OCRM, and in some instances, Environmental Impact Statement (EIS) review.

D. RAILWAYS

Policies

1) In the coastal zone, OCRM review and certification of railway permit applications will be based on the following policies:

a) Railways shall be located away from salt, brackish or freshwater wetlands, to the extent feasible. In cases where these wetlands cannot be avoided, bridging rather than filling to create railway beds will be required wherever feasible.

b) Railroad structures through salt, brackish or freshwater wetlands or water bodies must be designed so as not to alter natural waterflow or circulation. Where bridging is not feasible, provision of adequate culverts or other means for water to flow through or under the structure will be required.

c) Bridges over navigable water bodies must provide adequate clearance for commercial or pleasure craft, where appropriate.

d) Railway projects in wetland or water areas are strongly encouraged to include provision for placement of other utilities, such as cables or transmission lines, in their design to reduce the need for future disruption of adjacent wetlands or waterways.

e) To the extent feasible design of railways shall include techniques to prevent direct drainage of runoff water into adjacent water bodies and stabilization of embankments to minimize erosion and water quality degradation due to sedimentation.

f) Conversion of abandoned railroad tracks, bridges and rights-of-way in the coastal zone for reuse as transportation or utility corridors or for recreational uses, such as fishing piers or bicycle trails, is encouraged.

g) The extension of new railway corridors should be based on comprehensive evaluation of the need to provide improved access to existing industrialized areas, or to planned or proposed developments suitable for manufacturing sites.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following policies be considered for railway projects in the coastal zone:

a) Minimizing possible aesthetic impacts from placement of rail lines and bridges,

b) Integrating railroad planning and development with other transportation facilities, in order to provide adequate transportation systems; for example, where feasible, new highway bridges might be designed to include railways (especially in urban areas where land is more limited and transportation needs are greatest).

c) In floodplain areas railway alignment should parallel the path of water flow, to the extent feasible, in order to minimize disruption of the floodplain ecosystem.

Management Authority

Proposed new railroad construction activities located in any critical areas will require a permit directly from OCRM. These projects will be reviewed according to the Rules and Regulations for Permitting, which are restated here as OCRM policies for the critical areas.

Outside the critical areas, but within the eight-county coastal zone, OCRM will review and certify permit applications to other State agencies involved in railroad projects, based on the preceding policies. The Memoranda of Agreement with these agencies outline the review process as mandated under *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act of 1977.

Section 48-39-150(A)(2) of the Coastal Management Act states that: "If the proposed project is in one or more of the State's harbors or in a waterway used for commercial navigation and shipping or in an area set aside for port development in an approved management plan, then a certificate from the South Carolina State Ports Authority declaring the proposed project or activity would not unreasonably interfere with commercial navigation and shipping must be obtained by the Department prior to issuing a permit."

DHEC-EQC retains permit authority in State waters below mean high water (MHW) in those portions of the coastal zone beyond the critical area. Any dredging and /or filling or placement of facilities below MHW for railroad construction will have to receive this DHEC-EQC permit. As addressed in the MOA between these two agency divisions, OCRM then reviews and certifies the permit for compliance with coastal policies.

The Department of Commerce is authorized to acquire land, including through condemnation, for construction and operation of railroads and related facilities in South Carolina. Activities of the Department will be subject to the terms of the future MOA between the Department and OCRM. (Private railroad companies have the same condemnation powers and authority to construct railroads and associated facilities. Railroad company projects will be subject to OCRM, DHEC, and other applicable permit requirements.)

The S. C. Department of Commerce may also build or acquire railroads as part of its mandate to promote the transportation system of the State for improved trade, commerce and employment. Department of Commerce projects are coordinated closely with OCRM, as outlined in the MOA. Any State permits associated with Department of Commerce railway projects in the coastal zone would be subject to review and certification by OCRM.

In some instances, railway projects may also require Federal permits, subject to review and comment and to the Federal consistency provisions of OCRM.

E. PARKING FACILITIES

Policies

1) In the coastal zone, OCRM review and certification of permit applications for parking lots, garages or other parking facilities will be based on the following policies:

a) The filling or other permanent alteration of productive salt, brackish or freshwater wetlands will be prohibited for purposes of parking unless no feasible alternatives exist, the facility is directly associated with a water-dependent activity, any substantial environmental impacts can be minimized, and an overriding public interest can be demonstrated.

b) Proposed parking facilities must demonstrate compliance with applicable Federal and State water quality standards, specifically those addressing drainage and discharge of storm water runoff.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following policies be considered in location and design of parking facilities:

a) Use of permeable surface materials such as gravel or shell rather than pavement, where appropriate, with consideration to possible air quality and groundwater impacts.

b) Retaining the maximum possible natural drainage and vegetative cover between parking spaces.

c) Provision of buffer areas around parking areas located adjacent to the critical areas, as visual and storm water runoff buffers.

Management Authority

OCRM has permit jurisdiction over any activity altering a critical area of the coastal zone. Any proposal for a parking facility to alter a critical area must therefore obtain a permit from OCRM.

DHEC-EQC regulates the use of land below mean high water outside the critical areas of the coastal zone. A permit to construct parking facilities on such land is required from DHEC. DHEC has permit jurisdiction over the construction and use of parking facilities if the storm water discharge from such a facility has been identified as a significant contributor to pollution. (Otherwise such facilities are exempt from the Department's National Pollutant Discharge Elimination System permit program.) OCRM reviews and certifies the permits for compliance with the preceding coastal management policies, pursuant to *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act of 1977.

III. COASTAL INDUSTRIES

A. AGRICULTURE

Policies

1) In the coastal zone, OCRM review and certification of permits related to agriculture will be base on the following policies:

a) OCRM supports the utilization of coastal resources for productive agriculture in the coastal zone, particularly on prime agricultural lands (as defined by the U.S. Department of Agriculture), as a positive element of coastal economy and to provide sources of food and fiber products to citizens of the State and nation.

b) To reduce negative impacts on productive tidal salt, brackish and freshwater wetlands:

i) The filling or other permanent alteration of these tidal wetlands for the raising of crops will not be approved;

ii) Ditching for drainage from uplands shall avoid passing through productive wetlands to the maximum extent practicable.

c) To minimize negative impacts on water quality from sedimentation and erosion, applicants for permits relating to agricultural activities are encouraged to work closely with the local Soil and Water Conservation District to obtain assistance in reducing sedimentation and erosion problems. Modern conservation techniques recommended by the local Soil and Water Conservation Districts and the U.S. Department of Agriculture Soil Conservation Service should be utilized, including:

i) Methods or techniques such as contouring should be used to reduce direct surface water runoff into adjacent wetlands or water bodies;

ii) Maintenance and utilization of the natural drainage pattern of the land is encouraged as much as possible;

iii) Use of buffer strips of natural vegetation along the edge between watercourses and cultivated soils is encouraged.

d) Best management practices (and any resultant regulations) designed to control nonpoint source runoff that are developed as part of the 208 Water Quality Planning process should be implemented through the management of agricultural activities. Those engaged in agricultural activities are encouraged to contact and work closely with the local 208 planning agency and the local Soil and Water Conservation Districts.

2) In critical areas of the coastal zone it is OCRM policy that:

a) The policies for dredging and filling (*R. 30-12*) and construction of canals and pipelines (*R. 30-12*) shall be applied when these activities are involved in agricultural use in the critical areas.

3) OCRM also **recommends** that the following policies be considered with regard to agricultural use and practice in the coastal zone:

a) Encouraging the utilization of detailed soil surveys prepared by the National Cooperative Soil Survey (which includes Clemson University Experiment Station, U.S. Department of Agriculture - Soil Conservation Service, and the Department of Natural Resources).

b) That local land use plans include considerations for protecting agricultural lands from premature undesirable conversion into other development activities.

c) Encouraging the full implementation of 12-43-220 of the Code of Laws of South Carolina (1976) local governments within the coastal zone to allow property tax incentives to protect farmlands from conversion to other uses.

d) That the soil testing facilities of Clemson University be utilized to determine the correct types and amounts of fertilizers to be applied to agricultural lands.

Management Authority

OCRM has permit jurisdiction over any activity which in any way alters a critical area of the coastal zone. Therefore, any agricultural activity that directly alters a critical area must have a permit from OCRM.

Outside of the critical area of the coastal zone there are few direct controls over agricultural activities. The Soil and Water Conservation Law (§48-9-1210-1320), administered by DHEC empowers local Soil and Water Conservation Districts to adopt rules and regulations, after public referenda, to control soil erosion. As mandated by §48-39-70(A) this authority will be administered in conformance with policies of the approved coastal program.

State and local Areawide Waste Treatment Management Plans, under *Section 208* of the Federal Water Pollution Control Act (Public Law 92-500) are also authorized to address agricultural best management practices in terms of non-point source water pollution. Development and implementation of these planning and regulatory efforts is closely coordinated with OCRM.

DHEC-EQC retains direct regulatory authority over activities below mean high water in the coastal zone outside the critical areas. These permits are reviewed and certified by OCRM, as mandated in *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act.

B. FORESTRY (Silviculture)

Policies

1) In the coastal zone, OCRM review and certification of permit applications related to timber production will be based on the following policies:

a) OCRM will cooperate with and support the State Forestry Commission and local Soil and Water Conservation Districts in encouraging good forest management practices on private and public lands in order to maintain a supply of good quality timber into the future, while protecting other forest valves.

b) The disruption of salt, brackish or freshwater marshes for timber related activities such as drainage or access way shall be avoided to the extent feasible. Where no feasible alternatives exist to prevent disruption in these areas, project designs must include the mitigation measures as identified in the policies for each related activity for example, roads, dredging, etc.

c) Erosion control methods are strongly encouraged for all phases of timber operations in order to reduce:

i) excessive erosion and sedimentation;
ii) detrital, nutrient and chemical or toxic runoff; and
iii) disruption of hydrologic cycles.

Logging operations should be managed so that drainage characteristics through forested and swampland areas remain, to the extent feasible, at the pre-existing water quality, volume and rate of flow.

d) The policies applicable to the processing of timber products are those for manufacturing activities ((III) (D) of the Resource Policies).

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following policies be considered in forestry activity in the coastal zone:

a) Timber harvesting should be carried out in such a manner as to minimize effects on and protect soils, watersheds, aesthetics, wildlife, and recreational values. If damage does occur, restoration plans should be developed and carried out within a reasonable time.

b) Local land use plans should include retaining prime forest areas for sustained timber productivity in the future.

Management Authority

Any alteration of a critical area requires a permit from OCRM. Applicants for forestry activities that alter a critical area must obtain a permit from OCRM.

Outside of the critical areas of the coastal zone the State Commission of Forestry conducts forestry activities on State owned forest lands, and offers guidance and technical assistance to private timber operations including fire prevention and control practices. The Forestry Commission's authority will be administered in conformance with the approved coastal management program and the Coastal Management Act, as mandated by §48-39-70(A) and through the Memorandum of Agreement (MOA) executed between the S.C. State Commission of Forestry and OCRM.

DHEC-EQC has jurisdiction for issuance or denial of the State permit for activities below mean high water (MHW) in the rest of the coastal zone outside the critical areas. These permit applications are subject to the review and certification authority of OCRM, as mandated by *Sections 48-39-70(A)* and *48-39-80(B)(II)* of the Coastal Management Act.

C. MINERAL EXTRACTION

Policies

(Existing, active mining sites have been designated as Geographic Areas of Particular Concern (GAPCs) in the coastal zone, because of their unique mineral resource value and potential as development activities dependent on locating in the coastal zone.)

1) In the coastal zone, OCRM review and certification of mining permit applications will be based on the following policies:

a) Applicants for mining permits must submit an approved reclamation plan, as required by the Land Resources Conservation Commission under the S.C. Mining Act.

b) Dredge or strip mining operations are prohibited in wetlands areas, unless no feasible alternatives exist and the benefits of mining outweigh the adverse impacts. If all or part of a mining site must involve water bodies or wetland areas, policies for dredging (VIII (A) of the Resource Policies) shall apply.

c) To minimize negative impacts on water quality, the prevention of direct stormwater discharge from upland sites into adjacent wetlands or water bodies is required whenever possible through inclusion of such techniques as use of vegetated buffer areas, silt curtains and other erosion or sedimentation control methods. Negative effects on groundwater resources should also be avoided.

2) In critical areas of the coastal zone, it is OCRM policy that:
Policies for dredging activities (VIII of this section) and *R.30-12* shall apply to mining operations.

3) OCRM also **recommends** the following policies be considered in mining activities in the coastal zone:

a) Provision of scenic buffer areas around active mining sites.

b) That the study of mineral resources be made before land is committed to development, and those areas found to contain significant mining resources be identified in local land use plans.

Management Authority

OCRM has authority for a direct permit requirement for mining operations in critical areas of the coastal zone, based on *Sections 48-39-50(E)(F)(G)(H)(I)*, and *Section 48-39-130* of the S.C. Coastal Management Act of 1977.

In the coastal zone, within and outside the critical areas, the S.C. Land Resources Conservation Commission is responsible for implementation of the S. C. Mining Act. A permit, terms of which include a complete site reclamation plan, is required for any mining operation. OCRM's review and certification of these permits, as required by *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the Coastal Management Act, is confirmed by the Memorandum of Agreement between these two agencies.

Where mining operations extend below mean high water (MHW) outside the critical areas, DHEC-EQC also has permit jurisdiction. These permit applications are subject to the review and certification procedure of OCRM, as required by *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the Coastal Management Act.

The S.C. Department of Health and Environmental Control has authority over most mining operations for point-source discharge permits (NPDES) or best management practices (for non-point source runoff, under 208 Areawide Waste Treatment management planning).

Where mining operations are located in designated capacity use areas and groundwater pumping is required, a capacity permit is required from DHEC.

D. MANUFACTURING

Policies

1) In the coast zone, OCRM review and certification of permit applications for manufacturing and related activities will be based on the following policies:

a) Nonwater-dependent manufacturing or industrial facilities will be prohibited from locating in shorefront areas unless there are no feasible alternatives. Nonwater-dependent industries will be encouraged to locate in inland areas.

b) The filing or other permanent alteration of productive fresh, brackish and saltwater wetland areas for manufacturing facilities and related activities or structures will be prohibited, unless no feasible alternatives exist and any substantial environmental impact can be minimized. To the extent feasible heavy industry shall be directed away from ecologically sensitive areas such as marshes, forested wetlands, pocosins, etc.

c) Manufacturing operations and sites should be designed and constructed to reduce erosion and sedimentation, and to limit the impacts from direct stormwater discharge into adjacent water bodies and wetlands. Persons proposing to develop manufacturing activities are requested to contact and work closely with the local Soil and Water Conservation District in the county for assistance in developing site plans which reduce sedimentation and drainage problems. Applicants must demonstrate consideration of the following means of reducing these problems and use of these methods where appropriate:

i) Provision of a buffer strip of natural vegetation between the facility and the wetland's edge. This vegetated area should be sufficient in each case to serve its intended purpose: providing a visual screen, a noise buffer, a purification system for stormwater runoff, or a protective area for more ecologically sensitive shoreline areas, especially fringing wetlands.

ii) During site preparation, care should be taken to control storm runoff, soil erosion, and accidental placement of sediments in wetland areas.

iii) The use of permeable surfaces in parking lots and bulk storage areas to provide water recharge areas and minimize the effects of stormwater runoff.

iv) Retain open space or natural (undisturbed) areas around manufacturing sites as buffer zones and recharge areas.

d) Manufacturing facilities must meet the applicable water quality and effluent limitation standards of the U.S. Environmental Protection Agency and the South Carolina Department of Health and Environmental Control, under the National Pollution Discharge Elimination System, *Sections 401* and *402* of the Federal Water Pollution Control Act Amendments (Public Law 92-500). In some cases, pretreatment of industrial wastes before introduction into public waste treatment systems may be required, based on local 201 and 208 Waste Treatment Management Plans, as developed under the Federal Water Pollution Control Act. Siting of industrial facilities is encouraged in areas where waste discharges present the least ecological threat - for example, in areas where disruption of wetlands can be avoided or minimized, in areas with good tidal flushing and water circulation and along watercourses with relatively low water quality classifications.

e) Manufacturing facilities must meet applicable State and Federal air pollution standards and controls, as based on the National Clean Air Act, as amended (P.L. 91-604).

f) In instances where groundwater resources will be utilized either in the processing of effluent discharge stages of the production process, the project shall:

i) meet existing standards and/or management programs of DHEC.
ii) prevent saltwater intrusion and land subsidence, to the extent feasible.
iii) where feasible, provide natural vegetated areas on the site where aquifer recharge can occur to mitigate the impacts of groundwater withdrawals.

g) When located in flood zone areas, manufacturing sites and structures must meet applicable flood-plain management and construction requirements, as based on the Federal Flood Insurance Program.

h) To the extent feasible new water-dependent industries shall locate on already maintained channels of rivers to reduce the need for dredging of new channels. Where no presently maintained channel exists and one becomes necessary, the policies for dredging (VIII of the Resources Policies) will apply.

i) Dock or pier and berthing facilities associated with a manufacturing activity shall be designed to minimize possible negative impacts. The policies for docks and piers or other associated activities will apply.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following policies be considered in planning for or siting of manufacturing uses in the coastal zone:

a) Siting of industrial plants where they are served with existing well-developed road and railroad links to port areas and to major arterial transportation routes.

b) Development of local plans which direct manufacturing growth into areas committed to industrial use where services can be most readily provided.

c) Development of local plans which encourage comprehensive-type industrial parks, to facilitate well-planned, well-managed manufacturing and industrial centers that promote the advantages of locating in South Carolina.

d) Encouraging manufacturing that will provide significant new employment opportunities for coastal residents.

e) Considerations for minimizing noise and aesthetic impacts of manufacturing activities.

f) Consideration for allowing limited public access to the buffer zone as a recreational area.

Management Authority

Any manufacturing use or related activity proposed for the critical areas of the coastal zone would be required to obtain a permit from OCRM. The policies for any related activity, and the procedures of the Rules and Regulations for Permitting would apply.

In the coastal zone outside the critical areas, OCRM will review and certify the permits and projects of other State agencies to insure compliance with the coastal Management program, as mandated in *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act of 1977.

DHEC-EQC has authority for issuance of permits for activities below mean high water. Applications for these permits are reviewed and certified by OCRM for compliance with the coastal management program.

Throughout the coastal zone, the Department of Health and Environmental Control is the State implementing agency for water quality and air quality standards. Permit applications for water and air discharges are subject to certification and review by OCRM.

While not a permit agency, the Department of Commerce, State Development Division, has the responsibility for planning and coordination to promote improved trade, commerce and employment opportunities in the State. Included in the Board's specific authority is promotion of industrial development. When appropriate, OCRM will coordinate and support programs and projects of the Board to insure continued opportunities for manufacturing growth and development while at the same time maintaining sound coastal management policies.

Federal permits are required where any aspects of a manufacturing project fall under the jurisdiction of *Section 10* of the Rivers and Harbors Act; *Sections 401, 402* and *404* of the Federal Water Pollution Control Act Amendments; and the National Clean Air Act (P.L. 91-604, amend.). These permit applications are reviewed and certified by OCRM, and are subject to Federal consistency provisions.

E. FISH AND SEAFOOD PROCESSING

Policies

1) In the coastal zone, OCRM review and certification of permit applications for seafood processing plant proposals will be based on the following policies:

a) Drainage or discharge from any proposed seafood packing or processing operations must meet applicable State and Federal water quality standards.

b) Proposed seafood processing operations must comply with policies for dock and piers, and dredging and filling, where applicable.

c) To the extent feasible fish and seafood processing operations shall not be located where there would be significant adverse impacts on salt, brackish or freshwater wetlands. Filling or other permanent alteration of these wetlands for such purposes will be denied unless no feasible alternatives exist and the public benefits outweigh the adverse impacts.

d) Adequate facilities for proper handling of sewage, litter and other waste products must be provided at the site of new docking areas associated with seafood processing.

e) Care must be exercised in the discharge of water used to pump out the holds of fishing vessels so that water quality is not unnecessarily degraded and so that such discharges comply with applicable Department of Health and Environmental Control and United States Coast Guard regulations.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following policies be considered in fish and seafood processing operations in the coastal zone:

a) Consideration should be given to the utilization of fish wastes or by-products for meal or fertilizers.

Management Authority

In the critical areas of the coastal zone, OCRM has direct permit authority over seafood processing plants and related facilities.

In the rest of the coastal zone, OCRM, which has jurisdiction outside the critical areas for activities below mean high water, in wetland areas and submerged bottoms.

The Department of Health and Environmental Control (DHEC) has permit authority for direct wastewater discharges, and for "401" water quality certifications for projects which require Federal permits. Through coordinated, joint efforts of both agencies, OCRM will review and certify DHEC permits for their compliance with coastal policies.

Federal permits may also be required for dredging or filling, construction of docking areas, and for wastewater discharged associated with seafood processing.

F. AQUACULTURE

Policies

1) In the coastal zone, OCRM review and certification of aquaculture permit applications will be based on the following policies:

a) The impoundment of previously undisturbed, productive salt, brackish or freshwater wetlands for aquaculture will be prohibited where other feasible alternatives exist.

b) Aquaculture proposals must demonstrate compliance with applicable State and Federal water quality standards for discharge or drainage.

c) For each aquaculture proposal the value and yield which is anticipated from the project should be weighed against any environmental damage, such as loss of habitat from impounded areas. This consideration will be included by OCRM in its decision-making, and

applicants may be asked to provide relevant information towards the determination of such costs and benefits.

d) Applicants for aquaculture operations must provide an acceptable management plan for the operation.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following policies be considered in planning and research for aquaculture projects in the coastal zone:

a) Encouraging research efforts for "passive aquaculture" as opposed to use of artificial impoundments including:

i) fixed structure aquaculture (for example, setting supports and lines. This should be limited to open water areas where they can be placed on the periphery and not interfere with navigation).
ii) tray culture for shellfish.
iii) penning areas for soft shell crabs.
iv) trap culture for fish.
v) bottom culture, to avoid navigational problems.
vi) "agrarian" approaches, such as mechanized harvesters, seed beds, and restocking.

Management Authority

Any aquaculture activity that alters a critical area requires a permit from OCRM. The Rules and Regulations for Permitting apply to aquaculture activities which alter a critical area.

Outside of the critical areas in the coastal zone DHEC-EQC has permit authority for uses of land and water below mean high water. Permit applications for aquaculture activities are subject to review and certification for coastal management program compliance by OCRM, under *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act. This certification authority extends to permits for impoundments or any other activity requiring a Board permit.

The Department of Health and Environmental Control has regulatory authority over aquaculture since many operations require an NPDES point-source discharge permit. The Department of Natural Resources (DNR) has regulatory authority over the living marine resource management aspects of aquaculture. In addition, DNR leases coastal bottoms for shellfish production. This regulatory authority must be administered in compliance with the approved coastal management program and the Coastal Management Act. OCRM is granted enforcement authority for such compliance under *Section 48-39-70(A)* of the Act.

IV. COMMERCIAL DEVELOPMENT

Policies

1) In the coastal zone, OCRM review and certification of permit applications for commercial buildings will be based on the following policies:

a) For locations immediately adjacent to the shoreline, water-dependent commercial activities will be given priority consideration. Water-dependent is interpreted here to include activities which functionally require access to shoreline, for example, ship or boat repair or commercial fishing. Second priority will be given to water-related commercial uses which are significantly enhanced economically by proximity to the shoreline, for example, motel or restaurant activities.

b) Commercial proposals which require fill or other permanent alteration of salt, brackish or freshwater wetlands will be denied unless no feasible alternatives exist and the facility is water-dependent. Since these wetlands are valuable habitat for wildlife and plant species and serve as hydrologic buffers, providing for storm water runoff and aquifer recharge, commercial development is discouraged in these areas. The cumulative impacts of the commercial activity which exists or is likely to exist in the area will be considered.

c) Location of new commercial development in riverine and coastal areas where flooding has been a recurring, serious problem is discouraged. Within the 100-year flood plain of coastal waters, commercial development must meet the existing Federal Insurance Administration (Department of Housing and Urban Development) national building standards. Inclusion of buffer areas and protection of salt, brackish and freshwater wetlands will help absorb flood water surges and is encouraged in commercial development plans.

d) Drainage plans and construction measures for commercial development should be designed to lessen or eliminate erosion, water quality degradation and other negative impacts on adjacent waters and wetlands - for example, through buffering and filtering runoff water, use of naturally vegetated and permeable surfaces rather than paving, and grass-ditching and surface drainage rather than direct storm water discharges. Best management practices developed as part of the Areawide 208 Waste Treatment Management Program should be implemented through the management of major new commercial developments.

e) Adequate sewage disposal systems (septic tanks or treatment systems), meeting Federal Environmental Protection Agency, South Carolina Department of Health and Environmental Control, and local health department standards must be provided in new commercial development.

f) Shorefront commercial development that disrupts existing public access will be prohibited. Developers of commercial property on immediate beach or river-front are strongly encouraged to provide such area for general public use in their plans. Policies in the Beach and Shoreline Access segment, Chapter IV (D), will be considered in review of commercial activities.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

Management Authority

Any commercial activities and associated development which alter a critical area require a permit from OCRM. Commercial buildings and structures must meet the requirements of the Rules and Regulations for Permitting to obtain an OCRM permit.

Outside of the critical areas in the coastal zone DHEC-EQC has permit authority over the use of land and water below mean high water for any activity, including commercial developments. OCRM review and certification of these permits pursuant to *Section 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act is based on the preceding coastal management policies. Similarly, permits required for certain air pollution, sewage treatment or other associated support facilities by the Department of Health and Environmental Control are also subject to OCRM review and certification.

V. RECREATION AND TOURISM

A. PARKS (and open spaces)

Policies

(A number of State parks in the coastal zone have been identified as Geographic Areas of Particular Concern (GAPCs) because of their unique value as natural areas and as important recreational use areas. The priority of uses for these specific parks is addressed in the GAPC segment, Chapter IV[A].)

1) In the coastal zone, OCRM review and certification of permits for parks and related facilities will be based on the following policies:

a) Water-dependent recreational uses will be given priority consideration over other types of recreational development in locations immediately adjacent to shoreline, wetlands or open water. For example, boating or swimming oriented parks would be considered water-dependent and receive priority over golf courses and tennis courts.

b) Parks and open spaces are preferred uses in wetland areas, flood prone areas, beaches, and other environmentally significant or sensitive natural areas, with due consideration for types and intensity of development which reflect the "carrying capacity" of the area to accommodate influxes of large numbers of people without distraction or disruption of natural systems.

c) Park plans and designs must incorporate the following design features where appropriate:

i) preservation of a maximum of existing natural vegetation and open space.
ii) maximum use of permeable surfaces (rather than paved surfaces).
iii) provision of adequate parking (based on "carrying capacity" of the park) or alternative transportation access located in-shore or in less sensitive areas.
iv) construction methods that mitigate erosion and other environmental damage.

d) Park proposals which include filling or other permanent alteration of productive salt, brackish or freshwater marshes will be denied, unless no feasible alternatives exist.

e) Cooperative local, State and Federal efforts to maintain or enhance existing air and water quality in and near valuable recreational resource areas.

2) In critical areas of the coastal zone, it is OCRM policy that:

Any park facilities which would require construction or alteration of a critical area would be reviewed for an OCRM permit on the basis of the Rules and Regulations for the particular type of project, for example, a dock and pier, or a walkway.

3) OCRM also **recommends** the following policies be considered in the planning and design of parks and open space areas in the coastal zone:

a) Provision of nature interpretation areas and nature-oriented facilities.

b) Park structures and facilities which provide for elderly and handicapped visitors.

c) Provision of new scenic vistas to the ocean, beaches, wetlands and other natural areas, and protection and enhancement of existing scenic areas.

d) Consideration of energy use, with preference to non-motorized recreational access and activities when appropriate.

e) Analysis of the recreational potential of surplus State and Federal lands.

f) Maintenance of any fee charged for use of public recreational facilities at a nominal level.

g) Encouraging park development along utility easements and abandoned rights-of-way, and on dredge material disposal areas - especially intensive-type or active parks since these are areas of previously altered natural environment.

h) Structures which are visually compatible with natural surroundings, in terms of such factors as scale, building materials and color.

Management Authority

OCRM has direct permitting jurisdiction over any proposed park facilities located in the critical areas - waters, wetlands, beaches, beach/dune system. This is a very important aspect of park management since recreation at the water's edge is expected to be the most significant recreational demand.

Outside the critical areas, but within the coastal zone, the Department of Parks, Recreation and Tourism (PRT) will cooperate in implementation of the preceding policies of the Coastal Management Program. PRT is the lead State agency with respect to the development and maintenance of the State park system. The Memorandum of Agreement between these two agencies confirms and outlines this cooperative recreational planning effort mandated by *Section 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act.

Where any part of a proposed recreational area outside of critical areas will involve encroachment below mean high water (MHW), a permit would be required from DHEC-EQC. These permits are reviewed and certified by OCRM for their compliance with the coastal program.

The majority of public recreational facilities in the coastal zone (as throughout the State) will be financed in full or in part by the U. S. Department of the Interior, Heritage Conservation and Recreation Service. These project proposals will be subject to A-95 review as well as the Federal consistency provisions of the coastal program.

B. COMMERCIAL RECREATION (tourist attractions, including, but not limited to amusement parks, boardwalks, and theme parks)

Policies

1) In the coastal zone, OCRM review and certification of permits for commercial recreation will be based on the following policies;

a) Proposals which include the filling or other permanent alteration of productive salt, brackish or freshwater wetlands will not be approved unless no feasible alternatives exist.

b) For locations immediately adjacent to the shoreline, the water-dependent nature of the project must be demonstrated, particularly if adjacent wetlands or water bodies will be significantly impacted. Water-dependent is defined here to mean those activities which require access to waters of the coastal zone as an essential aspect of their primary function.

c) Construction methods and design features which minimize the possible degradation of adjacent water quality from erosion or storm water drainage are strongly encouraged, for example, use of silt screens and curtains, berm and swale drainage systems rather than direct discharge, and maintaining permeable surface rather than extensive pavement as much as possible.

d) Commercial recreation centers must demonstrate compliance with applicable State and Federal standards for sewage treatment facilities.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) Further, OCRM **recommends** that the following policies be considered in planning for tourist attractions in the coastal zone:

a) Minimizing negative aesthetic impacts, for example, disruption of scenic vistas or significant alteration of the character of an area.

b) Development of local planning and zoning controls which address the location and design of tourist attractions.

c) Locating tourist activities in areas convenient to existing population centers rather than placement in remote areas which may encourage strip-development.

Management Authority

OCRM has direct permit authority over any activity in the critical areas of the coastal zone, including tourist-oriented or commercial recreation facilities. Therefore, the proposed construction of such structures in the critical area is subject to permit requirements of OCRM. Possible impacts on the critical areas are the major concern of these tourist developments.

In the rest of the eight county coastal zone, State permits are required from DHEC-EQC for construction below mean high water (MHW). These permit applications are reviewed and certified by OCRM for their compliance with policies of the Coastal Management Program. This review and certification authority is mandated by *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act of 1977.

The Department of Health and Environmental Control has permit authority over certain aspects of facilities open to the public, including sewerage systems and other sources of environmental pollution. These permit applications are subject to the review and certification process of OCRM.

In some cases where dredging or filling in water or wetland areas would be required, such commercial recreation areas are under the jurisdiction of Federal permit authority on the basis of *Section 10* of the Rivers and Harbors Act and 404 of the Federal Water Pollution Control Act of 1972, as amended. These permits are subject to the Federal consistency provisions of the Coastal Management Program.

VI. MARINE-RELATED FACILITIES

MARINAS, BOAT RAMPS, and DOCKS and PIERS

A. MARINAS

Policies

1) In the coastal zone, OCRM review and certification of permit applications and marina proposals will be based on the following policies:

a) To the extent feasible marinas shall locate only in areas that will have the least adverse impact on salt, brackish or freshwater wetlands and water quality.

b) To the extent feasible marinas shall be located in areas where maximum physical advantage exists and where the least initial and maintenance dredging will be required.

c) Marinas should avoid or minimize the disruption of currents. Dead-end or deep canals without adequate circulation or tidal flushing will not be permitted unless it can be determined that water quality will not be adversely affected.

d) Marina designs should minimize the need for excavation and filling of shoreline areas.

e) Provision of facilities for the proper handling of petroleum products, sewage, litter, waste and other refuse must be made in new marinas, with regard to South Carolina Department of Health and Environmental Control (DHEC) specifications.

f) In review and certification of marina permit applications outside the critical areas, OCRM will consider the extent of public demand for the facilities, as demonstrated by the applicant.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following policies be considered in marina location and design:

a) Adequacy of transportation access from the landward side.

b) Adequacy of parking facilities.

c) Upland facilities which are compatible with and enhance recreational boating opportunities.

Management Authority

In critical areas of the South Carolina coastal zone, permits are required from OCRM for all new marina projects, including associated dredging and construction of docks, piers or other structures. (OCRM's direct permit responsibility is explained in detail in the legal analysis in Chapter V [A].)

Beyond the critical areas, the creation of new marinas in the coastal zone is subject to the permit requirements of DHEC-EQC for activities below mean high water (MHW). These permits are subject to the provisions of *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the 1977 Coastal Management Act by which OCRM reviews and certifies each permit application in the coastal zone for compliance with provisions of the coastal program.

Permits may also be required from the Department of Health and Environmental Control (DHEC) if sewage treatment facilities are included as part of a marina project proposal or if 401 Water Quality Certification is required. Permits issued by DHEC in the coastal zone are subject to review and certification by OCRM.

Marina facilities also require permits pursuant to certain Federal statutes which receive review and comment by OCRM and its staff and will be subject to the Federal consistency provisions of the South Carolina Coastal Management Program.

The State Ports Authority also has regulatory authority over marinas since *Section 48-39-150(A)(2)* of the Act provides that:

> If the proposed project is in one or more of the State's harbors or in a waterway used for commercial navigation and shipping or in an area set aside for port development in an approved management plan, then a certificate from the South Carolina State Ports Authority declaring the proposed project or activity would not unreasonably interfere with commercial navigation and shipping must be obtained by the Department prior to issuing a permit.

B. BOAT RAMPS

Policies

1) In the coastal zone OCRM review and certification of applications for boat ramps will be based on the following policies:

a) Filling of productive salt, brackish, or freshwater wetlands for boat ramp construction is prohibited unless no feasible alternatives exist in adjacent non-wetland areas. In addition, the amount of fill required must be minimized.

b) The following priorities are considered when justifying boat ramp location in sensitive areas:

i) public use - open to all citizens.
ii) restricted use - open only to citizens of a particular area or organization.
iii) private use.

c) Boat ramp locations requiring dredging of productive salt, brackish or freshwater wetlands to provide channel access to deep-water will be discouraged.

d) Boat ramps must be constructed of environmentally acceptable materials.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** the following policies be considered in location and design of public boat ramps in the coastal zone:

a) Provision of adequate transportation access from the landward side.

b) Provision of adequate parking in non-wetland areas.

c) Incorporation with other public recreational and boating facilities to improve recreation opportunities.

d) Adequate facilities, for example, trash receptacles, restrooms, drinking water fountains, lighting.

e) Provision for continuing maintenance.

Management Authority

In critical areas of the coastal zone, a permit from OCRM is required for any boat ramps which are proposed. (All boat ramps must involve filling in periodically inundated areas, in fact, below mean high water, in order to provide boats with access to the water. This filling is defined by the South Carolina Coastal Management Act as an alteration to a critical area - in this case, tidelands and/or coastal waters).

Boat ramps located in other than critical areas of the State are subject to permit requirements of DHEC-EQC for activities on State-owned submerged bottoms (below MHW). In the coastal zone, these permit applications are also reviewed and certified by OCRM for consistency with the coastal management program, pursuant to *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act.

In some areas a Federal agency permit may be required. These permit applications must be reviewed and certified by OCRM and are subject to Federal consistency provisions.

C. DOCKS AND PIERS

Policies

1) In the coastal zone, OCRM review and certification of permits for docks and piers will be based on the following policies:

a) Docks and piers will not be approved where they interfere with navigation or reasonable public use of the waters.

b) Docks and piers shall be constructed in a manner that does not restrict waterflow.

c) Docks and piers must be limited to a reasonable size and extension for the intended use.

d) Docks and piers should be located and designed to minimize disruption and shading out of salt, brackish or freshwater wetland vegetation.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following policies be considered in location and design of docks and piers:

a) Developing joint-use or community piers in future subdivisions rather than the proliferation of individual structures.

b) Use of construction materials which are easily maintained and repaired, for safety and aesthetic considerations.

c) Attention be given when property is subdivided to provide waterfront lot-owners with adequate riparian access, so that conflicts over the alignment of docks and piers will be avoided.

Management Authority

A permit directly from OCRM is required for docks and piers in the critical areas of the coastal zone. The Rules and Regulations governing permitting and the process specified therein are applied to docks and piers.

Outside the critical areas, a permit from DHEC-EQC is required for activities involving navigable waters of the State and all lands below the mean high water line in tidally-influenced areas and ordinary high water in non-tidal areas.

OCRM reviews and certifies these permit applications in the coastal zone for their compliance with the Coastal Management Program, based on the preceding policies, as mandated by *Section 48-39-70(A)* and *48-39-80(B)(11)* of the Coastal Management Act.

Docks and piers may also be subject to Federal agency permit authority based on *Section 10* of the Rivers and Harbors Act and *Section 404* of the Federal Water Pollution Control Act. OCRM is involved in review and certification of such permit applications. Private docks and piers which meet certain size specifications are covered under the provisions of a general permit to the citizens of South Carolina from the U. S. Army Corps of Engineers. This is discussed in detail in Appendix K.

D. DOCK MASTER PLANS

Pursuant to the Coastal Zone Management Act, OCRM is charged with the responsibility of developing a comprehensive coastal management program. The waters and marshes of the coast below mean high water are held in trust for all the people of the State, and are therefore public waters and marshes. Docks and piers support an important form of water dependent recreation, and boating demand continues to increase. It is imperative that consideration is given to all competing uses of this resource. While individual permitting of private docks, piers, and boat ramps have been a primary tool in managing such projects and alterations in the coastal zone, this piecemeal approach is no longer sufficient to deal with competing interests and new development along the coast. In addition to the policies of the Act, Section *R.30-11(C)* of the rules and regulations requires OCRM to consider the extent to which long-range, cumulative effects of any project that may result within the context of other possible development and the general character of the area. Additionally, OCRM is charged with considering overall plans and designs for a project that can be submitted together and evaluated as a whole, rather than piecemeal and in a fragmented fashion.

To the end of providing more comprehensive review of coastal impacts, OCRM will require the development of dock master plans along the shoreline of properties undergoing development. This is necessary to protect sensitive coastal waters, to avoid future conflicts over dock alignment and/or water access between adjacent landowners, and to assist in comprehensive management of the coast.

The dock master plan will take one of two forms to be decided by the applicant: (1) the application for a dock master plan general permit for the construction of all future dock, piers, and boat ramps in the development, or (2) the preparation of a conceptual dock master plan which will guide the individual permitting of all future docks, piers, and boat ramps in the development. In both cases, a master plan must be prepared pursuant to rules and regulations of OCRM and the requirements contained herein. If the applicant decides to pursue option (1) above, normal OCRM permitting procedures must be followed. If the applicant decides to pursue option (2) above, the following procedures must be followed.

If lands adjacent to navigable coastal waters are developed and such development requires coastal zone consistency certification, the landowner or developer must submit a dock master plan which will provide basic information, as required herein, about the property and proposed uses of the adjacent State waters and marshes. If a development is to proceed in two or more phases, the level of detail outlined in this document is only required for the phase seeking consistency determination. Only a master plan depicting the phases and the estimated number of docks for each phase will be required for the remainder of the entire development, to be updated as dock master plans are prepared for consistency determination in future phases. It is understood that phases not undergoing development may be subject to change.

The conceptual dock master plan document will be annotated by OCRM staff to reflect coastal management and environmental concerns, to include recommended revisions to the conceptual dock master plan to address or alleviate those concerns; if no concerns are identified, OCRM will find the dock master plan conceptually consistent with the Coastal Zone Management Program, subject to any site specific concerns identified through any future permit applicants. OCRM review comments will be transmitted to the applicant with a copy placed on file at OCRM. If any facts are disputed, the applicant may submit further comments and

information which will be made part of the file; OCRM staff will attempt to reconcile the disputed facts. No further action is required by the applicant.

A dock master plan which is conceptually consistent does not guarantee issuance of any dock permits. The conceptual dock master plan will be used as a guideline and an additional consideration when dock permitting applications are made. As with all applications reviewed by OCRM, the project will be judged on its own merits as well as compliance with the Coastal Management Act permitting regulations and the Coastal Management Program Document.

A dock master plan, either as a general permit or as a conceptual master plan to guide individual dock permitting, must be submitted for all projects subject to OCRM consistency certification. OCRM will deny certification of a project if no master plan or inadequate information is submitted. However, in the case of the conceptual master plan to guide individual dock permitting, once the plan with all required information is submitted by the applicant, the requirements are considered met. The proposed dock master plan shall be filed with the permitting section together with the recommended changes by OCRM staff. Appeals of decisions on conceptual Dock Master Plans are inappropriate inasmuch as the decision is advisory to the permitting section. Appeals can only be taken once a decision on a permit is made by OCRM.

1) **Goals and Objectives**

a) To determine whether a given property is suitable for water access.
b) To establish guidelines for extending property lines to define corridors in which dock construction will take place.
c) To establish guidelines for determining the appropriate spacing of docks in order to control congestion.
d) To maintain the accessibility and navigability of coastal waters.
e) To establish guidelines for determining the appropriate length of docks.
f) To maximize public access to the water.
g) To protect geographic areas of particular concern (GAPCs) as well as the values of a water body and protected critical areas as set forth in *Section 48-39-20* and *Section 48-39-30* of South Carolina's Coastal Zone Management Act.
h) To encourage the use of community docking facilities.
i) To prevent degradation of water quality.

2) **Submittal Requirements**

Dock master plans must be submitted on a site plan prepared by an engineer, surveyor, or landscape architect licensed and registered in the State of South Carolina. The plan may be shown in conjunction with any other site drawings, i.e., storm water, wetlands, etc., but must contain the following:

a) Property lines, both existing and proposed.
b) The critical area line which has been approved by OCRM.
c) The adjoining water bodies, accurately portrayed as to location and size. The channelward edge of marsh vegetation and the location, width and depth of the main creek channel must be depicted, as well as any other creeks, inlets, or sloughs in excess of 20 feet in width.

d) The proposed dock corridors must be shown on the site plan as property line extensions. The corridors must be referenced to a recoverable reference point. The dock corridor is defined as a pair or more of recoverable lines extending from the property lines toward open water between which a dock may be constructed. The extended lines should normally be a straight extension of the property line but may vary to accommodate site specific conditions.

e) All docks existing on the water body in the vicinity of the proposed docks must be accurately shown on the plat, both as to size and location. On smaller creeks of less than 50 feet in width, existing docks on the opposite bank must be shown.

f) All proposed community docks, boat ramps and other OCRM permitted structures must be shown on the plat.

g) If the plat is of an area covered by an existing dock plan prepared by OCRM or another governmental body, the dock corridor plan shown on this plat must reflect this plan.

h) Any deed restrictions of the property that would affect dock size or placement must be shown on the plat.

i) Individual docks on lots should not be shown on the plan; but rather, the estimated total project number of docks along a specified shoreline of common ownership, along with information concerning the typical size of proposed docks and floats. The size of the proposed docks will be used as indication of the approximate size of vessels which would use the proposed docking facilities.

j) The spacing, location, and length of dock corridors must be in accordance with OCRM regulations for general permits for Dock Master Plans.

3) **Specific Review**

To reduce negative impacts, all dock master plans will be evaluated as to the suitability of providing individual docks for every waterfront lot. Although in some situations single family docks are appropriate, more favorable consideration will be given to the use of community docks and joint use docks. In making this evaluation the following factors will be considered:

a) Proximity to alternative access (boat ramps, marinas, community docks and others).

b) Size of a navigable channel.

c) Size of lots (water frontage).

d) Distance to open water.

e) Environmental sensitivity of adjacent waters and coastal resources.

f) Impact of proposed docks on GAPCs, including access to those GAPCs.

g) Other possible development and the general character of the area, including impacts to adjacent property owners.

h) The degree to which construction of a dock or docks will affect public access to public waters and the traditional recreational uses of the water body including fishing, crabbing, and oystering.

4) **Implementation**

a) Reference must be given to the dock master plan in all contracts for sale of affected lots.

b) Dock master plans will be filed with the permitting division of OCRM, available for public review and used for consideration of future permit decisions.

c) The dock master plan shall be presumed to take precedence over applications inconsistent with such plan unless new information is revealed in the application to address and overcome concerns identified in the Dock Master Plan.

d) Revisions to dock master plans will follow the same agency review procedure as outlined for new plans.

VII. WILDLIFE AND FISHERIES MANAGEMENT

A. WILDLIFE AND FISHERIES MANAGEMENT

Policies

The following policies were developed by OCRM in conjunction with the South Carolina Department of Natural Resources for inclusion in the S. C. Coastal Program.

1) In the coastal zone, including critical areas, OCRM issuance or review and certification of permit applications which would impact wildlife and fisheries resources will be based on the following policies:

a) Activities deemed, by OCRM in consultation with the South Carolina Department of Natural Resources, to have a significant negative impact on wildlife and fisheries resources, whether it be on the stocks themselves or their habitat, will not be approved unless overriding socio-economic considerations are involved. In reviewing permit applications relative to wildlife and fisheries resources, social and economic impacts as well as biological impacts will be considered.

b) Wildlife and fisheries stocks and populations should be maintained in a healthy and viable condition and these resources should be enhanced to the maximum extent possible.

c) Critical wildlife and fisheries habitat should be protected and enhanced to the extent possible.

Management Authority

The South Carolina Department of Natural Resources (DNR) is the principal State agency with statutory authority for the protection, management and conservation of wildlife and marine resources, including fish, game, non-game and endangered species. The Memorandum of Agreement between OCRM and the Department confirms the cooperative relationship between OCRM and the Department which has authority in the establishment, implementation, administration and enforcement of State game, fish and shellfish laws.

B. ARTIFICIAL REEFS

Policies

In the critical areas of the coastal zone, it is OCRM policy that:

a) The location and development of artificial reefs should not interfere with navigation or with existing fisheries, and they should be compatible with all existing and approved uses for an area.

b) Materials utilized in the construction of artificial reefs must not create any adverse environmental impacts.

c) The development of artificial reefs for fisheries management purposes shall be encouraged, particularly in areas where the biological productivity will be enhanced.

d) In considering areas for artificial reef development, the possible impacts on historical or archaeological resources in the area will be considered.

Management Authority

Many artificial reefs along the South Carolina coast are beyond the 3-mile limit of State jurisdiction, and therefore, located outside the coastal zone.

Any artificial reefs located landward of the three-mile limit would be within the "coastal waters" critical area, as defined in *Section 48-39-10(F)* of the S. C. Coastal Management Act of 1977. Alterations in these areas are subject to the direct permitting authority of OCRM. The Rules and Regulations for Permitting and the previously stated policies would be applied to all artificial reef proposals in the critical areas.

Coordination with the South Carolina Department of Natural Resources (DNR) will be essential in any artificial reef proposals or projects for siting, construction and maintenance. DNR is the State agency mandated to protect, manage and conserve wildlife and marine resources.

C. IMPOUNDMENTS

Policies

1) In the coastal zone, OCRM will apply the following policies in review and certification of permit applications for wetland impoundments:

a) Impoundment of previously undisturbed salt, brackish or tidal freshwater wetlands will be discouraged.

b) Impoundments are preferred in areas dominated by vegetation and water salinities characteristic of freshwater conditions rather than salt or brackish conditions.

c) The construction of dikes or embankments to create impoundments must not block public waterways navigable to commercial and recreational craft unless there is an overriding public necessity.

d) Wetland impoundments must be constructed in such a manner as to minimize adverse environmental impacts, including consideration for control of mosquitoes.

e) Permit applications for wetland impoundments must include a detailed plan, subject to review and approval by OCRM.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following policies be considered in location and design of wetland impoundment proposals:

a) The inclusion of buffer zones, where appropriate, between the impoundment dike and the mean high water line of adjacent waterways, to help both in preventing erosion and providing limited marine and terrestrial habitat.

VIII. DREDGING

A. DREDGING

Policies

1) In the coastal zone, OCRM review and certification of permit applications for dredging projects will be based on the following policies:

a) To the extent feasible dredging should be performed only during closed shellfishing season if proposed in a productive shellfish area.

b) Suspended sediments must be kept to a minimum. The use of structures such as weirs and silt curtains to minimize water quality degradation is encouraged. Where highly toxic sediments are encountered, dredging will be prohibited unless the activity is consistent with other dredging policies, as well as those for manufacturing or other industrial activities.

c) Dredging should not reduce water circulation, water currents, mixing, flushing or salinity in the immediate area.

d) Dredging for establishment of new canals which involves permanent alteration of valuable wetland habitats will be prohibited unless no feasible alternative exists or an overwhelming public interest can be demonstrated. Establishment of canals for purposes of creating waterfront lots from inland property, especially where dead end canals would result, will be prohibited unless it can be demonstrated that there will be no significant environmental impacts.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

Management Authority

In the critical areas of the coastal zone, a permit from OCRM is required for any dredging activity other than a Federal activity (in which case Federal consistency provisions would apply). The Rules and Regulations of OCRM outline the conditions that must be satisfied for such permits to be issued.

Outside the critical area of the coastal zone, DHEC-EQC has permit authority for dredging activity below mean high water. OCRM must review and certify applications to DHEC as being in compliance with the preceding policies, as mandated by *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act, and as outlined in the Memorandum of Agreement between the two agencies.

In certain locations, permits from Federal agencies will be required for dredging operations. OCRM will review and certify these permit applications for their consistency with the coastal program.

B. DREDGED MATERIAL DISPOSAL

Policies

1) In the coastal zone, OCRM review and certification of permit applications for dredged material disposal projects will be based on the following policies;

a) To the maximum extent feasible, dredged material must not be placed on high value natural habitats such as salt, brackish or freshwater wetlands; submerged vegetation; oyster reefs or tidal guts. Where upland disposal is not possible, areas of relatively low productivity should be utilized, or ocean disposal should be employed

b) Upland dredge material disposal sites must be stabilized and maintained where necessary to prevent erosion and direct water run-off.

c) Where water disposal is necessary, natural channels must not be blocked with dredged material, and impact on existing water circulation should be minimized. Deposition in water areas of higher flushing rate will decrease damage from suspended sediments and oxygen depletion.

d) Consideration must be given to the temporal aspects of spoil deposition such as impacts on spawning seasons, fish migrations, waterfowl nesting and wintering areas, and mosquito control.

e) The selection of upland dredge disposal sites should include consideration for minimizing negative impacts on valuable terrestrial wildlife or vegetative habitats.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following policies be considered in planning for dredged material disposal:

a) Consideration for future maintenance of the spoil area, for example, development of spoil islands which have been found to be beneficial for terrestrial habitat and migratory waterflow.

b) Abandoned sand or gravel pits in proximity to a dredge site, where spoil can be more adequately contained, should be used for disposal areas.

c) Consideration for reuse of spoil disposal sites, such as development of public parks or recreational areas.

d) Conservation for the mining of spoil areas so as to extend their life expectancies.

e) Prior to major dredging projects, the economic and environmental feasibility for alternative use of the dredged material should be studied. The physical and chemical characteristics of the spoil should be determined in order to decide the most appropriate

disposal options. Spoil suitable as fill material for residential, commercial or industrial development should be utilized for such uses. Spoil shells can be used to stimulate oyster production or for dike construction. Beach renourishment and spoil disposal are related issues and should be addressed concurrently.

Management Authority

In the critical areas of the coastal zone, OCRM has direct permitting authority for location of disposal sites for dredged material. The policies in the Rules and Regulations for Permitting, as well as the procedures thereunder, shall be applied.

Act 508 of the 1978 S. C. General Assembly gave OCRM authority for the granting of rights and easements to the Federal government for spoil disposal sites for purposes of maintenance of navigable waterways, including the Atlantic Intracoastal Waterway. This authority was shifted from the S. C. Development Board where it had previously been located. (S.C. Code *Section 3-5-40*, et seq., Supp. 1993)

Outside of the critical areas in the coastal zone, DHEC-EQC has permitting authority for dredged material disposal sites which are below mean high water. Permit applications to DHEC are reviewed and certified by OCRM as being consistent with the Coastal Management Program, as mandated by *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act.

Section 150(A)(2) of the Coastal Management Act states that:

> If the proposed project is in one or more of the State's harbors or in a waterway used for commercial navigation and shipping or in an area set aside for port development in an approved management plan, then a certificate from the South Carolina State Ports Authority declaring the proposed project or activity would not unreasonably interfere with commercial navigation and shipping must be obtained by the Department prior to issuing a permit.

The Department of Health and Environmental Control has responsibility for vector control throughout the State. Their expertise in mosquito abatement and control will be important in evaluation of the plans for on-going disposal area management. Comments from DHEC, Vector Control Division, are solicited on all OCRM permit applications.

In most areas a Federal agency permit will be required for dredge material disposal. Permit applications to appropriate Federal agencies must be reviewed and certified by OCRM, under Federal consistency provisions of the Coastal Management Program.

C. UNDERWATER SALVAGE

Policies

1) In the coastal zone, OCRM review and certification of underwater salvage permits will be based on the policies for dredging activities when applicable, VIII(A).

2) In the critical areas of the coastal zone, it is OCRM policy that:

Any dredging and dredge material disposal associated with a salvage operation will be subject to the policies for dredging as expressed in the Rules and Regulations for Permitting, and VIII(A)(1) of this section.

Management Authority

Underwater salvage operations are subject to the permitting authority of OCRM if such operations will alter or disturb a critical area. The Institute of Archeology and Anthropology also controls such operations through a permitting program. Application for such permits will be reviewed and certified for consistency with the Coastal Management Program, as mandated by *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act.

Outside of the critical areas in the coastal zone, underwater salvage operations may be subject to DHEC-EQC authority, in addition to that of the Institute of Archeology and Anthropology. OCRM review and certification of permit applications to DHEC are required.

In some areas a permit for underwater salvage operations may be required by a Federal agency. Applications for these permits must be reviewed and certified by OCRM, subject to Federal consistency provisions.

IX. PUBLIC SERVICES AND FACILITIES

A. SEWAGE TREATMENT (treatment plants and associated transmission systems, lagoons, impoundments, and outfalls; septic tanks)

Policies

1) In the coastal zone, OCRM review and certification of sewage treatment and disposal permit applications will be based on the following policies:

a) Sewage treatment facilities and transmission systems in the coastal zone must meet applicable Federal, State and local construction and water quality standards.

b) OCRM will coordinate with designated 208 Areawide Waste Treatment Management implementation agencies (pursuant to *Section 208* of the Federal Water Pollution Control Act Amendments, P. L. 92-500) and other agencies with responsibility for implementing comprehensive plans affecting sewage treatment, to ensure that proposed projects are compatible with growth and development plans and that alternative locations for sewage treatment facilities are considered.

c) Construction of such facilities in productive salt, brackish or freshwater wetlands will not be approved where feasible alternatives exist. For locations adjacent to such sensitive habitats, priority consideration will be given to major public facilities over smaller, private package plants.

d) Sewage treatment facilities shall be constructed to limit effluent discharge as much as possible into areas containing productive shellfish beds. Construction of facilities shall in no case degrade the existing water quality classification of the receiving water body, and if the current classification is not the highest achievable, the plans shall show a consideration for the water body ultimately achieving the highest classification. In addition, the facilities shall be constructed in conformance with the appropriate policies contained elsewhere in the plan. Where appropriate, construction of the facilities and associated transmission systems shall be timed so as not to disrupt spawning seasons or migrations of significant marine resources.

e) Outfall locations should consider water depth, circulation and mixing in order to protect water quality. Effluent should not be discharged into poorly flushed estuarine areas.

f) Maximum study and analysis should be given to alternatives to conventional treatment methods; for example, land disposal, water conservation techniques, land application and overland flow.

g) OCRM will ensure that all proposed septic tank systems requiring a State permit will meet current DHEC standards and regulations.

h) OCRM will also coordinate with local health departments, DHEC, and other implementing agencies to ensure that septic tank standards and regulatory enforcement are adequate to protect coastal resources.

i) Extension of public sewage treatment systems with excess capacity into previously undeveloped areas where the resulting growth would have detrimental impacts on the critical areas is discouraged.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications. In addition to the Regulations, the following policies also apply:

a) OCRM will coordinate with the Department of Health and Environmental Control (DHEC) and the designated 208 Areawide Waste Management and 201 Construction Grants implementation agencies to ensure that protection of critical areas is given priority in their programs and that processes are developed to prevent adverse effects from sewage facilities and discharges.

b) OCRM will coordinate with DHEC-Office of Health Services and local health departments or other implementing agencies to ensure that septic tank standards and regulatory enforcement are adequate to avoid adverse effects on critical areas.

3) OCRM also **recommends** that the following policies be considered in planning and design of sewage treatment facilities:

a) Providing visual buffer areas around sewage treatment facilities.

b) Private package treatment plants proposed in subdivision areas and other developments should either be contained in the existing 208 Waste Treatment plan or receive 208 program approval before they are constructed.

c) Excess capacity in treatment facilities should not be approved unless the projects are contained in 208 plans and meet population projection for the area.

Management Authority

In the critical areas of the coastal zone, proposed construction of any new structure or facility to treat sewage must first receive a permit from OCRM. This authority extends to placement of pipes or lagoons or any other activity which alters a critical area. Normal maintenance and repair and actual effluent discharge are exempted; however, OCRM has the opportunity for review and comment on these activities.

In the coastal zone outside of the critical areas, there is an overlap of State agency authorities for sewage treatment facilities. Both the Budget and Control Board and the Department of Health and Environmental Control (DHEC) have regulatory authority over several aspects of sewage treatment facility placement and operation (discussed in detail in the Legal Authorities chapter in the full program document). DHEC retains regulatory authority over septic tanks with flow rates of 1500 gallons per day or greater (*Section 44-1-140*, S.C. Code of Laws). The permits of these agencies, whether issued jointly or independently, are subject to review and certification by OCRM to ensure compliance with the preceding policies, as mandated by *Section 48-39-70(A)* and *48-39-80(B)(11)*.

B. SOLID WASTE DISPOSAL

Policies

1) In the coastal zone, OCRM review and certification of permit applications for solid waste disposal sites and facilities will be based on the following considerations:

a) All solid waste disposal sites in the coastal zone must meet applicable Federal, State water and air quality standards and local regulations for siting and operation.

b) The location of solid waste disposal or landfill sites in salt, brackish or freshwater wetlands will not be approved unless no alternative exists and an overwhelming public need can be demonstrated. Wherever possible, solid waste disposal sites must be located in appropriate upland sites, where they will not pollute surface water, coastal waters or ground waters. Site-specific evaluations are made in each case by the Department of Health and Environmental Control to determine the suitability of the site, considering variables such as soil permeability, the characteristics of the leached refuse, and the distance from groundwater.

2) In critical areas of the coastal zone, it is OCRM policy that:

a) Wetlands shall not be utilized as depositories for waste materials [*R.30-12*].

b) Policies for deposition of dredged materials shall also apply to solid waste disposal activities (excluding incineration).

3) OCRM also **recommends** that the following be considered in solid waste disposal planning in the coastal zone:

a) Maximum study and analysis should be given to alternative means or techniques for refuse disposal such as recycling, reuse, burning for generation of electrical power, etc.

Management Authority

The alteration of a critical area, which includes filling or draining, requires a permit from OCRM. The Rules and Regulations for Permitting apply to proposed solid waste disposal sites or facilities for critical areas.

Outside of critical areas in the coastal zone DHEC-EQC requires permits for any use, including filling, of lands below mean high water. Permit applications for solid waste disposal in such areas must be reviewed and certified by OCRM for compliance with the coastal management program. The Department of Health and Environmental Control issues permits for and otherwise regulates solid waste disposal outside of critical areas. Such permit applications are also subject to OCRM review and certification. The administration of these regulatory authorities must be in compliance with the rules, regulations and policies of the Coastal Management Program as specified in *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the Coastal Management Act of 1977.

C. PUBLIC/QUASI-PUBLIC BUILDINGS (structures including but not limited to churches, governmental administration buildings, public park information centers, police and fire stations, public beach restroom facilities)

Policies

1) In the coastal zone, OCRM review and certification of permit applications for public/quasi-public buildings will be based on the following policies:

a) For locations immediately adjacent to the shoreline, the water-dependent nature of the structure must be demonstrated. A water-dependent facility is one which requires access to or use of the water as an essential aspect of its primary function.

b) Permanent alterations to productive salt, brackish or freshwater wetlands, from either dredging or filling for the construction of public buildings will not be approved unless no feasible alternatives exist or there is an overriding public interest or need.

c) The use of construction methods and site drainage plans which reduce erosion hazards and limit the direct discharge of storm water run-off an encouraged in order to protect coastal water quality. To the extent feasible, public buildings should not be located in high flood zone areas, as designated under the Federal Flood Insurance Program. Where public buildings must be located in these zones, they must meet applicable Flood Insurance criteria and/or building standards.

d) Plans for major public buildings or complexes must include adequate sewage disposal systems (septic tanks or treatment systems), meeting Federal Environmental Protection Agency, South Carolina Department of Health and Environmental Control, and local health department standards.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) Further, OCRM **recommends** that the following policies be considered with respect to public/quasi-public buildings in the coastal zone:

a) Encourage visual compatibility, to the maximum extent practicable with surrounding development and natural resources in terms of scale, height, materials, color, texture, and geometry of building and site design.

b) Development of local plans and development regulations that address the location and design of public/quasi-public buildings.

Management Authority

The construction of any public/quasi-public building in a critical area requires a permit from OCRM. Any alteration of a critical area requires a permit under OCRM's direct permit authority as implemented through the Rules and Regulations for Permitting.

The S. C. Department of Health and Environmental Control has permit authority for any septic tank (1500 gpd or greater) or sewage system associated with such buildings. These permit applications are subject to review by OCRM for certification of compliance with the preceding policies of the Coastal Management Program, based on *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the Coastal Management Act of 1977.

If fill below the mean high water is proposed for site preparation or construction, a permit would be required from the Budget and Control Board. These applications also are subject to the review and certification process of the Council.

D. DAMS AND RESERVOIRS

Policies

1) In the coastal zone, OCRM review and certification of permit applications or project proposals for dams and reservoirs will be based on the following policies:

a) Floodplain and ecosystem management and other non-structural solutions are generally preferred to the erection of dams or flood control structures.

b) Water control structures and water management programs should be designed to preserve or upgrade existing water quality. Best management practices should be used upstream of the dam or reservoir to reduce agricultural and construction run-off and sedimentation thereby reducing the threat of eutrophication in the reservoir. This will also reduce the load of sediments deposited behind the dams, thereby prolonging the life of the facility.

c) To the extent feasible, dams should allow for retaining some degree of circulation of waters and sediment flow. This will help preserve water quality and aquatic habitats downstream, and maintain the sediment budget, which is important to related erosion problems in beach and shoreline areas downstream.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

3) OCRM also **recommends** that the following additional policies be considered for dams and reservoirs in the coastal zone:

a) Installation of fish lifts where appropriate to facilitate the migratory passage of fish.

b) Design of release gates to allow water to be let out from different depths in the reservoir for control of temperatures at appropriate levels for downstream aquatic life.

c) When wildlife habitats are inundated or otherwise disturbed by construction of dams or flood control structures, lands suitable for wildlife management should be acquired elsewhere.

d) Encourage the restoration of previous natural conditions in abandoned reservoir areas.

Management Authority

Any dam or reservoir proposed to alter a critical area would be under direct permit jurisdiction of OCRM.

DHEC-EQC has permit authority over the construction of dams and reservoirs, other than those constructed by the U.S. Army Corps of Engineers or Soil Conservation Service, or licensed by the Federal Energy Regulatory Commission or S. C. Public Service Authority. This authority is for the safe maintenance of such structures and is based on the powers of inspection and certification for dams and reservoirs. (S. C. Dams an Reservoirs Safety Act, Act 60 of the 1977 General Assembly.) Permit applications for this activity will be reviewed by OCRM for certification of their compliance with the preceding policies. This review and certification process is mandated by *Sections 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act.

The S. C. Public Service Authority (PSA) has authority to construct dams for certain purposes in the Cooper and Santee Rivers in the coastal zone. Coordination of the activities and policies of the two agencies, as mandated by *Section 48-39-70(A)* of South Carolina's coastal legislation, will be accomplished through provision of the Memorandum of Agreement between PSA and the Coastal Council.

The South Carolina Budget and Control Board has authority for permits for alterations to waters or submerged bottoms of the State below the mean high water line (MHW), outside the critical areas. These permits are subject to the review and certification process of OCRM as mandated by *Section 48-39-70(A)* and *48-39-80(B)(11)* of the South Carolina Coastal Management Act.

E. WATER SUPPLY

Policies

1) In the coastal zone, OCRM review and certification of permit applications for water supply facilities will be based on the following policies:

a) OCRM will coordinate with DHEC in its efforts to ensure that groundwater is adequately managed, and that proposed withdrawals will not cause saltwater intrusion, land settling or other negative impacts.

b) OCRM will coordinate with designated 208 Areawide Waste Treatment Management implementation agencies (pursuant to *Section 208* of the Federal Water Pollution Control Act) and other agencies with responsibility for implementing comprehensive plans affecting water supply, to ensure that proposed projects are compatible with growth and development plans and that alternative locations for water supply facilities are considered.

c) Water supply facilities and transmission systems in the coastal zone must meet applicable Federal/State, and local construction and water quality standards.

d) Construction of such facilities in or adjacent to productive salt, brackish, or freshwater wetlands will be prohibited unless no feasible alternatives exist. Construction activities should be timed so as not to disrupt shellfish harvesting, spawning seasons or migratory fish populations.

2) Within the critical areas of the coastal zone OCRM has direct permitting authority and shall apply the current OCRM Regulations (printed under separate cover) when making decisions on direct permit applications.

Management Authority

Water supply activities, including the use of pipelines, pumping stations and treatment plants, in a critical area require a permit from OCRM.

Outside of the critical areas of the coastal zone, the Department of Health and Environmental Control (DHEC) has regulatory authority and issues permits concerning water supply. DHEC requires a permit for construction, expansion, or modification of public water supplies. Permit applications for this activity must be reviewed and certified by OCRM for compliance with the Coastal Program as mandated by *Section 48-39-70(A)* and *48-39-80(B)(11)* of the S. C. Coastal Management Act. In capacity use areas, as declared by DHEC, permits are required for the extraction of more than 100,000 gallons per day of groundwater and may be required for lesser amounts. (This does not apply to domestic wells.) These permit applications are also subject to the review and certification authority of OCRM.

X. EROSION CONTROL

The planning process, policies, and management authority for this element are contained in Chapter IV(C), Erosion Control Program.

XI. ENERGY AND ENERGY-RELATED FACILITIES

The planning process, policies, and management authority for this element are contained in Chapter IV(B), Energy Facility Planning Process.

XII. ACTIVITIES IN AREAS OF SPECIAL RESOURCE SIGNIFICANCE

The following types of areas in the South Carolina coastal zone have been identified through the resource inventory efforts of the Office of Ocean and Coastal Resource Management (OCRM) as being unique and either environmentally fragile or economically significant to the coastal area and the State. These areas of special resource significance are:

- Barrier Islands
- Dune Areas (outside the critical area)
- Navigation Channels
- Public Open Spaces
- Wetlands (outside the critical area)

Because of this sensitivity and their role as an integral part of the coastal ecosystem, alterations in these areas are likely to have direct effects on the critical areas. Because of their value and characteristics OCRM employs the additional resource policies presented in this section in review and certification of any permits associated with an activity in one of these areas. This is done in an effort to protect the value of the critical areas and of all coastal resources. The applicable policies for the individual activity which is proposed, as well as the general guidelines for evaluation of all projects, are also considered by OCRM in permit and project reviews in these areas.

Management Authority

OCRM has no direct permit authority in any of these areas (with the exception of critical areas of a barrier island and navigation channels, which come under the "coastal waters" category if within the critical areas boundary, and are then under the direct permit jurisdiction of OCRM.) Resource policies in these areas will be implemented through the "network" of existing State agency authorities, and OCRM's review and certification of the permit actions of these agencies (as discussed in detail in the "Legal Authorities and Networking" segment of Chapter V.) The specific state agency with direct authority for each project will depend on the type of project or permit involved in the development proposal.

A. BARRIER ISLANDS

Policies

Because of their fragile and dynamic nature and their resource value, OCRM will consider the following additional policies in review of permit proposals on barrier islands. (Within critical areas of a barrier island, the Rules and Regulations for Permitting applicable to the proposed activity will apply.)

1) Construction and development on barrier islands shall retain to the extent feasible existing dune ridges, drainage patterns and natural vegetation in landscaping and construction plans in order to maintain the value of the island as a storm buffer. Intensive or high density type development may not be suitable on some barrier islands which are less stable or more prone to erosion or other hazard risks; these factors must be taken into consideration when alternative development plans are formulated.

2) Because of their proximity to and strong ecological relationship with the critical areas of the coastal zone, project proposals for activities on barrier islands must demonstrate reasonable precautions to prevent or limit any direct negative impacts on the adjacent critical areas (beaches, beach/dune system, coastal waters and wetlands).

3) New road or bridge projects involving the expenditure of public funds to provide access to previously undeveloped barrier islands will not be approved unless an overwhelming public interest can be demonstrated, for example, provision of access to a public recreation area or other facility. Preference will be given to ferry access in those instances where public funds cannot be expended for road access.

4) The extension of public services, such as sewer and water facilities, to barrier islands should only be proposed in a comprehensive approach which considers the natural "carrying capacity" of the island to support development and which integrates these facilities to parallel the level of access which is available to the island.

5) OCRM encourages and supports State, local and private efforts to acquire coastal barrier islands for inclusion in preservation and protection programs. Public recreational benefit should be one primary motivation for these efforts, and where appropriate, barrier islands should be maintained for recreational use, based on the capacity of individual areas to accommodate human activity.

B. DUNE AREAS (OTHER THAN CRITICAL AREAS)

Policies

In review and certification of permit applications to other State agencies for proposals in the sand dune areas, OCRM will consider the following additional policies:

1) Because of their proximity to and strong physical and ecological relationship with the beach and beach/dune system critical areas of the coastal zone, project proposals in secondary sand dunes must demonstrate reasonable precautions to prevent or limit any direct negative impacts on the adjacent critical areas.

2) Special attention must be given in new construction activities in ocean-front areas to prevent or mitigate negative impacts on adjacent property owners, specifically, increased erosion or loss of protective dune formations on adjacent lots due to unnecessary destruction of or encroachment onto stable dunes.

3) Project proposals in ocean-front and sand dune areas must conform to the policies of the Beach Erosion, and Beach and Shoreline Access sections of the Program, as well as other applicable Resource Policies.

Recommended Policies

1) Local governments with coastal shorefronts are encouraged to develop and implement strong local zoning and building ordinances for beach and sand dune areas.

2) Property owners, development interests and local governments are encouraged to institute and observe set-backs or buffer zones for construction in beach and dune areas.

C. NAVIGATION CHANNELS

Policies

(A majority of navigation channels in the South Carolina coastal zone are within the critical areas, and therefore, subject to direct jurisdiction of OCRM for the issuance of the State permit required for any alteration, and the Rules and Regulations for Permitting shall apply, as well as the following general policies.)

OCRM will consider the following policies in review and certification of permit applications for projects in or directly affecting existing navigation channels:

1) Development which would result in loss of navigability will be prohibited.

2) Development which might increase upland soil and shoreline erosion problems and resulting siltation of navigation channels must utilize the best mitigation measures feasible that will effectively relieve the problem.

3) The South Carolina State Ports Authority, as mandated under *Section 48-39-150(A)(2)* of the Coastal Management Act, shall review applications for permits in navigable waterways in the critical areas and certify prior to the issuance of such permit that the project or activity would not unreasonably interfere with commercial navigation.

4) Resource Policies and Rules and Regulations for Permitting which apply to Dredging and Dredge Material Disposal shall be applied.

D. PUBLIC OPEN SPACES

Policies

OCRM will apply the following policies in review and certification of permit applications located in or which would directly affect public open space areas:

1) Project proposals which would restrict or limit the continued use of a recreational open area or disrupt the character of such a natural area (aesthetically or environmentally) will not be certified where other alternatives exist.

2) Efforts to increase the amounts and distribution of public open space and recreational areas in the coastal zone are supported and encouraged by OCRM.

E. WETLANDS (OUTSIDE THE CRITICAL AREAS)

Background

OCRM is required by both State and Federal law to review projects in the State's coastal zone which require State and Federal permits to determine if the project is consistent with the

Coastal Zone Management Program. To provide incentive for developers to approach wetland management on a comprehensive basis, and to provide some flexibility when developing adjacent to wetlands, OCRM uses a wetland master planning concept as stated below. The concept is simple and effective and has greatly reduced wetland conflicts in the coastal zone. Wetland master planning is applied to all projects undergoing consistency certification in the coastal zone, including *Section 404* wetland permits issued by the U.S. Army Corps of Engineers. The Corps of Engineers is mandated by Federal law to delineate wetlands. Once delineated by the Corps of Engineers, OCRM manages the wetlands through the policies contained in Chapter III of the State's Coastal Zone Management Program document.

Wetland Master Planning

OCRM encourages a comprehensive approach to wetland management. To promote such an approach, OCRM utilizes a "wetland master planning" concept.

If a pre-development wetland master plan is prepared for a project, identifying all wetlands, drainage patterns and conceptual development, isolated freshwater wetlands of one (1) acre or less in total size may be incorporated into the project development without restrictions provided:

1. The wetlands contain no endangered species or critical habitat, and;

2. The wetland losses are adequately mitigated.

The wetland master plan must be certified by OCRM with input from other reviewing agencies. In the absence of a wetland master plan, the Resource Policies, Chapter III, Coastal Zone Management Program, will be utilized to guide project certification.

Policies

OCRM will apply the following policies in review and certification of permit applications in freshwater wetland areas:

1) Project proposals which would require fill or other significant permanent alteration of a productive freshwater marsh will not be approved unless no feasible alternative exists or an overriding public interest can be demonstrated, and any substantial environmental impact can be minimized.

XIII. STORMWATER MANAGEMENT GUIDELINES

Most land disturbing activities in South Carolina must comply with the requirements and applicable regulations of the Erosion and Sediment Reduction Act of 1983 (48-18-10, **et. seq.**), or the Stormwater Management and Sediment Reduction Act of 1991 (48-14-10, **et. seq.**). The final regulations, effective on June 26, 1992, pursuant to the Storm Water Management and Sediment Reduction Act of 1991, establish the procedure and minimum standards for a statewide stormwater program. Section *R.72-304F* of the regulations states that "OCRM, in coordination with the Commission, will serve as the implementing agency for these regulations in the jurisdictions of the local governments which do not seek delegation of program elements in the counties of Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Horry and Jasper." In addition, Section *R.72-307C(5)(g)* states that "For activities in the eight coastal counties, additional water quality requirements may be imposed to comply with the OCRM Stormwater Management Guidelines. If conflicting requirements exist for activities in the eight coastal counties, OCRM guidelines will apply."

Pursuant to the Coastal Zone Management Act, OCRM is responsible for protecting the environmentally sensitive areas of our coast. While the regulations of the Stormwater Management and Sediment Reduction Act adequately address most nonpoint source pollution problems, the need exists for establishing additional criteria to protect sensitive coastal waters.

A. STORMWATER RUNOFF STORAGE REQUIREMENTS

The regulations of the Stormwater Management and Sediment Reduction Act require that "permanent water quality ponds having a permanent pool shall be designed to store and release the first 1/2 inch of runoff from the site over a 24-hour period. The storage volume shall be designed to accommodate, at least, 1/2 inch of runoff from the entire site." For all projects, regardless of size, which are located within one-half (1/2) mile of a receiving water body in the coastal zone, this criteria shall be storage of the first 1/2 inch of runoff from the entire site or storage of the first one (1) inch of runoff from the built-upon portion of the property, whichever is greater. Storage may be accomplished through retention, detention or infiltration systems, as appropriate for the specific site. In addition, for those projects which are located within 1,000 (one thousand) feet of shellfish beds, the first one and one half (1 1/2) inches of runoff from the built-upon portion of the property must be retained on site.

Receiving water bodies include all regularly tidally influenced salt and freshwater marsh areas, all lakes or ponds which are used primarily for public recreation or a public drinking water supply, and other water bodies within the coastal zone, excluding wetlands, swamps, ditches and stormwater management ponds which are not contiguous via an outfall or similar structure with a tidal water body.

B. PROJECT SIZE REQUIRING STORMWATER MANAGEMENT PERMITS

Section *R.72-305B(1)* states that "for land disturbing activities involving two (2) acres or less of actual land disturbance which are not part of a larger common plan of development or

sale, the person responsible for the land disturbing activity shall submit a simplified stormwater management and sediment control plan meeting the requirements of *R.72-307H*. This plan does not require preparation or certification by the designers specified in *R.72-305H* and *R.72-305I*." Due to the potentially damaging effect of certain projects of less than two (2) acres of land disturbance, stormwater management and sediment reduction plan submittal and regulatory approval shall be required for those smaller projects located within 1/2 mile of a receiving water body. Single family homes that are not part of a subdivision development are exempt from this requirement.

C. STORMWATER MANAGEMENT REQUIREMENTS FOR BRIDGE RUNOFF

The following is the criteria used to address stormwater management for bridges traversing saltwater and/or critical areas.

1) No treatment is necessary for runoff from bridge surfaces spanning SB or SA waters. This runoff can be discharged through scupper drains directly into surface waters. However, the use of scupper drains should be limited as much as feasibly possible.

2) If the receiving water is either ORW or SFH then the stormwater management requirements shall be based on projected traffic volumes and the presence of any nearby shellfish beds. The following matrix lists the necessary treatment practices over the different classes of receiving waters.

3) The Average Daily Traffic Volume (ADT) is based upon the design carrying capacity of the bridge.

AVERAGE DAILY TRAFFIC VOLUME (ADT)

		0-30,000	G.T. 30,000
Water Quality Class.	ORW (within 1000' of shellfish beds)	***	***
	ORW (not within 1000' of shellfish beds)	**	**
	SFH (within 1000' of shellfish beds)	**	***
	SFH (not within 1000' of shellfish beds)	**	**
	SA	*	*
	SB	*	*

*** The first one (1) inch of runoff from the bridge surface must be collected and routed to an appropriate stormwater management system or routed so that maximum overland flow occurs encouraging exfiltration before reaching the receiving body. Periodic vacuuming of the bridge surface should be considered.

** A stormwater management plan must be implemented which may require the overtreatment of runoff from associated roadways to compensate for the lack of direct treatment of runoff from the bridge surface itself. Periodic vacuuming should be considered. The use of scupper drains should be limited as much as feasibly possible.

* No treatment is required. The use of scupper drains should be limited as much as feasibly possible.

D. GOLF COURSES ADJACENT TO RECEIVING WATER BODIES

Golf course construction and maintenance practices result in the potential for significant negative impacts from the runoff of sediments, pesticides, herbicides and other pollutants. For this reason, when golf courses are constructed adjacent to receiving water bodies then the following practices are to be incorporated:

1) Minimum setbacks from the receiving water body of 20 feet for all manicured portions of the golf course (fairways, greens and tees) are required unless other acceptable management techniques are approved and implemented to mitigate any adverse impacts.

2) All drainage from greens and tees must be routed to interior lagoons or an equivalent stormwater management system.

3) To prevent the conversion of the stormwater system to critical area and to maintain positive drainage at high tides, all outfalls from the lagoon system must be located at an elevation above the critical area (if the discharge is to critical area) AND above the normal water elevation a distance to allow for storage of the first one inch of runoff. The volume which must be stored shall be calculated by multiplying the area of all the greens and tees by one inch. (Previously constructed stormwater management systems which meet all current and future storage requirements will not be required to modify outfalls.)

4) No greens or tees shall be located on marsh hummocks or islands unless all drainage can be conveyed to the interior lagoon system or to an equivalent onsite stormwater management system

5) Stormwater impacts to freshwater wetlands shall be limited by providing minimum 20 foot buffers, or an accepted alternative, between manicured areas (fairways, greens and tees) and the wetlands. This minimum buffer must be increased if land application of treated effluent is utilized in the area.

6) An integrated pest management system designed in accordance with current best technology practices must be employed on the course to limit the application of chemicals which, if over applied, may leach into the ground and adjacent surface waters.

7) In accordance with S.C. Department of Health and Environmental Control requirements, a two (2) foot separation must be maintained between the surface of the golf course and the ground water table where spray effluent is applied.

8) The normal ground water elevation must be established by a registered engineer or soil scientist.

9) All projects which are within 1000 feet of shellfish beds must retain the first 1 1/2 inches of runoff as otherwise described in c above.

10) If spray effluent or chemicals are applied to the turf via the irrigation system, all spray heads must be located and set so as to prevent any aerosols from reaching adjacent critical areas.

E. MINES AND LANDFILLS

Due to the significant amount of land disturbance involved in the construction of mines and landfills, these types of operations need to strictly adhere to sediment/erosion control requirements particularly when they are located near coastal waterways. When mining or landfill projects are located within 1/2 mile of receiving water bodies, pumping of ground water from sediment basins must be done with floating intakes only. Pumping of these basins must cease whenever the water levels come to within two (2) feet of the pond bottom. In addition, landfill planning must be designed on a comprehensive site basis for storm water management and sediment/erosion control; to include management practices for each separate cell as it is phased into the landfill.

F. NOTICE OF APPROVAL

All notices of approval must be in written form.

XIV. MITIGATION GUIDELINES

The avoidance of wetlands is preferable to mitigation. Mitigation of wetlands impacts is considered only after all policies of the S.C. Coastal Council Program Document and the Coastal Zone Management Act have been addressed and the policies are found to allow an alteration to wetlands. A mitigation plan must be submitted by the applicant and approved by OCRM for all projects which (1) require a coastal zone consistency determination, and (2) impact federally defined jurisdictional freshwater wetlands in the coastal zone, unless (3) OCRM determines that the impacts are so minimal as not to warrant mitigation. Mitigation requirements should be consistent with requirements of other regulatory agencies. Coastal zone consistency determination is required for all development projects in the eight county coastal zone of South Carolina which require state or federal permits or are direct federal activities. Activities which are exempted from both state and/or federal permits are not subject to consistency determination.

A. TYPES OF WETLAND IMPACTS WHICH MAY REQUIRE MITIGATION

1) Disposal of fill material. The direct placement of fill material into wetlands thereby changing elevations, flow pattern, and/or vegetative species composition.

2) Dredging or excavation of wetlands. The removal of vegetation and soils to create open water, for mining of resources, or for other purposes.

3) Clearing of wetlands. The removal of vegetation for the construction and maintenance of road rights-of-way (which do not require filling), utility easements, golf course play-throughs, or other purposes. The mitigation is one-time front-end mitigation in accordance with an approved mitigation plan and is not required for, and will not prevent, the continued maintenance of cleared areas. Mitigation is not required for hand clearing (non-mechanized clearing) of wetlands.

4) Ditching of wetlands. The excavation of ditches within federally defined jurisdictional wetlands with the purpose of lowering the water table and eventually causing a permanent alteration to the wetland system's hydrologic regime.

B. TYPES AND REQUIREMENTS OF MITIGATION

Applicants can choose the form of mitigation that best meets their site specific needs and opportunities. Options include (1) protection and enhancement (buffering), (2) restoration, or (3) creation, or a combination thereof. Any other form of mitigation will be evaluated on a case-by-case basis.

1) **Protection and enhancement of wetland systems (buffering).** The buffering of a wetland system is to provide additional protection to the values and functions of the natural system.

a) **Upland buffers**. "Upland" buffers are non-jurisdiction areas adjacent to wetland systems which will be left undisturbed. Limited clearing or underbrushing and pathways may be allowable in accordance with an approved mitigation plan. The clearing must be limited to small trees and shrubs less than 4 inches DBH (diameter at breast height). Larger trees must remain undisturbed unless they constitute a safety hazard. The soils must not be disturbed other than the planting of shrubs or trees for landscaping. Pathways must be no greater that four (4) feet in width and must not be paved or boarded. Sod, grassed lawns, gardens, fences or structures will not be allowed within the buffer. Completely undisturbed buffers with adequate assurances of protection can be reduced ten (10) feet in width (reference paragraph (e) below).

b) **Open water buffers**. Open water systems constructed adjacent to wetlands can be used as buffers provided that the hydrologic regime of the wetland is not altered.

c) **Assurances of protection**. Assurances for the protection of preserved wetlands, created wetlands, and buffers will be provided by the applicant as part of the application/certification process. This may take the form of deed restrictions, conservation easements, or other assurances of protection.

d) **Drawings**. A site plan must be submitted showing all wetlands and their associated buffers. Open water buffers must include a cross-section of the system with the seasonal high groundwater elevation and supporting documentation. Buffer areas and their protected wetlands must be platted and recorded, along with a description of the restrictions. This information must be made available to the property owners or potential buyers.

e) **Sizes of buffers**. Buffers in single family residential developments should average 35 feet in width; high density residential and light commercial (total commercial site development less than two acres) must average 50 feet; and heavy commercial and industrial developments must maintain an average 75 feet buffer area. The widths are averages; consideration will be given to physical and design constraints. Buffer areas must be plainly marked before, during, and after any construction activities to ensure that no encroachment occurs. Permanent signs saying "Protected Natural Area" are preferred. Buffer widths may be reduced by 10 feet in accordance with paragraph (a) above if set aside as completely undisturbed natural areas.

f) **Ratio of buffers to impacts**. No ratio of the area of buffers compared to the area of impacts will be used. The buffer must be adequate to protect the remaining wetlands in their entirety, generally requiring the buffer to completely circumvent the wetland system. However, consideration will be given to the total area of impacts versus buffer in evaluating the mitigation plan.

2) **Creation of wetland systems.** The creation of wetland systems involves the conversion of uplands (or non-jurisdictional wetlands) into wetlands. The wetland creation plan must be designed by a qualified professional wetland scientist to ensure a reasonable chance of success.

a) **Site selection.** Sites suitable for creation are prior converted wetlands, cut-overs, agricultural lands, or very young forest stands.

b) **Drawing submittals.** Drawings of the creation site should include a general location map; a specific site map plan view of the proposed creation area; cross-sectional drawings showing ground elevations and seasonal high groundwater elevation; and a conceptual vegetation cross-section before and after restoration.

c) **Hydrological engineering.** Plans must be submitted demonstrating that a long term wetland hydrological regime will be achieved. Creation adjacent to existing wetlands may be beneficial to obtain hydrology.

d) **Soils.** If at all possible, hydric soils from a wetland area to be filled or excavated should be used for the base soils of the created wetland. The creation site should be excavated below grade and backfilled with the hydric topsoil to a depth of 6 to 16 inches. This will provide a stock of seed and rhizomes to assist in vegetating the creation site. Usable hydric soils should be moved and spread quickly. If hydric soils are not available, non-hydric topsoils must be used. Under no circumstances should bare sub-soil be used as a planting medium.

e) **Establishment of vegetation.** A planting plan is necessary unless circumstances do not warrant such a plan. A planting schedule and species composition should be included in the plans. Vegetation should match that being altered as to species, density, and diversity.

f) **Evaluation of success.** A monitoring program must be established to assure compliance with success criteria. Both vegetation and hydrology must be addressed. Any problems detected during monitoring must immediately be evaluated as to the cause and measures must be taken to alleviate the problem and/or readjust the mitigation plan. Normal success criteria is 75% survival of plants over a three year period and/or a predominance of hydrophytic plant species from natural regeneration unless otherwise established in the mitigation plan. In addition, the monitoring must demonstrate a long-term wetland hydrologic regime has been achieved.

g) **Contingency plan.** A contingency plan must be developed on how detected problems will be corrected.

h) **Implementation schedule.** An implementation schedule for the mitigation must be submitted.

i) **Ratio of created wetlands to impacted wetlands**. A normal ratio is 1.5:1 unless the unavoidable loss occurs in extremely high value wetlands, i.e., sensitive habitat or geographical areas of particular concern in which cases mitigation ratios may be higher.

3) **Restoration of degraded systems**. This includes the restoration of wetland conditions on lands previously altered by man-made changes in vegetation, hydrology, or soils. Areas suitable for restoration include agricultural lands, mining sites, silvicultural lands, industrial sites, and other degraded wetland systems.

a) **Documentation**. The degraded nature of the system must be documented by the applicant before a restoration plan can be considered.

b) **Drawings**. Drawings of the proposed restoration site should include a general location map; a specific site map; plan view; the jurisdictional lines of the degraded wetland; cross sectional drawings showing ground elevations, drainage ditches, the seasonal high groundwater elevation; and a conceptual vegetative cross-section before and after restoration.

c) **Hydrological modification**. Any restoration project of an area that has been hydrologically altered must include a plan to restore the hydrologic regime.

d) **Establishment of vegetation**. Restoration plans must address the re-establishment of hydrophytic vegetation. In some cases natural re-vegetation will be appropriate. In others, a planting plan may be necessary; the planting plan should include species composition and their sizes, plant spacing and a planting schedule.

e) **Success evaluations**. Plans should include a monitoring plan to ensure the success of the project. A minimum of 75% survival rate and reasonable growth of planted species must be achieved to be considered successful. Natural regeneration of hydrophytic species may be considered in the evaluation. Failure to meet success criteria will require re-evaluation to correct any problems.

f) **Contingency plan**. A contingency plan must be developed for any areas that fail to meet the success criteria.

g) **Implementation schedule**. An implementation schedule for the restoration plan must be submitted.

h) **Ratio of restored wetlands to impacted wetlands**. The ratio of restored wetlands to impacted wetlands will be established on a case-by-case basis, depending upon the severity of the degraded wetland system. Ratios will generally be greater than 1.5:1.

4) **Offsite mitigation**. Offsite mitigation proposals will be considered if onsite mitigation is not possible. However, this does not preclude the consideration of offsite mitigation in other circumstances if the mitigation will provide a significant ecological benefit to the State of South Carolina. All mitigation must be within the State.

5) **Mitigation banking**. Mitigation banking will be considered for publicly constructed linear projects such as highway or pipeline construction and projects where no onsite mitigation is possible. The use of banking for other than the projects above will be considered in concert with other regulatory agencies if and when such mitigation banks or proposed or developed.

C. MONITORING AND COMPLIANCE

1) **Monitoring Reports**. A schedule for the submittal of monitoring reports to be prepared by the applicant will be established at the time of project approval. These reports will be used to determine when a project has achieved an acceptable success status.

2) **Compliance**. All projects involving mitigation will be placed on OCRM's periodic monitoring schedule for compliance. Periodic site inspections will be made by staff of OCRM, South Carolina Department of Natural Resources, U. S. Army Corps of Engineers or the U. S. Fish and Wildlife Service. Mitigation projects which are not in compliance with the applicant's approved plan will face enforcement procedures.

D. NOTICE OF APPROVAL

All notices of approval must be in written form.

CHAPTER IV

SPECIAL MANAGEMENT AREAS

A. GEOGRAPHIC AREAS OF PARTICULAR CONCERN

1. Introduction

Statutory Requirements

The Federal Coastal Zone Management Act of 1972, while recognizing the entire coastal zone of each state as an important and vital resource, also declares that certain areas are of even more, special significance, and warrant particular attention to their preservation and development. The Act requires, in *Section 305(B)(3)*, that each state inventory and designate the "Areas of Particular Concern" within its coastal zone as part of the state's program.

Section 923.21 of the Coastal Zone Management Development and Approval Regulations (**Federal Register**, Vol. 44, No. 61, March 1979) defines the Federal requirements for Geographic Areas of Particular Concern (GAPCs). The subsection reads as follows:

(a) **Requirement.** In order to meet the requirements of subsections 305(b) (3) & (5) of the Act, States must:

(1) Designate geographic areas that are of particular concern, on a generic or site-specific basis or both;

(2) Describe the nature of the concern and the basis on which designations are made;

(3) Describe how the management program addresses and resolves the concerns for which areas are designated; and

(4) Provide guidelines regarding priorities of uses in these areas, including guidelines on uses of lowest priority.

The major emphasis in the GAPC segment of a coastal management program, from the Federal viewpoint, is on the adequacy of the State's authority to manage those areas or sites which have been identified. To a lesser extent, the reasons specific areas are significant as coastal resources and the criteria which establish this significance are also important for inclusion. The individual states may inventory and identify those areas which are significant given the coastal problems or issues which are characteristic of that particular state. Guidance for this designation process is provided in the coastal legislation passed in South Carolina in 1977.

Section 48-39-80(B)(4) of the South Carolina Coastal Zone Management Act mandates that this comprehensive program include the identification of special management areas. It reads as follows:

In devising the management program OCRM shall:

(a) Inventory and designate areas of critical state concern within the coastal zone, such as port areas, significant natural and environmental, industrial and recreational areas.

These "areas of critical state concern" parallel the geographic area of particular concern requirements mandated by Federal legislation. The designation process and the areas identified as GAPCs can be devised so as to be consistent with policies for preservation and development of South Carolina's coastal resources, as stated in the South Carolina Coastal Zone Management Act.

Selected Approach

In order to meet both the Federal and State requirements, this report identifies, maps, and describes the Geographic Areas of Particular Concern in the eight-county coastal zone.

South Carolina has defined Geographic Areas of Particular Concern in its coastal zone in terms of three broad categories:

- Areas of unique natural resource value, including those exhibiting scarce or vulnerable natural habitats and physical features; those offering substantial recreational value; and those of vital importance in protecting and maintaining coastal resources.

- Areas where activities, development, or facilities depend on proximity to coastal waters, in terms of use or access.

- Areas of special historical, archeological or cultural significance.

For each of these categories, standards or criteria are defined, priority of uses within the area are specified, and the specific geographic sites or areas within the coastal zone are identified. Detailed descriptions of each designated site are found in Appendix F.

In the earliest phases of coastal zone management in South Carolina, an extensive National Resources Inventory was completed. This inventory, the pertinent State and Federal regulations, and considerable assistance from the Heritage Trust Program were the initial basis for designation of Geographic Areas of Particular Concern (GAPCs) within each of the four categories.

When a first draft of the GAPC segment was completed and adopted in draft form by the former South Carolina Coastal Council (now the Office of Ocean and Coastal Resource Management), it was mailed to the many individuals, and State and Federal agencies on the Council's mailing list. Numerous comments, corrections, and additions were received as a result, and subsequently these have been incorporated.

In addition, the County Citizens Working Groups, organized in each of the eight coastal counties, (described in Chapter V(E)) received copies of the first draft of the GAPC document. Meetings were held to discuss the Geographic Areas of Particular Concern in detail with staff and Council members. As a result, substantive input from every section of the coastal zone was received in the designation of South Carolina's Geographic Areas of Particular Concern.

The areas included in this section are of such special importance and concern to South Carolina that the State has established regulatory and /or management controls over them. The inclusion of these areas within the scope of the management program combined with the

critical areas designated by the S. C. Coastal Management Act -- tidelands, coastal waters, beaches, beach/dune system -- effectively cover all those areas of specific resource concern in South Carolina's coastal zone.

The authority which assures adequate management of GAPCs is *Sections 48-39-70(A)* and *48-39-80(B)(11)* (described fully in the Legal Analysis section) of the South Carolina Coastal Management Act. This coordination and certification authority is affirmed by Memoranda of Agreement (MOAs) executed between OCRM and each of the State agencies with authority over GAPCs. These MOAs specify the type and level of coordination as well as that programs will be administered in a manner consistent with OCRM policies for coastal zone of South Carolina. Their management in the future will be coordinated to ensure consistency with the policies of OCRM for Geographic Areas of Particular Concern.

Implementation

Special management consideration will be given to those areas designated as GAPCs through the process of issuance of permits in the critical areas, and review and certification of permits in the coastal zone. When a project overlaps with, is adjacent to, or significantly affects a GAPC, OCRM will carefully evaluate the project based on the criteria listed as the priority of uses which specifically address each type of GAPC. A project would be prohibited if it would permanently disrupt the uses of priority for the designated area. A project would be strongly discouraged or the permit conditioned if the project would interrupt, disturb or otherwise significantly impact the priority uses of the designated area.

For example, in consideration of the permit for a project adjacent to a State Park which would significantly interfere with the primary recreational activities of that GAPC, every effort would be made to preserve this highest priority use of the park. Although all listed priority uses would receive protection, OCRM would be committed to especially safeguard the highest priority use.

Future Designation of Geographic Areas of Particular Concern

As development and implementation of the coastal zone program continues, other areas which may deserve particular attention will be further studied. Nominations of potential GAPCs can be made to OCRM by other State agencies, Federal agencies, local governments, organizations, and interested private citizens. A new designation would be possible under any of the three existing GAPC categories.

When these potential areas of concern are identified, they will be reviewed by OCRM to determine the nature of concern, if they satisfy the appropriate designation criteria, and what type of management needs exist to ensure adequate preservation or control of the areas. OCRM can designate additional GAPCs after the management program has received final approval without requiring formal amendment to the program. Future designations can be accomplished once the required management authority is determined and executed.

New GAPCs would be automatically added, for example, when Heritage Trust Preserves and Scenic Rivers are designated as parts of the Heritage Trust Program or as a result of the Scenic Rivers Act in South Carolina. In addition, if a new natural resource area is developed or if a significant new coastal dependent activity needs special attention, application

to OCRM for designation as a new GAPC would be appropriate. As new GAPCs are designated in South Carolina, OCRM will specify the priority uses for each new area.

Policies for Geographic Areas of Particular Concern

OCRM has designated the Geographic Areas of Particular Concern discussed in this document because of their unique importance as natural, aesthetic, recreational, scientific, or economic resources in the coastal zone. The existing State management authority for each GAPC is identified, and the priority of uses within each area is specified. In addition, management policies and permitting Rules and Regulations of OCRM for certain specified activities or alterations shall apply to designated GAPCs, where relevant.

Goals

The goals of the South Carolina coastal zone management program for preservation and development of GAPCs are:

> To give highest priority to the identified primary value of a GAPC when considering the preservation or development of that area.
>
> To ensure that management of GAPCs is consistent with other policies of the South Carolina Coastal Zone Management Program.

Objectives

The management of GAPCs shall be carried out in such a manner as to:

- prevent, where possible, the disruption of valuable coastal resources.
- protect the integrity of natural resource areas and preserve the unique and fragile areas.
- protect the habitats of wildlife and marine species, particularly those with special commercial, recreational or ecological value.
- improve access to and management of recreational areas.
- increase the usefulness of and access to economically important resources, without undue restrictions on the activities, while minimizing negative environmental impacts.
- avoid preemption of appropriate commercial growth where it is consistent with the use of the areas.
- encourage environmentally sound growth patterns and development practices where growth and development are priority uses of the area.
- discourage development in high-risk areas, where damage to life, property, and coastal resources in likely to be severe.

Areas of Preservation and Restoration

The Federal Regulations (*Section 923.22*, **Federal Register**, Vol. 44. No. 61, March, 1979) state that:

> Designations may be made for the purpose of preserving or restoring areas for their conservation, recreational, ecological, or aesthetic values.

The categories of GAPCs entitled Areas of Unique Natural Resource Value and Areas of Special Historic, Archeological or Cultural Significance include those designations of preservation and restoration areas. The priority of uses specified for each area will guide the protection of the areas once designated.

2. Geographic Areas

a. Areas of Unique Natural Resource Value

Unique natural resource areas include those exhibiting scarce or vulnerable habitats, living marine resources, and physical features; those offering substantial recreational value; and those of vital importance in protecting and maintaining coastal resources.

This category of Geographic Areas of Particular Concern (GAPCs) is especially significant because South Carolina's natural environmental attributes are a resource of great value, for ecological, aesthetic, recreational and commercial reasons. In the past, development has been relatively slow, so there are still unspoiled natural areas and abundant wildlife in the coastal zone to enjoy and protect. For example, over 400,000 acres of tidal marsh represent a vital link in the life cycle of a majority of commercial and sport fish species. The forests, marshes, streams, beaches, and coastal waters warrant critical attention in the State's coastal management program because of both their ecological and economic importance. It has become increasingly evident that these are finite and limited resources which need careful preservation and thoughtful management.

Management Authorities

Several different programs which involve State ownership, regulatory or management authority over natural resource areas exist in South Carolina. The specific authority is described in detail for each individual program in the following pages and is used in conjunction with OCRM's authority as described in the implementation section on the preceding page.

Criteria for designation

The criteria for designation of a natural area as a GAPC are that the area offers unique or important natural features which warrant special attention in the coastal management program.

To indicate the resource values which make these areas particularly significant, general criteria have been developed, drawing from the objectives contained in each of these programs. (Certain of the individual programs have further, specific criteria which are used to qualify areas for inclusion within the program, and these will be identified where such exist.)

OCRM recognizes the following criteria for designation of natural resource areas as Geographic Areas of Particular Concern:

1. The area consists of representatives of one or more coastal ecosystem types or habitats, is intact in the sense that essentially all of the expected species and

ecological processes are present in normal numbers and vigor, and meets one of the following conditions:

a. Alteration or destruction of the area would substantially impair the ability of one or more ecosystem types to perpetuate themselves;

b. The area has qualified as critical habitat for an endangered or threatened species, under the Endangered Species Act of 1973;

c. The area is unusually large or undisturbed in comparison to others of a similar kind, thus affording a unique opportunity for scientific observations or recreation.

2. The area represents superior habitat for species, which, while not endangered or threatened, are of vital importance as commercial or sports-oriented coastal resources.

3. The area affords maximum recreational opportunities in the coastal zone because of access to beaches or other waterfront, presence of unique physical or cultural features or natural habitats (see #1 above), and/or wide range of active and passive recreation opportunities in a natural setting.

1) The Heritage Trust Program

Management Authority

The South Carolina Heritage Trust Program was established by passage of State legislation in April 1976 (Act 600 of 1976). (An Advisory Board and initial staff efforts had begun subsequent to an Executive Order in 1974.) The Heritage Trust Advisory Board and the Department of Natural Resources (DNR) Board administer a system which provides for inventory, preservation, use and management of unique and outstanding natural or cultural areas. The public policy stated within the Act is:

> To secure for the people, both present and future generations, the benefits of an enduring resource of natural and cultural areas and features by establishing a system of Heritage Preserves and Sites.

This program provides for dedication of areas or sites by the owner to the Trust through transfer of fee simple title or lesser forms of ownership interest, such as open space easements. The Advisory Board and DNR Board review the proposed areas, which are nominated by the staff of DNR, other State agencies, and citizens of the State.

A major requirement of the program is provision of management criteria, rules and regulations, and "allowable use" guidelines for Heritage Preserves. A management plan must be developed for each property in the Heritage Trust. These management mechanisms are intended "to preserve the primary natural character of such areas or features and to provide the maximum public usage thereof which is compatible and consistent with the character of the area." (*Section 4 (7)*)

Priority of Uses

The following are the uses of priority for areas deeded into the Heritage Trust Program, beginning with the use of highest priority:

1) Uses which are consistent with the management plan developed for each property.

2) Uses which allow public enjoyment of the area as long as the primary natural character of the area is not disrupted.

3) Uses which are compatible with the area's wildlife and wildlife management.

Prohibited uses are any which jeopardize the integrity of the Heritage Trust Program.

Designated Sites

Because of their unique value as wildlife habitats and natural areas, all Heritage Trust lands in the coastal zone have been designated as Geographic Areas of Particular Concern. As the Heritage Trust Program identifies priority areas for preservation or acquisition efforts, this information will also be reviewed by OCRM staff and considered for designation as GAPCs, or as future or potential GAPCs.

2) State Wildlife Preserves

The extensive system of wildlife preserves and game management areas owned or leased by DNR are irreplaceable resources, as both protected wildlife habitats and recreational hunting and fishing areas. Because of their value to residents and visitors of the South Carolina coastal area, they have been identified as Geographic Areas of Particular Concern.

Management Authority

DNR is empowered to acquire land areas and enter into agreements with landowners and with the Federal government for purposes of managing wildlife species and establishing specific sanctuaries and game management areas (*Section 50-3-100*, Code of Laws of South Carolina, 1976). The areas owned and managed by DNR are vital resources of the coastal zone, for conservation of the State's wildlife and also for recreational hunting and fishing opportunities. As part of this management responsibility, a full management plan is prepared for each preserve, identifying short and long-term uses and guidelines for protection and use of the area.

Where critical areas, as defined in the South Carolina Coastal Management Act (Act 123 of 1977), occur within these preserves, additional control is afforded, since OCRM permits would be required for any alterations within the critical areas of these preserves.

Priority of Uses

The following are the uses of priority for areas designated as State Wildlife Preserves, beginning with the highest priority:

1) Uses which are consistent with the wildlife management plan for each preserve.

2) Uses which are compatible with the preserve's wildlife, wildlife habitats and wildlife management and simultaneously provide public recreational opportunities, such as hunting and fishing.

Designated Sites

Because of their significance as natural habitats and their inclusion under ownership and/or management authority of DNR, all existing wildlife preserves and game management areas in the eight coastal counties are GAPCs. As new acquisitions are made into the State system of wildlife preserves and game management areas, these will be designated as GAPCs in the South Carolina coastal zone.

3) State Parks

State park facilities in the coastal zone are valuable resources for the recreational, scenic and educational enrichment of residents and visitors alike. Because of this significance, major existing parks have been recognized as Geographic Areas of Particular Concern.

Management Authority

The South Carolina Department of Parks, Recreation and Tourism (PRT) is mandated to control and maintain the State parks system, and can accept or purchase lands for this purpose, with approval of the State Budget and Control Board (*Section 51-71*, S. C. Code of Laws, 1976). PRT must prepare a master plan for each major park facility, identifying plans for development of facilities, and the preservation and use guidelines for the park.

On a more long-range basis, PRT is developing an update to the South Carolina State Comprehensive Outdoor Recreation Plan (SCORP). The function of SCORP is to provide a guide for statewide recreation planning and development, and to maintain eligibility for Land and Water Conservation funds from the Federal Heritage Conservation & Recreation Service.

Where critical areas form part or all of State park facilities, OCRM will also have regulatory control. Any alterations within critical areas will require an OCRM permit. This authority will aid in assuring that the use and development of these cherished recreational resources remain consistent with policies and guidelines of the State's coastal zone program.

Priority of Uses

The following are the uses of priority for State Parks, beginning with the use of highest priority:

1) Varied recreational activities open to the public.

2) Non-intensive uses which require minimal feasible alteration and maintain the natural functions of the area.

3) Provision of educational opportunities to visitors of the parks.

Designated Sites

All existing State parks in the coastal zone are designated GAPCs. As PRT and OCRM identify other recreational resources which warrant particular State concern in the coastal program, these will be reviewed for designation. Proposed park sites should be included as priority or potential GAPCs. When new sites are added to the State parks system, these will be designated automatically.

4) Scenic Rivers

South Carolina is fortunate to have many river segments that still remain in a natural or near natural state. As such, these areas represent an important historical, cultural, and recreational resource. Rivers were the primary transportation system for early America, both for Indians and the later explorers and settlers. Consequently, archeological sites are found at waterfront locations.

Bounded by large expanses of swamp, several Lowcountry river segments have witnessed little development pressure and remain in primarily wilderness conditions. Other segments are good representatives of natural areas with wide species diversity.

As recreational resources, the rivers serve as a "one-way water trail," offering boaters a unique sense of adventure. The silent movement of a canoe affords the opportunity to observe numerous wildlife species which would not be possible to approach in other modes of transportation. The recreational potential of South Carolina's coastal rivers is both impressive and unique.

In recognition of this tremendous resource, OCRM recognizes river segments which have been designated as Scenic Rivers as Geographic Areas of Particular Concern.

Management Authority

In an effort to preserve and protect South Carolina's rivers, the 1974 South Carolina General Assembly passed the Scenic Rivers Act (Act 1106), which authorized DNR to designate scenic rivers. Proposals for designation may be made by State agencies, local governments, or citizens groups. To qualify, a river must possess unique and outstanding scenic, recreational, geologic, fish and wildlife, historic or cultural values, in addition to relatively unpolluted waters.

DNR is mandated to develop a comprehensive water and related use plan for designated rivers, with emphasis on protecting the significant resources of these scenic rivers. The management plans for each river segment must address the following:

Class I -- Maintenance of the wilderness character, with camping and river access allowed only at designated public access areas. Prohibiting new roads or buildings, mining and commercial timber harvesting.

Class II -- Preservation of the scenic values, with riparian landowners allowed customary agricultural activities, silviculture, and construction of compatible farm-use buildings. Mining and construction of roads paralleling the river are prohibited.

Class III -- Preservation of the scenic values, with landowners allowed agricultural, residential, recreational, commercial, and light industrial activities. Mining and construction of new roads paralleling the river are prohibited.

Where all or portions of a designated scenic river is located in the critical areas of the coastal zone, OCRM will also have management authority. A permit would be required for any activities or alterations in such a river segment.

The Federal Wild and Scenic Rivers Act (P.L. 90-542) was enacted in 1968. The three basic river classifications in that Act are: 1) wild, 2) scenic, and 3) recreational. These classifications generally parallel the three categories in the South Carolina Act; however, rules for management in the Federal law are more rigorous.

There are presently no national wild and scenic rivers in the coastal zone of South Carolina. However, the Federal Heritage Conservation & Recreation Service has inventoried numerous rivers in the coastal zone of South Carolina.

Criteria for Designation

The following criteria are those established for a river segment to qualify under the South Carolina Scenic Rivers program:

Class I -- Natural river

i) It must be free-flowing (no impoundments or diversions).
ii) The shorelines and scenic vistas must be essentially unchanged by man.
iii) There must be no extensive paralleling roads closer than one mile.
iv) In river gorges, there must be no extensive paralleling roads within one-quarter of the rim.
v) There must be only a limited number of road crossings and spur roads.

Class II -- Pastoral river

May be partially or predominately used for agriculture, silviculture and other dispersed human activities which do not substantially interfere with public use and enjoyment of rivers and the shores.

Class III -- Partially developed

The adjacent areas may be affected by works of man, but still possess actual or potential scenic, recreational or historic values.

Priority of Uses

The following are the uses of priority for Scenic Rivers, beginning with the use of highest priority:

1) Uses which are consistent with the management plans developed by DNR. Each plan will be a comprehensive water and related use plan designed to protect the significant resources of each river section designated.

2) Uses which maintain long-term natural functions of the river while affording public recreational activities, especially those of a passive nature.

The lowest priority uses would be those not related to the goals of the Scenic Rivers Program but which do not alter, reduce, or degrade the river resources or the integrity of the Scenic Rivers Program.

Designated Sites

All designated scenic rivers in the coastal zone are GAPCs. When new designations are made and easements or titles donated, these rivers automatically will be considered to qualify as GAPCs.

5) Marine and Estuarine Sanctuaries

The coastal waters and wetlands of the State are valuable natural resources which have yet to be spoiled by development or real estate speculation. The preservation and protection of these resources is paramount in determining the growth of the seafood as well as the tourist industries. There are many citizen groups active in pursuing these goals; and State governmental agencies, in particular DNR, have instituted research programs to document and inventory the marine environment. On this basis, OCRM feels that any area designated by the State of South Carolina, in conjunction with the U.S. Department of Commerce, as a marine or estuarine sanctuary will be a Geographic Area of Particular Concern (GAPC).

a) Marine Sanctuaries

Management Authority

Title III of the Marine Protection, Research, and Sanctuaries Act of 1972 (P.L. 92-532, 86 Stat. 1061), provides the Secretary of Commerce, with approval from the President, the power to designate those areas of ocean waters as far seaward as the outer edge of the Continental Shelf and all other coastal waters where the tide ebbs and flows, as marine sanctuaries. These sanctuaries are intended to preserve or restore such areas for their

conservation, recreational, ecological or aesthetic values. The Secretary of Commerce, prior to designating a marine sanctuary, must consult with the Secretaries of State, Defense, Interior, and Transportation and give due consideration to the views of the responsible officials of the affected state. The designation becomes effective sixty days after it is published, unless the governor of the state involved certifies to the Secretary of Commerce that the designation, or a specified portion, is unacceptable to his/her state. In this case the designated sanctuary will not include the certified unacceptable areas or become final until such time as the governor withdraws his certification of unacceptability.

On March 13, 1974, the Secretary of Commerce authorized the Administrator of the National Oceanic and Atmospheric Administration to exercise the authority granted under Title III. With this authority, NOAA has to develop proposed objectives, guidelines, criteria and procedures for designation of marine sanctuaries.

Potential marine sanctuary sites, where development seems imminent, are screened by the Federal Office of Ocean and Coastal Resource Management (OCRM) and the National Marine Fisheries Service. Development includes potential offshore as well as onshore sites, and is considered "imminent" if it is likely to occur within 18 months, or if actions to be taken within 18 months will establish the likelihood of development. OCRM offers the opportunity for state coastal zone management offices, commercial fishing organizations, development interests, environmental groups and the public-at-large to submit recommendations for marine sanctuary sites.

If any marine sanctuary areas are designated by the Secretary of Commerce, SCDHEC-OCRM is mandated under the State coastal zone management law (*Section 48-39-50(J)*, Act 123 of 1977) "to manage estuarine and marine sanctuaries and regulate all activities therein, including the regulation of the use of coastal waters located within the boundary of such sanctuary." The primary management authority would rest with OCRM. Its regulatory authority would also apply since any marine sanctuary would be located within the State's critical areas.

To date, the general management principles for marine sanctuaries mainly address regulation of development to be harmonious with the overlying principles of preservation and protection of the sanctuary. The classification of these areas will not affect multiple use which may be permitted to the extent the uses are compatible with the primary(s) for which each sanctuary is established. The establishment of marine sanctuaries may be to complement public or private, local, State or Federal government lands which have been set aside for similar purposes. The overall management of the sanctuary must include an initial and comprehensive environmental assessment. (This should complete the original EIS which must be submitted upon nomination.) A continued monitoring program and guidelines to enforce the policies also must be formulated.

Criteria for Designation

The program objectives for marine sanctuaries emphasize the idea of preserving, restoring or enhancing these areas for their conservational, recreational, ecological, research or aesthetic values. Examples of coastal waters which might meet designation status include:

(a) Areas necessary to protect valuable, unique or endangered marine life, geological features, and oceanographic features.

(b) Areas to complement and enhance public areas such as parks, national or state monuments and other preserved areas.

(c) Areas important to the survival and preservation of the nation's fisheries and other ocean resources.

(d) Areas to advance and promote research which will lead to a more thorough understanding of the marine ecosystem and the impact of man's activities.

b) Estuarine Sanctuaries (Reserves)

Management Authority

Section 315 of the Federal Coastal Zone Management Act of 1972 addresses the subject of estuarine sanctuaries and states that the Secretary may "make grants to any coastal state for the purpose of acquiring, developing, or operating estuarine sanctuaries..." Thus, the initiative for participating in the estuarine sanctuary program lies with the state, whereas nominations for marine sanctuaries can come from local, state or federal agencies or any interested persons.

The term "estuarine sanctuary," as defined in the Act, means "a research area which may include any part or all of an estuary and island, transitional area, and upland in, adjoining, or adjacent to such estuary, and which constitutes to the extent feasible a natural unit..." The purpose of establishing an estuarine sanctuary is to set aside an area which would serve as a natural field laboratory "to provide long-term opportunities for research, education and interpretation on the ecological relationships." (**Federal Register**, Vol. 58, No. 134, July 15, 1993)

These reserves would be areas which are relatively undisturbed by man at the time of acquisition and, therefore, could be used to make baseline ecological measurements. The designation of these areas would provide them with long-term protection, and multiple use of the reserves would be allowed to the extent that such use or uses are compatible with the primary uses of research and education.

The estuarine reserve program is intended to provide research data which would assist in coastal zone management decision-making. The State's coastal zone management program must be designed to protect the estuarine reserve. Management of estuarine reserves and land and water use regulations and planning considerations must be applied to adjacent lands. Management of estuarine reserves is the responsibility of the applicant state, and the reserves are intended to be incorporated into the state coastal zone management program. However, designation does not have to await the development and approval of a state's management program where operation of the reserve would aid in program development.

In South Carolina, OCRM and the management program, which is its responsibility, have authority for estuarine reserve planning and implementation of the necessary management policies and techniques. At this time, there are two designated estuarine reserves in the South Carolina coastal zone: the North Inlet/Winyah Bay NERR and the Ashepoo-Combahee-Edisto NERR.

Criteria for Designation

State applications for grants to establish estuarine reserves are carefully reviewed and judged on the following criteria:

1. Benefit to the coastal zone management program.
2. The ecological characteristics of the ecosystem, including its biological productivity, diversity and representativeness.
3. Size and choice of boundaries (should approximate a natural ecological unit).
4. Cost (Federal share of the cost for each sanctuary is limited to $2,000,000.).
5. Enhancement of non-competitive uses.
6. Proximity and access to existing research facilities.
7. Availability of suitable alternative sites already protected which might be capable of providing the same use or benefit.
8. Conflict with existing or potential competing uses.
9. Compatibility with existing or proposed land and water use in contiguous areas.

Designated Sites

All existing estuarine sanctuaries (reserves) are designated as GAPCs, as well as future reserves or marine sanctuaries.

Priority of Uses

Priority of uses will be determined for each estuarine reserve and marine sanctuary as it may be designated in the future. The priority of uses would be developed in accord with the Federal guidelines and monitoring program affecting the estuarine reserve or marine sanctuary and OCRM's regulatory authority over reserves and sanctuaries.

6) Shellfish Areas

a) Commercial Leases

Oysters and clams constitute extremely important economic resources of the coastal zone, and as such, the areas suitable for shellfish production in the coastal waters of the State are very significant. OCRM recognizes those bottom areas leased for commercial shellfishing as Geographic Areas of Particular Concern.

Management Authority

Section 50-17-310 of the Code of Laws of South Carolina, governing the Marine Fisheries Laws for the State, authorizes DNR to lease portions of the water bottoms owned or controlled by the State, for the purposes of commercial shellfishing. Any State resident licensed to do business and who makes his/her livelihood primarily or largely through the commercial shell-fishing industry may lease shell-fish bottoms, in areas totaling not more than 500 acres to any one individual. (Leases for other than commercial uses may be made to State residents for areas totaling as many as two acres. The adjacent upland landowner has

preference for a two acre lease in adjoining tidewaters, if this application is made before other leases are granted.) These lease agreements are valid for a five-year period. Once an application has been made and the Division of Marine Resources has determined the area capable of producing shellfish, the boundaries are surveyed and established within the terms of the lease. No other leases for gathering shellfish can be granted within the perimeter boundaries.

Each lessee is required to plant 125 bushels of shell or seed oysters for each acre, in an effort to prevent overharvesting and depletion of this valuable resource. "Each lease or portion of a lease from which oysters are harvested must be replanted during the following planting season." (*Section 50-17-340*, S.C. Code of Laws, 1976)

OCRM has authority over coastal waters and tidelands to mean high water, and above mean high water where wetlands are contiguous to coastal waters and integrally a part of estuarine systems. An OCRM permit is required for all activities or alterations in these "critical areas," as defined in *Section 48-39-130* of Act 123 of 1977. In assessing permit applications, OCRM must consider "The extent to which the applicant's completed project would affect the production of fish, shrimp, oysters, crabs or clams or any marine life or wildlife, or other natural resources in a particular area..." (*Section 48-39-150(A)(3)*) The Rules and Regulations for Permitting (Chapter 28, *R.30-1* through *30-13*, **State Register**), state specifically that consideration will be given to the rights of the lessee when permits are being evaluated for construction of docks or piers over shellfish lease areas.

b) Recreational Shellfish Grounds

Recreational shellfishing is a popular outdoor activity along the coast of South Carolina. Gathering oysters and clams is not only a unique form of recreation, but a source of fresh seafood for families of the area. As a valuable coastal resource and habitat of a significant living marine resource, recreational shellfish grounds are recognized as Geographic Areas of Particular Concern.

Public oyster grounds are areas along the South Carolina coast where State residents may gather shellfish for their personal use, and these areas must be designated with metal signposts. State shellfish grounds, also marked with signs, are open to all recreational shellfishermen, and by permit to commercial shellfishermen (who may obtain their shells or seed oysters from these State-owned beds).

Management Authority

The Division of Marine Resources, DNR, is mandated to keep open shellfishing areas for the personal use of South Carolina residents, with approval by the County legislative delegations. These public shellfish beds are not to exceed 50 acres in any one county, and their maintenance and adequate marking is the responsibility of the Division. (*Section 28-792* S.C. Code of Laws, 1976)

The regulations for shellfishing, *Section 28-761* of S.C. Code of Laws, apply to recreational shellfishing, and establish the season and the limits for gathering. The Marine Resources Division of DNR has jurisdiction over these areas and conducts numerous

management activities, including maintenance of markers; planting of shell and seed oysters, and thinning of over-crowded beds; and periodic surveying of additional productive areas.

The same management authorities of the Budget and Control Board and Department of Health and Environmental Control apply to public and State shellfish grounds as are applicable in commercial lease areas. A detailed discussion is offered in Part 1 of F. Shellfish Areas.

c) Other State-managed Shellfish Grounds (Seed beds)

Certain especially productive submerged bottoms in the Wando River, North and South Santee Rivers and North Santee Bay have been designated by the Marine Resources Division of DNR as seed bed areas. These vital resource areas serve as one of the major sources of seed oysters and, in the case of the Santee River, seed clams, for transport to other coastal waters, in order to restore and enhance shellfish resources.

Management Authority

The Marine Resources Division of the S. C. Department of Natural Resources (DNR) manages these seed bed areas. There is no specific legislation dealing with seed beds; however, DNR is mandated generally to: 1) manage the State's fishery resources, 2) protect and develop shellfish resources, and 3) manage State-owned submerged bottoms. (*Sections 50-5-20, 50-17-1250* and *50-17-1210* of South Carolina Code of Laws, 1976, as amended).

A special permit is required for commercial taking of clams or oysters in these areas. The public is allowed the same rights of use as on other public shellfish grounds.

Priority of Uses

The following are the uses of priority for all commercial and recreational shellfish areas beginning with the use of highest priority:

1) Water-dependent uses which do not reduce or degrade the quality of shellfish lease area or limit access to the area.

2) Water enhanced activities or nonwater-dependent uses which do not reduce or degrade the quality of the shellfish lease area or limit access to the area.

Designated Sites

All commercial and public shellfish grounds are GAPCs.

7) Groundwater Resources

Groundwater is an abundant resource in the coastal zone of South Carolina; however, there are potential problems of quality and quantity. Proper management can ensure the continuing productivity of groundwater resources, but data collection and extensive study are necessary because this is a complex resource. Groundwater can flow vertically as well as

horizontally, and vertical wells can pass through several aquifers. The water in each aquifer is likely to vary in quantity and quality. In such a case, it is difficult to determine which aquifer(s) might be responsible for the poor water quality or if the capacity of one of the aquifers might be exceeded, at the expected pumpage, to the detriment of other wells in the area.

Because groundwater serves as the vital water supply source for many coastal communities, and the resource may suffer from over-use or waste disposal problems (i.e., septic tanks and seepage from landfills), it is an extremely significant resource of the coastal zone. Those regions which have been identified as potential problem areas, requiring special regulation and coordination of groundwater use, are recognized as Geographic Areas of Particular Concern.

Management Authority

The Groundwater Use Act of 1969 (*Section 49-5-10* et. seq., S.C. Code of Laws, 1976) authorizes DHEC to designate "capacity use areas" (CUA). OCRM supports the implementation of this act and designation of CUAs as significantly important. The designation process is as follows: A county, municipality or sub-division of State government may request a review by DHEC if it is believed that a situation exists, or is emerging, where the use of groundwater may require coordination or regulation to protect the interests and rights of residents, property owners or the general public. DHEC or its agent will then conduct an investigation and submit findings and recommendations. Recommendations will include identification of area groundwater problems, appropriate conservation measures, and boundaries of CUA.

Based on the report, DHEC may adopt an order declaring a CUA, give public notice of the declaration , and hold at least one public hearing. After the public hearing, DHEC will take final action on the CUA designation and publish that action as part of its official regulations.

Once a CUA has been designated, DHEC instructs its agent to prepare proposed regulations commensurate with the degree of control which is needed. The Department must hold at least one public hearing on the proposed regulations and publish the final action as part of the official rules. These regulations may be modified or revoked, subject to a public hearing.

These regulations may include the following provisions:

1) provisions requiring water users to submit reports concerning quantity and source of waters withdrawn and nature of use.
2) provisions concerning timing of withdrawals, to abate unreasonable adverse effects and salt water encroachment.
3) provisions concerning well depth, spacing controls, prescribed pumping levels, and maximum pumping rates.

When adopting or modifying the regulations and when reviewing permit applications, the Department shall consider:

1) number of persons using an aquifer and their respective withdrawals.
2) nature and size of the aquifer.
3) physical and chemical nature of any impairment.

4) probable severity and duration of such an impairment.
5) injury to public health, safety or welfare which may result if such impairment were not prevented or abated.
6) kinds of businesses or activities related to groundwater uses.
7) the importance and necessity of the uses claimed by permit applicants and the extent of any injury or detriment expected to be caused to other water users.
8) diversion or reduction in flows in other water courses or aquifers.

The Department also has legal authority to protect groundwater resources, with regard to surface pollution. This is accomplished through a statewide permitting system for septic tanks and waste disposal by earth burial. (Acts 1157, 1094, 203 and 1492; *Sections 32-8, 1202* and *1251*,. S.C. Code of Laws, 1976; regulations PC-SW-1 and 2; SCPCA-SWG-1, 2 and 3)

Criteria for Designation

The decision to designate a capacity use area is based on the report of DHEC or its agent, which describes the groundwater situation and trends. If the situation is poor or deteriorating such that the public interest is in jeopardy, a CUA is likely to be declared. Once this happens, no person shall withdraw, obtain or utilize groundwater in excess of 100,000 gallons per day (gpd) without first obtaining a permit from the Department. All permits will be subject to the CUA regulations.

Priority of Uses

The Ground Water Use Act of 1969 is specific in the considerations which the Department must make in determining whether and to what extent ground water use is permissible. Unreasonably adverse effects on the resource or on water users including public, potential and present users is not permitted. The Act provides that the water resources be put to beneficial use to the fullest extent capable to conserve and maintain conditions which are conducive to the development and use of the ground water resources.

In highest to lowest priority, the following priorities will apply to ground water uses in areas designated as capacity use areas within the coastal zone:

1) Ground water uses which are beneficial uses and are consistent with all provisions of the Ground Water Use Act and regulations promulgated by the Department.

2) Ground water uses which are wasteful, or not beneficial or are found to cause unreasonable adverse effects on other water users or the long-term condition of ground water resources in the coastal zone.

Designated Sites

All or a portion of declared CUA's in the coastal zone may be designated as GAPCs depending upon the relative extent of ground water use problems.

8) Threatened or Endangered Species Habitats

Policy has been affirmed by both the Federal government and State government in South Carolina that conservation of the natural ecosystem upon which endangered and threatened species depend is a high priority. Untempered economic growth and development can result in the depletion or extinction of various species of fish, wildlife and plants. These species of fish, wildlife and plants are of esthetic, ecological, educational, historical, recreational, and scientific value to our people, our Nation, and to the international community.

The United States has committed itself through numerous treaties with other countries to a pledge of conservation involving migratory birds, fisheries and wildlife preservation, for example. The scope of our responsibility as people and a Nation to protect the delicate balance of the natural ecosystem is demonstrated by these treaties of Federal and State legislation. As a result, OCRM will recognize all designated threatened and endangered species habitats as Geographic Areas of Particular Concern.

Management Authority

In view of the National and State concern for endangered species, the South Carolina legislature passed the Non-game and Endangered Species Act in 1974 (Chapter 15, *Section 50-15-10* through *50-15-90*, S.C. Code of Laws, 1976) The Act instructs DNR to conduct investigations on non-game wildlife to determine population distribution, habitat needs, limiting factors, and management measures necessary for their continued existence. Based on such investigations, DNR must issue appropriate regulations and develop management programs. The regulations may establish proposed limitations relating to taking, possession, transportation, exportation, processing, sale, offering for sale, or shipment of particular wildlife species.

DNR is charged with the responsibility to establish programs necessary for the management of non-game and endangered wildlife. The programs may include research, census taking, law enforcement, education, and acquisition of land or aquatic habitats. The Endangered Species Program is coordinated closely with the Heritage Trust Program which allows donations of land and easements.

DNR must issue a list of State endangered species, including the United States List of Endangered Native Fish and Wildlife and the United States List of Endangered Foreign Fish and Wildlife. The list will be reviewed and updated at least every two years. It is unlawful to take, possess, transport, export, process, sell, offer for sale, ship, or receive any of the identified species. DNR is directed to enforce the Act and may issue special permits for scientific, educational, or other purposes.

The State lists current endangered species and, where appropriate, may designate critical habitat areas, according to the Federal Endangered Species Act. The State Heritage Trust Program and Endangered Species Program work in close coordination in assessing, acquiring and managing sites that constitute endangered species habitat. If a critical area is formally designated, the effects of any Federally funded program in that area must be more carefully considered. This review by the State Clearinghouse is an indirect extension of State management authority effectuated under the Federal Endangered Species Act of 1973. The Secretary of Interior makes the final conflict resolution in such a situation.

The Federal Endangered Species Act of 1973 (PL 92-205, December, 1973, amended by PL 94-32, June 1976, and PL 94-359, July 1976) was passed with the purpose of providing

> "...a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved to provide a program for the conservation of such endangered species and threatened species (§ 2(b))."

The national policy is stated as follows:

> "...all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act."

The Secretary of Interior is authorized to publish a listing of endangered and threatened species based on the best available scientific data and, thereafter, to establish rules and regulations regarding the control of taking, sale, import, export, or other disruption of each species. Endangered species are those in danger of extinction throughout all or a significant portion of their range. Threatened species are defined as those likely to become endangered within the foreseeable future. The bases of the South Carolina and national programs are parallel, and the protective mechanisms similar in that impact on endangered species is considered.

OCRM is mandated to consider impacts on wildlife species in granting of permits for activities in critical areas of the coastal zone. OCRM will also review and comment on other permits, applications, environmental impact statements and Federally-funded projects (A-95 process) throughout the coastal zone. OCRM comments will include an evaluation of the potential impacts on any designated critical habitats for threatened or endangered species.

Criteria for Designation

South Carolina Endangered Species are any species of wildlife whose prospect for survival or recruitment within the State are in jeopardy or likely to become so in the foreseeable future. The causes may be: 1) destruction or modification of habitat; 2) species over-utilization for scientific, commercial, or sporting purposes; and 3) other natural or man-made factors. Species on the Federal endangered species lists for native or foreign fish and wildlife are included.

Priority of Uses

The following are the uses of priority for all areas identified or designated as critical habitats for threatened and endangered species, beginning with the use of highest priority:

1) Uses which are compatible with all regulations and management programs developed to protect any designated habitat area under the Federal or State Endangered Species Acts.

2) Uses which maintain the natural functions of areas identified or designated as critical habitat areas of species listed on the State or Federal threatened or endangered species lists.

3) Non-structural, non-intensive uses which do not create irretrievable damage to any species listed as a threatened species.

Within an area officially designated as a critical area habitat under the State or Federal Endangered Species Acts, uses are prohibited which violate the integrity of the State or Federal legislation.

Designated Sites

All designated threatened and endangered species habitat areas are GAPCs. Certain critical habitat areas have been identified but no formal designations have been made to date since most of these areas are already a part of Federal or State preserves or refuges on the coast. At such time as specific habitat areas are designated and management guidelines or rules and regulations are promulgated, these will be adopted as GAPCs.

b. Activities or Facilities Dependent on Coastal Location

This category includes those activities which are dependent on their proximity to coastal waters, in terms of use or access; or on proximity to specific coastal resources, such as minerals or other raw materials. (For initial purposes, port facilities and actively operating mining sites have been identified.)

Industrial and commercial uses are crucial to the economy of the South Carolina coastal zone. In addition to preservation and protection of natural areas, the State's coastal zone management program must address the development of coastal resources. It must provide the citizens of the State with guidance on the best manner in which to capitalize on development opportunities while minimizing negative environmental effects, disruption of other coastal resources, or infringement on the rights of other coastal property owners.

Uses and facilities dependent on coastal location, for water access or proximity to other coastal resources, are recognized as Geographic Areas of Particular Concern due to their unique dependence on coastal location and because of the economic importance and possible environmental impacts of these activities.

Criteria for Designation

To qualify as a GAPC under this category, an activity or facility must meet one or more of the following criteria:

1) Significant quantities of water, such that it can only be obtained in a coastal location, are an absolutely necessary component of the process for a particular industrial or commercial activity.
2) Access to coastal waters, primarily for transportation purposes, not only enhances but is fundamental to the given activity.
3) Minerals, energy-related resources, or other coastal resources occurring in the coastal zone are the primary purpose of an activity which is the major source of income for a given individual or company, and proximity to that resource is vital to success of the operation.

1) **State Ports**

State Ports facilities are a major attraction of industrial investments, and also play an important role for South Carolina agriculture.

These valuable economic assets are, by definition, dependent on their coastal location for access to the transportation corridor provided by coastal waters. While their maintenance and further development are vital to the South Carolina economy, these activities can have significant environmental impacts and also secondary development effects, particularly on other industrial and commercial uses and on public services, such as transportation.

Because of their importance as an economic resource and their dependence on a coastal location, the port facilities in South Carolina have been recognized as Geographic Areas of Particular Concern.

Management Authority

The South Carolina State Ports Authority (SPA) was created by Act 626 of the 1942 South Carolina General Assembly (*Sections 54-1, -12, -15, and -20*, S.C. Code of Laws, 1976). Under direction of a seven member board appointed by the governor, the SPA has the responsibility for development, construction, operation, and promotion of the State's ports. The SPA has jurisdiction over waters, shores, and tidal tributaries of the harbor at Charleston, Georgetown and Port Royal. It has the power to sue and be sued; the power of eminent domain; the power to acquire and dispose of property, and to take State property not otherwise in use; and the authority to issue revenue bonds.

Section 48-39-110 of the South Carolina Coastal Management Act has mandated another requirement for the SPA. It reads as follows:

> The South Carolina State Ports Authority shall prepare and submit to the Department a management plan for port and harbor facilities and navigation channels. Upon approval by the Department of such management plan it shall become part of the comprehensive coastal management program developed by the Department. The South Carolina State Ports Authority shall include in the management plan a designation of the geographical area appropriate for use by public and private port and harbor facilities and military and naval facilities and submit this to the Department for approval.

Joint development of this required port and harbor management plan, coupled with OCRM's permit authority in the critical areas, including coastal waters and wetlands that might be part of a harbor area, will result in coordinated efforts between the SPA and OCRM. And it will ensure that port modifications or expansion activities and management of the ports system remain consistent with the goals of coastal zone planning.

Priority of Uses

The following are the uses of priority for all state ports created and operated by the South Carolina State Ports Authority (SPA) beginning with the use of highest priority:

1) Uses which require water access or uses for which the water orientation is the central purpose of the activity, such as maritime shipping, fishing, marine industry, and recreational boating. Included in the uses of highest priority for state ports are provisions to assure safety within the ports. These water-dependent uses should have no prudent or feasible alternative.
2) Water-related uses which do not reduce or degrade the natural value or resources within the port.
3) Nonwater-dependent or nonwater-related uses which retain future flexibility of the port for water-dependent needs.

Designated Sites

The South Carolina Ports Authority owned and managed port facilities are designated as GAPCs.

2) **Navigation Channels**

Navigation channels are closely related to the preceding category in that they enable travel to and from major ports, facilitate industrial and commercial activities and allow for recreational and commercial boating. Thus channel maintenance and development are vital to the economy of the coastal zone and the state and the nation as a whole. Like port development, channel maintenance and development may have secondary effects of an environmental or developmental nature.

Because navigation channels depend upon a coastal location and are vital to the State's economy, they have been recognized as Geographic Areas of Particular Concern.

Management Authority

The provisions of Chapter I, Title 49 of the 1976 South Carolina Code of Laws declare that "(A)ll streams which have been rendered or can be rendered capable of being navigated by rafts of lumber or timber by the removal of accidental obstructions and all navigable water courses and cuts are hereby declared navigable streams and such streams shall be common highways and forever free..." The section also prohibits the obstruction of waterways and provides for condemnation of land for rights-of-way and outlets for inland waterways.

Enforcement of this statute rests jointly with the Budget and Control Board and the Attorney General's office.

Section 48-39-150(A)(2) of South Carolina's Coastal Management Act requires that OCRM consider navigation channels in its permitting process. Permit applications for activities "in a waterway used for commercial navigation or shipping" must be reviewed by the South Carolina State Ports Authority prior to permit issuance for certification that the proposed project will not "unreasonably interfere with commercial navigation and shipping."

The Act also requires OCRM to consider "the extent to which the activity would harmfully obstruct the natural flow of navigable water" and "the extent to which the activity could cause erosion (and) shoaling of channels."

Priority of Uses

Existing navigation channels should be maintained and utilized, while at the same time conserving the natural environment. The following are the uses of priority for navigation channels in the coastal zone, beginning with the use of highest priority:

1) Beneficial uses which require water access or uses for which the water orientation is the central purpose of the activity, such as maritime shipping, fishing, and recreational boating, providing these uses are conducted in such a way as to minimize adverse environmental impacts.
2) Water-related uses which do not reduce or degrade the environmental quality of the waterway.
3) Nonwater-dependent or nonwater-related uses which do not obstruct navigation and do not impair the natural surroundings.

Designated Sites

All waterways within the coastal zone which meet the legal standards for navigability are designated as GAPCs.

3) **Mining Operations**

There are over 344 active mines in South Carolina. Extraction of minerals by mining is a basic and essential activity, making an important contribution to the economic welfare of this State and the Nation.

While it is not practical to extract minerals required by society without disturbing the earth's surface and producing waste materials, it is possible to conduct mining in such a way as to minimize its effects on the surrounding environment. Proper reclamation of mined land is necessary to prevent undesirable land and water conditions that would be detrimental to the environment and to the general health, safety, and welfare, and property rights of the citizens of the State.

As such, areas of ongoing mining operations qualify as Geographic Areas of Particular Concern (GAPCs), due to their geologic, economic, and environmental significance, and their dependence on a coastal location for access to particular mineral resources.

Management Authority

The provisions of Act 274 of the 1972 General Assembly, entitled, The South Carolina Mining Act, S.C. Code, *Sections 48-20-10* et. seq., are intended to allow the mining of valuable minerals and provide for the protection of the State's environment with the subsequent beneficial use of the mine and reclaimed land. The expressed purposes of the South Carolina Mining Act are as follows:

a) That the usefulness, productivity, and scenic values of all lands and waters involved in mining within the State will receive the greatest practical degree of protection and restoration.

b) That from the effective date of the Act, no mining shall be carried on in the State unless plans for such mining include reasonable provisions for protection of the surrounding environment and for reclamation of the area of land affected by mining.

Mine operators must obtain an operating permit from the Department. The permit application must be accompanied by a reclamation plan which must be approved by the Department, and the permit applicant must file a performance bond to ensure compliance with this reclamation plan. The operator shall file an annual report with the Department that describes the reclamation carried out and estimates the acreage to be actively mined in the next twelve months.

The basic idea of the reclamation plan is to develop a strategy for mining a resource and returning the land to an economically useful, environmentally sound, and aesthetically pleasing form. In the coastal zone, ponds or lakes are the main reclamation practice. This is because of availability of water from streams or a high water table. These water bodies must have certain shoreline construction for long-term safety and stability, a certain percentage of shallow area for spawning, and certain minimum depths to control vegetation. The potential exists for a mining company to turn this reclamation process into a profitable real estate enterprise.

The South Carolina Mining Council serves as an appeal body for any permit decisions made by the Department.

Priority of Uses

The following are the uses of priority for all active mining sites within the coastal zone in South Carolina, beginning with the use of highest priority:

1) The extraction of minerals in a manner consistent with all permit conditions and reclamation plans pertaining to the mining site.
2) Uses which do not interfere with the extraction of minerals for which mining permits have been acquired or with the reclamation plans for the site.

Specific Sites

Areas of ongoing mining operations qualify as GAPCs due to their geologic, economic and environmental significance and their dependence on a coastal location.

c. Areas of Special Historic, Archeological or Cultural Significance

The coastal zone of South Carolina is rich in historic, archaeological, and cultural features. The coastal area was the location of early colonial settlements and, prior to this, the territory of various Indian tribes. Both residents and visitors, alike, perceive these resources as valuable assets and their preservation and protection as an important issue in the growth and development of the Lowcountry. Historic societies are very active throughout the area, and the value placed on the South Carolina heritage by its citizens cannot be over-emphasized. On this basis, areas of specific historic, archeological and cultural significance are felt to be important as Geographic Areas of Particular Concern (GAPCs) in the coastal zone.

Management Authority

To date, there is no specific legislation for historic preservation in South Carolina. However, since 1960 the State, through its Historic Preservation Officer, has developed "a program recognized nationally as an innovative and exemplary type of state-federal partnership in preservation and implementation." (**South Carolina Historic Preservation Plan**, Vol. III, 1977) Through 1975, this State led all others in an annual amount of federal funds received for preservation programs.

The National Historic Preservation Act of 1966 as amended, states that:

> The Secretary of the Interior is authorized to expend and maintain a national register of districts, sites, buildings, structures and objects significant in American history, architecture, archeology and culture, hereinafter referred to as the National Register....

Executive Order 11593 of May 13, 1971, further emphasized the leadership of the Federal government in historic preservation efforts.

The National Register program is implemented and administered by State Historic Preservation Officers (SHPOs) who are responsible for the survey and nomination process, in conjunction with a review board of professionals in the field. Also, the SHPO and the State review board are responsible for preparation and review of the State's historic preservation plan, which includes background information on the State (Volume III).

Properties and sites listed on or eligible for listing on the National Register receive full consideration of their historic or archeological values through OMB Circular A-95 review process, whereby Federal, State, and local agencies comment on proposed Federal activities or funding. *Section 106* of the National Historic Preservation Act of 1966, as amended, provides that:

> The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally-assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation...a reasonable opportunity to comment with regard to such undertaking.

In South Carolina the Department of Archives and History, Historic Preservation Division, and the Institute for Archeology and Anthropology as well as OCRM are involved in the State Clearinghouse process for project proposals subject to A-95 review and also review Environmental Impact Statements (EIS), pursuant to the National Environmental Policy Act of 1969. The Historic Preservation Division estimated that they annually review over 500 A-95 project clearances, project notifications, and environmental impact statements for possible impact on the historic environment. While the review and comment process for Federal,

federally-assisted, or federally-licensed projects affecting properties on or eligible for the National Register does not provide a veto power, it does ensure that historic values are thoroughly considered. Experience with the process has shown ample regard is given to relevant comments or objections by State agencies.

OCRM is mandated to consider historic and archeological resources in implementation of its permitting authority in critical areas of the coastal zone. In evaluating applications for alterations in the critical areas, OCRM must consider, among other factors, "the extent to which the development could affect...irreplaceable historic and archeological sites of South Carolina's coastal zone" (*Section 48-39-150(A)(6)*).

Historic and archaeological sites which have been named to the National Register and sites selected from those which have been determined eligible to be named to the National Register will be designated GAPCs. The Department of Archives and History's on-going inventory will provide OCRM with complete information on all known historic and archaeological sites for permit assessments and project evaluations. OCRM may, in consultation with the State Historic Preservation Officer, apply the National Register Criteria to properties which may be eligible for inclusion in the National Register. If a property appears to meet the criteria, an opinion may be requested from the Keeper of the National Register who will determine the property's eligibility for inclusion in the National Register. As sites are listed, they will automatically be designated as GAPCs. As sites are determined to be eligible for listing, they may be designated as GAPCs.

Criteria for Designation

The following criteria are those adopted by the Secretary of the Interior and are used in nominating sites to or determining eligibility for the National Register. (These evaluation criteria are recognized by OCRM for designating GAPCs under this category.):

> The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
>
> A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
> B. that are associated with the lives of persons significant in our past; or
> C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
> D. that have yielded, or may be likely to yield, information important in prehistory or history.
>
> Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered

eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

A. a religious property deriving primary significance from architectural or artistic distinction or historical importance; or
B. a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
C. a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his productive life; or
D. a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
E. a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
F. a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or
G. a property achieving significance within the past 50 years if it is of exceptional importance.

Priority of Uses

The following are the uses of priority for areas of special historic, archeological, or cultural significance which have been named to the National Register, beginning with the use of highest priority.

1) Uses which preserve the historical or cultural values for which the site was placed on the National Register.
2) Educational opportunities for the public regarding the historical, archeological or cultural significance of the site as long as the site is not disturbed.

Designated Sites

Historic and archeological sites which have been named to the National Register and sites selected eligible to the National Register are designated as GAPCs. As new sites are listed, they will automatically be designated as GAPCs. As sites are determined to be eligible, they may be designated as GAPCs.

B. ENERGY FACILITY PLANNING PROCESS

1. Introduction

The Federal Coastal Zone Management Act, as amended in July 1976, requires in *Section 305(b)(8)* that each state's management program must include:

> A planning process for energy facilities likely to be located in, or which may significantly affect, the coastal zone, including, but not limited to a process for anticipating and managing the impacts from such facilities.

The South Carolina Coastal Management Act states in *Section 48-39-80(B)(6)* that in the development of the State's coastal management program OCRM shall:

> Provide for adequate consideration of the local, regional, state and national interest involved in the siting of facilities for the development, generation, transmission and distribution of energy, adequate transportation facilities and other public services necessary to meet requirements which are other than local in nature.

Therefore, OCRM has the Federal and State mandate to include in its management program a planning process to incorporate the siting of energy facilities in the coastal zone in a manner which is consistent with the other necessary uses of the coast. In addition, OCRM is mandated to consider the national interest when making these decisions.

Section 923.13 of the coastal zone management development and approval regulations (**Federal Register**, Vol. 44, No. 61, March 1979) outlines the minimum requirements which the energy planning process must contain.

(1) Identification of energy facilities which are likely to locate in, or which may significantly affect a State's coastal zone.
(2) Procedures for assessing the suitability of sites for such facilities.
(3) Articulation and identification of enforceable State policies, authorities and techniques for managing energy facilities and their impacts.
(4) Identification of how interested and affected public and private parties will be involved in the planning process.

Policies

Throughout the coastal zone, OCRM issuance of permits or review and certification of applications for permits for energy facilities and energy-related facilities will be based on the following policies:

a. Nonwater-dependent energy and energy-related facilities are prohibited from locating along the shorefront unless no feasible alternative is available or an overriding public interest can be demonstrated, and any substantial environmental impact can be minimized. (A water-dependent facility is one which can demonstrate that dependence on, use of, or access to coastal waters is vital to the successful functioning of its primary activity.) All water-dependent

structures should be designed and constructed so as to minimize encroachment on the aquatic ecosystem and minimize destruction to the wetlands, beach areas, and dunes. Inland siting of all but water-dependent facilities is preferred to waterfront siting.

b. New water-dependent facilities should locate on already maintained channels or rivers to reduce the need for dredging of new channels. Where no presently maintained channel exists and one becomes necessary, the policies for dredging (VIII(A) of the Resource Policies) will apply.

c. Expansion of existing energy and energy-related facility sites by each energy supplier is preferred to the development of new energy sites by that supplier if applicable Federal and State air and water quality standards are not violated.

d. Energy and energy-related facilities must meet the applicable water quality and effluent limitation standards of the U. S. Environmental Protection Agency and the South Carolina Department of Health and Environmental Control, under the National Pollution Discharge Elimination System, *Sections 401 and 402* of the Federal Water Pollution Control Act Amendments (Public Law 92-500). In some cases, pre-treatment of wastes may be required before introduction into public waste treatment systems, based on local 201 and 208 Waste Treatment Management Plans, as developed under the Federal Water Pollution Control Act.

e. Energy and energy-related facilities must meet applicable State and Federal air pollution standards and controls, as based on the National Clean Air Act, as amended (P.L. 91-604).

f. In instances where groundwater resources will be utilized either in the processing or effluent discharge stages of the production process, the project shall:

1) meet existing standards and/or management programs of the Department.
2) prevent saltwater intrusion and land subsidence, to the extent feasible.
3) wherever feasible, provide natural vegetated areas on the site where aquifer recharge or percolation can occur to mitigate the impacts of groundwater withdrawals.

g. The filling, dredging and/or drainage of productive fresh, brackish and saltwater wetland areas for energy and energy-related facilities will be prohibited, unless no feasible alternative exists or an overriding public interest can be demonstrated, and any substantial environmental damage can be minimized. These facilities should be directed away from ecologically sensitive areas such as marshes, forested wetlands, and pocosins.

h. Where other activities are associated with energy or energy-related activity sites, such as construction of navigation channels, docks and piers, parking, commercial buildings, or transportation access, the policies for that particular activity, found in the Resource Policies, shall apply.

i. Energy and energy-related facilities and sites should be designed and constructed to minimize erosion and sedimentation, and to limit the impacts from direct stormwater discharge into adjacent water bodies and wetlands. Persons proposing to develop these sites are

encouraged to contact and work closely with the local Soil and Water Conservation District in the county for assistance in developing site plans which reduce sedimentation and drainage problems. The following considerations shall be included in site location, construction and design whenever feasible:

1) provision of a buffer strip of natural vegetation between the facility and the water's edge. This vegetated area provides a visual screen, a purification system for stormwater runoff, and a protective area for the more ecologically sensitive areas, especially fringing wetlands.
2) during site preparation, the controlling of storm run-off, soil erosion, and accidental placement of sediments in wetland areas.
3) the use of permeable surfaces in parking lots and bulk storage areas to provide water recharge areas and minimize the effects of stormwater run-off.
4) retainment of open space or natural (undisturbed) areas around sites as buffer zones and recharge areas.

j. Unless a waterfront location is required for the operation of an energy or energy-related facility, major structures, such as electric generating facilities, should be located outside of flood prone areas. When energy and energy-related facilities must be located in flood prone areas, they must meet applicable flood management and construction requirements, as required by the Federal Flood Insurance Program. Inclusion of buffer areas and protection of salt, brackish and freshwater wetlands, which help absorb flood water surges, are strongly encouraged.

k. When electric generating facility applications are evaluated, the following considerations of need must be taken into account:

1) evaluation of forecasted need for the facility.
2) alternative means of meeting the energy demands, whenever feasible.

l. When the energy or energy-related facility applications are evaluated, the following considerations of available, alternative sites must be taken into account:

1) the extent and severity of environmental disruption at various sites.
2) short and long-range economic and social impacts on the community for various sites.
3) comparison of the degree to which the proposal could be modified at different sites if necessary to more fully meet environmental standards.

m. Permit applications for energy and energy-related facility proposals will consider the extent and significance of negative impacts on Geographic Areas of Particular Concern (GAPCs). Applications which will negatively impact GAPCs will not be approved or certified unless no feasible alternative exists or an overriding public interest can be demonstrated, and any substantial environmental damage can be minimized. The determination of significant negative impacts will be made in each case with reference to the specific priorities of use for each type of GAPC.

n. Prior to permitting and certification of energy and energy-related facilities, including oil refineries and petrochemical facilities, the extent and significance of negative impacts on the quantity or quality of these valuable coastal resources will be considered:

1) unique natural areas - destruction of endangered wildlife or vegetation or significant marine species (as identified in the Living Marine Resources segment), degradation of existing water quality in the area.
2) public recreational lands - conversion of these lands to other uses without adequate replacement or compensation, interruption of existing public access, or degradation of environmental quality in these areas.
3) historic or archeological resources - irretrievable loss of sites identified as significant by the Department of Archives and History or the South Carolina Institute of Archeology and Anthropology, without reasonable opportunity for adequate professional examination and/or excavation, or preservation.

o. "Installation of cables, pipelines, and transmission lines is preferred in non-wetland areas; however, excavating activities in critical areas are sometimes required. Excavation and filling also are sometimes required to construct foundation structures attendant to the installation of overhead transmission line crossings. These installations shall be designed to minimize adverse environmental impacts." (*R.30-12(D)(1)*) Outside of the critical areas these installations should also be designed to minimize adverse environmental impacts.

p. The following standards will be applied both within and outside the critical areas. "In addition to standards for dredging and filling, the following standards are applicable (for the installation of cables, pipelines, and transmission lines):

1) To the maximum extent feasible, alignments must avoid crossing the critical areas.
2) Creation of permanent open water canals to install pipelines is generally prohibited since such projects usually interfere with drainage patterns and may adversely affect water quality through accelerated bank erosion.
3) Dimensions of excavated canals for cables and pipelines should be minimal. Silt curtains are recommended for all excavations.
4) Wherever feasible, all excavations in wetland areas must be backfilled with the excavated material after installation of the appropriate structure, while being careful to maintain the original marsh elevation.
5) Appropriate erosion control measures shall be employed during the crossing of wetland areas. Where appropriate, revegetation with suitable wetland species will be required.
6) Alignments of new projects should be designed to utilize existing rights-of-way and topographic features, wherever possible." (*R.30-12(D)(2,a-f)*)

q. Locations for new pipelines shall avoid offshore munition areas, chemical and waste disposal areas, and geological faults, as determined significant by authoritative sources, and wherever possible shall avoid heavily used waterways and significant and productive fish and shellfish habitats.

r. All transmission facilities and pipelines should follow existing roadways and railways and be attached to bridges and crossovers where applicable, especially in wetland areas, to prevent unnecessary alteration or disruption of adjacent wetlands or waterways. The number of pipelines and new transmission lines shall be limited as much as possible. All pipelines through the coastal zone will be laid in pipeline corridors to be developed in coordination with OCRM.

s. Siting of nuclear power plants or liquefied natural gas (LNG) facilities is strongly discouraged in hazardous areas such as:

1) geological faults as determined significant by authoritative sources, or;
2) flood prone areas.

t. Siting of nuclear power plants or liquefied natural gas facilities is prohibited in or near areas of significant population, except where no feasible alternative exists or an overriding public need can be demonstrated.

u. The plans for temporary and permanent disposal of all types of nuclear waste which will be associated with a proposed nuclear power plant will be considered as a vital part of the evaluation of the facility application in determining the overall safety and environmental impacts of the nuclear power plant.

v. Transportation patterns associated with proposed liquefied natural gas facilities will be considered a vital part of evaluation of the facility application in determining the overall safety and environmental impacts of the LNG facility. LNG should be regasified and moved as a gas by pipelines unless no other feasible alternatives are available. Where absolutely necessary to transport LNG over land, safety precautions as strenuous as those required over water must be followed in order to avoid subjecting South Carolina residents to unacceptable safety hazards.

Recommended Policies

OCRM also **recommends** that the following policies be considered:

a. The location of new energy and energy-related facilities is generally preferred in already developed areas which are capable of accommodating additional development without significant expenditure of public funds for infrastructure or in areas which the local government and OCRM deem to be both environmentally and economically compatible with the type of energy development proposed. Thus, onshore development is preferred where adverse physical, economic, and institutional impacts will be less than those which are likely to be experienced in less developed areas such as those which are more dependent on tourism and the resort industry. (The exception to this siting policy would be the locating of liquefied natural gas (LNG) and nuclear facilities. Specific policies included on the preceding pages shall apply in these two instances.) Care should be taken that proposed new facilities be located, wherever possible, in areas where they will minimize disruption of existing land use of the area.

b. Renewable sources of energy such as solar, wind, tidal power, geothermal and biomass, including experimental and demonstration projects, will be encouraged to locate in the coastal zone to the extent that they meet all Federal and State air and water quality standards and are consistent with other OCRM policies.

c. The use of recoverable energy sources such as co-generation (combined industrial production of electricity and heat) is also encouraged.

d. Upgrading of old generating facilities operated by each energy supplier is preferred to construction of new facilities by that supplier.

e. Recommendations of the U.S. Department of Energy to encourage the development of small-scale, diversified, dispersed industrial systems are encouraged.

f. A coordinated effort in consumer, commercial, industrial, governmental and recreational energy conservation and support for the Department of Energy Extension Service Concept is encouraged.

C. EROSION CONTROL PROGRAM

1. Introduction

The widespread concern for effects of coastal erosion is reflected in the coastal management legislation passed on both the Federal and State levels. The Federal Coastal Zone Management Act, as amended in July 1976, provides in *Section 305(a)(9)* for:

> A planning process for (a) assessing the effects of shoreline erosion (however caused), and (b) studying and evaluating ways to control, or lessen the impact of, such erosion, and to restore areas adversely affected by such erosion.

In addition, the rules and regulations promulgated as a result of the Federal legislation by the Office of Ocean and Coastal Resource Management, guiding program development and approval, require States to include in their coastal management programs an erosion planning process. *Section 923.25*, **Federal Register**, Vol. 44, No. 61, March 1979, states that:

1) The management program must include a method for assessing the effects of shoreline erosion and evaluating techniques for mitigating, controlling or restoring areas adversely affected by erosion.
2) There must be an identification and description of enforceable policies, legal authorities, funding techniques and other techniques that will be used to manage the effects of erosion as the State's planning process indicates is necessary.

The South Carolina Coastal Management Act in *Section 48-39-120* mandates OCRM to develop a comprehensive beach erosion control policy and gives authority to OCRM for the implementation of the policy, including permitting powers for erosion control, authority to remove erosion control structures which have an adverse effect on the public interest, and the authority to accept and spend Federal and State erosion control funds in areas which provide full and complete access to the public. The Erosion Control Program is a close look at the existing South Carolina coast, the patterns of erosion and the interactive dynamics involved in those patterns, the policies which will guide OCRM when evaluating alternative erosion control measures, the policies guiding the expenditure of public funds for erosion control, and the legal authority for implementation of the Program.

In July 1988 the State's General Assembly passed the South Carolina Beachfront Management Act. This act, which was subsequently amended in the 1990 session, requires the use of scientific studies of coastal processes to establish precise building setback lines along the coast. In addition, the Act bans the future construction of seawalls, limits the size of buildings within the predicted erosion zone and adopts a policy of retreat away from the erosional beach.

The Act is intended to protect both life and property, protect unique habitats and preserve the beach for future use by all citizens. One important provision of the Act specifically requires the adoption of local beachfront management plans by local governments.

2. Policies

a. FUNDING POLICIES

Regarding the expenditure of public funds for beach and shore erosion control measures throughout the coastal zone, it is OCRM policy that:

1) Public funds can be expended for beach or shore erosion control only in areas, communities, or on barrier islands to which the public has full and complete access (as defined in the shoreline access segment of the program and South Carolina's Beachfront Management Plan).

2) Public funds can be expended only for beach erosion control measures which are deemed by OCRM to be consistent with the Beach Erosion Control Policies in this section and any applicable rules and regulations promulgated pursuant to the Act.

3) Public funds can be expended only for erosion control measures which are consistent with the overall coastal management program.

4) Funding for particular erosion projects shall be approved by OCRM only after adequate consideration has been given to the erosion control problems and needs of each coastal county and the relative benefits of the particular project.

5) Consideration will be given to the extent to which the proposal will maximize the protection of public health, safety, and welfare.

6) For expenditure of public funds, the full range of alternative erosion control measures which are possible, including no action, must be studied. Before decisions are made, consideration must be given to the long and short-range costs and benefits of the various alternatives.

7) Removal or modification of existing publicly-funded control structures will be authorized by OCRM based on the applicable policies in this section and determination that the structure has an adverse impact on the public interest, as mandated by *Section 48-39-120(C)* of the Act.

b. GENERAL CONSIDERATIONS

OCRM will consider the following before any erosion control projects are approved:

1) The type of materials employed, their useful life expectancy along with anticipated maintenance and replacement costs.

2) The economic justification of the proposed project in comparison with available erosion control alternatives including consideration of the anticipated damage and economic loss due to failure.

3) Rate of rise or fall of sea level at the location.

4) Sediment transport and sand budget in the project area.

5) Extent of up or downdrift damage due to installation or lack of installation of the erosion control structure.

6) The extent to which the project fits into a comprehensive shore protection program for that particular stretch of beach, aimed at preserving the beach profile in its present slope and configuration.

c. EROSION CONTROL POLICIES

OCRM will apply the following policies in its review and evaluation of permits for the following erosion control activities:

Seawalls, Bulkheads and Revetments (Riprap)

No new erosion control structures or devices are allowed seaward of the setback line except to protect a public highway which existed on June 25, 1990 (*R.30-13(N)(3)(a)*).

Groins

1) Significant volumes of sand via the littoral transport system should be available.

2) The extent to which the downdrift beach areas will be damaged must be determined before construction.

3) The adequacy of shore anchorage of groins to prevent "flanking" as a result of erosion must be demonstrated.

4) The positive effect and applicability of a groin system in a comprehensive shore protection program must be demonstrated.

5) Care must be taken to insure that groins do not interfere with public access (*R.30-13(N)(1)(e)*).

Offshore Breakers and Jetties

1) Since these structures tend to impound littoral drift on their updrift sides, provisions should be made so that sand is pumped at appropriate intervals to downdrift areas so as not to starve these areas of sand thereby creating or worsening an erosion problem.

2) Where feasible, jetties shall be designed to provide public recreational fishing opportunities (*R.30-13(N)(1)(f)*).

3) Construction activities shall be scheduled so as not to interfere with nesting and brood-rearing activities of sea birds, sea turtles, or other wildlife species (*R.30-13(N)(1)(c)*).

4) These structures should be consistent with other erosion measures being undertaken as part of any comprehensive shoreline protection projects.

Artificial Beach Nourishment

1) A thorough study of littoral transport mechanics as well as beach slope, grain size, and berm geometry should be done before artificial nourishment is attempted.

2) Sand for artificial nourishment should come from offshore deposits or areas of active accretion and from bars or spits only where it can be clearly demonstrated that no negative impacts will result in downshore areas. Fill material should not come from dune fields, adjoining beaches or nearshore bars.

3) Dredging in the borrow areas should not be in conflict with spawning seasons or migratory movements of significant estuarine-marine species.

4) Dredging offshore shall be done in locations and in such a manner so as not to create anoxic sumps or uncover toxic or anoxic deposits.

5) All other policies concerning dredging and filling (*R.30-12,G*) will be applied to beach nourishment proposals.

6) Careful study must be given to the type (size, quality, etc.) of fill material most suitable for use in a particular beach area.

7) Nourishment of beach areas should be scheduled so as not to interfere with nesting or brood-rearing activities of important seabird colonies or other wildlife species.

8) The recreational and public access requirement of the affected beach area will be a major concern when determining the width of the beach fill.

9) Where possible, inlet stabilization and/or navigation projects shall be done in concert with artificial nourishment projects.

10) Structural control measures should be used, where appropriate and feasible, to complement artificial nourishment projects.

Sand Dune Management

1) Private and public projects to restore and stabilize dunes through non-structural means are encouraged.

2) To the extent possible, the secondary dunes should be kept intact to insure protection of adjoining areas against flooding during storms.

3) Buffer areas should be established, where feasible, to allow for frontal dune growth and movement.

4) All plans for dune restoration, reconstruction or stabilization should be part of a comprehensive shoreline protection program.

5) Dune reconstruction should be done only above the existing berm line or in line with existing frontal dunes. Dunes should be constructed using only native material (sand) of the appropriate grain size and stabilized with native vegetation. Consultation is encouraged with the Natural Resources Conservation Service advisory services in determination of plant materials most suitable for dune stabilization.

6) Walkover structures are encouraged over all frontal dunes (*R.30-13(O)(1)*) However, these walkover structures should not interfere with public access or extend below the mean high water line.

7) Seawalls, bulkheads or revetments should not be placed in front of frontal dunes.

8) Public access should be provided either over frontal dunes via walkover structures or by using natural breaks through frontal dunes. In no case shall access be provided by bulldozing or cutting openings through frontal dunes.

9) In all cases, the primary front-row sand dune, as defined in *R.30-1(C)(39)*, should not be permanently altered.

Recommended Policies

1) OCRM recommends that local governments in shoreline areas institute shorefront construction setback lines as part of their land-planning activities and/or local building codes, subdivision regulations, or zoning ordinances.

2) Private property owners and developers are encouraged to consult with OCRM or with technical consultants to learn the erosion trends and shoreline dynamics in their particular area before initiating construction.

5. Management Authority

The S.C. Coastal Management Act of 1977 explicitly states that the regulatory program developed to control beach erosion is for the purpose of promoting the public health, safety and welfare, and the protection of public and private property from beach and shore destruction.

OCRM has been granted very broad authority to study and control erosion in the coastal zone. Besides the permit program for the alteration of critical areas, which would encompass most erosion control activities, the enabling legislation gives OCRM responsibility to develop and implement a comprehensive beach erosion control program and permit jurisdiction over erosion control and water drainage structures not otherwise covered by law (§48-39-120; 1976 S.C. Code of Laws). OCRM has also been designated as the State agency to accept Federal money for erosion control in areas to which the public has full and complete access. State funds, if available, may be spent by OCRM to alleviate emergency erosion conditions, as declared by OCRM, in areas to which the public has full and complete access. Public access is

a pivotal requirement for the allocation of funds by OCRM under the erosion control segment of the coastal management program.

The specific policies for erosion (management control) are designed to accomplish this purpose. Through direct action, such as an order, or as a last resort, by seeking court intervention, OCRM may enforce these policies and insure the implementation of this segment of the program.

D. BEACH AND SHORELINE ACCESS

1. Introduction

The South Carolina coastal zone boasts 158 miles of Atlantic Ocean shoreline - this wealth of beaches is an invaluable and irreplaceable resource for the State. The General Assembly recognized the increasing demands on all coastal resources in the passage of the South Carolina Coastal Management Act of 1977, which mandates development of a comprehensive coastal management program. Among the many findings and concerns expressed in the State legislation are those of protecting public access and preserving and expanding recreational resources. The following beach and shoreline access policies and existing management authority address these issues.

In order to receive Federal approval and thereby continued funding through the Department of Commerce, the State must also meet Federal requirements for shoreline access in its coastal management program. The rules and regulations from the Federal Office of Ocean and Coastal Resource Management for program development and approval read as follows:

(1) The management program must contain a procedure for assessing public beaches and other public areas, including State owned lands, tidelands and bottom lands, which require access or protection, and a description of appropriate types of access and protection.

(2) There must be a definition of the term "beach" that is the broadest definition allowable under state law or constitutional provisions, and an identification of public areas meeting that definition.

(3) There must be an identification and description of enforceable policies, legal authorities, funding programs and other techniques that will be used to provide such shorefront access and protection that the State's planning process indicates is necessary.

(*Section 923.24*, **Federal Register**, Vol. 44, No. 61, March 1979)

2. Definitions

a. Beach

The South Carolina Coastal Management Act (Act 123 of the 1977 South Carolina General Assembly) defines "beaches" as "those lands subject to periodic inundation by tidal and wave action so that non-littoral vegetation is established." (*Section 48-39-10(H)*) This definition includes that area of sand between mean low and spring high water, in other words, the foreshore and the dry sand beach up to the line of vegetation. Beaches are included in the management program as "critical areas," subject to OCRM's direct permitting authority.

b. Public Beach and Public Access

According to the Federal Regulations "public beach" must be defined within each management program. In South Carolina it is defined in terms of State ownership or of demonstrated public use sufficient to create public rights in the land. In South Carolina there is no specific statutory right for public use of the beaches. However, the doctrine of the public

trust forms the bases for the public's right to use the foreshore or wet-sand beach seaward or below the mean high water mark. Under this doctrine, title to the foreshore (below mean high water) is presumed to be held by the State in trust for her citizens unless title has been expressly granted to an owner out to the low-water mark.

Based on traditional concepts of law, or common law, the public has rights to use the foreshore for navigation and fishing. In recent years, this traditional interpretation has been expanding in other jurisdictions. In South Carolina, statutory expression in State legislation for coastal management and oil spill monitoring and control, and opinions of the S. C. Attorney General reflecting strong public interest in recreation, have to some degree broadened the common laws basis to include recreational use within the public trust.

Upland access across to the wet-sand beach below mean high water is another important factor in identifying public beach access. Unless the property landward of the wet-sand beach is owned outright by the State - through acquisition, express dedication from developers and owners, or through an express trust - assurance of public rights for use of the "dry-sand beach" or shoreline property adjoining the traditional public beach area below MHW can be made only on the basis of a case-by-case determination.

In South Carolina, confirmation through the courts of these so called "acquired" public rights for accessways on shoreline property will probably be based on the legal theories of (1) prescriptive easement and (2) implied dedication. A prescriptive easement requires a clear showing of continuous and uninterrupted public use without permission of the owner, for a 20-year period. Implied dedication requires evidence of the landowner's intent to dedicate the property for public use and of the public's acceptance by using the land. Under either theory, evidence supporting the extent of public use must be clear and convincing.

Litigation involving particular parcels of shoreline property is clearly an expensive, time-consuming, and cumbersome means for determining "public" versus "private" rights in a particular area. But in some instances where ownership is in question, it can be the only means for such determination. The S. C. Attorney General has brought several claims on behalf of public rights in the past; however, there is no clear statutory authorization for this role and no explicit duty for that office to undertake such an action. The viability of this course of action depends to a large degree on the ability or willingness of the Attorney General or of some concerned private party to initiate a public claim.

c. Existing Public Access (Full and Complete Access)*

OCRM will use the following definition for "existing public access" for 1) determination of those areas eligible for public funds for erosion control and 2) as a basis for every permitting decision requiring consideration of public assess. In addition, this definition fulfills the federal requirement that a definition of full and complete access be included in the State management plan.

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* For the purpose of meeting the requirements of *Section 48-39-320(3)*, the use of public funds for beach restoration projects, full and complete access is defined in South Carolina's Beachfront Management Plan, pp. 101-104.

OCRM will find that a stretch of beach is accessible to the public if: (1) reasonable provision is made for transportation facilities, including automobile parking, boat landings, bicycle racks and/or public mass transit. Facilities must be available on a year-round basis, and fees, if charged, must be nominal and serve only to offset actual costs; (2) public walk-ways or access-points to the beach and lateral access to the dry-sand beach are open and readily apparent; (3) access to the area is actually sought by members of the general public with reasonable frequency.

A "stretch of beach" may be delineated by such factors as physical or geographical boundaries (an inlet or marsh, for example) as well as by jurisdiction borders (municipal limits, for instance).

What constitutes "reasonable" for purposes of the preceding definition will be determined in part by the size and population of the surrounding area, the size of the stretch of beach itself, and the availability and nature of upland or marine rights-of-way to the general area of the beach.

3. Policies for Public Shoreline Access

1) OCRM fully endorses and will support, further, and encourage the protection of and, wherever feasible, the expansion of public access to shoreline areas in the coastal zone.

2) OCRM's evaluation to determine whether or not permit applications for alterations in the critical areas are approved will be guided by the policies specified in *Sections 48-39-20* and *48-39-30* of the S. C. Coastal Management Act of 1977, as amended, and:

> The extent to which the development could affect existing public access to tidal and submerged lands, navigable waters and beaches or other recreational coastal resources (*Section 48-39-150*, S. C. Coastal Management Act of 1977).

3) OCRM's review and certification of permit applicants from other State agencies for projects in the coastal zone, including those outside the critical areas will consider:

> The extent of impact on the following aspects of quality or quantity of these valuable coastal resources:
>
> Public recreational lands - conversion to other uses without adequate replacement, **interruption of existing public access**, or degradation of environmental quality in these areas (emphasis added). (See chapter III, (C) Resource Policies.)

4) Public funds can only be expended for beach or shore erosion control in areas, communities or on barrier islands to which the public has full and complete access.

5) The highest priority for expenditure of public funds for acquisition of new parks and recreational areas along beaches or shorelines in the coastal zone will be given to areas which offer full and complete access to the public.

6) OCRM encourages the extension of better access to existing publicly-owned recreation areas, particularly barrier islands, which currently only afford access by private boat and are appropriate for more intensive use. This should include access **to** the area via ferry or provision of boat landings and other facilities; and also access **across** or through the area to the beach-front via paths or walkways. The type and extent of public access must be determined based on the human "carrying capacity" of the area in its natural state in order to protect natural beach features and other environmentally sensitive areas.

7) Lateral beach access-ways should be walk-over structures or staggered pathways at natural breaks in the dunes to prevent disruption of sand dunes or vegetation. Although structures of this type are specifically exempted from direct permit authority, OCRM will be available at any time to assist in their planning and design so as to assure suitability to the environment.

8) The provision of additional parking space in upland areas adjacent to beaches should be a priority for recreational planning by both local and State agencies. Alternatives such as remote parking sites connected to the beach by public transportation, off-island parking, and authorized weekend and holiday use of private, commercial parking spaces should be explored. As mandated in *Section 48-39-100* of the Act, OCRM will be available to provide technical assistance whenever needed.

9) Local governments in the coastal zone, particularly beachfront communities, are urged to incorporate considerations for provision of public access into their local ordinances and comprehensive plans, especially into subdivision regulations which can influence the location and design of new development that might affect public access.

10) Private developers in beach areas, in considering the benefits not only for the public but for protecting private property interests, are encouraged to include provision of reasonable public beach areas and access-ways in their plans for new developments.

11) Recreational planning by State and local governments should include consideration of alternatives to actual ocean-front areas in order to offer other options for recreation and to relieve growing pressure on ocean-front communities. An example of such an alternative is the acquisition and development of recreational areas along rivers which provide for activities such as fishing, swimming or picnicking. Estuaries could also be utilized as recreational areas, provided that their development and use are compatible with the fragile nature of these areas.

12) OCRM advocates the provision of joint-use public docks, public boat ramps and landings throughout the coastal zone in environmentally suitable locations, to meet the needs of recreational boating.

13) OCRM advocates the provision of pedestrian access and fishing catwalks on all new bridges and roadways in the coastal zone, and recommends their addition to existing structures where possible.

14) The provision of new public oyster grounds, as well as the preservation of existing public grounds will be sought by OCRM. (Public shellfish grounds are designated as Geographic Areas of Particular Concern.)

15) The resource policies for park facilities, as well as marinas, boat ramps, docks and piers will apply where appropriate to shorefront areas with public access. (See Resource Policies pertaining to these activities.)

16) OCRM will coordinate planning and acquisition efforts very closely with the SCORP Exchange Council, as well as with State and Federal agencies concerned with public beach recreation.

17) OCRM recognizes the overriding importance of good water quality as a recreational resource, and will strive to maintain and, where possible, improve existing standards. Chapter V, (D) in the full Program document details the procedure by which the Federal Water Quality Standards are incorporated into South Carolina's coastal planning process.

Additional policies regarding public access are found in the State's Beachfront Management Act of 1988, as amended in 1990.

Recommended Practices

1) OCRM recommends that legislation be introduced to limit the liability of property owners and municipalities in case of injury or accident associated with public access to the beach.

2) OCRM strongly supports the proposal generated by the S. C. Department of Parks, Recreation and Tourism to alter the structure of the State Recreational Land Trust Fund (which may now only be used for State parks) to permit local governments to use the Fund for the purpose of developing land for any recreational purpose. Use of the Fund would enable State and local governments to provide more high quality public access to the beaches.

3) It is recommended that abandoned bridges and railroad trestles be left standing to serve as fishing piers when safety considerations permit. Costs of maintenance may be offset by leasing the structures to a county or local government. It has been suggested in the Resource Policies section that railroad rights-of-way be allowed to serve as access points whenever possible. (II (D) of the Resource Policies)

4) In the planning and design of all public access areas, full consideration should be given to assure access opportunities to elderly and handicapped visitors.

F. SPECIAL AREA MANAGEMENT PLANS (SAMPs)

Introduction

Uses of coastal resources are not always mutually compatible and conflicts of use can occur. Where these conflicts are widespread, a Special Area Management Plan (SAMP) is used to collect and examine data, identify potential development trends and enunciate anticipated conflicts between different uses. The SAMP will be used to develop strategies to protect and manage resources in order to implement coastal zone management policy. During the preparation of the SAMP, alternatives which will address and manage conflicts, and policies which will address the implementation of the plan through the existing permitting regulations and certification policies, will be identified. These alternatives include refinement of policy or application of existing policy on a specific geographical area. The following basic policies will govern the conduct and use of SAMPs:

1) SAMPs may be requested by state, local, or federal entities, in addition to the Department's inherent authority to develop such plans.
2) SAMPs are initiated by the Board.
3) OCRM may request cost sharing from the requesting entity for the development of the SAMP.
4) SAMPs should reflect a coordinated effort by all involved entities, particularly local governments, and recommended resolutions should reflect an effort by all involved entities.
5) SAMPs must be developed with public notice and comment.
6) For implementation, the Board most vote to approve the SAMP.
7) OCRM may, at its discretion, consider SAMPs developed pursuant to the existing Coastal Management Program Document to be included as a Geographic Area of Particular Concern (GAPC). When OCRM seeks to elevate a SAMP to a GAPC the process required by the program document and the Coastal Management Act shall be followed as it relates to GAPCs.
8) If the implementation of the SAMP by OCRM involves other than existing OCRM authorities, such authorities must be approved through the State Administrative Procedures Act process or through CZMP amendment or refinement, as appropriate.

CHAPTER V

MANAGEMENT AUTHORITIES AND GOVERNMENTAL/PUBLIC INVOLVEMENT

C. RESOLUTION OF CONFLICTS

Appeals Process for Certification (V-9)

Section 48-39-80(B)(11) of the S. C. Code of Laws of 1976, as amended, requires that the Department review and certify permit applications made to state and federal agencies within the coastal zone. In order to be certain that the Department retains its responsibilities in reviewing state and federal permits, any decision of the staff as it relates to a state or federal permit, shall be reviewed by the Department, in accordance with current procedures, upon appeal filed by any person adversely affected by such decision.

1) Notice of Certification

a) Federal permits or licenses - Within ten days after receipt of the consistency certification (consistency statement, required data and information) the Department will insure that a notice of the proposed activity will be published in a newspaper of statewide circulation as well as in a newspaper circulated in the area which is likely to be affected by the proposed activity. Where one newspaper meets both criteria, publication of the public notice in the single newspaper shall be sufficient. The public notice shall include a summary of the proposed activity, announcement that information on the activity is available for public inspection at a Department office, and a request that comments be submitted to the Department by a specified date. The Federal agency and the Department should issue a joint public notice when applicable to avoid duplication of effort and unnecessary delays (CZMP, p. V-26).

b) Direct federal activities

i) The activities of the Army Corps of Engineers will follow the same process as that set forth above in (1)(a).

ii) With regard to all other federal activities, the notice procedure for state permits set forth in (1)(c) will be followed.

c) State permits - Within ten days after receipt of notification from a State agency of a State permit requiring coastal zone management consistency certification, the Department will notify the public of the commencement of the consistency certification determination review through the issuance of a public notice. The public notice will contain the name of the project or activity requiring the permit, the location of the project (county, street or road address), type of activity (i.e., subdivision development, mine, manufacturing expansion), type of permit, name of agency issuing permit, an announcement that information on the project is available for public inspection at a Department office, and a request that comments be submitted to the Department within ten days. Where possible, a joint public notice issued with the issuing agency will meet the above requirements. In those instances where more than one permit is required for a project, as long as no components of the project change, the Department will only place the first permit received on public notice. The Department will take identical action on all sequential permits.

2) Process of Review

a) Federal permits - The Department shall issue a notice of proposed decision on application for certification, including any proposed conditions. Such notice shall be mailed to:

i) the applicant;

ii) agencies having jurisdiction or interest over the certification decision;

iii) any person commenting upon the project or requesting notification.

b) Direct federal activities

i) The activities of the Army Corps of Engineers will follow the process of review for federal permits set forth in (2)(a).

ii) With regard to all other federal activities, the process of review for state permits set forth in (2)(c) will be followed.

c) State permits - The Department will issue a conditional letter of consistency certification or non-certification to:

i) the applicant;

ii) agencies having jurisdiction or interest over the certification of the project;

iii) any person commenting upon the project or requesting notification.

d) The notice, in the case of federal permits, and the letter of certification, in the case of state permits and federal activities, shall provide ten days within which to file an objection or notice of intent to appeal the proposed decision or certification. The right of appeal is extended to the applicant and any person or persons adversely affected by the project.

e) Upon receipt of a notice of intent to appeal a certification decision, the Department shall notify the permittee and the affected agency, providing ten days within which to provide a statement in support of the appellant's position, along with supporting data and information. Additionally, the appellant may provide a brief and any documents deemed pertinent to a Department decision.

f) Upon receipt of the grounds for appeal and supporting information, same will be forwarded to all respondent parties. These parties must provide data, information, briefs, and any other supporting documents within ten days of receipt of the appellant's grounds for appeal and supporting documents.

g) Thereafter, the Department shall forward a copy of all appeal documents and a copy of the file and record of any proceedings to the Panel. Review shall be confined to the foregoing material and record and no additional evidence or testimony shall be allowed. The Panel shall have ten days to review the material and make written demand for oral arguments before the full Panel pursuant to R.30-6.

h) No extensions shall be granted.

3. Final Decision

a) The decision of the staff shall be deemed a final agency decision in the matter unless three members of the Panel request in writing that oral arguments be had before the full Panel.

b) If three members of the Panel make written demand for oral arguments, then oral arguments shall be heard after the ten day comment period by the Panel. Upon review of the decision by the Panel, the written order of the Panel affirming, reversing or modifying the decision shall be deemed the final agency action in this matter. A written order shall be served the same as for appeals under R.30-6.

4. Time Constraints

This appeal process is affected by time constraints on review and certification of federal permits and activities. Thus, the Department's decision may become final before the appeals process is completed. When a certification decision is made by the Department and is affected by federally imposed time constraints, the Department will adhere to the following procedure:

a) The Department shall seek a maximum extension of time from the appropriate federal agency. Any further extensions shall be the responsibility of the appellant.

b) If the appeal is not concluded two days prior to the final date for Department certification and notice of the decision to the federal agency, the original Department decision shall automatically become the final agency decision and the federal agency shall be notified accordingly.

c) Any stays of the federal time constraints on review and certification aside from extensions requested pursuant to (a) above must be obtained by the appellant from the appropriate court.

APPENDIX

GOALS, OBJECTIVES, AND POLICIES OF THE SOUTH CAROLINA BEACHFRONT MANAGEMENT PLAN

(AN EXCERPT FROM SOUTH CAROLINA'S BEACHFRONT MANAGEMENT PLAN)

GOALS, OBJECTIVES, AND POLICIES OF THE SOUTH CAROLINA BEACHFRONT MANAGEMENT PLAN

INTRODUCTION

This section of the plan contains goals, objectives, and policies that will be used to guide the management of the State's beach during the future. The planning period is ten (10) years; every five (5) years the plan is to be reviewed and, if needed, revised. Revisions may include changes based on technical data gathered from the ongoing monitoring of the beachfront changes in the local beachfront management plans, or changes in State law.

The goals, objectives, and policies outlined in this document are organized in a hierarchical manner. First, broad goal statements derived from Section 48-39-260 of the Beachfront Management Act are listed. These goals are intended to be nonspecific and to represent broad courses of action or direction for the plan to follow. Second, the plan's objectives are defined to identify strategies that will be addressed to implement the goals. These objectives are more specific than a goal but do not describe the specific actions the OCRM will take in order to accomplish the objective. Lastly, a number of specific policy statements are listed under each objective to identify specific courses of action that will be used to implement the Beachfront Management Plan. These policy statements will be used in OCRM's day-to-day actions which will implement the plan.

Following the section on goals, objectives and policies is a section describing plan implementation.

STATE COMPREHENSIVE BEACH PLAN

GOALS: (References to the South Carolina Coastal Zone Management Act, as amended, are given in brackets):

PROTECT, PRESERVE, RESTORE AND ENHANCE THE BEACH AND DUNE SYSTEMS. (48-39-260 (1)(a)(b))

IMPLEMENT THE POLICY OF RETREAT. (48-39-260 (2))

IMPROVE PUBLIC ACCESS. (48-39-260 (6))

PROTECT ENDANGERED SPECIES HABITAT. (48-39-260 (1)(d))

DEVELOP AN ORGANIZED DISASTER RESPONSE PLAN. (48-39-260 (8))

IMPROVE DATA BASE OF COASTAL PROCESSES. (48-39-260 (7));

IMPROVE PUBLIC AWARENESS OF COASTAL ISSUES. (48-39-260(1)(C); 48-39-260(2))

GOAL: PROTECT, PRESERVE, RESTORE AND ENHANCE THE BEACH AND DUNE SYSTEMS

OBJECTIVE 1: Protect all sand dunes seaward of the setback line. (48-39-320 2. (D))

POLICY: All beachfront lots proposed for development will be inspected by OCRM staff in order to identify sand dunes. OCRM staff will locate and flag all sand dunes on the lot. All sand dunes must be indicated on the plats. (48-39-310; 48-39-320 2. (D))

POLICY: Within the setback area, the disturbance of sand dunes must be avoided where possible. Sand dunes proposed for alteration must be indicated on the submitted permit drawings. The stated reason why alteration is required must be included. Consideration in the building and site design plans to relocate or redesign the building to avoid alteration of sand dunes and vegetation must be addressed. (48-39-320 (B)(4); 48-39-310; 48-39-320 2. (D))

POLICY: Important dunes significant to the health of the beach will be protected even if the boundary of the dune extends landward of the setback line. These significant dunes will be identified by OCRM staff from site visits and survey information. (48-39-320 2. (d))

POLICY: Within the setback area, mitigation in the form of constructing a new dune and replanting with beach vegetation where feasible, should be included for permitting an alteration of a dune. Off-site mitigation will be considered on a case-by-case basis. (48-39-310)

OBJECTIVE 2: Promote renourishment by providing funding and technical assistance where feasible. (48-39-260 (5))

POLICY: Use the state plan as a guide to fund renourishment projects based upon the state renourishment plan (adopted as a part of this plan). Renourishment projects will be funded based upon erosion rates, benefits to the community, improvement of public access and likelihood of success. (48-39-320 A. (2) (a))

POLICY: Technical assistance for renourishment projects is available from OCRM staff. Surveys developed as a part of coastal monitoring projects will be made available to local governments. Additional periodic surveys for proposed renourishment projects may be requested by a local government, and OCRM will attempt to address these requests. (48-39-260 (5))

OBJECTIVE 3: Encourage the construction and planting of new sand dunes within the area between the active beach and the setback line (48-39-310; 48-39-320 (2)(D))

POLICY: The construction of new sand dunes to provide erosion protection and wildlife habitat is encouraged on beachfront lots. In order to encourage this activity OCRM has issued a general permit which enables local property owners to build these dunes without obtaining an individual OCRM permit. (48-39-320 (2)(D))

POLICY: The construction of new sand dunes may be used as mitigation for other construction activity occurring within the setback area. OCRM will assess each mitigative activity individually, based upon the extent of construction on the lot, nature and location of the proposed dune. (48-39-310)

GOAL: IMPLEMENT THE POLICY OF RETREAT

OBJECTIVE 1: On erosional beaches, limit the size of structures within the setback area. (48-39-260 (2); 48-39-350 (A)(9); 48-39-280 (A))

POLICY: Within the 40-year setback area, buildings will be located as far landward as practicable. Local roadside setbacks will be the minimum necessary to allow development to occur while still allowing the construction of a building of a reasonable size for the intended use. OCRM, in cooperation with local governments in developing their beachfront management plans, will determine the minimum roadside setbacks allowable within the setback area. Practical considerations such as the need for off-street parking spaces, drain fields, and stormwater retention ponds will be considered during the review of these local plans. (48-39-350 (A)(9); 48-39-260 (2))

POLICY: In cooperation with local governments, OCRM will attempt to develop a system to allow larger buildings within a portion of the setback area provided the buildings are located farther landward on the lot than they would normally be allowed by existing local or State regulations. Each proposal will be reviewed on a case-by-case basis.

OBJECTIVE 2: Implement a policy of retreat to move buildings away from active beach. (48-39-260 (2); 48-39-350 (A)(9))

POLICY: Buildings seaward of the setback line that are destroyed beyond repair for any reason (whether by Act of God or man) can only be replaced by a structure no larger than that of the original building. (48-39-290 B. (iv)(a))

OBJECTIVE 3: Implement mitigation guidelines/regulations.

POLICY: The Beachfront Management Act requires OCRM to adopt mitigation guidelines for any construction activity occurring, as well as for any destruction of beach/dune vegetation, seaward of the setback line. (48-39-310; 48-39-320) In order to implement these guidelines OCRM has determined that local mitigation programs, similar to impact fee programs would be the most efficient way to establish and implement this program. Accordingly, OCRM has developed guidelines for mitigation programs and distributed these to local governments.

GOAL: IMPROVE PUBLIC ACCESS

OBJECTIVE 1: Develop programs to acquire public access improvements. (48-39-320 2. (b); 48-39-350 A. (2); 48-39-350 A. (10))

POLICY: OCRM has surveyed the coast of South Carolina and determined that several public access problems exist in some areas of the coast. Specifically, Georgetown County, Hilton Head Island, and southern Charleston County (Seabrook and Kiawah) have identified access problem areas. It is the policy of OCRM that in these areas local governments, or the applicant, are encouraged to improve public access as permits to renourish the beach, relocate inlets, or undertake any alterations within the coastal waters or sand dunes are considered. (48-39-320 2. (b))

POLICY: OCRM will request funding from the Federal government and the State to develop a source of funds to acquire beach property. (48-39-320 A. (g))

POLICY: OCRM will use its permitting and certification authorities to encourage developers, homeowners' associations, or local governments to make efforts to provide public access onto beaches where access is limited or completely restricted. (48-39-320 2. (g))

OBJECTIVE 2: Use public funds for renourishment projects only where full and complete access is provided. (48-39-320 (3))

POLICY: A community must demonstrate that the entire renourishment project area subject to State cost-shared funding has full and complete access existing as of the date of the award and that the entire project is a complete and viable project as defined in OCRM's regulations for renourishment projects and adjusting baselines. OCRM's public access guidelines will be used as the evaluating document in deciding if a beach has full and complete access and in designing public access improvement projects. (48-39-320 (3); 48-39-120 (D))

OBJECTIVE 3: Coordinate with S.C. Department of Parks, Recreation and Tourism and local government to develop new access sites. (48-39-320 (2)(B))

POLICY: OCRM will coordinate with Parks, Recreation and Tourism and local governments to identify potential beach access sites. Regional, community, and neighborhood facilities should be considered. (48-39-320 (2)(B); 48-39-350 A. (2); 48-39-350 A. (10))

POLICY: OCRM will request funding from the Federal government and the State Legislature to develop a joint funding program to acquire and develop parks along with Parks, Recreation and Tourism. Joint use of funds will be explored when feasible. The inventory of need will be used as a key factor in selecting site locations for public access improvement projects. (48-39-320 (3))

GOAL: PROTECT ENDANGERED SPECIES HABITAT

OBJECTIVE 1: Continue coordination with S. C. Department of Natural Resources to better identify endangered species and habitat sites. (48-39-320 (2)(E); 48-39-35 A. (4))

> **POLICY:** Local governments will be required through the local planning process to contact S. C. Department of Natural Resources to identify endangered species habitat areas. The policies of the endangered species guidelines will be implemented by the local governments through their plans. (48-39-320 (2)(E); 48-39-350 A. (4))
>
> **POLICY:** OCRM will coordinate with S. C. Department of Natural Resources to prepare a list of endangered species habitat areas. The list will be updated annually and used by OCRM staff in the permitting and certification processes. A staff member will be assigned as coordinator. (48-39-320 (2)(E); 48-39-350 A. (4))

OBJECTIVE 2: Include an endangered species impact review as a part of the permit and certification processes administered by OCRM and OCRM approval of local beachfront management plans. (48-39-320 (2)(E))

> **POLICY:** All sites identified by S. C. Department of Natural Resources will become Geographic Areas of Particular Concern (GAPCs) and be protected under the Coastal Zone Management Program. This list will be updated annually by the Natural Resources Department. (48-39-90 (D); 48-39-250 (A)(4))
>
> **POLICY:** In areas that do not have an approved local beachfront management plan, each individual permit or certification request located along the beachfront will be evaluated as to its impact on endangered species. If an impact is determined, the guidelines for protection of endangered species will be implemented through conditions placed upon the permit or certification. (48-39-350 (B))

OBJECTIVE 3: Limit man's impact to sea turtle nesting areas by use of ordinances at local and state government levels. (48-39-350 A. (4))

> **POLICY:** Local plans will be required to comply with the guidelines for endangered species in order to be approved by OCRM. (48-39-350 (A)(4))
>
> **POLICY:** OCRM will implement the intent of the lighting ordinances along the beachfront, for areas that do not have approved local beachfront management plans, through the enforcement provisions of the Coastal Zone Management Program and the review of individual permit applications. (48-39-350 (B); 48-39-350 A. (4))
>
> **POLICY:** Sand fencing and dune construction projects will be conducted in accordance with the adopted guidelines and regulations for the protection of sea turtle nesting areas. (48-39-350 (A)(4))

OBJECTIVE 4: Limit the destruction of dune systems from development activity to protect habitat. (48-39-310)

> **POLICY:** The policies of protecting sand dunes from alteration will be implemented along the coast through the local beachfront management plan and staff review of individual projects in areas that do not adopt approved plans (48-39-310)
>
> **POLICY:** If a dune is located in an area determined to be a habitat for an endangered species no alteration will be allowed. (48-39-350 (A)(4))

GOAL: DEVELOP AN ORGANIZED DISASTER RESPONSE PLAN

OBJECTIVE: OCRM will develop and implement, as a part of this plan, a disaster response plan describing the actions that OCRM will follow in preparing for a major disaster both before and after the storm event. (48-39-350 (A)(8); 48-39-260 (8))

> **POLICY:** The plan will be adopted by OCRM and used as the agency's strategy for responding to disasters. (48-39-260 (8))
>
> **POLICY:** The plan will be reviewed and updated annually and changes made as needed. (48-39-260 (8))

GOAL: IMPROVE DATA BASE OF COASTAL PROCESSES

OBJECTIVE 1: Develop a method to collect information on beach erosion and accretion that is capable of collecting historical information and monitoring long-term trends. (48-39-320 A. (1))

> **POLICY:** A monitoring program must be developed to periodically survey beach profiles along the coast. Each station will be surveyed at least twice each year. (48-39-320 A. (1))
>
> **POLICY:** A system for archiving the information will be developed. Information will be stored on computers in OCRM offices. (48-39-320 A. (1))

OBJECTIVE 2: Use the information in developing setback lines, erosion rates, and renourishment projects. (48-39-320 A. (1); 48-39-280 (A))

> **POLICY:** OCRM will analyze all information for historic trends to determine erosion rates, setback lines, etc. Lines will be evaluated every eight years. Renourishment projects will be evaluated as to the success of the project. Baselines and setback lines can be adjusted in accordance with the adopted guidelines. (48-39-280 (C))

OBJECTIVE 3: Make the information available to engineers, planners and all interested parties along the coast. (48-39-320 A. (4))

POLICY: All information will be released annually to local governmental planning departments. In addition, any engineering firms doing beach renourishment or coastal projects can receive copies of the monitoring results upon request. An annual "State of the Beach Report" identifying trends and erosion rates along the coast will be prepared and made public in April of each year. (48-39-320 A. (2); 48-39-320 A. (5); 48-39-350 A. (1))

OBJECTIVE 4: Fund monitoring projects to improve knowledge. (48-39-320 A. (3))

POLICY: When feasible, OCRM will fund hydrographic surveys, research projects, special studies, etc. to improve knowledge of coastal processes. OCRM will work with the Sea Grant Consortium and other appropriate agencies to try to identify needed research projects. (48-39-320 A. (3))

GOAL: IMPROVE PUBLIC AWARENESS OF COASTAL ISSUES

OBJECTIVE: OCRM will undertake a public education and public participation program in an effort to make the public more familiar with the methods used to manage the coast and the natural processes that are shaping the beach. (48-39-320 A. (4))

POLICY: OCRM will prepare brochures/pamphlets on coastal processes (the protection of sea turtles, building methods, dunes, etc). (48-39-320 A. (4))

POLICY: OCRM will utilize the media to explain coastal processes. (48-39-320 A. (4))

POLICY: OCRM will release informative studies so that the general public can understand issues related to beach management. (48-39-320 A. (4))

POLICY: OCRM will develop ways (advisory committees, etc.) for the public to become involved. (48-39-320 A. (4))