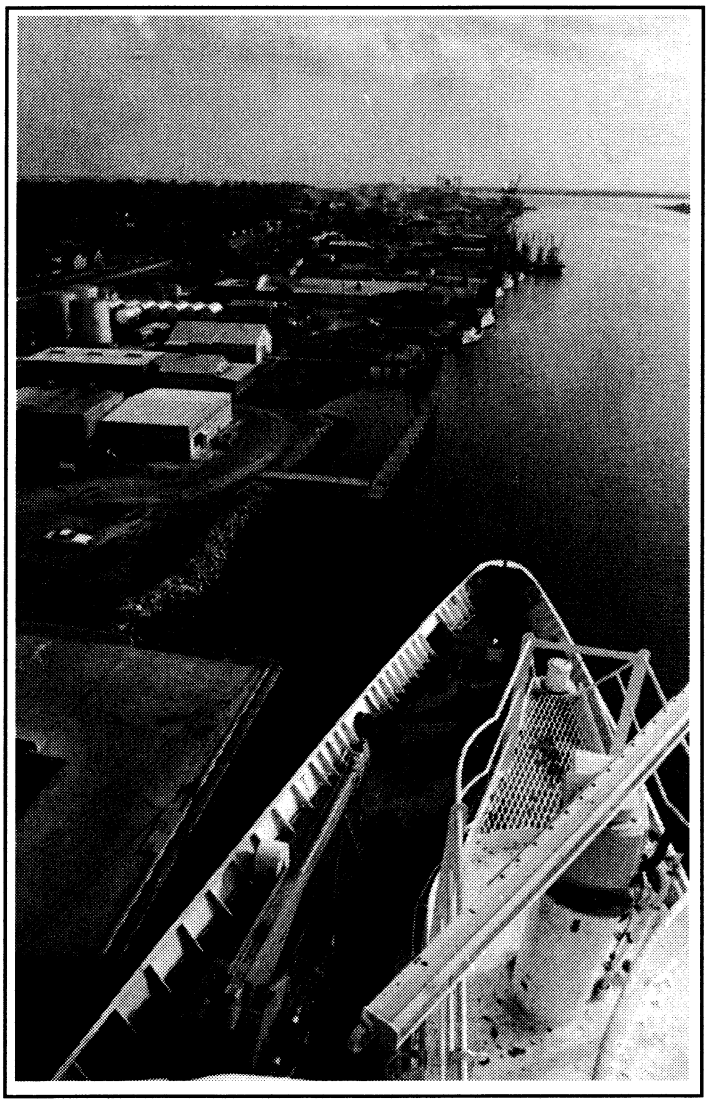
CHAPTER SIX:
USES SUBJECT TO MANAGEMENT



...we can never know how wide a circle of disturbance we produce in the harmonies of nature when we throw the smallest pebble into the ocean of organic life.

George Perkins Marsh

SECTION I:
CONSIDERATION OF THE NATIONAL INTEREST

A. Introduction

As lead agency for the Georgia Coastal Management Program, the Coastal Resources Division recognizes that there is considerable national interest in the effective management, beneficial use, protection, and development of the coastal area in Georgia, and in all coastal states. The coastal area is rich in a variety of natural, commercial, recreational, ecological, industrial, and aesthetic resources of immediate and potential value to the present and future well-being of the nation. Consideration of the national interest must therefore balance the provision of facilities that support national concerns and the protection of coastal resources, also a national concern. Where the national interest of facilities and resource conservation conflict, resolution is achieved through the resource policies, rules, and regulations applicable to the specific facility or associated activity. Identification of facilities and coastal resources that are in the national interest is guided by federal laws and regulations, executive policy statements, federal agency studies and reports, and consultations with federal agencies. Refer to Chapter Four, Section V for a description of federal agency cooperation during the program development process.

The following concerns are considered by the State of Georgia to be of such long-range, comprehensive importance as to be in the national interest: (1) National Defense; (2) Energy Production and Transmission; (3) Transportation, Ports, and Navigation; and (4) Coastal Resources (significant fish/shellfish/crustacean species and habitats; threatened wildlife habitats; public recreation areas; freshwater aquifers; historic, cultural, and archeological sites; barrier islands; and wetlands).

Consideration of national interest in program implementation is achieved by the review, certification, and permitting process conducted by the Coastal Resources Division. Applications for facilities or activities in areas under direct permitting jurisdiction of the Coastal Resources Division are placed on public notice and made available to federal agencies. Review of these applications considers the national interest as reflected in the regulations and policies, and also considers comments from the public and from federal agencies involved in making a decision on the permit application. Consideration of the national interest may also be requested of the Georgia Department of Natural Resources Board by federal agencies at any time. Such deliberation may result in changes or additions to regulations or policies. Other agencies reviewing permit applications for the coastal area also consider the national interest in their review process.

B. Management for Facilities and Resources in the National Interest

1. National Defense

All of the policies of the Georgia Coastal Management Program apply to national defense facilities if such facilities are not on federal lands, which are excluded from the coastal area. The policies of particular interest for national defense are those regulating transportation (ports, roads and highways, airports, railways), public services and facilities (e.g., water supply), and areas of special concern (e.g., navigation channels).

2. Energy Production and Transmission

Energy facilities and activities considered to be in the national interest include electric generating plants, petroleum refineries and associated facilities, gasification plants, facilities associated with liquified natural gas, uranium enrichment or nuclear fuel processing facilities, and oil and gas facilities. Agencies within the Georgia Coastal Management Program network consider the national interest in energy production and transmission when they plan for energy facilities located in or affecting the coastal area. This planning process includes anticipating and managing the impacts from such facilities. See Section IV, "Energy Facility Planning," later in this chapter for a more complete explanation of the planning process.

3. Transportation, Ports, and Navigation

The vital importance of transportation, ports, and navigation channels has been stressed in the Program Document. These facilities serve national defense and economic needs, among others. Nothing in Georgia's Coastal Management Program arbitrarily restricts or unnecessarily interferes with these important activities. The policies for transportation and dredging provide consideration of the national interest in these activities.

4. Coastal Resources

a. Significant Fish Species and Habitat

The policies for Recreation and Tourism, Marine Related Facilities, Fisheries and Wildlife, and Areas of Special Concern sections of the Coastal Management Program document describe significant fish species and habitats in coastal Georgia. Policies, in conjunction with the priorities for use of Special Management Areas, govern the activities that affect threatened wildlife and their habitats.

b. Threatened Wildlife Habitats

Of particular interest are policies for: Residential and Commercial Development; Transportation Facilities; Recreation and Tourism; Fisheries and Wildlife; Public Services and Facilities; and Areas of Special Concern. As specific policies under these and other areas indicate, activities that disturb threatened or endangered wildlife and vegetation, including their habitats, are discouraged in the coastal area.

c. Public Recreation Facilities

In addition to their particular management plans, several policies governing activities associated with recreational resources are also applicable to Special Management Areas that contain public recreation facilities. Of particular interest are policies for: Recreation and Tourism; Marine Related Facilities; Transportation Facilities; and Public Services and Facilities.

d. Freshwater Aquifers

Drinking water supply is affected by several factors, including adequacy of recharge areas, amount of extraction from supply, and purity of supply. The policies in general seek to direct activities in the coastal area in such a way as to protect this invaluable resource. Of particular interest are policies for the following: Residential and Commercial Development, Public Services and Facilities, and Areas of Special Concern. The Areas of Special Concern section has a special segment dedicated to aquifer management and protection.

e. Historic, Cultural, and Archeological Sites

Historic, cultural, and archeological sites are included as Special Management Areas if designated in the National Register, and may be included if they are eligible for designation. Priorities of use for these areas govern proposed activities that might affect these resources. The policies generally discourage activities that would disturb such resources. Of particular interest are policies for: Transportation Facilities; Residential and Commercial Development; Recreation and Tourism; and Areas of Special Concern. These policies aid in preserving those resources in which there is a national interest. Chapter Seven includes findings and specific policies on areas of historic, archaeological, cultural, and paleoentological significance.

f. Barrier Islands

The national interest in barrier islands is reflected in several policies. In managing activities that affect these valuable natural resources, there must be a balance between ecological needs and increasing development pressures. The following use categories contain policies that pertain to the protection of the national interest in these resources: Residential and Commercial

Development; Transportation Facilities; Recreation and Tourism; Marine Related Facilities; Public Services and Facilities; and Areas of Special Concern. In addition, where Special Management Area designations exist on a barrier island, the island will be managed according to the specific priorities of use for that area. There is a separate findings and policy section on barrier islands in the "Areas of Special Concern" section.

g. Wetlands

The national interest in wetlands is reflected throughout all of the policies, which provide strong protection against unwarranted dredging, filling or other alteration of coastal and freshwater wetlands. Specific policies on wetlands are included in sections on Residential and Commercial Development; Agriculture and Silviculture; Recreation and Tourism; and Marine Related Facilities in this Chapter, and Wetlands in Chapter Seven.

SECTION II:
ACTIVITIES OF REGIONAL BENEFIT

To provide a fair and equitable management program, Georgia Coastal Management Program policies must ensure that local land and water regulations do not unreasonably restrict or exclude land or water uses of regional benefit. The first step in satisfying this requirement is identifying those uses considered to be of regional benefit. Activities are considered to be of regional benefit in the Georgia coastal area if (1) they have been identified as activities subject to management, that is, those determined to have reasonably foreseeable effects upon land use, water use, or natural resources of the coastal area; and (2) they result in a multi-county environmental, economic, social, or cultural benefit.

The focus is on those coastal land and water uses that, by their nature, would require extension through more than one county or which meet a clearly recognized need, not only for the coastal region but for the State as a whole. Most public services in the Georgia coastal area are provided on a county-wide basis. Local and county governments in the coastal area have not exhibited any trend toward excluding activities that offer benefits to an area of greater than local concern. The following is a list of uses that affect or produce some regional benefit in coastal Georgia.

(1) Major transportation facilities such as interstate highways, state roads, airports, railroads, public transit systems, ports, and important navigational projects;
(2) Public recreation facilities of a regional or statewide significance;
(3) Regional water and waste treatment facilities;
(4) Regional waste disposal facilities;
(5) Major energy transmission or generating facilities;
(6) Major public facilities such as multi-purpose reservoirs, state and federal prisons, hospitals, and universities;
(7) Housing development and community growth.

The next step in providing for uses of regional benefit is to identify methods to ensure that local land and water uses do not unreasonably restrict or exclude uses of regional benefit. Consistent with the networking structure of the Georgia's Coastal Management Program, the present authority of the Department of Natural Resources and other State agencies is utilized to comply with requirements for uses of regional benefit. Legal authority found at Official Code of Georgia Annotated (O.C.G.A.) 22-1-2 establishes the right of the State, through its various agencies, to assert dominion over any lands of the State on account of public exigency and for the public good. Therefore, the Georgia Coastal Management Program, through specific acquisition powers of the Department of Natural Resources and other State agencies, ensures that adequate sites are or can be set aside for various uses of regional benefit. The legal basis for this system is

in place through the present powers vested in State agencies to acquire sites as the need arises for particular uses of regional benefit.

Another method available to ensure that local land and water uses do not unreasonably restrict or exclude uses of regional benefit is described by the Georgia Planning Act. This Act encourages municipal and county governments to develop comprehensive plans that address economic development, natural and historic resources, community facilities, housing, and land use to attain designation as a "qualified local government" eligible to receive State grants. The Georgia Planning Act establishes Regional Development Centers throughout the State that are responsible for developing regional plans based on the local plans within their respective region. Under the Act, local governments submit for review to their respective Regional Development Centers any proposed action that would affect regionally important resources or would result in any development of regional impact.

Regionally Important Resources (RIRs) are defined by Georgia Planning Act rules and procedures as: "a natural or historic resource which has natural boundaries extending beyond a single government's jurisdiction or has value to a broader public constituency and which is vulnerable to the actions and activities of man." These projects are referred to as developments of regional impact and include post secondary schools, hospitals, airports, recreational facilities, waste disposal facilities, petroleum storage facilities, and any project that exceeds prescribed demand levels for electricity, natural gas, water, wastewater treatment, or transportation. The Georgia Department of Community Affairs has the authority to "establish rules and procedures which would, based upon guidelines which the Department may establish, affect regionally important resources or further any development of regional impact (O.C.G.A. 50-8-7.1)."

As directed by law, the Department of Community Affairs has developed "Procedures for the Designation and Review of Regionally Important Resources." These procedures are designed so that each resource identified as a potential RIR is assessed in terms of its value and vulnerability and assigned a strategy for its management and conservation or protection. A uniform review process for local government actions affecting RIRs across the State is also described. As part of the comprehensive planning process the Regional Development Centers and local and county governments are required to consider all pertinent RIRs in their regional and local plans in the same manner as they consider the basic planning elements. Through the Georgia Coastal Management Program, the Coastal Resources Division works closely with the appropriate Regional Development Centers of the coastal area to review proposals for RIRs, to help develop management strategies, and to work with local governments during planning for areas that may have an impact on any RIRs. A Memorandum of Agreement between the Coastal Resources Division, the Department of Community Affairs, and the Regional Development Centers within the coastal area establishes the cooperative processes to review local proposals affecting RIRs.

SECTION III:
ACTIVITIES SUBJECT TO MANAGEMENT

The Georgia Coastal Management Program includes policies for managing the full range of activities that have reasonably foreseeable effects upon land use, water use, or natural resources of the coastal area. Most of these activities occur within the jurisdictions of the Shore Protection Act, the Coastal Marshlands Protection Act, and/or the Revocable License, which are administered by the Coastal Resources Division.

Georgia Coastal Management Program policies address the impacts of an activity on coastal resources rather than the activity itself. Assessing the impacts of a proposed action represents a more flexible method of managing activities in the coastal area. With this approach, policies need not be developed for every aspect of a given activity, but only for those aspects that have a reasonably foreseeable effect upon land use, water use, or natural resources of the coastal area. This approach is consistent with Georgia's existing home-rule constitutional authority, which vests land development and use decisions with local governments.

Specific areas of the coastal environment are more vulnerable to the effects of human activities than others. Environmentally-sensitive areas of Georgia's coast include the beaches, dynamic dune fields, submerged shoreline lands, salt marshlands, all tidally-influenced waters, tidal water bottoms, and freshwater wetlands. Through the Shore Protection Committee and the Coastal Marshlands Protection Committee, the Coastal Resources Division has direct authority to issue permits for any alteration of these areas under the Shore Protection Act and the Coastal Marshlands Protection Act. The Coastal Resources Division has further authority through the Revocable License and the State Programmatic General Permit for Recreational Docks.

Outside the direct authority of the Coastal Resources Division, within the coastal area, there are other activities or aspects of human development that may significantly impact coastal resources. Through Memoranda of Agreement, the Coastal Resources Division cooperates with other State authorities to create the Georgia Coastal Management Program network. The federal consistency provisions of the federal Coastal Zone Management Act provide another mechanism for coastal management; these provisions are described in Chapter Eight.

Identification of the activities that have a reasonably foreseeable effect upon land use, water use, or natural resources of the coastal area is based upon information compiled by the Coastal Management Program staff; input from local, State, and federal agencies; citizen working groups; and public input received through the Coastal Zone Advisory Committee and Task Forces, and the subsequent Coastal Advisory Committee. An activity is considered to have reasonably foreseeable effects on coastal resources and therefore is subject to management under State law if it entails one or more of the following criteria.

(1) It is located within the jurisdiction of the Shore Protection Act, Coastal Marshlands Protection Act, the Revocable License, or the Section 401 Water Quality Certification;

(2) It has detrimental environmental impact upon any area within the jurisdiction of the Shore Protection Act, Coastal Marshlands Protection Act, the Revocable License, or the Section 401 Water Quality Certification (for example, water pollution from an inland source that would reach the coast and result in degradation of the estuarine system);

(3) It creates adverse effects on the quality or quantity of coastal resources -- natural, economic, social or historical; and/or

(4) It disrupts access to a public coastal resource.

Coastal activities that have a reasonably foreseeable effect on coastal resources are addressed by Georgia Coastal Management Program policies in the following categories: (1) Development and Manufacturing; (2) Transportation Facilities; (3) Agriculture and Silviculture; (4) Recreation and Tourism; (5) Marine Related Facilities; (6) Fisheries and Wildlife; (7) Public Services and Facilities; (8) Dredging; and (9) Energy Facilities.

A. Development and Manufacturing

Findings

Residential Development

Paralleling national growth trends, residential growth within Georgia's coastal area is expected to increase steadily due to expanding industry and commerce and related employment opportunities, as well as the public's affinity for living near the seashore. Adequate housing that meets building standards and is appropriately located is a basic need for coastal residents. There remain many suitable locations for residential development within coastal Georgia; if residential growth is not properly managed, however, there may be negative environmental impacts.

Housing projects can have adverse effects on coastal water resources and ecosystems. Of primary concern is adequate treatment and disposal of domestic sewage from residences, which can degrade water quality and impact marine and aquatic species if mishandled. This issue may be especially problematic in existing homes and communities that may have been built prior to modern building codes. Uncontrolled development patterns can also increase soil erosion, sedimentation and contamination of coastal waters, and cause flooding problems from rapid storm water runoff. Another potential impact of residential growth is the loss of vital wetland areas if dredging and/or filling of these areas is allowed in site preparation or construction. (Refer to Chapter Seven, Section III, Part G for a discussion of the importance of wetlands.) Although wetland loss can be mitigated, scientific opinion is inconclusive regarding whether or not the mitigated site replaces the natural site in function and value.

Many potential resource conflicts exist. For example, a residential development may provide needed housing but at the same time disrupt commercial fishing by degrading water quality with improperly-controlled sewage effluent and increased storm water runoff. This same housing development, if located on beach-front property, could conflict with recreation by restricting access to a public beach. In addition, residential development in hazard-prone areas may risk life and property and could constitute a potential resource conflict.

For effective coastal management, a sustainable balance must be found between residential development and coastal resource conservation.

Commercial and Industrial Development

The increasing number of commercial activities in the coastal area is an integral part of growth. As population density increases, the commercial activities associated with residential and industrial development and coastal recreational activity will expand to serve the needs of people who live in and visit the coast. The Georgia coast attracts large numbers of visitors each year, and

that portion of commercial activity that supports the tourist trade is a significant aspect of coastal economy.

When evaluating the impacts associated with commercial activity, both large-scale development and the cumulative effect of many small activities must be carefully considered. Commercial development requires not only buildings but also roads, parking lots, storm drain systems, water treatment facilities, etc., all of which have potential negative impacts. For example, increased development of sub-standard buildings in flood-prone areas or storm hazard areas increases the potential for loss of life and property. Disturbance of the natural drainage system by excessive clearing of vegetation and covering large areas with impermeable surfacing causes soil erosion, sedimentation, contamination of coastal waters and a lowering of the water level in freshwater aquifers.

The solution to these and many other potential negative impacts is not to stop development. Rather, promoting environmentally-conscience construction, site preparation, and development standards will allow coastal resources to function naturally and regenerate themselves. In this way, necessary commercial development can take place with minimum negative effects on coastal resources.

Manufacturing

The growth and development of manufacturing is increasing in coastal Georgia, with correlating potential for economic benefits. Manufacturing plants are a source of employee payrolls and property tax revenues. New and existing industries provide a diversified economic base that complements government employment and the long-standing coastal economic activities of agriculture, forestry, fishing, and tourism. Coastal areas are especially attractive to five major types of industrial manufacturing:

(1) Industries that benefit from location near low-cost water transportation systems;
(2) Industries that derive power from water or use water for manufacturing processes or cooling purposes;
(3) Industries that benefit from location near coastal population centers, but do not have direct dependence on water use or access;
(4) Marine transportation industries; and
(5) Industries that depend directly on the marine environment for raw materials.

While economic benefits exist, manufacturing activities may, if improperly managed, create negative impacts. Waste disposal, oil spills, and the escape of toxic material into aquatic ecosystems are unfortunate by-products of industry that negatively impact the coastal environment. In addition to water and air pollution discharges, the possible environmental impacts of industrial development in the coastal area include the following.

(1) Possible destruction of wetlands and the associated flora and fauna by filling, dredging, and/or draining for site preparation;
(2) Soil erosion and flood control caused by site preparation, construction of access roads, and operation of heavy equipment;
(3) Attenuation of the quality and quantity of surface and groundwater resources caused by site preparation, facility operation, and introduction of pollutants;
(4) Proliferation of secondary development, such as transportation access facilities, sewage treatment plants or port development; and
(5) Potential air and surface water quality degradation.

Not only do possible conflicts exist between industrial growth and natural systems, but also between competing industrial activities. Commercial fishing, for example, depends on the same coastal water resource that is vital to certain manufacturing uses for transportation, cooling, or effluent discharge. The viability of fishing enterprises may be negatively impacted by a lowering of water quality caused by manufacturing uses.

The coastal area provides a unique opportunity for water-dependent industrial activities, as well as residential and recreational potential. Suitable sites for industrial uses are limited, however, and resources are finite. Competition for use of coastal resources intensifies with growth and development. Georgia's coastal area still retains many miles of unspoiled coastline and many acres of productive marshes and forests. Heavy manufacturing is relatively limited in the coastal area.

Policies

- Coastal Marshlands Protection Act
- Georgia Air Quality Act
- Georgia Comprehensive Solid Waste Management Act
- Georgia Erosion and Sedimentation Act
- Georgia Hazardous Waste Management Act
- Georgia Surface Mining Act
- Georgia Underground Storage Tank Act
- Georgia Water Quality Control Act
- Groundwater Use Act
- Licenses to Dig, Mine, and Remove Phosphate Deposits
- Revocable License Program (Georgia Administrative Procedures Act)
- Shore Protection Act
- Waste Control Law
- Water Wells Standards Act

Description

The Coastal Marshlands Protection Act protects tidal wetlands by limiting certain activities and structures in marsh areas, and by requiring permits for other activities and structures. Any development activity that affects coastal marshlands is subject to restrictions under this authority. Relevant activities, including erecting structures, dredging, or filling in marsh areas requires a permit from the Coastal Marshlands Protection Committee. Marsh Permits are administered by the Coastal Resources Division. Developers requiring a Marsh Permit are encouraged to take advantage of the technical assistance and preliminary permit review service provided by the Coastal Resources Division through the Georgia Coastal Management Program (See Chapter Four).

Development and manufacturing projects which impact air quality are subject to the Georgia Air Quality Act. This Act provides authority to the Environmental Protection Division to promulgate rules and regulations necessary to abate or control air pollution. Industries and manufacturers must follow established ambient air quality standards, emission limitations, emission control standards, and other measures necessary to provide standards that are no less stringent than the federal Clean Air Act. The Georgia Air Quality Act also requires: establishment of a program for the prevention and mitigation of accidental releases of hazardous air contaminants or air pollutants; training and educational programs to ensure proper operation of emission control equipment; and standards of construction no less stringent than the federal Act.

Proper waste management for development and manufacturing sites is detailed in the Georgia Comprehensive Solid Waste Management Act. Designed to protect human health as well as historic sites, the law defines rules regarding solid waste disposal and provides for a public comment process for facility siting. Solid waste facilities on private property are generally exempt from this law's provisions. Enforcement of this law is delegated to the Environmental Protection Division. Additional restrictions governing waste management may be in place through local zoning ordinances.

The Erosion and Sedimentation Act addresses erosion issues from development and other activities by setting minimum requirements for land-disturbing activities. Permits are required for specified land disturbing activities including the construction or modification of manufacturing facilities and construction activities. The Act also mandates that "an undisturbed natural vegetative buffer of 25 feet measured from the stream banks shall normally be maintained..." between waters of the State and land-disturbing activities, unless a variance is granted. The Act is administered and enforced by the Environmental Protection Division. Local governments may add restrictions to the provisions of the Act.

Also administered by the Environmental Protection Division, the Georgia Hazardous Waste Management Act describes a comprehensive, State-wide program for managing hazardous wastes by regulating the generation, transportation, storage, treatment, and disposal of hazardous wastes. Hazardous waste is designated by the Board of Natural Resources, and it includes any waste that the Board concludes is capable of posing a substantial present or future hazard to human health or the environment when improperly treated, transported, stored, disposed, or otherwise managed, based on regulations promulgated by the U.S. Environmental Protection Agency. Any industry or manufacturing operation which promulgates hazardous waste is subject to this law.

Georgia's Surface Mining Act regulates all surface mining in the State. Licenses to dig, mine, and remove phosphate deposits specifically regulate the impacts of phosphate mining.

Under the Georgia Underground Storage Tank Act, the Environmental Protection Division has the authority to define the State criteria for operating, detecting releases, corrective actions, and enforcing the use of underground storage tanks (USTs). EPD rules governing USTs (EPD Rules and Regulations, Chapter 391-3-15) define the minimum standards and procedures to protect human health and safety and to protect groundwater from contamination. Any development or manufacturing activity with USTs must comply with these rules and regulations.

The Georgia Water Quality Control Act was designed to ensure that waters of the State are used prudently, are maintained or restored to a reasonable degree of purity, and are maintained in adequate supply. The Environmental Protection Division administers this law and, through the Board of Natural Resources, sets rules regulating the rivers, streams, lakes, and subsurface waters throughout the State for public and private water supply, as well as agricultural, industrial, and recreational uses. The Division may set rules and regulations pertaining to water quality and quantity, set permit conditions and effluent limitations, and set permissible limits of surface water usage for both consumptive and non-consumptive uses. All development and manufacturing projects are required to comply with this law.

Through the Groundwater Use Act, the Board of Natural Resources has the responsibility to adopt rules and regulations relating to the conduct, content, and submission of water conservation plans, including water conservation practices, water drilling protocols, and specific rules for withdrawal and utilization of groundwater. Development and manufacturing projects utilizing groundwater must comply with this law. Groundwater withdrawals of greater than 100,000 gallons per day require a permit from the Environmental Protection Division. Permit applications that request an increase in water usage must also submit a water conservation plan approved by the Director of the Environmental Protection Division.

Through the Revocable License Program, the use of State-owned tidal water bottoms is protected. Any development or manufacturing project that proposes to use State-owned water

bottoms, including constructing a portion of a facility on a water bottom or dredging tidal bottoms, must meet certain conditions and obtain a Revocable License. For projects within the eleven-county coastal area, licenses must be obtained from the Coastal Resources Division. These licenses may be issued in conjunction with Marsh Permits and/or Shore Permits.

The Shore Protection Act provides legal authority for the protection and management of Georgia's sand dunes, beaches, sandbars, and shoals by limiting activities in shore areas and requiring a permit for certain activities and structures. Only temporary structures can be permitted in dune areas. Permitting authority lies with the Shore Protection Committee and is administered by Coastal Resources Division.

The Waste Control Law makes it unlawful to dump waste, including but not limited to sand, gravel, bottles, boxes, tires, construction materials, sludge from wastewater treatment facilities, biomedical waste, hazardous waste, and other waste. Development and manufacturing projects must properly dispose of waste in order to comply with this law.

Any development or manufacturing project requiring a well must comply with the Water Wells Standards Act. This Act provides standards for siting, construction, operation, maintenance, and abandonment of wells and boreholes. Individual and non-public wells must be located as far removed from known or potential sources of pollutants as possible. Licensing requirements for drilling contractors are established by the Act, as well as a State Water Well Standards Advisory Council.

In addition to the above-mentioned authorities, the Georgia Department of Human Resources oversees county and district health agencies and sets minimum requirements for local regulation of sewage management systems. Residential development projects must meet minimum requirements for septic tanks and sewage systems set by local health agencies.

Another authority important to developers and manufacturers is the Section 401 Water Quality Certification, as part of the federal Clean Water Act. The Act provides authority to the states to review federal permits that may result in a discharge to the navigable waters of the United States. The Environmental Protection Division has authority to administer Section 401 Water Quality Certification. The Coastal Resources Division assists the Environmental Protection Division in the administration of this authority in the eleven-county coastal area. Any development or manufacturing project that may result in a discharge to the navigable waters of the United States must receive a Section 401 Water Quality Certification.

B. Transportation Facilities

Findings

Georgia's coastline has always been a point of modal interface between one form of transportation and another. Ports and harbors provide a terminus for both passengers and goods, generating impetus for waterborne transportation and surface and air links. The construction and maintenance of all forms of transportation services are a vital part of the economic viability of the coastal area. Investment in these facilities meets a definite need in coastal Georgia, serving both coastal and State residents. Transportation facilities serve the national interest due to their role in national defense; provision of access to coastal recreation areas and other resources; and contribution to overall economic growth. Transportation systems are important elements in coastal management because they provide access to a variety of public resources -- economic as well as historic, social, and recreational. Potential environmental impacts from construction, maintenance, and operation of transportation systems do, however, exist.

Ports and Commercial Waterways

The ports and commercial waterways of Georgia represent major economic enterprises that meet the needs of waterborne commerce for both the coastal area and the entire State. Ports and commercial waterways also have a major national impact by providing a means of access to international and domestic markets. The Georgia Ports Authority operates two ports along the coast. One facility, located at Brunswick, consists of four terminals. The other, located at Savannah, consists of two terminals. In addition to the public terminals of the Georgia Ports Authority, there are approximately fifteen private terminals located in the Savannah area. These terminals also transfer a wide variety of goods and materials and are an important contributor to the coastal economy.

It is estimated that the Brunswick terminals generate $543 million in annual revenue, $124 million in income and $18 million in State and local taxes. It is estimated that both public and private terminals in Savannah generate $6.7 billion dollars in total annual revenue, $1.3 billion in income, and $171 million in State and local taxes.

State Terminals: The economic impact of public port development is substantial. According to information published by the Georgia Ports Authority, the four public facilities at the Port of Brunswick cleared more than 1.5 million short tons of cargo in fiscal year 1994 (July 1-June 30). Among the products most handled through the Brunswick facilities were gypsum, potash, wood pulp, petroleum products, and automobiles. The two Georgia Ports Authority facilities in Savannah cleared more than 7.4 million short tons of cargo during fiscal year 1994 (July 1-June 30). The ports' leading

agricultural export commodities include wheat, soy beans, corn, and coca beans. The port also handles dry bulk, liquid bulk, and breakbulk products.

Private Terminals: The fifteen private terminals in the Savannah area clear a wide variety of products including sugar, petroleum products, fiber products, gypsum, asphalt, and bulk liquids.

Port development and associated activities can have major direct and secondary environmental impacts, particularly in relatively undisturbed areas. A primary impact on coastal water quality is dredging to create and maintain navigation channels. Dredging can modify the hydrology of a harbor, produce changes in salinity, and degrade water quality through siltation and resuspension of solids. Lowering water quality may also have a detrimental effect on dependent plant and animal resources. Dredging may release sediment-based contaminants that become available to early life forms of fishes and other aquatic life forms. Initial and maintenance dredging can also create dredge material disposal problems and impact underwater archeological resources. Further, ports handling petroleum products or toxic substance cargoes involve risks of spills resulting in water quality degradation. The secondary effects of port development primarily affect land resources and land use. Ports generate a large volume of rail and truck traffic and often are a spur to industrial and urban development.

Roads and Highways

Roads and highways are key components in shaping the growth patterns of the coastal area, as they do in other parts of the State. The motor vehicle is the primary mover of people and goods, and access to and from the roadway network is a key factor in the economic gain of a community. Intersections, curb cuts, and highway interchanges are often the site of extensive development.

In addition, construction, operation, and maintenance of a roadway involve engineering and construction activities that may have direct negative environmental impacts if not properly managed. Of primary concern is the location of the thoroughfare, which may be routed along or through wetland areas, water bodies, or other sensitive habitats. Especially significant is the potential for destruction or significant deterioration of ecological systems through dredge and fill operations. Bridges, rather than roadbeds, are preferred in situations in which filling would result in loss of marsh or wetland habitat, or disrupt water flow and circulation.

Possible impacts of altering drainage and sedimentation as a result of land clearing, grading, and slope stabilization are associated with road and highway construction. Measures must be taken to eliminate soil erosion or sedimentation of wetlands and other water bodies. Roadways must be designed to minimize stormwater runoff from road surfaces and embankments in order to prevent toxic or nutrient loading of adjacent wetlands and other waters.

Air Transport

Air transport is an increasingly important mode for the transportation of passengers and cargo. Airport facilities are generally of coastal management concern when their construction or expansion may have significant impacts on coastal resources. In addition to potential direct loss of natural habitats, including valuable wetlands, the construction and operation of major airport facilities, if not properly managed, can result in water quality degradation caused by storm water runoff from paved parking and landing areas or by sedimentation and erosion.

Railways

Railroads are a principal means of transporting industrial, commercial, and agricultural goods to market in coastal areas of Georgia. Railroads serve as an important supplement to other transportation modes linking industrial and manufacturing sites to port facilities.

The possible negative environmental effects associated with development of new railroads are similar to the impacts of roads and highways. Those effects include loss of valuable wetland habitats if dredge or fill is required; disruption of water flow and circulation if properly designed bridges or other means to provide circulation are not utilized; and degradation of adjacent water quality if erosion and storm water runoff and sedimentation are not adequately controlled during construction and operation. Sound management practices and implementation of the following policies reduce the potential for these environmental problems when new railroad corridors are selected and developed.

Policies

- Coastal Marshlands Protection Act
- Endangered Wildlife Act
- Game and Fish Code
- Georgia Erosion and Sedimentation Act
- Georgia Comprehensive Solid Waste Management Act
- Georgia Hazardous Waste Management Act
- Georgia Water Quality Control Act
- Shore Protection Act
- Wildflower Preservation Act

Description

Transportation activities occurring within the jurisdictions of the Coastal Marshlands Protection Act or the Shore Protection Act require a permit from the Coastal Resources Division through the Coastal Marshlands Protection Committee or the Shore Protection Committee, and a

Revocable License issued by the Coastal Resources Division. Department of Transportation activities are exempt from permit requirements of the Coastal Marshlands Protection Act. As a networked agency, the Georgia Department of Transportation is required by the Georgia Coastal Management Act to coordinate its activities within the jurisdiction of the Coastal Management Program to ensure compliance with the policies of the Program to the maximum extent possible. Transportation activities that impact the water quality of navigable waters or wetland areas require a Section 401 Water Quality Certification from the Environmental Protection Division.

Land-disturbing activities are subject to the jurisdiction of the Erosion and Sedimentation Act. Many transportation activities, however, are exempt from the provisions of this Act. Construction or maintenance projects undertaken or financed by the Georgia Department of Transportation, the Georgia Highway Authority, or the Georgia Tollway Authority, or any road or maintenance project undertaken by any county or municipality, are exempt from the permit requirements of the Act, provided that such projects conform to the specifications used by the Georgia Department of Transportation for control of soil erosion. Exemptions are also provided to land-disturbing activities by any airport authority, provided that activities conform as far as practicable with the minimum standards set forth in the Act at Code Section 12-7-6. The Department of Transportation has developed a "Standard Specifications -- Construction of Roads and Bridges," which described contractor requirements, including controls for sedimentation and erosion. The specifications describe the requirements for both temporary control measures for use during the construction phase, and permanent erosion and sedimentation control measures that need to be incorporated into the design of the project. Failure to comply with the provisions of the specification will result in cessation of all construction activities by the contractor according to a schedule of non-performance of erosion control, and enforced by the Department of Transportation.

Transportation facilities must comply with the regulations developed under the Georgia Water Quality Control Act. This Act grants the Department of Natural Resources, Environmental Protection Division the authority to ensure that water uses in the State of Georgia are used prudently, are maintained or restored to a reasonable degree of purity, and are maintained in adequate supply. The Division is authorized to create rules and regulations pertaining to water quality and quantity, set permit conditions and effluent limitations, and set permissible limits of surface water usage for both consumptive and non-consumptive uses. The authority to regulate the rivers, streams, lakes, wetlands, and subsurface waters throughout the State for public and private water supply and agricultural, industrial, and recreational uses is provided to the Environmental Protection Division. The Act makes it unlawful for any person to dispose of sewage, industrial wastes, or other wastes, or to withdraw, divert, or impound any surface waters of the State without a permit.

Transportation facilities must also dispose of their wastes in accordance with State law, specifically the Georgia Comprehensive Solid Waste Management Act and the Georgia

Hazardous Waste Management Act. The Comprehensive Solid Waste Management Act regulates solid waste disposal. The Hazardous Waste Management Act describes a comprehensive, State-wide program for managing hazardous wastes through the regulation of the generation, transportation, storage, treatment, and disposal of hazardous wastes.

The Wildflower Preservation Act protects plant species that are rare, unusual, or in danger of extinction. The Endangered Wildlife Act protects animal species that are rare, unusual, or in danger of extinction. The Game and Fish Code (O.C.G.A. Title 27, Ch. 1) vests ownership of all wildlife in the State, and declares that custody of the State's wildlife is vested with the Department of Natural Resources. All transportation facilities on public lands must comply with the provisions of these Acts. In addition, projects permitted under the authority of the Coastal Marshlands Protection Act, the Shore Protection Act, or the Revocable License Program require full compliance with the protection of endangered or protected species. Outside the jurisdiction of these laws, for areas that are not public lands of Georgia, protection of endangered species is provided by the federal Endangered Species Act.

Transportation projects that require federal permits are subject to the federal consistency provisions described in Chapter Eight. Additionally, there are federal requirements for the transfer of oil and hazardous materials. Federal Coast Guard Rules and Regulations authorize the Coast Guard to inspect and enforce ship safety and transportation rules. Also, the Coast Guard has an Inlet Protection Program for Tybee Roads, Tybee Inlet, Sapelo Sound, Wassaw Sound, Ossabaw Sound, and St. Catherines Sound. This protection program identifies a strategy for spill containment in the event of an accidental oil spill or discharge.

C. Agriculture and Silviculture

Findings

Agriculture

Georgia has almost eight million acres of farmland classified as "prime," which may be defined as available land that is best suited for producing food or fiber, i.e., it has the soil quality, growing season, and moisture supply necessary to produce sustained yields of crops. As is the case throughout most of the world, this land is also suitable for urban development. Approximately 25,000 acres of prime farmland are converted annually to nonagricultural uses. By the year 2000, with continued population and economic growth, as many as 500,000 acres or 6.5% of the State's prime farmland may be lost to nonagricultural uses.

Approximately 7.3 percent of the land in coastal Georgia is in agricultural use. In 1992, the counties comprising Georgia's coastal area maintained 1114 individual farms. Wayne County contained the most farms (283), while McIntosh contained the fewest (33). The farms in Liberty County were the largest, with each averaging 318 acres of harvested cropland. The farms in Brantley County were the smallest, with 230 farms averaging 120 acres each. Between 1987 and 1992, the total number of farms in the coastal area decreased by approximately 2.7%, and the amount of land devoted to crop harvesting decreased by an average of 10.5%. Only Brantley, Chatham, and Glynn Counties had an increase in harvestable cropland.

Row crop agriculture is an important activity in Georgia's coastal area, especially in the second tier of coastal counties. Tobacco is the most important row crop grown in the coastal area, with nearly five million pounds produced in 1992. Corn, soybeans, peanuts, and cotton are also important farm commodities of coastal Georgia.

Every county in the coastal area supports commercial cattle ranching activities. In January, 1993, the coastal counties contained approximately 19,000 head of cattle. Effingham County led the region with 4,100 head, followed by Wayne County with 3,700 head. Hog farming is also an important agricultural activity in the coastal area. In December 1992, the coastal counties produced approximately 17,800 hogs and pigs. Effingham County led the region in production with 7,700 head, followed by Wayne County with 7,200 head.

Poultry production of both layers and broilers is another important agricultural industry in coastal Georgia. In 1992, large layer operations existed in Brantley, Bryan, Camden, and Charlton Counties. Brantley County led production, with approximately 735,000 layers. Broilers were produced in Charlton, Liberty, and Long Counties. Long County led production, with approximately 2.8 million broilers.

Agricultural activities may have significant environmental consequences if not conducted appropriately. Contamination from agricultural practices may be the cause for certain streams and waterways to be adversely affected in such a manner that they are unable to support the use for which they are designated (e.g., recreation, swimming, fishing, etc.). The Georgia Soil and Water Conservation Commission has developed a series of voluntary Best Management Practices (BMPs) for agriculture that are designed to protect the quality of Georgia's waters. The term BMP refers to a practice, or a combination of practices, determined to be the most effective practical means of preventing or reducing the amount of pollution generated by agricultural (or silvicultural) nonpoint sources. The BMPs for agriculture encompass such practices as conservation tillage systems, contour farming and terracing, stripcropping, filter strips, cover crops and crop rotation, nutrient management, pest management, pasture management, agricultural waste management, streamside forest buffers, and others.

Silviculture (Forestry)

Silviculture is the practice of applied forest ecology. With its related industries, silviculture is a major economic activity in coastal Georgia. The State's climate and soils favor southern pines, which grow to pulpwood size in only 15 years and to saw timber size in about thirty years. Georgia has approximately 24 million acres of commercial forest land, more than any other state. In recent years, farmer-owned timberland has decreased and the amount leased or owned by the forest industry has increased. In the eleven counties that make up Georgia's coastal area, commercial forests cover over 2.5 million acres or 76.4% of the land area. Forest industry companies hold ownership to 44.7% of the commercial forests in the coastal area. Concurrently, timber processing industries have benefitted from coastal Georgia's excellent transportation availability and large supplies of high quality groundwater. The 1993 average annual total income from timber, including sawtimber and pulpwood, was $110.5 million.

If not properly conducted, silvicultural activities may have significant environmental consequences, primarily from disruption of hydrologic systems. Logging in coastal watersheds has the potential to disrupt delicate coastal ecosystems. Increased erosion of soil and nutrients resulting from tree removal may accelerate sedimentation and reduce water quality. The Georgia 1994-95 Water Quality Assessment Report, however, did not show any impaired streams due to silvicultural activities. The processing of forest products may cause environmental damage if proper controls are not observed for air and water effluent discharges.

As a result of the 1972 Federal Water Pollution Control Act, as amended, a forestry technical task force was appointed by the governor to develop Best Management Practices (BMPs). BMPs for forestry are common sense practices to reduce or minimize road construction, harvesting, site preparation, and regeneration impacts on water quality from erosion and sedimentation. After developing BMPs in 1981, the task force recommended that the BMPs be implemented through a voluntary nonregulatory program exempt from permitting under the

Georgia Erosion and Sedimentation Act. This recommendation was adopted. Water quality violations, however, are enforceable under the Georgia Water Quality Control Act.

The Georgia Forestry Commission was designated by the Georgia Environmental Protection Division as the lead agency in BMP education for the forestry community. On behalf of the Division, through annual contracts, the Commission also investigates and mediates complaints involving forestry practices, and monitors BMP implementation through periodic surveys. The Georgia Forestry Commission targets educational efforts for physiographic regions, land ownership types, and specific BMPs where deficiencies in BMP implementation exist. Furthermore, it is the goal of the Georgia Forestry Association to be in 100% BMP compliance by the year 2000.

Policies

- Coastal Marshlands Protection Act
- Georgia Erosion and Sedimentation Act
- Georgia Water Quality Control Act
- Georgia Forestry Code
- Mountain and River Corridor Protection Act

Description

The Coastal Marshlands Protection Act limits certain activities and structures in tidal wetlands, and requires permits for other activities and structures. Any agricultural or silvicultural activity that directly alters lands within the jurisdictional areas of the Coastal Marshlands Protection Act must be permitted by the Department of Natural Resources Coastal Resources Division, through the Coastal Marshlands Protection Committee.

The Erosion and Sedimentation Act regulates land-disturbing activities. Among other provisions, the Act requires that local governments establish regulations for land-disturbing activities, and that no land-disturbing activities be conducted within 25 feet of the banks of State waters unless a variance is granted by the Director of the Environmental Protection Division. Agricultural practices, forestry land management practices, dairy operations, livestock and poultry management practices, construction of farm buildings, and any projects carried out under the technical supervision of the U.S. Department of Agriculture Natural Resource Conservation Service are exempt from this Act. Forestry and agricultural land-disturbing activities are subject to the Best Management Practices of the Georgia Forestry Commission and the Georgia Soil and Water Conservation Commission, respectively.

Agricultural and silvicultural uses of State rivers, streams, lakes, wetlands, and subsurface waters are subject to the Georgia Water Quality Control Act. Developed to ensure that water in

the State are used prudently, are maintained or restored to a reasonable degree of purity, and are maintained in adequate supply, the Act authorizes the Department of Natural Resources, Environmental Protection Division to establish rules and regulations pertaining to water quality and quantity, to set permit conditions and effluent limitations, and to set permissible limits of surface water usage for consumptive and non-consumptive uses.

The Georgia Forestry Code (O.C.G.A. 12-6-1, *et seq.*) establishes the Georgia Forestry Commission and also establishes management, conservation, and protection measures for forest lands. The Commission has implemented a Best Management Practices program for forestry designed to protect water quality from road construction, timber harvesting, site preparation, and other silvicultural practices that may cause nonpoint source pollution. The Certified Burner Program is administered by the Georgia Forestry Commission to educate the citizens of Georgia about safe burning techniques.

Prescribed burning is described in the Forestry Code (O.C.G.A. 12-6-146) to be a "resource protection and land management tool which benefits the safety of the public, Georgia's forest resources, the environment, and the economy of the state." The authorization and promotion of prescribed burns for community protection, silviculture, environmental, and wildlife management purposes is State law (O.C.G.A. 12-6-146(b)). The nuisance and liability of smoke from such burns is recognized, and, therefore, a permit is required "to burn any woods, lands, marshes, or any other areas" (O.C.G.A. 12-6-90 (a)). The Best Management Practices for Forestry and Agriculture describe the appropriate conditions for the use of prescribed burning. Uncontrolled or inappropriate use of fire can destroy the litter, duff, and humus layers of the forest floor and expose mineral soil to erosion. The BMPs establish appropriate weather conditions, construction of fire breaks, slope and soil conditions, etc.

The Mountain and River Corridor Protection Act (O.C.G.A. 12-2-8, *et seq.*) allows the Department of Natural Resources to develop minimum standards and procedures for the protection of natural resources, environment, and vital areas of the State including mountains and river corridors. These standards and procedures must be used by local governments in developing, preparing, and implementing their comprehensive plans. The Act requires a 100-foot vegetative buffer on both sides of rivers. In their comprehensive plans, local governments may exempt specific agricultural and forestry activities from the buffer requirement, provided that BMPs are followed and water quality is not impaired. The Act also requires consistency with the Erosion and Sedimentation Act. All rivers in Georgia with an average annual flow of 400 cubic feet per second are covered by the Act, except those within the jurisdiction of the Coastal Marshlands Protection Act.

An additional management measure is to encourage conservation easements. The Georgia Uniform Conservation Easement Act defines "conservation easement" to mean a non-possessory interest in real property, with limitations or affirmative obligations, the purposes of which include:

retaining or protecting natural property; assuring its availability for agricultural, forest, recreational, or open space use; protecting natural resources; maintaining or enhancing air or water quality; and/or preserving the historical, archeological, or cultural aspects of real property. A landholder may be a government agency or a charitable organization. Conservation easements are legally binding agreements between a property owner and a governmental body or a land trust that restricts the type and amount of development and use that may take place on the property. The landowner may retain several rights, including the right to sell, restrict public access, maintain the land for agricultural use subject to best management practices, add additional buildings to the site, etc.

At the federal level, the National Food Securities Act regulates agricultural activities in highly erodible areas, requires approved conservation plans in certain circumstances, and prohibits clearing and draining of wetlands for agricultural purposes. The Natural Resource Conservation Service and the Farm Service Agency of the U.S. Department of Agriculture administer this Act. Additionally, Section 404 of the Clean Water Act, administered by the Army Corps of Engineers, requires permits for dredging and filling wetlands. The Act exempts normal established on-going agricultural and silvicultural activities from the permit requirements. The Corps of Engineers also requires permits for conversion of forested wetlands to other uses such as agriculture or urban. Also, the federal Clean Water Act mandates that agriculture and forestry roads follow BMPs when crossing streams and wetlands. As of January 1, 1996, the Corps and the Environmental Protection Agency, in a joint Memorandum of Agreement, listed nine specific wetlands that if converting to a pine plantation via mechanical site preparation would require a permit.

D. Recreation and Tourism

Findings

Recreation and tourism represent major industries in coastal Georgia. There are a wide variety of recreational opportunities ranging from swimming, sailing, and sport fishing to observing wildlife and scenic vistas, and visiting historic places. The total tourist expenditures in 1993 in the eleven counties of the coastal area was approximately $1.39 billion. Most tourism in coastal Georgia is generated by the beaches and historical resources. Georgia's mild climate allows most popular recreational activities such as golf, tennis, and boating to be conducted throughout the year.

The Parks, Recreation, and Historic Sites Division of the Georgia Department of Natural Resources is responsible for the operation of four State Parks and four historic sites located within the coastal area. The Wildlife Resources Division manages ten Wildlife Management Areas within the coastal area. In addition, there are ten natural areas, managed by various State, local, or federal authorities, within the coastal area, including Gray's Reef National Marine Sanctuary, the Sapelo Island National Estuarine Research Reserve, and Blackbeard Island National Wildlife Refuge and Wilderness Area. The Jekyll Island Authority was established in 1950 to operate the island's historic and recreational facilities, including beaches, golf courses, and historic district. In addition to these State-operated facilities, there are several parks and recreation facilities, dozens of historic districts and hundreds of historic places, and open spaces that are operated by local governments, counties, and the federal government throughout the coastal area. Refer to Chapter Seven, "Special Management Areas," for more information about these and other areas.

The State of Georgia recognizes the importance of recreation as a basic need of coastal area residents and visitors. The amount of leisure time that is available to Americans continues to increase, and recreation is a significant feature of our daily lives. With expanding growth and development, the availability of open space, natural areas, and locations with adequate recreational facilities are important. The two primary environmental concern with parks, historic sites, and open spaces are: (1) maintaining the ecological balance of adjacent fragile areas such as marshlands, other wetlands, and wildlife habitat; and, (2) protecting the significant natural, historical, and cultural characteristics of the resources and the surroundings while providing an economically-sound use. Sustainable use of the coastal area for recreation is a primary goal of the Georgia Coastal Management Program.

Commercial recreational areas for visitors to the coastal area are a significant economic enterprise and contribute to the economic success of many coastal areas. Construction and operation require regulation for public safety or aesthetic reasons under various local planning and building codes. Commercial recreation facilities are of a coastal management concern if they

disrupt existing public access or if they significantly degrade water quality, cultural entities, historic areas, scenic vistas, or environmental factors.

State and federal parks, historic sites, and wildlife management areas located in coastal Georgia provide opportunities for hunting, fishing, bird watching, beach access, marsh access, access to sites of historical significance, and other recreational opportunities. In addition to the State- and federally-owned properties in the coastal region, there are numerous non-government owned historic and natural resources that not only give coastal communities their unique character, but also provide overnight accommodations, dining, shopping, touring, biking, boating, fishing, hunting, camping, and other recreational opportunities.

A number of parks and historical and culturally significant sites have been designated within this document as "Areas of Preservation and Restoration" because of their unique natural and cultural value and importance as a recreational use area. The priority of uses for these specific parks and sites is addressed in Chapter Seven, "Special Management Areas."

Most public recreational facilities in the coastal area (as throughout the State) are financed in full or in part by the U.S. Department of the Interior, National Park Service. Funds provided by the Dingell-Johnson and Wallop-Breaux Acts (Aquatic Resources Trust Fund) support recreational fishing activities and development projects, such as boat ramps, floating docks, and fishing piers.

Policies

- Coastal Marshlands Protection Act
- Georgia Erosion and Sedimentation Act
- Georgia Heritage Act
- Georgia Water Quality Control Act
- Groundwater Use Act
- Shore Protection Act

TABLE 6.1: Inventory of State and Federal Parks, Historic Sites, and Wildlife Management Areas in Coastal Georgia

State-managed Wildlife Management Areas within the coastal area:
- Altamaha Wildlife Management Area - McIntosh County
- Dixon Memorial Wildlife Management Area - Brantley County
- Little Satilla Wildlife Management Area - Wayne County
- Ossabaw Island Wildlife Management Area - Chatham County
- Paulk's Pasture Wildlife Management Area - Glynn County
- Rayonier Wildlife Management Area - Wayne and Brantley Counties
- Richmond Hill Wildlife Management Area - Bryan and McIntosh Counties
- Sansavilla Wildlife Management Area - Glynn and Wayne Counties
- Sapelo Island Wildlife Management Area - McIntosh County

Natural Areas within the coastal area:
- Savannah National Wildlife Refuge
- Wassaw National Wildlife Refuge
- Ossabaw Island Heritage Preserve
- Gray's Reef National Marine Sanctuary
- Harris Neck National Wildlife Refuge
- Blackbeard Island National Wildlife Refuge and Wilderness Area
- Sapelo Island National Estuarine Research Reserve, Sanctuary, and Natural Area
- Lewis Island Natural Area
- Wolf Island National Wildlife Refuge
- Cumberland Island National Seashore
- Okefenokee National Wildlife Refuge and Wilderness Area

State Parks within the coastal area:
- Skidaway Island Park
- Ft. McAllister Historic Park
- Crooked River Park

State Historic Sites within the coastal area:
- Hofwyl-Broadfield Plantation
- Fort King George
- Fort Morris
- Wormsloe

National Parks and Monuments within the coastal area:
- Ft. Frederica National Monument
- Cumberland Island National Seashore
- Ft. Pulaski National Monument

Description

In addition to Georgia statutory requirements for access by physically handicapped persons, the federal Americans with Disabilities Act must be complied with for all public structures.

Permits for parks, tourist-oriented or commercial recreation facilities within the jurisdiction of the Coastal Marshlands Protection Act and the Shore Protection Act are administered by the Coastal Resources Division. In the rest of the eleven-county coastal area, the Environmental Protection Division has permit authority over certain aspects of facilities open to the public, including sewage systems and water systems, and other authorities under the Environmental Assessment process. In addition, land-disturbing activities associated with recreation and tourism are subject to the provisions of the Erosion and Sedimentation Act.

Administered by the Environmental Protection Division, the Georgia Water Quality Control Act establishes regulatory requirements for water quality and quantity, permits for discharges into surface and subsurface waters of the State, etc. Any recreational or tourist-related discharge of water is subject to the provisions of this law. Likewise, recreational or tourism activities using groundwater are subject to the Groundwater Use Act. This Act provides authority to establish regulations and permit requirements for withdrawal, drilling protocols, and water conservation plans.

Georgia's Heritage Trust Act seeks to preserve certain real property in Georgia that exhibits unique natural characteristics, special historical significance, or particular recreational value. The goals of this Act have been superseded by the Heritage 2000 Program. The Heritage 2000 Program provides funding to acquire properties for preservation of significant cultural or historical resources.

The Department of Natural Resources is authorized to grant permits or enter into contractual agreements with recognized scientific organizations or qualified individuals for the purpose of conducting field archeological research or salvage archeology on State property. The Department can also promulgate regulations to preserve and protect any cultural or archeological finding. The Historic Preservation Division administers State and federal funding for historic preservation activities. The Department of Natural Resources, Parks, Recreation, and Historic Sites Division has the authority to construct, operate, and maintain State parks.

The Historic Preservation Division is the lead state agency for administration of both federal and state tax incentive programs for preservation of historic properties. The Coastal Resources Division cooperates with that agency to help identify potential candidates for such programs. The Nongame Wildlife Conservation and Habitat Acquisition Fund provides a mechanism for voluntary donations and tax refund allocations to establish a fund to acquire

property. The Department of Natural Resources has the power and authority under Title 27-1-6 of the Georgia Code to "acquire by purchase, condemnation, lease, agreement, gift, or devise lands or waters suitable for... fish hatcheries, nursery ponds, game farms, sanctuaries, reservations, and refuges... and for wildlife restoration, propagation, protection, preservation, management research or management...." Access to some of the areas already acquired is by boat only. The River Care 2000 Program provides funds for acquisition of substantial properties along the State's rivers, including some in the coastal area. The Heritage 2000 Program provides funds for acquisition of historical or culturally significant properties. The Preservation 2000 program provides funds for preservation of natural areas, historic sites, parks, wildlife management areas, and similar sites.

There are many non-government sponsored mechanisms to acquire public access to properties for recreational and conservation purposes. Land trusts and conservation easements are two such mechanisms. Land trusts are non-profit organizations that protect land for its natural, scenic, historic, or productive value. Conservation easements are agreements between property owners and government agencies or a land trust that restrict the type and amount of development and use that may take place on the property. Both mechanisms can be effective complements to government acquisition programs and the regulation of uses to protect sensitive properties. In 1992 the Georgia legislature passed the Uniform Conservation Easement Act, which authorizes and promotes the use of conservation easements. Two non-profit organizations, the Georgia Environmental Policy Institute and the Coastal Georgia Land Trust, are very active in their efforts to assemble land trusts and conservation easements in the coastal region of Georgia for a wide variety of purposes, including habitat protection, greenways, scenic easements, and historic resource protection.

Acquisition of title to culturally valuable properties and utilization of other methods are authorized by the Heritage 2000 Program, among other State-administered programs. The Parks, Recreation and Historic Sites Division provides educational opportunities at certain historical and cultural venues. Hog Hammock, on Sapelo Island, is one example. A uniquely isolated cultural community descended from slaves, this community has special cultural value. The Historical Preservation Division works with local communities to promote the preservation and continuation of cultural communities and traditions, including the historic places in which they live.

E. Marine Related Facilities

Findings

Commercial docks and marinas, boat ramps, and recreational docks and piers are increasingly popular uses of coastal areas. Commercial docks and marinas serve multiple users and commonly collect a fee for use of their facilities. Recreational docks are private docks not available for public use. Policies that apply to docks apply to both commercial and recreational docks. Both public and private boat ramps are available for general or selective use to launch watercraft, depending upon the ownership of the boat ramp. In 1994, 24,946 boats were registered in the six coastal counties. That figure attributes one boat to every fifteen residences. Given current rates of growth, an increase of 3,200 boats is expected in those coastal counties by the year 2000. There are now 28 public marinas and 36 public boat ramps in the coastal counties. In addition, there are 33 non-boating facilities such as piers and docks available for public use.

The growth of recreational boating and the increase of coastal development in general has led to an increasing awareness of the need to protect waterways. In the federal Coastal Zone Management Act, Congress declared it to be a national policy that state coastal management programs provide for public access to the coast for recreational purposes. Also recognizing the importance of healthy coastal resources to promote recreation, a 1995 Executive Order recognized the social, cultural, and economic importance of recreational fisheries and directed federal agencies to improve aquatic resources to provide increased recreational fishing opportunities. Boating and adjunct activities such as marina operations are important means of public access. If these facilities are poorly planned or managed, however, they may pose a threat to the health of aquatic systems and may pose other environmental and navigational hazards. Ensuring the best possible siting, the best available design and construction, and appropriate operation and maintenance practices for marinas greatly reduces the potential of such threats.

Policies

- Coastal Marshlands Protection Act
- Endangered Wildlife Act
- Game and Fish Code
- Georgia Boat Safety Act
- Georgia Comprehensive Solid Waste Management Act
- Georgia Erosion and Sedimentation Act
- Georgia Fisheries Law Pertaining to Shellfish (Game and Fish Code)
- Georgia Water Quality Control Act
- Protection of Tidewaters Act
- Revocable License Program (Georgia Administrative Procedures Act)

- Right of Passage Act
- Shore Protection Act
- Wildflower Preservation Act

Description

Any marine-related facility, including docks and boat ramps, is subject to the provisions of the Revocable License and the Coastal Marshlands Protection Act. A Revocable License is necessary for use of State-owned tidal water bottoms. A Marsh Permit is necessary for structures built in tidal wetlands, and for dredging and filling of these marshlands. Both Revocable Licenses and Marsh Permits are administered by the Department of Natural Resources, Coastal Resources Division. Recreational docks must also receive the federal "State Programmatic General Permit for Recreational Docks." Under an agreement with the U.S. Army Corps of Engineers, this permit is also administered by the Coastal Resources Division. Marine-related facilities are also subject to the provisions of the Shore Protection Act. This Act prohibits docks, marinas, boat ramps, and boat storage facilities in the dynamic dune field.

The Endangered Wildlife Act protects animal species that are rare, unusual, or in danger of extinction. The Wildflower Act offers similar protection to plant species. Both Acts are applicable only on public lands of the State, but the federal Endangered Species Act applies to both public and private lands. The Game and Fish code protects wildlife resources. All permits issued by the State government for marine-related facilities are required to ensure the safety of endangered species. The State of Georgia has a list of protected animals and plants that State-issued permits must address. In addition to the State's protected species there is a federal list of threatened and endangered species, many of which are included on the State's list. Because the State of Georgia must obey federal law, when the State issues permits, it holds the responsibility of ensuring that federal laws are not violated by the permitted activity. To this effect, State-issued permits must include provisions, if applicable, to protect endangered species. Federal laws such as the Endangered Species Act, the Migratory Bird Act, the Marine Mammal Protection Act, and Standard Manatee Conditions apply if protected species may be adversely impacted by the project. The federal "Standard Manatee Conditions" guidelines, for example, demonstrate the proper measures that must be taken near manatee areas for their protection. If a marina or community dock is constructed near a manatee area, those guidelines must be included in the permit guidelines issued by the State of Georgia.

Through its permits, the State of Georgia has the responsibility for protecting the public interest and state-owned lands. Protection of the public interest includes maintaining currents and water quality. Georgia law also establishes the authority to regulate waste disposal on land or in water. Permits are issued only if the applicant can ensure that water quality can be maintained and that Georgia waste disposal rules are observed.

State fisheries law requires the Department of Natural Resources to operate a sanitation program in compliance with the National Shellfish Sanitation Program. This law specifies a formula by which the minimum distance of a marina from restricted or approved shellfish harvesting areas is determined. This formula is dependent upon the number of boats, the average number of people per boat, marina usage, and the volume of water in the marina area. This formula, which estimates the fecal coliform contamination from a marina, must meet the standard of 14 MPN/100 ml of water before the marina water will reach a shellfish area.

Under the Coastal Marshlands Protection Act, construction of boat ramps is prohibited in approved shellfish areas. There are no laws, however, which prohibit boat ramps in or near restricted shellfish harvest areas. However, all structures within the jurisdiction of the Coastal Marshlands Protection Act must meet minimum standards and undergo a review of water quality impacts in order to receive a permit. All structures, either in saltwater or freshwater areas, must meet the minimum water quality standards as passed under the Clean Water Act and reviewed by the State's 401 Water Quality Certification Program.

Recreational docks must comply with water quality laws such as the Clean Water Act. The National Shellfish Sanitation Program established standards for activities in or near shellfish areas, but does not set a specific distance limitation. Under the Coastal Marshlands Protection Act, recreational docks are prohibited from use for commercial purposes.

The U.S. Coast Guard is the lead agency that enforces the federal laws pertaining to fueling facilities and contingency plans for spills. Mandated by federal law, these authorities are applied in Georgia but are not part of the State's authorities. In addition to Georgia laws, Section 404 of the federal Clean Water Act regulates dredging and filling. The Corps of Engineers is the lead administrator of Section 404 permits; applicants must follow the sequencing requirements of the Corps of Engineers' 404(b)(1) guidelines. Section 404 of the federal Clean Water Act regulates dredging and filling in wetlands. A Section 401 Water Quality Certification from the Environmental Protection Division is necessary for any marine-related facility that may impact wetlands.

F. Fisheries, Aquaculture, and Wildlife

Findings

Management of marine fishery resources, including both commercial and recreational activities, is the responsibility of the Georgia Department of Natural Resources, Coastal Resources Division. Commercial marine fisheries are important coastal resources and represent a major industry in Georgia. Approximately 2400 persons purchased commercial fishing licenses in 1995. The principal commercial fishery in Georgia is the shrimp trawl fishery. There were 537 commercial trawler licenses issued in 1995. The total shrimp harvest amounted to approximately 7 million pounds in 1995 and had an ex-vessel value of approximately $27 million. Sale of by-catch (incidental or non-targeted catch) from the shrimp trawl fishery grossed an additional $200,000, and off-season whelk trawling grossed another $200,000. The bait shrimp fishery employs approximately 40 fishermen and has an ex-vessel value of approximately $570,000 annually.

The second largest commercial fishery in Georgia is the blue crab fishery. Approximately 200 individuals rely on crab fishing as their principal occupation. The 1995 harvest of blue crabs in Georgia was approximately 9 million pounds, and had an ex-vessel value of approximately $5 million.

With the exception of a nominal shad season, no large scale gill net fisheries exist in Georgia waters. An offshore hook-and-line snapper/grouper fishery exists that employs approximately 60 fishermen and produces an ex-vessel value of approximately $400,000 to $700,000 annually.

Shellfish is an under-utilized resource of the Georgia coastal area at this time. Currently 496,052 acres of potentially productive shellfish habitat exist in the State. The small shellfish fishery is most affected by water quality. Shellfish (oysters and clams) feed by filtering ambient water, consequently retaining bio-concentrate pathogens and other contaminants. Consumption of shellfish from contaminated waters can result in hepatitis or typhoid. Almost half of the potentially productive acres of shellfish habitat are closed due to unacceptable water quality or lack of data needed to allow harvesting. Of the 171,110 acres of approved habitat, only 25,364 acres are being commercially harvested and 15,509 acres are open to public harvest. The oyster/clam fishery has an ex-vessel value of approximately $100,000 annually. The Georgia coastal area offers great potential for the development of shellfish mariculture.

The ex-vessel value of the harvested resource is but a small percentage of the overall economic value of coastal fisheries. In 1995, approximately eleven processors or seafood packing houses, employing 1,131 individuals, were located in coastal Georgia. There are also approximately 50 wholesale seafood dealers employing over 100 individuals. No reliable

estimates of the economic impact of Georgia commercial fisheries can be found; considering support services and industries, however, it is certainly a substantial multiple of the harvest value.

The marine recreational fishery is another important resource in coastal Georgia. A 1994 survey estimated 443,717 anglers participate in saltwater fishing in Georgia. Direct expenditures by marine fishermen in the State are estimated at $53.4 million annually. The total economic value of recreational fishing, including support services and commodities is estimated at more than $250 million annually. Currently, there are over 25,000 boats registered in the six Georgia coastal counties, representing a ratio of one boat for every 15 residents. Given current rates of growth, an increase of 3,200 boats is expected in coastal counties by the year 2000. There are now 28 public marinas and 36 public boat ramps in coastal Georgia. Planners must consider the continuing popularity of marine fishing and boating to ensure proper accesses and species management.

Aquaculture in the State of Georgia currently is not a large enterprise. An Aquaculture Development Commission was created by an act of the Georgia Legislature (O.C.G.A. 27-4-251, *et seq.*), and became effective July 1, 1992. The duties of the Commission are to make a thorough study of aquaculture and the potential for its development and enhancement in Georgia, including an evaluation of Georgia's natural resources as they relate to aquaculture, an evaluation of species that have a potential for aquaculture in the state, and an identification of constraints to development of aquaculture.

Management of fish and wildlife species, other than marine fisheries, in the coastal area is the responsibility of the Wildlife Resources Division of the Georgia Department of Natural Resources. In order to promote the protection and wise use of Georgia's fish and wildlife resources, the Wildlife Resources Division promulgated the following objectives at their February 1991 Decision Conference:

(1) To provide and to promote opportunities for wildlife recreation;
(2) To acquire, to protect, and to enhance wildlife habitat and natural areas;
(3) To educate the public regarding the importance of wildlife, wildlife habitat, and natural areas;
(4) To gather and dispense scientific information for the sound management of wildlife resources and populations;
(5) To promote non-game wildlife programs;
(6) To develop additional funding sources for all game and fish programs; and
(7) To emphasize the environmental review process.

Recent Wildlife Resources Division emphasis has been placed on a comprehensive land acquisition program to preserve natural areas and maintain habitat for both game and non-game animals.

Policies

- Georgia Aquaculture Development Act
- Georgia Fisheries Law Pertaining to Shellfish (Game and Fish Code)
- Georgia Natural Areas Act
- Georgia Water Quality Control Act

Description

Hunting is recognized as an important wildlife management tool. Through the Game and Fish Code, the Department of Natural Resources, Wildlife Resources Division is designated to operate Wildlife Management Areas, register aquaculture activities, and protect wildlife resources. The Nongame Wildlife Conservation and Habitat Fund provides a mechanism to fund nongame wildlife conservation and habitat acquisition.

The Georgia Natural Areas Act authorizes the Department of Natural Resources to identify areas in the State of Georgia which are of unusual ecological significance, and to secure the preservation of such areas in an undisturbed natural state. Natural areas, as defined by the Act, are tracts of land in their natural state that are to be set aside and permanently protected or managed for the purpose of preserving natural plant or animal communities, rare or valuable members of such communities, or any other natural features of significant scientific, educational, geologic, ecological, or scenic value. These areas are important habitat for fish and wildlife species.

Land trusts and conservation easements are important mechanisms to acquire land for conservation purposes. Land trusts are held by non-profit organizations set up to acquire property for conservation, environmental education, research, etc. Conservation easements are legally binding agreements between a property owner and a governmental body or a land trust that restricts the type and amount of development and use that may take place on the property. In 1992, the Georgia Legislature adopted the Georgia Conservation Easement Act, which authorizes and promotes the use of conservation easements in Georgia. The landowner may retain several rights, including the right to sell, restrict public access, maintain the land for agricultural use subject to best management practices, or to add additional buildings to the site, etc.

An important aspect of fisheries management is protecting habitat through water quality standards. The Georgia Water Quality Control Act establishes regulatory requirements for water quality and quantity, permits for discharges into surface and subsurface waters, etc. The Georgia Fisheries Law Pertaining to Shellfish protects public health and safety by setting minimum water quality standards for shellfish waters.

The Coastal Resources Division of the Department of Natural Resources actively participates in the South Atlantic Fisheries Management Council and the Atlantic States Marine Fisheries Commission. The Council annually develops an operations plan to conduct federal fisheries management. These plans are developed in coordination with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, the Skidaway Institute of Oceanography, the University of Georgia Marine Institute, other foundations and private property owners, as well as the other states within the council's jurisdiction. The intent of these operations plans is to supplement existing research data in an effort to implement more meaningful management plans.

There are currently several very active citizen advisory committees involved with fisheries management issues: the Coastal Fisheries Advisory Commission, with the Food Shrimp Issues Subcommittee and the Blue Crab Issues Subcommittee; and the Saltwater Advisory Committee (formerly the Saltwater License Advisory Committee). Input from these Committees is valuable in developing management plans. The Saltwater Fishing License Committee was instrumental in developing the Marine Recreational Fish Enhancement Plan, which is a five-year management strategy.

There are several programs currently in effect to promote wildlife management practices by private property owners. Some examples include: the Forest Stewardship Program, operated under the auspices of the Georgia Forestry Commission; Partners for Wildlife, under the auspices of the Fish and Wildlife Service; and the Acres for Wildlife Program, operated by the Department of Natural Resources. Each of these programs, and several others, provide a different emphasis. Some provide funding mechanisms to lease property for wildlife management, some provide educational materials, and others provide technical support, but each furnish help to the private landowners to foster wildlife management ideals.

The Coastal Resources Division of the Department of Natural Resources has developed several artificial reef sites. These projects, however, are dependent upon discontinuous funding sources. The Coastal Management Program can encourage and assist with locating funding sources for artificial reef projects. A five-year Marine Recreational Fisheries Enhancement Plan has been developed to provide the basis for a longer-term plan that can be subject to periodic updates, with input from a citizen advisory committee. The Coastal Resources Division of the Department of Natural Resources is currently participating in the development of Atlantic Coast interstate fishery management plans, and cooperating in the development of federal plans for the management of coral, shrimp, reef fish, mackerel, and golden crab.

The Coastal Resources Division of the Department of Natural Resources is an active voting member of the South Atlantic Fishery Management Council and the Atlantic States Marine Fisheries Commission, both of which have active law enforcement committees. The Wildlife Resources Division is actively involved with the Atlantic Flyway Council, and the North American Waterfowl Plan, among others, and works cooperatively with adjacent states, National

Marine Fisheries Service (NMFS), the U.S. Coast Guard, and the New England Aquarium to survey, manage and safeguard right whale migration and breeding areas. There are cooperative agreements between the respective law enforcement divisions of the Department of Natural Resources, the U.S. Coast Guard, the NMFS and the U.S. Fish and Wildlife Service (FWS). Local law enforcement agencies frequently cooperate in enforcement of fish and wildlife regulations, and apprehension of suspected violators.

The Department of Natural Resources and cooperative agencies have established manatee corridors and right whale critical habitats for the marine environment. The Department of Natural Resources always considers wildlife corridors during purchase, lease, cooperative agreement, or other acquisition of lands throughout the State. There is no explicit definition of a wildlife corridor that is applicable to all situations, but the concept of connecting several wildlife management areas with corridors is recognized by the Department of Natural Resources and the Coastal Management Program as a sound management principle. Rules pertaining to land-use and zoning are under the authority of local governments.

G. Public Services and Facilities

Findings

Public Buildings and Rights-Of-Way

Although construction of new public or government buildings may serve a need in the public interest, these facilities should also protect the public's interest in resource management through careful consideration of site characteristics, construction methods, and building and site design. Public and quasi-public buildings have potential negative impacts similar to those associated with residential or commercial development. They are of coastal management concern if they involve dredging or filling in productive wetlands, or impact water quality from erosion, storm water run-off, or sewage discharges. There also may be conflicts with other potential uses for the same site locations and other water-dependent uses.

Water Supply Facilities

Water supply in coastal Georgia is inextricably linked to groundwater. Approximately 63 percent of water use in the coastal plain is derived from groundwater sources. There are three potential sources of groundwater: (1) shallow aquifers, 85 to 390 feet deep, which supply generally good quality water to rural households and other small quantity users; (2) the principle artesian aquifer, the Floridan Aquifer, 40 to 900 feet deep, that supplies excellent water quality to major industrial and municipal users; and (3) the deep aquifer beneath the Floridan Aquifer and the brackish water zone, which may have eventual industrial application.

Salt water intrusion caused by excessive withdrawals endangers the Floridan Aquifer. While groundwater from this aquifer is plentiful in coastal Georgia, heavy pumping by industrial and municipal users has decreased groundwater pressure and induced large cones of depression in the aquifer in the Savannah and Brunswick areas, and to a lesser degree in the St. Marys area. This resulting pressure imbalance facilitates infiltration of brackish water trapped in formations that underlie the principle aquifer. Therefore, continued groundwater withdrawals and groundwater use must be carefully managed to secure continued high quality water for coastal Georgia. Groundwater management plans and water conservation measures are necessary to allow continued economic and population growth.

Surface water in coastal Georgia provides the other 38 percent of the water used in the coastal plain (the coastal plain extends further inland than does the coastal area as described for management by this program). Of this, 53 percent is used for self-supplied industry, 34 percent is used for irrigation, and 18 percent is used for public supply. Decreasing dependence on groundwater and managing surface water uses more effectively are potential management strategies for sustaining Georgia's groundwater resources.

There is also the potential for adverse impacts associated with the transmission of freshwater. Installation of water pipelines, with the concomitant digging and trenching by construction equipment, can cause environmental damage where they cross wetlands or submerged bottoms. There are also potential secondary impacts from increased growth and development as a result of water supply to new areas. Comprehensive management plans can help to mitigate such impacts.

Sewage Treatment Facilities

Sewage treatment facilities include treatment plants and associated transmission systems, lagoons, impoundments, septic tanks, and outfalls. Provision of adequate sewage treatment systems in order to protect public health and welfare, as well as environmental quality in coastal communities, becomes increasingly important with growing populations and urban densities. The primary negative impact associated with sewage treatment systems is water quality degradation caused by effluent discharge from septic tanks or treatment plants. Septic tanks are only effective in treating sewage in areas where soils are suitable for proper drainage, where systems are adequately spaced, and where groundwater and surface water sources are sufficiently distant. Central treatment plants can also present environmental problems. Eventual disposal of the effluent or sludge may degrade the quality of coastal waters, and possibly disrupt wetland systems, recreational activities, and fish and shellfish resources. The same issues involved in the laying of other pipelines can be present in construction of sewer transmission systems.

Certain potential secondary impacts of growth inducement from sewage treatment facilities can result if sewer systems are extended into areas with little previous development. This type of growth catalyst can become a serious problem if sensitive or fragile areas are threatened, or if local zoning or other regulation is inadequate to provide proper management.

Solid Waste Facilities

Solid waste disposal is a crucial problem confronting all local governments in Georgia's coastal area. Proper landfilling of solid waste requires special site conditions and operating methods. In the coastal area, the widespread presence of porous soils, a high water table, and seasonal surface flooding severely limit the availability of acceptable landfill sites. Improperly located landfills can directly intercept and pollute the shallow aquifer that underlies much of the coastal area. High amounts of rainfall, characteristic of coastal Georgia, may seep through layers of solid waste and induce formation of leachate in improperly operated landfills. Subsequent pollution of the shallow groundwater may result, thereby affecting the source of water of some coastal residents and wildlife. Additionally, surface runoff polluted by landfills may pose a health hazard to humans, wildlife, and fisheries in coastal waters. Coastal waters may be adversely affected by the downstream flow of polluted water from dump or landfill sites located far inland on coastal tributaries.

As existing disposal sites become filled to capacity, new sites that satisfy environmental criteria must be located. The following policies for solid waste disposal are important for guiding the location and operation of disposal sites to meet future needs while protecting coastal resources.

Dams and Reservoirs

Dams and reservoirs are not currently, and are not expected to be, a controversial issue in the Georgia coastal area. The coastal rivers are broad, relatively slow-moving, and pass through flat, low-lying areas. Georgia coastal rivers have limited suitability for hydroelectric projects. Dams and reservoirs do provide, however, other benefits such as drinking water storage and recreation opportunities; thus they may become important factors in the future. For that reason, dams and reservoirs are considered in the Coastal Management Program for consideration during planning processes.

Many of the possible impacts that might be created by dams, reservoirs and water diversion projects are associated with alteration of normal stream flow. Such impacts include water quality degradation, changes in salinity and water temperature, loss of aquatic species habitat or adequate spawning periods, alteration of the character of downstream coastal marshes, and interdiction of upland sediments destined for incorporation into the coastal sediment budgets. Reservoirs or impoundments also may inundate areas of geological significance, historical interest, or archeological importance. While many of the adverse environmental effects of dams and reservoirs cannot be avoided, specific management policies and techniques can reduce the impact.

Policies

Public Buildings and Rights-Of-Way

- Coastal Marshlands Protection Act
- Georgia Erosion and Sedimentation Act
- Georgia Scenic Rivers Act
- Georgia Water Quality Control Act
- Historic Areas
- Shore Protection Act
- Submerged Cultural Resources

Water Supply Facilities

- Coastal Marshlands Protection Act
- Georgia Erosion and Sedimentation Act
- Georgia Safe Drinking Water Act
- Georgia Water Quality Control Act

- Groundwater Use Act
- Revocable License Program (Georgia Administrative Procedures Act)
- Shore Protection Act

Sewage Treatment Facilities

- Coastal Marshlands Protection Act
- Georgia Erosion and Sedimentation Act
- Georgia Fisheries Law Pertaining to Shellfish (Game and Fish Code)
- Georgia Water Quality Control Act
- Revocable License Program (Georgia Administrative Procedures Act)
- Septic Tank Law (Title 31 - Health)

Solid Waste Facilities

- Georgia Comprehensive Solid Waste Management Act
- Georgia Hazardous Waste Management Act

Dams and Reservoirs

- Coastal Marshlands Protection Act
- Georgia Safe Dams Act
- Georgia Scenic Rivers Act
- Revocable License Program (Georgia Administrative Procedures Act)
- Shore Protection Act

Description

For additional descriptions of the policies listed above, refer to Chapter Five, "Policies and Management Authority." The following are additional comments with respect to each public service facility area.

Public Buildings and Rights-Of-Way

In addition to the State authorities listed above, there are various federal authorities with which there must be compliance for construction of rights-of-way, including the federal Clean Water Act and the National Historic Preservation Act.

No land-disturbing activities shall be conducted without a permit issued by the governing authority of the county in which the activity is proposed. In addition to an erosion control permit, a permit issued under the Shore Protection Act or the Coastal Marshlands Protection Act may be required. Permit coordination for activities within the coastal zone is a focal point of the Georgia Coastal Management Program.

The Federal Flood Insurance Program is administered through the Federal Insurance Administration, which is a Division within the Federal Emergency Management Agency. The Program establishes standards for construction in designated flood areas, and requirements for flood insurance within the areas.

In addition to the State authorities listed, federal and local health codes establish sewage disposal standards.

The only structures that are permitted under the jurisdiction of the Shore Protection Act are structures of a temporary nature, which must not impose upon the normal functions of the sand-sharing mechanisms. Buildings are not permitted.

Water Supply Facilities

In addition to the State authorities listed, there are federal laws such as the Clean Water Act and local health codes concerning drinking water.

The Shore Protection Act establishes permit requirements for the construction of any structure, for any engineering activity, and for any land alteration activity that changes the natural topography or vegetation. Permanent pipeline construction across beaches is prohibited. Open pipeline canals are prohibited within the jurisdiction of the Coastal Marshlands Protection Act and the Shore Protection Act, and recommended for prohibition in other areas of the coastal area.

Federal and State requirements for protection of wetlands do not prohibit activities within wetlands areas, they merely establish certain criteria that are necessary for obtaining a permit to accomplish the activity. The U.S. Army Corps of Engineers has developed a wetlands mitigation strategy in cooperation with several state and other federal agencies.

Sewage Treatment Facilities

In addition to the State authorities listed above, the federal Clean Water Act Section 402 (National Pollutant Discharge Elimination System) establishes requirements for permits to discharge pollutants. The Coastal Resources Division staff reviews all federal permits that result in discharges to the navigable waters of the coastal area under the authority provided by section 401 of the Clean Water Act.

The Department of Human Resources and the various County Health Departments are responsible for permitting and monitoring septic tanks.

Within the jurisdiction of the Coastal Marshlands Protection Act and/or the Shore Protection Act, applications for the construction of lagoons or impoundments for waste treatment facilities and similar activities shall be denied.

The National Shellfish Sanitation Program is administered by the U.S. Public Health Service and implemented by the Coastal Resources Division. The National Shellfish Sanitation Program sets standards for water quality and siting requirements for outfalls, among other things.

The Coastal Resources Division coordinates with the Environmental Protection Division 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.

Solid Waste Facilities

The Coastal Resources Division works with the appropriate Regional Development Centers (RDCs) to provide local governments with technical assistance regarding solid waste facilities in the coastal area.

Dams and Reservoirs

Dams and Reservoirs are not a significant issue in the coastal area.

K. Dredging

Findings

Dredging in coastal Georgia is primarily performed by the U.S. Army Corps of Engineers to maintain shipping channels at safe operating depths. Suitable sites for dredged material storage is determined by a "Local Assurer." In the Savannah Harbor, the Local Assurer is the Chatham County Board of Commissioners. At the Port of Brunswick, the Local Assurer is the Glynn County Board of Commissioners. For the Atlantic Intracoastal Waterway, the Local Assurer is the Georgia Department of Transportation.

In the Savannah Harbor, Chatham County and the Georgia Department of Transportation manage dredged material containment areas along more than 20 miles of the Savannah River shipping channel. An average of 7.83 million cubic yards of sediment are removed from the Savannah Harbor annually. Most of the material is concentrated in a large sediment basin on the Back River, which is aided by the operation of tide gates maintained by the Corps of Engineers.

The Port of Brunswick requires dredging and disposal of approximately 1.8 million cubic yards of material per year. More than one half of this material is pumped to an approved off-shore site for deep water disposal. The remainder of the material is pumped to a storage area on nearby Andrews Island.

For the Atlantic Intracoastal Waterway, 135 miles of navigational channel are maintained at a 12 foot depth. This requires the removal of about three million cubic yards of shoal material annually. The State of Georgia provides 83 dredged material disposal sites, not diked, along the Waterway.

Dredged materials are tested for contaminants based upon the U.S. Corps of Engineers/U.S. Environmental Protection Agency Inland Testing Manual (still in draft form). The guidance in this draft manual recommends an initial assessment, tiered testing approach similar to that employed in the Ocean Testing Manual. The Inland Testing Manual recommends an initial evaluation of existing contaminant information (Tier I) to help identify potential areas of contamination and chemicals of concern to evaluate. If the initial assessment or events indicate problems with sediment contamination, additional chemical testing (Tier II) and biological testing (Tier III) is advocated.

Policies

- Coastal Marshlands Protection Act
- Georgia Erosion and Sedimentation Act
- Georgia Water Quality Control Act

- Shore Protection Act
- Revocable License Program (Georgia Administrative Procedures Act)
- Mountain and River Corridor Protection Act

Description

The Corps of Engineers uses a "reason to believe" test together with a tiered testing approach to determine the necessity and type of testing required on dredged materials. These procedures were formulated jointly by the U.S. Environmental Protection Agency and the Army Corps of Engineers. The Corps of Engineers holds permittees to the same standards to which they are held.

Through its permits, the State of Georgia has the responsibility for protecting the public interest and State-owned lands. The Coastal Marshlands Protection Act requires a consideration of the public interest before a permit can be issued for a material disposal site in the marsh. The Revocable License protects the State-owned tidal water bottoms; only activities that have minimal impact on State property are issued a revocable license.

Federal permits are also required for projects involving the dredging or filling of wetlands; permitted projects must meet the requirements of the federal Clean Water Act.

SECTION IV:
ENERGY FACILITY PLANNING

Energy facilities are important factors in economic growth, development, and national defense. Maintaining Georgia's energy facility infrastructure is important for economic, public health and safety, and environmental reasons. This section describes Georgia's energy facilities, the planning process, and the management authority regarding energy in Georgia.

"Energy facilities" refer to any equipment or facility which is or will be used primarily in the exploration for or the development, production, conversion, storage, transfer, processing, or transportation of, any energy resource; or for the manufacture, production, or assembly of equipment, machinery, products, or devices which are involved in any of these activities. The term includes, but is not limited to, the following.

(1) Electric generating plants;
(2) Petroleum refineries and associated facilities;
(3) Gasification plants;
(4) Facilities used for the transportation, conversion, treatment, transfer, or storage of liquified natural gas;
(5) Uranium enrichment or nuclear fuel processing facilities;
(6) Oil and gas facilities, including platforms, assembly plants, storage depots, tank farms, crew and supply bases, and refining complexes;
(7) Facilities, including deepwater ports, for the transfer of petroleum;
(8) Pipelines and transmission facilities; and,
(9) Terminals which are associated with any of the aforementioned.

A. Energy Facilities in Georgia

Overall, most of the State's total energy comes from sources outside the State. Coal, which is not mined in Georgia, furnishes about 30 percent of Georgia's energy consumption, gasoline provides 20 percent, other petroleum products provide 20 percent, natural gas provides 20 percent, and hydro power and nuclear sources (combined) provide less than 10 percent of Georgia's total energy consumption.

1. Georgia's Electric Utilities

The generation, transmission, and retail distribution of electricity in Georgia is a complex network of competitive organizations. There are three types of retail distribution utilities for electricity: cooperatives, investor-owned facilities, and municipal systems. Electric generating

plants are owned either jointly by two or more of these utilities or individually by one utility. The U.S. Army Corps of Engineers owns hydroelectric generating facilities that provide some electricity to these organizations. In addition, manufacturers (such as paper mills) in the coastal area operate on-site steam and electricity co-generating plants to economically provide for their own needs and sell excess electric generation to the utilities.

Georgia's electric power is generated through a combination of coal, oil, natural gas, nuclear, and hydropower sources. Plants located in the coastal area include McIntosh, Kraft, Riverside, and McManus. The electricity transmission system is integrated with the utilities and interconnects all generating plants. Because the system is interconnected, there are not direct delivery lines from specific generating plants to specific retail service areas. Electricity is delivered to assigned retail service areas through the integrated transmission system. Each retail service area has been delineated and assigned to a specific utility (cooperative, investor-owned, or municipal) by the Georgia Territorial Act. The utility is obligated to serve all customers located in that area. To promote competition, the Act allows customers having a connected load greater than 900 kilowatts (e.g., a large grocery store, a small manufacturer) the opportunity to be served by any of the utilities, regardless of location.

TABLE 6.2: Electric Utilities Located in the Coastal Area

Owner	Plant Name	Fuel Source	Kilowatt Capacity (KW)
Primary Fuel Plants:			
GA Power	McManus	Oil	128,000
SE&P	McIntosh	Coal	172,000
SE&P	Kraft	Coal/Gas	335,000
SE&P	Riverside	Gas	111,000
Combustion Turbine Plants:			
GA Power	McManus	Oil	481,700
GA Power	McIntosh	Gas	480,000
SE&P	Kraft	Gas/Oil	18,500
SE&P	McIntosh Ct.	Gas/Oil	160,000
Hydro-electric Plants:			
ACOE	Hartwell	Hydro	344,000
ACOE	Richard B. Russell	Hydro	300,000
ACOE	Thurmond (S.C.)	Hydro	280,000
	TOTAL CAPACITY:		2,972,770

a. Investor-Owned Facilities and Servicers

Savannah Electric and Power Company and Georgia Power Company are investor-owned utilities. They own power generation and transmission facilities in whole or in part, and provide service in assigned retail service areas as well as to some customers with 900 kilowatts connected load outside their assigned territory. Savannah Electric and Georgia Power do not provide service

to all the customers in the coastal area. Their assigned retail service areas generally include larger municipalities and nearby areas.

Savannah Electric's assigned retail service area includes most of Chatham and Effingham counties, plus parts of Bryan, Bulloch, and Screven counties. Georgia Power's assigned retail service area includes Pembroke, Hinesville, Darien, Sapelo Island, Sea Island, St. Simons Island, Brunswick, Kingsland, Folkston, Jesup, Ludowici, and nearby areas.

The plants and service network of investor-owned facilities such as Georgia Power and Savannah Electric and Power Company are regulated by the Georgia Public Service Commission and, therefore, are required to complete Integrated Resource Plans as defined by the Official Code of Georgia Annotated (O.C.G.A. 46-3A) and the rules of the Georgia Public Service Commission.

b. Electric Cooperatives

In addition to investor-owned facilities and service networks, there exist electric cooperatives known as Electric Membership Corporations (EMCs). Oglethorpe Power supplies electrical energy to the cooperatives in the coastal area for retail distribution. The EMCs' assigned retail service areas are generally rural but include several municipalities and the suburbs of other municipalities served by investor-owned utilities or municipal systems. There are six EMCs in the coastal area: Planters EMC in parts of Effingham County; Excelsior EMC in a portion of Effingham County; Canoochee EMC in parts of Bryan, Liberty, and Long Counties; Satilla Rural EMC in parts of Wayne and Brantley Counties; Okefenokee Rural EMC in Charlton, Camden, Glynn, and portions of Brantley Counties; and Coastal EMC in parts of Bryan, Long, Liberty, and McIntosh Counties.

Oglethorpe Power owns portions of electric generation plants including Vogle, Hatch, Wansley, Scherer, Rocky Mountain, and Talasee Shoals. Oglethorpe is also a co-owner in the State's network of transmission lines and substations called the Integrated Transmission System. This system provides the means for Oglethorpe to provide generated power to the EMCs and, consequently, to its customers.

As cooperative organizations, Oglethorpe Power and the EMCs are not directly regulated by the Georgia Public Service Commission. However, the generation plants that supply power to their systems are owned in part by organizations that are regulated. Consequently, Oglethorpe Power prepares regular Integrated Resource Plans to support the planning and maintenance of its plants and service network similar to those required by the Georgia Public Service Commission.

c. Municipal Power Companies

The Municipal Electric Authority of Georgia (MEAG) provides power to 48 small-to-medium sized cities around the State. MEAG was formed in 1975 to provide wholesale power to smaller municipalities. However, none of the MEAG customer cities are located within the coastal area.

d. Southeast Power Administration and the Army Corps of Engineers

The Army Corps of Engineers operates hydro-electric projects in two districts: the Savannah District and the Mobile (Alabama) District. The Savannah District operates three plants called Hartwell, Richard B. Russell, and Thurmond. The Thurmond Plant is actually located on the South Carolina side of the Savannah River, but the Plant supplies a portion of its power to Georgia users. The Hartwell Plant is due to be upgraded in 1996 with an addition of 82,000 Kilowatts of power and the Thurmond Plant is due for upgrading in the year 2003 with an increase in capacity by 74,000 Kilowatts.

The planning and upgrading of Corps of Engineers generation facilities is governed by the planning process of the Corps of Engineers. Their planning process is based upon maintenance and safety reviews, updated on an annual basis, and is not necessarily demand-driven. As federally-built and -operated systems, these generation plants are not regulated by the State of Georgia or the Georgia Public Service Commission. However, Corps of Engineers projects are subject to the federal consistency provisions of the Georgia Coastal Management Program.

2. Natural Gas

Natural gas is used as an energy source for residential, commercial, and industrial uses, as well as for electric generating facilities. A large infrastructure exists to deliver natural gas to all its users. Parts of Georgia are provided natural gas through Municipal Gas Distribution Systems, some of whom are members of the Municipal Gas Authority of Georgia. Other portions of the State are serviced by Atlanta Gas Light Company. Natural gas service is provided to all coastal counties, with the exception of Brantley County, by Atlanta Gas Light Company. Claxton Natural Gas Company provides natural gas service to the Pembroke area. Atlanta Gas Light and Claxton Natural Gas Company operate their gas supply portfolios in accordance with the Federal Energy Regulatory Commissions' regulations.

a. Natural Gas Pipelines

Two pipelines supply the coastal region and are owned by Southern Natural Gas Company. The first line runs from the Augusta area to Savannah; the second line runs from Macon to the Brunswick area.

b. Natural Gas Supplies and Liquefied Natural Gas

Atlanta Gas Light Company contracts, elects, or is assigned various types of natural gas supplies. Firm transportation capacity and production area underground storage quantities are acquired through wellhead supply contracts and the spot gas market. Firm transportation capacity is supplemented through Liquefied Natural Gas (LNG) supplies and supplemental underground storage allotments. There are three Liquefied Natural Gas plants, owned by Atlanta Gas Light Company, located in Georgia but they are not in the coastal area. The supply of liquefied natural gas is important to the natural gas supplies for the coast but the plants and their management are not expected to impact the coastal area. A former LNG plant on Elba Island in Chatham County may be re-opened by Southern Natural Gas Company as a peak shaving facility with the intention of vaporizing LNG during the summer and winter peak load times. This proposed re-opening should not require any new construction requiring dredging, land disturbing activities, or pipeline construction. If this plant is expanded or if additional LNG facilities are planned and constructed within the coastal area, these facilities will be subject to applicable permit requirements and the oversight of the Georgia Public Service Commission.

c. Regulation of Natural Gas Utilities

The Atlanta Gas Light Company is regulated by the Georgia Public Service Commission and is consequently required to have an approved Integrated Resource Plan. These plans are designed to promote energy efficiency, to ensure long-term planning, and to identify future demand and energy needs.

3. Oil and Gas Facilities, Facilities of the Transfer of Petroleum, and Petroleum Refineries

There are no oil and gas refining facilities in the coastal area of Georgia. For general use of oil and gas, the rules for underground storage tanks (O.C.G.A. 391-3-15) apply to the coastal area and to the entire State. The State ports handle and transfer petroleum products as part of their normal course of business. When petroleum products are transported or transferred, the rules of the U.S. Coast Guard apply. The coast of Georgia falls into two Coast Guard regions. These regions have the responsibility and the authority for inspecting and enforcing vessels to ensure that all of the requirements of the law are met pertaining to the transport and transfer of petroleum materials. As a federal agency, the Coast Guard is subject to the federal consistency provisions of the Georgia Coastal Management Program.

4. Other Energy Facilities

There are no substantial facilities of the following types that are located in or substantially affect the coastal area: Petroleum Refineries and Associated Facilities; Gasification Plants; or Uranium Enrichment or Nuclear Fuel Processing Facilities.

B. Projected Energy Supply and Demand

Both Savannah Electric and Power Company and Georgia Power perform long-term prediction of energy demands for the State based upon economic models. The principal economic variables used in the energy models include: real income, housing starts, non-manufacturing employment, manufacturing employment, industrial output, and fuel prices. With the exception of fuel prices, the figures used in the model are derived from the Georgia Economic Forecast. Fuel prices are based upon the recommendation of the Southern Electric System Fuel Panel, and are adjusted to reflect retail oil, gas, and electricity prices by customer classes needed for use in the energy models. End-use technology information used in the residential and commercial models comes from a variety of governmental and utility sources, including the Electric Power Research Institute. Legislative and regulatory actions such as the Clean Air Act, which affect the price or usage of electricity, are also considered.

The average annual growth rate of the Georgia territorial energy supply in Georgia Power's forecast period (years 1994-2019) is projected to be 2.0 percent compared to 3.6 percent for the period of 1980-1990. Some key economic variables, such as real personal income and population, are expected to decline in the forecast period as compared to the 1980-1990 period.

The State of Georgia does not have any substantial proven natural gas reserves to utilize. Therefore, Georgia does not produce raw Natural Gas or Liquefied Natural Gas. The most recent data from 1993 indicate that Georgia stored and consumed approximately 344 billion cubic feet of natural gas annually with all gas imported from other areas. This consumption of natural gas represents approximately 20 percent of Georgia's total energy consumption.

C. Energy Planning, Applicable Laws, and Regulations

The energy planning and certification process in the State of Georgia is governed by statute found in the Official Code of Georgia Annotated (Title 46, Chapter 3A) entitled "Integrated Resource Planning," and also by the Rules of the Georgia Public Service Commission (Chapter 515-3-4) entitled "Integrated Resource Planning." The Public Service Commission requires plans for a variety of public services including power plants and natural gas suppliers. The provisions in the rules of the Georgia Public Service Commission outline the requirement for electric plants to have a plan, endorse the Public Service Commission with the ability to enforce the requirement for a plan, and define the required components of the plan. Under the requirements of Georgia law, integrated resource plans for utilities must contain the following components.

(1) The utility's electric demand and energy forecast for at least a 20 year period;
(2) The utility's program for meeting the requirements shown in its forecast in an economical and reliable manner;
(3) The utility's analysis of all capacity resource options, including both demand-side and supply-side options, and sets forth the utility's assumptions and conclusions with respect to the effect of each capacity resource option on the future cost and reliability of electric service;
(4) The size and type of facilities that are expected to be owned or operated in whole or in part by such utility and the construction of which is expected to commence during the ensuing ten years or such longer period as the commission deems necessary and shall identify all existing facilities intended to be removed from service during such period or upon completion of such construction;
(5) Practical alternatives to the fuel type and method of generation of the proposed electric generating facilities and set forth in detail the reasons for selecting the fuel type and method of generation;
(6) Detail the projected demand for electric energy for a 20 year period and the basis for determining the projected demand;
(7) Description of the utility's relationship to other utilities in regional associations, power pools, and networks;
(8) Identification and description of all major research projects and programs which will continue or commence in the succeeding three years and set forth the reasons for selecting specific areas of research;
(9) Any other information as may be required by the commission; and,
(10) Convention of a public hearing on the adequacy of the plan within 60 days of the filing of the plan.

Utilities are not allowed to increase or decrease the capacity of any of the following: (1) A generating unit of an electric power plant; (2) A long-term power purchase; or (3) A demand-side capacity option by more than 15% without first obtaining a certificate from the Public Service Commission that the public convenience or necessity requires such a change.

The rules of the Public Service Commission include specifications for site selection of future energy facilities. Each utility's application may be approved if it is found to be in the public interest and to comply substantially with the below site specifications. Additionally, each Integrated Resource Plan filed by existing utilities must include, but are not limited to, the site criteria discussed below. Plant site selection *alternatives* (for new utility sites) and site analysis *criteria* (for existing sites) that must be addressed are listed below:

(1) Geological survey data and pertinent site geophysical characteristics, such as seismic and groundwater conditions;
(2) Environmental factors which include, at a minimum:

(a) Air emission and compliance with the Clean Air Act and other clean air regulations and constraints;
(b) Water emission including cooling water and other plant effluents as well as compliance with all clean water regulations;
(c) Compliance with noise limitations;
(d) Local endangered species;

(3) Cultural and historic consideration such as properties of architectural, historical, or archaeological significance (districts, sites, buildings, structures, and objects);

(4) Disposal alternatives, to ensure that the most environmentally benign and cost-effective methods are implemented;

(5) Transmission network additions to connect the resource(s) to the bulk power supply system.

Natural gas utilities, also regulated by the Public Service Commission, are required to file an annual gas supply plan and to conduct a public hearing on such a filing (O.C.G.A. 46-2-26.5).

The Georgia Public Service Commission consists of five members elected by qualified voters of the State. The Commission has supervisory powers over all gas or electric light and power companies within the State and may require companies to establish and maintain public services and facilities as may be reasonable and just. In addition, the Commission may prescribe rules and regulations for the safe installation and operations of all natural gas transmission and distribution facilities within the State (O.C.G.A. 46-2-20).

The Georgia Public Service Commission also has the power and authority to allocate any utility service or to alter, amend, suspend, or terminate any existing rule in order to protect the public health, safety, or welfare (O.C.G.A. 46-2-71). The Commission must hold a hearing respecting any such changes and precede the action with a notice to those affected by the action, except in cases of emergency. During emergency situations, the Commission may take action and notify affected individuals as soon as practicable under the circumstances.

Under Georgia law and rules the Georgia Public Service Commission has the authority to ensure that long term planning of energy and energy facilities occurs, is documented, and there is ample opportunity for public comment in the process. The planning process requires that a multitude of factors be taken into account including environmental concerns, assessments of existing and future demands, energy conservation, maximizing net societal benefit, financial planning, and regulatory constraints. Throughout this process, concerns in the national interest are considered and addressed. As new facilities' sites are selected and facilities' integrated resource plans are updated, these criteria are revisited and reviewed.

Through the Georgia Coastal Management Plan, the Coastal Resources Division encourages the consideration of issues of regional and national interest and the consideration of

public health and welfare. Coastal Resources Division staff provides technical assistance with energy facility planning to assist facilities to meet their requirements.

D. Public Involvement in the Energy Planning Process

The Official Code of Georgia Annotated (§46-3A-2(b)) requires that not more than 60 days after a utility has filed its plan, the Georgia Public Service Commission shall convene a public hearing on the adequacy of the plan. The Commission shall determine: (1) the forecast requirements are based upon substantially accurate data and an accurate method of forecasting; (2) the plan identifies and takes into account any present and projected reductions in the demand for energy that may result from measures to improve energy efficiency in the industrial, commercial, residential, and energy-producing sectors of the State; and (3) the plan adequately demonstrates the economic, environmental, and other benefits to the State and to customers of the utility, associated with the possible measures and sources of supply.

Under circumstances where the Public Service Commission uses its authority to alter, amend, suspend, or terminate existing rates, schedules, contracts, rules, or regulations, a hearing must be held. In cases of emergency, the Commission may take action but must declare the situation an emergency and must afford notice and hearing to the persons affected as soon as is reasonably practicable (O.C.G.A. 46-2-71). These provisions of the law allow public involvement in the energy planning process by providing an avenue for public input to proposed changes to energy facilities. The law requires that public notice must be placed, that hearings are held to discuss any issues, and, in cases of rule changes, the affected parties are properly notified.

E. Policies

- Coastal Marshlands Protection Act
- Endangered Wildlife Act
- Georgia Air Quality Act
- Georgia Safe Drinking Water Act
- Georgia Underground Storage Tank Act
- Georgia Water Quality Control Act
- Groundwater Use Act
- Shore Protection Act
- Wildflower Preservation Act

F. Description

The Georgia Water Quality Control Act, Georgia Air Quality Act, Coastal Marshlands Protection Act, Shore Protection Act, and Wildflower Preservation Act policies address water quality, air quality, and habitat (including wetlands) concerns. The Shore Protection Act includes policies to address potential impacts to the sand-sharing system. The Public Services Commission requires that the national interest be considered in planning and siting energy facilities. The Environmental Protection Division has initiated a Coastal Groundwater Comprehensive Management Plan under the authority of the Safe Drinking Water Act and the Groundwater Use Act. This plan includes consideration of energy facilities. The Georgia Underground Storage Tank Management Rules regulate underground storage tanks, including these on energy facilities.