CAPDC TASKS 3A - LEGAL ANALYSIS
1.E - GENERAL POLICIES 5.K - GAPC
2.B ALTERNATIVE BOUNDARIES 6 - PERMISSIBLE USES

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year two program elements coastal zone management

for the coastal area planning and development commission

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COASTAL ZONE
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YEAR TWO PROGRAM ELEMENTS - COASTAL ZONE MANAGEMENT

Prepared by Coastal Area Planning and
Development Commission Coastal
Zone Management Staff

June, 1976

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INTRODUCTORY STATEMENT

This preliminary report has been prepared by the Coastal Zone Management Program staff of the Coastal Area Planning and Development Commission in order to provide the reader with an overall view of the 1975 - 1976 work program of the staff. This report or any of its contents should not be construed to represent an official statement of goals, objectives or policies of the Governor's Coastal Zone Management Program or those of the Georgia Office of Planning and Budget.

The staff wishes to acknowledge that the Coastal APDC's Board of Directors, its Advisory Council on Planning and members of the general public involved in the report's preparation are in basic agreement with its contents.

The Commission's Board of Directors has recommended that this report be reprinted and disseminated through each of the eight Coastal APDC counties to interested citizens, organizations, libraries, educational institutions and public bodies. It is the Board's sincere desire that this report will increase the general awareness of the Coastal Zone Management Program and its potential for positive impact upon Coastal Georgia.

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Existing Goals, Objectives and Policies of the Coastal APDC and its Constituent Governments

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I.

INTRODUCTION

In March of 1976, discussion among CZM staff involved the development of goals and policies for the program, among other things. At that time, it was the consensus of opinion to begin the formulation of a comprehensive set of goals and policies with a compilation and synthesis of those presently being utilized by Federal, state, regional, and local entities. Consequently, a thorough investigation was undertaken by Coastal APDC CZM staff to research and compile position statements prepared by the Coastal APDC and its constituent governments. The statements contained herein were compiled from published plans, studies, bylaws, resolutions, ordinances, public testimony, and so forth.

The purpose of this collection is fourfold. First, by consolidating local goals and objectives by county, it will allow community leaders and citizens to review and evaluate their aims, purposes, and accomplishments across a broad spectrum of areas. Second, it will allow regional policy makers to compare the various subarea statements to determine major differences or consensus of opinion. Third, it will enhance the opportunity to incorporate local objectives into a regional statement of policy when appropriate. And fourth, it will provide other policy making and advisory bodies with an understanding of existing local and areawide purposes, objectives, and desires.

For ease in analyzing and comparing the statements, it became necessary to organize them by category or topic, thus, some

restructuring resulted from their original format. Additional rearrangements were made where a statement concerned itself with two or more areas of interest, e.g., "Encourage the use of educational facilities for recreational purposes". Likewise, where a statement addressed a very specific area, such as "install a traffic light at a specific intersection", they were omitted.

A few comments are necessary concerning the sources from which these statements were taken. In the case of county goals and objectives, during past years several of the member counties of the Coastal APDC have undertaken the preparation of a general plan in the course of developing their planning programs. These plans often explicitly enumerate countywide goals, objectives, and policies. In some instances, considerable citizen involvement was achieved in their preparation, and in others, planning consultants prepared the statements with little or no local participation and review. This situation will undoubtedly result in some denouncement of the authenticity and current applicability of a portion of the statements. While this problem is recognized, it was impossible to avoid by conducting a wholesale verification of the existing statements with present decision-makers due to time frame considerations. However, in the future, this can be rectified by providing an opportunity for the review of this document with comments incorporated in future goals and policy reports.

Regional goals and objectives were derived from prepared and adopted plans, bylaws, resolutions, and statements of public

testimony. In many instances, the resolutions and public statements were concerned with a particular project, issue, or proposal at a particular period in time. The economic, social, and environmental conditions, along with and influencing the prevailing political opinion at that time, were such that the statements had a specific position or matter of opinion. Consequently, the existing statements may not reflect present beliefs nor be adequate to guide long-range comprehensive planning efforts due to political turnover or changes in philosophy.

By collecting and presenting for review both past and present goals, objectives, and position statements, an evaluation is made possible by the Coastal APDC Board, CZM Advisory Council, staff, and the general citizenry. In the development of CZM program goals and policies, these statements should be utilized as a source to draw upon although new information, positions, and philosophies should be considered and integrated, as necessary.

A. CITY, COUNTY, AND REGIONAL PLANNING

SOURCE:

LIBERTY COUNTY

1. Ensure coordination of the county transportation system and plan with adjacent counties, the region, the state and federal requirements.

2. Guide and control population densities and distribution in order to maintain rural atmosphere, ecological balance, open space, high levels of sanitation, and low levels of pollution.

   - control population density in such a manner that high density development takes place adjacent to existing communities and identifiable community centers.

   - maintain the rural-agricultural atmosphere of the county by establishing countywide population densities and growth levels.

   - rationally control county development and growth through proper zoning, subdivision regulations, development standards, code enforcement and administration.

GLYNN COUNTY

1. Conserve and protect the natural, economic, and scenic resources of Glynn County.

BRYAN COUNTY

1. Achieve good land use throughout the county by establishing and using the Bryan County Planning and Zoning Commission.

2. Continue to keep incompatible land uses separated.

EFFINGHAM COUNTY

1. Improve the quality of development by creating an image and character emphasizing historical, visual, and ecological assets of the region's man-made environment.

2. Stimulate public interest and participation in the planning process, as well as other governmental matters.

EFFINGHAM COUNTY (continued)	3.	Continue to work with other adjoining counties and municipalities to cut red tape and to work efficiently and effectively toward solving the problems of the region.
CHATHAM COUNTY	1.	Implement programs which are designed to provide acceptable standards of liveability to all neighborhoods of the city.
	2.	Involve a large segment of the community in undertaking a community goals-setting procedure.
CAPDC	1.	Encourage, promote, and pursue programs and policies to improve the quality of life within the area through the protection and enhancement of the physical environment.
	2.	Review and, where needed, recommend changes in area plans and programs promulgated by municipalities, counties, public authorities, public commissions, public boards, public utilities and/or public agencies.
	3.	Encourage the development of programs and policies which will achieve such distribution of population, land development, and land use within the area as will facilitate the effective provision of public services and facilities.
	4.	Engage in a continuous program of research, study and planning of matters affecting the area, including but not limited to land use, transportation, waste disposal, drainage, parks and open space, environmental quality, criminal justice, social services, health, public safety, and local government legal and fiscal capacity, and pursue the implementation of the recommendations developed from this program.

B. ECONOMIC DEVELOPMENT

SOURCE:

MCINTOSH COUNTY

1. Coordinate efforts of the Industrial Authority with city and county governments and designate and purchase a specific industrial site to show to prospective industries.

2. Work with the Labor Department on vocational training and upgrade skills.

3. Encourage establishment of Day Care Centers.

4. Develop and maintain capital improvements such as industrial sites, utilities, access roads, and the facilities necessary for the location and expansion of industry, as well as streets, public buildings, recreation facilities, etc. necessary for a desirable modern community.

CAMDEN COUNTY

1. Develop the industrial and manufacturing activities of the county by strengthening and expanding industry and activating new ones.

2. Establish and maintain adequate commercial services necessary to develop a modern urban community.

3. Increase the availability of financial resources for worthy projects.

LIBERTY COUNTY

1. Concentrate new commercial development at identifiable community centers and encourage the improvement and consolidation of existing commercial facilities.

   - assure that the development of any new commercial facilities is done in such a way as to minimize conflict with other land uses.

   - create higher development/design standards and enforcement procedures to discourage commercial "strip-development".

LIBERTY COUNTY (continued)

- consolidate, revitalize, and improve existing commercial areas, both aesthetically and functionally, into strong, unified, and active service centers.

- provide adequate access and public services for all commercial locations.

2. Encourage non-polluting, year-round employment industries and locations capable of serving the entire county.

- develop planned industrial parks which are esthetically and ecologically compatible with adjoining land uses.

- develop new industrial facilities which produce minimum conflict with other land uses.

- provide tracts of land suitable for selected light industrial development with provision for adequate transportation access and facilities to serve them.

- assure that industries are served with public water and sewer facilities wherever possible or provide that industries located outside of a sewer service district have their own on-site treatment.

- provide needed services for industrial developers through the activities of public and private agencies.

- assure compliance with industrial performance standards on noise and vibration, smoke, odor, dust and dirt, noxious gases, glare and heat, fire hazards, industrial wastes and traffic.

- encourage reuse of obsolete and inefficient industrial areas through redevelopment and rehabilitation into efficient industrial park sites.

- develop manpower training and vocational rehabilitation programs to combat unemployment or underemployment.

- attract light industry to the McIntosh-Midway area that would employ skilled and semi-skilled labor.

LONG COUNTY	1. Establish an Industrial Development Authority with bonding power. 2. Explore in more detail the natural resources within the county to determine how they may be used to establish a better economic base by creating new jobs within the area.
BRYAN COUNTY	1. Attract clean, light industry which would simultaneously provide ample employment opportunities to offset impoverished conditions. 2. Consideration should be given to providing support for the industries and/or secondary services that the industries require. 3. In attracting and maintaining industries, careful thought should be given to related services, such as housing, recreation, education, transportation, etc. because few facilities and/or services survive in isolation.
EFFINGHAM COUNTY	1. Development adequate and rewarding employment for everyone able to work; enhance the opportunity for securing goods and services necessary for satisfacory life in today's society.
CHATHAM COUNTY	1. Improve the community's competitive position in the field of industrial development. 2. Consider environmental parameters when considering industrial and economic expansion. 3. Encourage expansion of research facilities for the study of oceanography. 4. Sustain measured economic growth in order to provide for adequate employment opportunities, strengthen the economic vitality of the area, enhance opportunities for free enterprise, and maximize the standards of living of those living in the area. 5. Foster and maintain a favorable climate to attract new and retain present business and industry compatible with residential and environmental needs and requirements.

CHATHAM COUNTY (continued)

6. Achieve the maximum measure of economic stability, with growth, for the area.

7. Assure all citizens, without regard to racial, religious or ethnic background, equal economic and employment opportunity in competitive and public enterprise.

8. Improve the capabilities of Savannah's port facilities to support industrial and economic growth.

9. Strengthen the Savannah urban area as a vital economic center for the county and surrounding areas.

10. Direct port growth so that marshland destruction is minimized both in rate of destruction and absolute area utilized.

11. Select spoil areas to the extent practicable for their incorporation, incrementally, into the port complex as the material deposited builds into usable land.

12. Encourage governmental leadership in encouraging growth of the port towards the Atlantic on both sides of the Savannah River.

CAPDC

1. Encourage the formulation of programs and policies which will improve and protect the social and economic well-being of all citizens within the area.

2. Improve industrial growth and increase the area's per capita income through a comprehensive development program.

   - seek funding to construct water and sewer systems and vocational-technical schools.

   - assist local development corporations and other community renewal projects.

   - assist communities, counties, and other development agencies in attracting new industries for the area.

CAPDC (continued)

3. Improve the employment opportunities and living conditions of low-income citizens.

   - expand the manpower program by creating more industrial and public service jobs.

   - support the rural mass transit program to provide workers a method of transportation.

4. Identify manpower needs within the area and assist in the allocation of Federal manpower funds.

C. AGRICULTURE AND FORESTRY

SOURCE:

LIBERTY COUNTY

1. Maintain viable agricultural interests where economically feasible in existing agricultural areas.

   - assure preservation of prime agricultural lands of economic importance to the county.

   - develop marginal agricultural lands for other uses, such as forestry, recreation or open space and conservation.

   - encourage appropriate and orderly residential development in agricultural areas by discouraging premature or scattered residential development.

CAMDEN COUNTY

1. Increase agricultural production and income through improved land use and education programs, as well as improving the level of production through agri-business establishments.

D. TOURISM

SOURCE:

CAMDEN COUNTY	1.	Develop and improve existing and potential natural and historical resources to provide a total tourism program.
LONG COUNTY	1.	Promote tourist resources, such as hunting, fishing, and history to encourage tourists to utilize the outdoor resources.
CHATHAM COUNTY	1.	Encourage the development of the Chatham community as a tourist attraction and convention center, compatible with the aims and goals of the resident population.
	2.	Encourage and promote the continued development of recreational tourism.
	3.	Maximize use of interstate highways, recreation and tourist serving facilities.

CAPDC

1. Establish the role and image of Coastal Georgia as a primary recreation/vacation destination area, and in doing so, increase tourism and economic activity in the area.

   - all planning and development activities should strive to identify, strengthen and, in the end, establish for each geographic "attraction area" a definite theme character and image which is unique to that area.

   - each county should recognize its attraction area(s) as a unique planning area and encourage the strengthening of the integrity of the area.

   - physical improvement plans should be established for each attraction area with local community development corporations assisting in the implementation of improvements.

2. An areawide comprehensive system of visual communications should be developed or implemented to guide the traveling public to cultural resources and attractions.

E. GOVERNMENT

SOURCE:		
BRYAN COUNTY	1.	Develop an economically sound and stable community.
EFFINGHAM COUNTY	1.	Encourage an economical and effective delivery of public assistance to those who cannot otherwise provide.
	2.	Establish a sound government fiscal base and balanced economic development.
MCINTOSH COUNTY	1.	Use committee approach to encourage town hall type meetings.
LIBERTY COUNTY	1.	Encourage efficient and economical management of the county's administrative governmental functions.
CHATHAM COUNTY	1.	Foster intergroup and intra-community understanding and goodwill, and enhance civic pride in the area.

CAPDC 1. Encourage sound, modern governmental administrative procedures throughout the region, so that public services can be provided in an economical fashion.

- professional management and administration services should be considered at all governmental levels.
- land acquisition for predictable public facilities should be performed in advance of need.
- the construction of public facilities must be based on a demonstratable need of sufficient scope to warrant capital expenditures. This requires farsighted capital improvements programming.
- future extension of services should be directed toward the areas of greatest need, generally the developed and developing areas of the region and those areas having greatest developmental potential.

CAPDC (continued)

2. Encourage the formulation of programs and policies to improve and strengthen the fiscal capacity of local governments within the area, promote equitable methods of raising revenue and increase the effectiveness of services performed by local governments within the area.

3. Encourage the formulation of programs and policies which will provide improved coordination among governmental agencies striving to serve the area.

4. Encourage the formulation of programs and policies directed toward providing governmental institutions with the resources necessary to cope with the rapidly changing needs of their task environment.

F. URBAN GROWTH, CONSERVATION, AND RENEWAL

SOURCE:

GLYNN COUNTY

1. Coordinate the development of a balanced transportation plan with other urban development.

2. Prepare plans and programs to revitalize commercial areas and help prevent the spread of urban blight and slums.

   - develop a feasible plan for downtown Brunswick in conjunction with business associations.

   - analyze each neighborhood in the urban area to determine the presence of problem conditions and the need for specific improvements.

3. Bring antiquated zoning and subdivision control ordinances up-to-date.

4. Eliminate the costly maintenance problems which develop when streets and lots are laid out without proper consideration being given to the drainage characteristics of the tract of land at the time it is being subdivided.

LONG COUNTY

1. Urban renewal should be considered for some of the substandard sections of Ludowici.

CHATHAM COUNTY

1. Provide a general guide to the growth and development of incorporated Chatham County.

2. Encourage innovations in land development techniques to afford better living environments, more open space and other amenities, and wider choices of life style for residents of Savannah and Chatham County.

3. Encourage appropriate land use, promote natural resource conservation, encourage a diversified balance of living areas, and generally attain the highest and best use of land.

CHATHAM COUNTY (continued)

- residential
  a. protect property values
  b. protect stability of neighborhoods
  c. avoid the displacement of lower and moderate income families
  d. avoid excessive densities in unsuitable locations

- retail commercial
  a. provide sufficient space for convenience uses
  b. minimize the adverse effects of strip commercial development
  c. cluster development for efficiency and ease of service delivery
  d. avoid congestion

- heavy commercial and industrial
  a. recognize the unique transportation and utility requirements upon which these uses often depend, and reserve the most suitable property
  b. recognize the hazards of noise, smoke, odor, and traffic which often accompany these activities, and plan their relationship with residential areas accordingly

4. Preserve and enhance established neighborhoods.

   - foster continuity

   - preserve or develop convenient access to community facilities

   - improve safety

   - reduce noise, dirt, glare

5. Encourage desirable development patterns compatible with future land use plan by placing the correct type of facility in the best location.

6. Provide efficient circulation to and from significant traffic generators.

7. Locate and design transportation facilities which will minimize traffic hazards in terms of vehicular and pedestrian safety.

CAPDC

1. Land uses should be compatibly related to assure the highest quality development and retention of optimum values.

   - a compact sequence of residential growth is more preferable and less costly than providing public services to remote locations.

   - multiple family developments should be encouraged in areas of high accessibility and existing adequate community services.

   - commercial development should be encouraged in compact clusters, centered at intersections of appropriate arterial highways which are easily accessible and oriented to the needs of the population served.

   - industrial development should be encouraged in coordinated centers and industrial parks where the most efficient use can be made of the required large public investments in transportation and utilities. Sites having these attributes should be preserved by the zoning or public purchase for this use.

G. TRANSPORTATION

SOURCE:

BRYAN COUNTY

1. Strive for continual improvement of traffic access points and circulation routes, both vehicular and pedestrian.

2. Continue support and encouragement for the use of Interstates 95 and 16 as major industrial and tourist arterials.

3. A secondary county-wide arterial road system should be encouraged, especially with respect to the development of an adequate vehicular route between the two sectors of Bryan County which are separated by Ft. Stewart.

4. Careful consideration should be given to the development around interchanges which are entry/exit ways to the Interstate arterials located in Bryan County.

EFFINGHAM COUNTY

1. Continue to strive for a high level of service for the movement of people and goods and the efficient transmission of energy, consistent with the enhancement of the aesthetic, physical, economic, and social environment.

GLYNN COUNTY

1. Develop a coordinated system of bikeways, highways, port facilities, public transportation, streets, and terminal facilities to adequately serve existing and anticipated transportation needs.

   - provide increased capacity to routes experiencing congestion and modernizing the design of substandard facilities.

   - develop a street operation plan coordinated with the development of the major thoroughfare plan and the public transportation system.

   - prevent and reduce the congestion and hazards which result from narrow and poorly aligned streets, and which result from excessive entrance and exit points along major traffic arteries.

2. Create a functional relationship between transportation planning and area development by recognizing land development trends and major proposed development in the determination of transportation facility requirements.

GLYNN COUNTY (continued)

3. Compile an Official Street Map which will permit us to protect street rights-of-way needed to handle future traffic volumes.

4. Improve access to and circulation in and around the Brunswick Central Business District.

5. Improve and increase access to the Glynco Naval Air Station area to facilitate its development.

6. Improve access to the industrial areas located in the southern portion of the urban areas (Andrews Island and Colonels Island).

7. Explore additional access to and improve circulation on Saint Simons Island.

8. Improve highway transportation between residential areas and the employment, commercial, and recreational areas within the Brunswick urban area.

CAMDEN COUNTY

1. Develop transportation facilities and systems which will facilitate an easy flow of goods and people into, within, and without the county.

MCINTOSH COUNTY

1. Seek state assistance where applicable and better communications with local government in re-surfacing and repairing roads.

2. Keep the Darien River passable by dredging it when necessary.

LIBERTY COUNTY

1. Improve the character of the county's present road system through the planning of a transportation system with paved roadways that results in a minimum of environmental or ecological damage to the county.

   - improve and modernize the present county road system to provide optimum capacity, efficiency, and safety.

   - utilize state roads for the major portion of through traffic.

   - coordinate transportation facility developments with projected growth desires.

LIBERTY COUNTY (continued)

2. Encourage a coordinated transportation system incorporating all forms of conveyance: bus, train, truck, and auto.

3. Encourage the development of U. S. Highway 17 into a scenic, historical highway.

CHATHAM COUNTY

1. Maintain a feasible transportation system plan, integrating thoroughfare development, public transportation, air facilities, water transport facilities, and rail systems.

2. Provide a transportation plan designed to meet future needs while addressing today's demands.

3. Provide for the staged and orderly implementation of the long-range plan.

4. Provide a transportation plan based on existing and future land uses and natural resources.

5. Provide a transportation plan which will be economical and efficient in meeting the aforementioned objectives.

CAPDC

1. Develop programs and policies which will establish an efficient and effective regional transportation system which serves the needs of the area.

   - a regional highway transportation plan and designation system should establish the basic component of an areawide system.

   - rapid completion of planned highway improvements should be encouraged.

   - the extension of rail services should be encouraged to areas of high industrial potential.

   - expanded air facilities should be provided for general aviation cargo and commercial service.

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CAPDC (continued)

- port facilities should be encouraged in areas of highest inland and ocean transportation potential, especially the Brunswick Harbor with its many natural advantages should be improved and the channel deepened to 40 feet to serve the port.

2. Improve transportation in rural areas.

   - encourage the development of a Rural Public Transportation Program which would provide an areawide network of transportation services to the elderly, handicapped, lower income, military, and the employed segment of the area, thus creating a smooth flow of Coastal Georgia into employment, commercial, health, and public/social service centers.

3. Make maximum use of existing transportation facilities.

4. Transportation planning should be closely related to community planning.

   - transportation facilities should not disrupt recreational, wildlife, or urban areas, but should serve these areas for the betterment of all citizens.

5. Support the creation of a Multi-State Commission to plan, finance, construct, operate and maintain a multi-purpose, multi-mode communication, energy, and transportation facility between Kansas City, Missouri and the vicinity of Brunswick, Georgia.

H. HOUSING

SOURCE:

BRYAN COUNTY

1. Encourage the provision of additional housing of good quality for all citizens.

   - to ensure safe and adequate housing, there should be a concerted effort directed toward the development of housing standards which ensure at least sanitary living conditions.

   - housing standards should take the form of building and development codes which will ensure adequate structural, plumbing, and electrical workmanship due to the suburban role which Bryan County has to the Chatham/Savannah area.

   - continue to encourage upgrading of the existing housing stock.

2. Ensure the wise and timely residential development of urbanizing areas.

   - consider substantial development in the single-family home area.

   - ensure that there is a sufficiently wide range of choice of adequate housing (i.e., single-family conventional development, duplex development, mobile home park development, etc.).

EFFINGHAM COUNTY

1. Encourage the supply of good quality, decent homes in suitable environments within economic reach of all citizens.

GLYNN COUNTY

1. Protect the investments of home buyers in subdivisions.

LIBERTY COUNTY

1. A decent home and environment for every citizen of the county.

LIBERTY COUNTY (continued)

- assure an adequate supply of housing for existing and desired population.
- assure that housing is conveniently located in relation to necessary and desirable public and private facilities and services.
- assure that housing for all of the people by the county is sound, safe, and healthful.
- assure that a broad range of housing types and prices are available throughout the county.
- assure that residential development takes place in an orderly fashion with respect to adjacent land uses, public utility services, transportation capabilities, and natural conditions and limitations while serving the residents' needs for individual utility, identity, character, and aesthetics.
- undertake gradual renewal and rejuvenation of deteriorating residential structures or areas.
- assure the institution, maintenance, and enforcement of adequate and effective zoning, development regulations, and housing and building codes.

LONG COUNTY

1. Plan for a program to serve low-rent family housing units within the city of Ludowici.

CHATHAM COUNTY

1. Provide a systematic method for making available standard housing for all people within their income ranges, particularly that housing whose prices are below the normal market level.
2. Reduce the number of people living in substandard housing and improve the quality of their neighborhood environment.
3. Establish a mechanism for meeting future housing needs attributable to population growth and new family formation.
   - increase participation of private enterprises.
   - enlarge the capabilities of people to afford better housing.

CHATHAM COUNTY (continued)	- identify in greater detail the character of housing needs. - increase attractiveness, marketability, and production of lower-cost housing. - expand the availability and usability of land. - make greater use of available federal programs. - reduce discrimination in housing.

I. PUBLIC FACILITIES AND SERVICES

SOURCE:

BRYAN COUNTY	1.	Consideration should be given to provision of water in potential annexation areas adjacent to the cities.
	2.	Continue to develop a county-wide solid waste system which will be sufficient to care for the solid waste needs of Bryan County.
EFFINGHAM COUNTY	1.	Encourage development where a safe supply of domestic and industrial water can be achieved.
	2.	Continue with the orderly and sanitary disposal of liquid and solid wastes.
MCINTOSH COUNTY	1.	Install a modern sewer and water system in those areas where it is economically feasible in order to eliminate health and water pollution problems.
	2.	Organize and implement a trash collection and sanitary disposal system in order to eliminate the use of open dumps.
CAMDEN COUNTY	1.	Develop community facilities to provide adequate streets, sewer and water, remove unsightly conditions, and preserve the natural beauty of the communities and rural landscape of the county.
GLYNN COUNTY	1.	Work out a practical Public Improvements Program which is based on logical priorities and geared to a specially prepared city-county capital budget.
LIBERTY COUNTY	1.	Provide adequate and appropriate public facilities and services for the benefit of the people of the county. - use public facilities to guide and maintain orderly future development and attract desired development.

LIBERTY COUNTY (continued)

- develop sewer and water systems necessary to end public health hazards and prevent further pollution of county water resources.
- limit all development unless appropriate health and safety standards are complied with and services provided.

LONG COUNTY

1. Upgrade the water and sewer system in Ludowici.

CHATHAM COUNTY

1. Improve and preserve natural resources by utilizing environmental protection techniques when making decisions relating to solid waste disposal.
2. Correct existing problems such as low water pressures, soil contamination from septic tank failures, raw sewage discharge into rivers and streams, frequent breakdowns in water service, and individual wells and disposal systems in developed areas.
3. Provide all residents with an equal quality of water and sewer service.
4. Ensure that adequate water supply will be available for fire protection.
5. Make adequate water and sewer services available to industrial areas.
6. Eliminate the blight that occurs when developments are served by substandard or no water and sewer facilities.
7. Prevent the problems associated with substandard utilities due to inadequate provision being made in a water and sewer system to accommodate future growth and development.
8. Provide a basis for scheduling and financing water and sewer projects.
9. Take advantage of funds available from federal and state agencies for sewerage treatment and basic water and sewer facilities.
10. Protect the present and future sources of water supply.
11. Use the water and sewer plan as a guide to land use planning and development controls.

CAPDC

1. The full range of community facilities and services should be provided for those areas of the region where future urban growth is desirable.

   - public utilities should be used to lead development into desirable and compatible areas. The provision of adequate water and sewerage should be prerequisite for development throughout the region.

   - utilities should not be provided to areas which cannot support intensive development or where growth is not desirable for other reasons.

   - residents throughout the region should receive adequate municipal-level fire, police, health, recreational, cultural, and educational facilities.

J. RECREATION AND OPEN SPACE

SOURCE:

BRYAN COUNTY

1. Encourage the establishment of a citizen action group to assist with development of a plan and/or program which points out specifically the public need and demand for recreation (both public and private).

EFFINGHAM COUNTY

1. Develop opportunities sufficient to accommodate the full range of human needs for recreation and open spaces sufficient to meet the area's conservation needs.

   - continually provide public open spaces in residential areas.

LIBERTY COUNTY

1. Promote an adequate range of recreational land at existing level and by expanding commercial recreation enterprises in selected locations.

   - reserve sufficient recreational lands to serve desired population growth with both active and passive recreational potentials.

   - provide recreational opportunities for developed areas, as well as those designed for county, regional, state, and national use.

   - assure, where possible, multi-functional use of recreational areas for open space, forestry, water resource conservation, or historical preservation.

   - preserve unique natural areas which cannot be replaced if destroyed, misused, or neglected.

   - encourage open space, appropriately located, in all land use areas.

   - develop recreational parks, such as LeConte-Woodmanstan Plantation, Fort Morris, Old Liberty County Jail, and roadside parks along all major transportation routes.

2. Encourage the maintenance, quality, and quantity of open space, scenic and natural areas throughout the county.

LIBERTY COUNTY (continued)

- discourage the development of agricultural, public and privately owned lands with open space potential.
- promote dual land uses (i.e., agricultural/open space) which encourages or enhances private ownership of undeveloped lands.
- protect unique natural areas, swamplands, forests, and watercourses from urban-type uses.

MCINTOSH COUNTY

1. Establish a complete recreation program.
   - form a citizen group to point out the need for recreation facilities.
   - seek federal financial assistance to assist the county's efforts.
   - organize a citizen group to assess the need and evaluate alternative methods of financing a public dock.
   - develop public playgrounds where needs are greatest.
   - recognize the need and allocate funds for a professional recreation person to establish a city/county recreation board, develop and coordinate all local activities, and assist in obtaining federal and state recreational development funds.

CHATHAM COUNTY

1. Develop a comprehensive system of recreation facilities at the neighborhood, community, and regional levels which will provide an optimum number of recreation choices for the maximum number of people.
   - develop a strong public awareness of the importance of developing a recreation system.
   - develop specific, detailed plans for all facets of the comprehensive parks and open space plan.
   - maintain or increase certain regional lands and facilities for public recreation.

CHATHAM COUNTY (continued)

- encourage but control commercial recreation uses.
- maintain an inventory and continuous updating of policies and plans.
- encourage more optimum use of existing facilities through experimentation and expanded supervised plan activities.

2. Maintain or increase the quantity of present public lands dedicated to park and recreation use and develop a method of scheduling priorities for acquiring additional parks and open space.

   - allow for new uses of park land when necessary but only when other land is substituted.
   - provide incentive for property owners and private interests to provide land for recreation.
   - maintain an advance acquisition schedule based on needs.
   - directly improve the quality of public recreational activities and encourage coordination between government and private agencies.
   - control conflicts between park land for active and passive uses, such as downtown squares.
   - improve the design of recreational facilities.
   - develop a program for landscaping.
   - concentrate upon maintenance programs.
   - encourage multiple uses, when appropriate, of recreation facilities and open space.

3. Provide recreation centers through urban renewal or other neighborhood improvement programs.

   - protect the community's existing open space, especially the marshlands.
   - improve the beach facilities at Tybee and provide access to inland waters for public swimming.

CHATHAM COUNTY (continued)

- provide more public boat launching and marina facilities.
- more fully utilize federal and state programs which provide funds for park development.
- increase expenditures for parks and open space.
- revise the zoning ordinances and subdivision regulations to be more responsive to the need for parks and open space.

4. Preserve and enhance public and private recreational facilities.

- provide access to parks.
- avoid using needed park land for alternative uses.

5. Preserve and enhance open space, conservation areas, and scenic vistas.

- preserve access to these areas.
- avoid disruption of these areas.

CAPDC

1. A system of parks and open space should be developed to meet the increased leisure time of both the coastal area citizens and tourists.

- regional, county, community, and neighborhood parks are needed to provide a balanced system.
- recreational programs, supervised by professional staffs, should be encouraged throughout the region to provide every segment of the population with a full range of recreational opportunity.
- areas of unique ecological, natural beauty, or historic value should be preserved by development as open space or recreational facilities.

K. PUBLIC HEALTH AND SAFETY

SOURCE:

BRYAN COUNTY

1. The county police department should be maintained at a sufficient level to provide adequate protection to the county's populace.

2. New and improved methods of providing services and upgrading personnel should be investigated as fully as possible.

3. Adequate and sufficient fire equipment for full protection to all residents of Bryan County should be encouraged for all incorporated areas, as well as, all unincorporated areas that have dense residential and commercial sections.

4. Maintain good air and water quality throughout the county.

5. Discourage development activities from taking place in flood prone areas.

EFFINGHAM COUNTY

1. Provide adequate and equal justice and protection of life and property against crime, fire, traffic hazards, and other threats to personal and public safety.

2. Provide a high quality of physical and mental health services to all people.

GLYNN COUNTY

1. Ensure that residential lots will be of such design, area, and width as will prevent health and sanitation problems from developing in those subdivisions with lots to be served by individual water supply and waste disposal systems.

2. Ensure that all building lots will be accessible to fire fighting equipment, and other emergency and service vehicles.

LIBERTY COUNTY	1.	Encourage interdepartmental cooperation and coordination of police, fire, and rescue services to achieve county-wide coverage and availability.
	2.	Develop a county-wide sanitary landfill that meets all state regulations.
CAMDEN COUNTY	1.	Provide an adequate system of hospitals, nursing homes, and health facilities to serve the population.
	2.	Improve and provide adequate public safety facilities and service to the county and its various communities.
MCINTOSH COUNTY	1.	Work with appropriate officials to establish a county hospital or medical clinic with beds.
	2.	Attract another doctor to the area.
	3.	A nursing home should be established, perhaps in conjunction with a medical center.
	4.	The county sanitarian should be utilized to show persons where to place pit privies, animal pens, and septic tanks in relation to water supply.
	5.	Educate rural population on cleaning with disinfectants, bathing children properly, and household maintenance.
	6.	Clean and deepen drainage ditches near homes to help alleviate mosquito problem.
	7.	Organize a concentrated city-county effort to remove junk autos as an aid in eleminating rodents.
	8.	Fire and police sub-stations should be opened in the more populated areas of the county, especially in the Crescent area.

CHATHAM COUNTY	1. Deliver an acceptable and economical water supply to domestic and industrial residents.
	2. Meet minimum air and water pollution standards set forth by state and federal regulations.
	3. Implement programs for both short-and long-range environmental control.
	4. Eliminate or relieve flooding conditions that have, in the past, caused property damage.
	5. Prevent future pollution of rivers and streams in Chatham County.
CAPDC	1. Encourage the formulation of programs and policies which will improve and protect the physical and mental well-being of the citizens of the area, in particular those programs and policies which will improve the health delivery and care systems within the area.
	2. Encourage the formulation of programs and policies which serve to strengthen and improve the criminal justice system within the area.

L. EDUCATION

SOURCE:

BRYAN COUNTY	1.	Strive for the betterment of the school system. - the adequacy and sufficiency of schools in Bryan County should be given priority consideration. - specific attention should be given to the consolidation efforts of the high schools. - adult education should receive priority consideration in an effort to raise living standards among the general public (especially vocational education). - a concerted effort should be made to solicit financial support for special manpower educational programs (especially from such facilities as Ft. Stewart).
EFFINGHAM COUNTY	1.	Upgrade educational opportunities for attainment of knowledge commensurate with needs and capabilities of all the area's citizens and appropriate to a complex and changing world.
LIBERTY COUNTY	1.	Encourage the continuous improvement and expansion of county educational facilities and services to make available to all people the widest range of educational opportunities.
LONG COUNTY	1.	Establish an area vocational-technical school to provide for training and re-training of citizens.
MCINTOSH COUNTY	1.	County and city governments, interested and progressive citizens in conjunction with local agencies should combine efforts to inform the public of the need and actively seek local and state support in providing facilities, equipment, and personnel for a comprehensive vocational education and training program within the county.

MCINTOSH COUNTY (continued)	2.	The library resources need to be expanded for the benefit of the public and particularly for students.
	3.	The library should seek to become a part of the Brunswick Regional Library System.
CAMDEN COUNTY	1.	Provide adequate high quality formal and informal educational opportunities throughout the county.
	2.	Establish new, and improve existing, vocational and technical training facilities and programs with the aim of providing an employable labor force.
CHATHAM COUNTY	1.	Encourage women to plan and train for either skilled or professional jobs.
	2.	Promote more training and education within the community. Counseling should be provided at several age levels.
	3.	Coordinate local economic development and educational improvements to expand the technical labor employment potential.
	4.	Expand the work-study program in local schools.

M. HISTORIC PRESERVATION

SOURCE:

CHATHAM COUNTY

1. Preserve and protect unique character of the National Historic District which imparts distinctiveness of the city of Savannah.

2. Promote within the Historic Area the educational, cultural, travel, industrial, and other economic resources and the general welfare of the city of Savannah by preserving and protecting the old, historical or architecturally worthy structures, sites, monuments, streetscapes, squares and neighborhoods which serve as visible reminders of the historical and cultural heritage of the city, the state, and the nation.

3. Stabilize and improve property values in the Historic Area and encourage new buildings and development that will be harmonious with the existing historical buildings and squares but not necessarily the same architectural style.

4. Develop the Historic Area not as a museum but as a vital living area in which each succeeding generation may build with the quality and sensitivity of past generations.

5. Provide access and encourage the development of points of historical, scenic or special interest.

6. Preserve and enhance landmarks and historical elements in Savannah and Chatham County.

   - preserve and enhance historic districts.

   - locate and design to preserve historic and valued elements of Savannah's heritage.

MCINTOSH COUNTY

1. Restore and beautify the original town of Darien in order to preserve the old town appearance, attract tourists, and create employment.

CAPDC

1. Coastal communities which contain concentrations of historic attractions and buildings of architectural significance should take necessary actions to preserve their resources, such as the adoption of historic preservation ordinances and/or landmark commission ordinances.

N. AESTHETICS AND DESIGN APPEARANCE

SOURCE:

BRYAN COUNTY	1.	Encourage improvements in the appearance and beauty of the land and structures.
	2.	Keep all streets, roads, and alley rights-of-ways free from abandoned automobiles.
LIBERTY COUNTY	1.	Remove all junked autos, debris and trash that litters the county roads.
MCINTOSH COUNTY	1.	Establish campaign to clean-up community and boost morale and spirit of citizens in bettering the community.

CAPDC	1.	Efforts should continue to provide improved types of outdoor advertising.
	2.	Design standards for street furniture, signs, street lights, traffic signals, litter bins, benches, and planting areas should be developed and adopted for designated areas within each community.
	3.	Systematic renovation of downtown commercial areas, store fronts and building facades should be made, especially for those of architectural significance, in order to strengthen their image, appearance, and identity.

O. RESOURCE UTILIZATION AND MANAGEMENT

SOURCE:

BRYAN COUNTY	1.	Discourage any developments on sensitive lands that will cause their destruction, impair their existence or integrity. - continue to disallow the filling of any marshland.
EFFINGHAM COUNTY	1.	Preserve and enhance sunlight, air, water, land resources, wildlife, and vegetation of the area in order to support and enrich human life.
CAMDEN COUNTY	1.	Develop and protect the abundant resources of the county to enable maximum short-range, as well as large-range, utilization.
LIBERTY COUNTY	1.	Seek optimum utilization of land, water, air, and natural resources, including their preservation and conservation. - assure continued future use of economically valuable natural resource deposits by preventing inappropriate development of conflicting land uses. - develop flood and erosion controls to minimize flood damage and maintain water quality levels. - implement a proper drainage program that will generate more productive land and reduce present health problems due to stagnant water. - preserve unique natural areas which cannot be replaced if destroyed, misused, or neglected. - discourage pollution of soil, water and air resources by any segment of the community, be it governmental, industrial, agricultural, or private.

CHATHAM COUNTY (continued)

1. Draft effective zoning ordinances and other legislation to protect natural resources from encroachment and protect these lands for recreational and natural uses. Protect marshlands, beaches, and historical monuments from encroachment and misuse.

2. Preserve existing ecological conditions by providing space and cover for shellfish and waterfowl and encourage better control of estuaries.

P. ENERGY

SOURCE:

CAPDC

1. Encourage the exploration and development of oil and gas fields on the Atlantic Outer Continental Shelf provided stringent environmental standards be continued.

2. Pursue the development of necessary safeguards through technological advancement which will protect the integrity of the environment, yet permit the development of onshore petro-chemical complexes.

3. In view of the need for additional fuel supplies and the need for additional high wage,high technology jobs in the area, encouragement is given to the installation of a petroleum refinery on the Colonel's Island industrial site provided that the construction and operation meet all air and water control standards as specified by state and federal agencies.

4. Encourage and pursue the installation of a Solar Energy Research Institute or like complex on the Georgia coast.

5. Encourage the development of the Offshore Power Systems planned floating nuclear power plant as it is critically needed to provide new sources of energy, stimulate the coastal economy, and present less detrimental environmental impact than other man-made means of producing power.

Q. MARINE AND ESTAURINE WATERS

SOURCE:

MCINTOSH COUNTY	1.	Eliminate pollution from industrial and human wastes by construction of effective treatment facilities, establishing and enforcing government regulations, and encouraging private industry to invest in pollution control equipment.

Alternative General Policies for Coastal Zone Management

2

Summary Statement

The purpose of this paper is to satisfy work element IE as set forth in the contract between the Coastal Area Planning and Development Commission and the Office of Planning and Budget dated June 4, 1976.

As specified in the Scope of Services of said contract, documentation related to products shall contain a summary of requirements pursuant to the CZM Act and associated documents. Listed below is a summary of applicable requirements:

IE: General Policies for Coastal Zone Management

Sec. 305(b)(6) A description of the organizational structure proposed to implement the management program, including the responsibilities and interrelationships of local, areawide, state, regional, and interstate agencies in the management process.

Sec. 306(c)(6) The state is organized to implement the management program required under paragraph (1) of this subsection.

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I.

INTRODUCTION

Following is a series of general policy statements for Coastal Zone Management program development. They are intended to serve as guidelines for the resolution of various matters which either have arisen or will probably arise in the process of developing Georgia's coastal program. Where possible, implications of adopting the suggested policy have been presented.

Policy Statement

> The people of the state of Georgia, through its governments, must recognize that the coastal zone abounds in a multitude of natural, economic, cultural and human resources which are of untold value to both present and future populations. Therefore, they must commit themselves to the overall goal of preserving, protecting, developing and, where possible, restoring and enhancing those resources. The full realization of this goal can only be achieved through the establishment of a comprehensive, coordinated planning and management program which has as its focus both long-range and visionary objectives while carefully assessing the incremental alteration of the environment so that over the long term, maximum benefits accrue to the state as a whole.

Implications

Long-range planning is currently in a state of transition. It is experiencing both a transformation in purpose and methodology. The conventional scientific, technological model of the 1950's and 60's is now undergoing intense scrutiny, as evidenced by both theoretical knowledge (Limits to Growth) and political expression (Governor Jerry Brown). As long as there was an apparent consensus in values, expressive of the ruling majority with its monopoly on political and economic power and its abiding faith in technology, long-range planning could only pursue future goals by projecting present trends. Social and environmental events of the past decade have, however, rendered such procedures unworkable.

With the relatively recent emergence of a sharing of political power, an expanding ecological consciousness, and the realization

of man's limitations to adapt to an era of accelerating social and environmental change, planners have been both forced and obliged to reassess their planning models. Through such efforts, a new planning method is emerging - one in which man can sense the impacts of his unecological behavior and intervene through participatory normative, futures-creative planning.

In the past, little consideration was given to the total system within which isolated elements were fostered. Quantitative consideration overrode qualitative values due to the assumption of virtual unlimited resources and capabilities. External factors did not figure in this isolated category of thought. For example, economic extrapolation via industrial trends, economic vitality and employment data was correlated to population growth for a given planning area. Practically no consideration was offered regarding system threshold limitations and capabilities, nor of qualitative change resulting from quantitative growth. The thinking made no attempt to systematically embrace the total context within which growth was to occur.

Today though, planning is beginning to respond to the deficiencies of such approaches. The models of the former era are beginning to yield to more flexible, indeterminate approaches whereby citizens are asked and even encouraged to purposely intervene and chart the course. Borrowing concepts from ecology and systems modeling, planners are beginning to talk in terms of holistic planning models. Under such approches, man is viewed as a conscious participant in his own social and cultural evolution, formulating

goals derived from values that are both idealistic and achievable within a long-range (20- to 30-year) time frame.

These new approaches explicitly suggest the necessity for people working together to determine their own future. It is a normative approach in which people specify the values, ends and purposes for which plans are to be made. Planning can then, with direction, set out to translate these expressions into actions that impact positively on the social, economic and physical environment. The process becomes a series of systematic steps toward a future willed to happen by a society purposefully participating in its own development.

Futures-creative planning puts man at the helm to determine, for himself, a future aligned with what is socially and economically possible, within the context of institutional and environmental limitations, thus, opening up the unprecedented possibility for a truly human approach to planning.

To what extent is Georgia's CZM effort representative of this contemporary, cutting-edge approach? It is difficult to find substantiation expressive of this model such as broad goals, quality of life values, or guiding principles for a meaningful future.

The time has arrived for the Advisory Council and staff to come to grips with this decision opportunity. There is no question that some of the most astute minds are available to guide such an effort. Additionally, the financial resources are sufficient to achieve any reasonable expectations. The only remaining element is simply the will, the desire to design the future not merely respond to it.

Policy Statement

> State, regional, local and private economic development actions shall be encouraged and fully supported in order to establish a more diverse economic base, enhance employment opportunities, and reduce the level of unemployment experienced by various sectors of the existing labor force. All such activities shall meet environmental quality standards and to the maximum extent possible be compatible with the social, physical, and aesthetic character of the coastal area as well as reinforce desired regional settlement patterns.

Implications

Socio-economic statistics indicate that several areas of the coast are beset with inordinately high levels of unemployment. In some cases, employment opportunities have not kept pace with population increases. This has resulted in the out-migration of new entries into the labor force. In other cases, economic change has left long time residents unemployed. Thus, emphasis should be placed on creating jobs for existing citizens rather than developing those activities which essentially attract new people to the region. Care must be taken not to encourage industries which merely compete for employees needed to maintain existing economic sectors.

Efforts need to be made to reduce the seasonality of unemployment (fishing and tourism come to mind) by encouraging the creation of year-round or off-season forms of employment.

Plans and programs need to be formulated to bring about a viable and diverse economic structure which functions in concert with the ecological and aesthetic qualities of the coast. It must not be forgotten that these assets contribute considerably to the regional

economy; to permit a type of economic development which would damage the very assets on which certain economic sectors seek to capitalize would be counter-productive.

Policy Statement

> The conservation, protection and proper use of the region's wetlands, rivers, natural areas, floodplains, historic areas and other areas of particular concern must be provided for by preventing inappropriate landform alteration, minimizing erosion and sedimentation, maintaining natural water flow, preserving ecological functions, enhancing recreational usefulness, protecting natural beauty and wildlife habitat, and, in general, maintaining the environmental quality of all such areas and their related features.

Implications

The purpose of this policy statement is to formally recognize the valuable functions performed for society by such critical areas. These areas include, but are not limited to, floodplains, wetlands, sand dunes, critical shorelands, prime production lands, historical sites, unique recreational or scientific areas, and endangered wildlife habitats.

The interest in recent years in linking development policies to the capability of the land is due, in part, to a recognition that the fixed resource base of this country must serve to meet the needs of not only the present population but also future generations. It is also due to a recognition that rationally and politically comprehensive land use planning and management is a difficult and complex process which often cannot quickly be accomplished for even a small area. The establishment of state development policies for critical areas is often less controversial than establishment of policies for development areas where population growth and social or economic opportunities play a major role, and, thus, constitute a logical

and politically acceptable first step in such comprehensive planning efforts.

State critical area programs have mainly, in the past, been adopted for individual classes of areas (e.g., floodplains). Only recently have state legislatures in Colorado, Florida, Maine, Maryland, Minnesota, North Carolina, Oregon, and Wyoming adopted comprehensive critical area acts which may be used to simultaneously address a broad range of critical environmental areas (e.g., floodplains, wetlands, natural areas). To-date, such programs have been applied very selectively to particular sites (e.g., Florida Keys, Big Cypress Swamp) but they hold potential for broader application. Most of the statutes establishing these programs authorize state definition and standard-setting for not only environmental areas (i.e., where resource values and limitations play a paramount role in determing the suitability of the land) but areas of major public and private development (e.g., new towns, key facilities).

Although the values possessed by many critical areas have only recently received widespread public acknowledgement in Georgia, they have played a paramount role in determining the suitability of the land for particular uses, as evidenced by the historical settlement pattern of the coastal area. For instance, along a path beginning in St. Marys and extending to Savannah, one discovers that not only were these two cities, but Brunswick and Darien, sited on highland overlooking a river. By placing these early human settlements on such stable landforms, even though they were obviously more

attractive for building, other less appropriate and ecologically valuable lands have been substantially omitted from more intensive human use.

However, these less capable areas (wooded lowlands, floodplains, swamps) have been only partially protected from development mainly because the aforementioned cities, particularly Brunswick and Savannah, have grown extensively in a horizontal fashion over the years, thus, consuming their original, primary town site. Such town sites are actually old barrier islands formed by a higher ocean elevation during an earlier geologic period and consequently are of limited size. So, strong suburban development trends, coupled with intensified rural settlement practices among other things, now pose major development threats to these once remote, sensitive areas.

Private landowners and various units of local government have, for one reason or another (lack of resources or technical capability, absence of incentives, or improper exercise of controls), failed to provide protection or management for such areas. Because these areas have special values (e.g., wildlife habitat, maintenance of water quality, scenic beauty, mineral deposits, recreational opportunities) or constitute hazards (e.g., erosion, flooding, limitation for onsite waste disposal), the impact of encroaching land uses upon such areas is of particular concern to state citizens-at-large and/or the residents of more than one local jurisdiction.

Due to the values these areas possess and the fact that many are significantly and directly threatened, an intensified management approach which focuses upon achieving preferential uses for these

areas is unquestionably a necessary element of Georgia's CZM program. Such an approach should include the establishment of rules and regulations to govern the use of these areas. The rules and regulations should express state interests and concerns and ensure the implementation of state policies for the areas so designated.

The designation of areas of particular concern should play a major role in defining the boundaries of the coastal zone. For as shorelands, the use of which could effect coastal waters, are delineated, the geographic extent of the coastal zone should begin to emerge. Of course, the legal authority and institutional responsibility to manage the area remains to be detailed, especially as it relates to state and local roles.

Policy Statement

> Recognizing that there is only a given supply of distinct landforms in the coastal zone which, because of their intrinsic or unique qualities, make them highly suited to a particular use or uses and, thus should be conserved for those purposes. It is, therefore, beneficial to the long-term public good to devise an approach to the allocation of space based on a system of use preference which allows present benefit, yet preserves future options.

Implications

Inherent within this statement are two resource allocation approaches: maximum benefit and maximum option. The maximum benefit approach aims at the most efficient productive allocation of land use as determined by current technology with the priority in resolving land use competition going to the use that offers the greatest economic return.

In contrast, the maximum option approach meets demand as it arises, giving preference to uses that involve a minimum of irreversible change. It makes a strong effort to minimize future conflicts and seeks to defer unnecessary commitments.

To determine how these two approaches could be applied in coastal planning, it is necessary to examine two land use concepts: "versatility of land" and "adaptability of activities". Versatility refers to the number of different uses that a parcel of land could support if required. For instance, highly versatile land might be suited for forestry, truck gardening, housing, recreation, wildlife, and industry; whereas, less versatile land might only

be suited to recreation and wildlife. Versatility is closely related to capability.

If, at some future time, one is faced with an excessive demand for a particular use, the more versatile land is most useful since it constitutes a reserve from which to draw. Clearly, the greater the total versatility of a region, the easier it will be to adjust to changes, a major planning objective. So, it follows that efforts should be made to conserve or even encourage increased versatility of the land in a region.

The second concept is that of adaptability of activities. Where two activities compete for a specific parcel of land, it may be that one is less demanding in its requirements than the other, so that it could equally well be placed elsewhere and the parcel in question allotted to the non-adaptable activity. For instance, housing is a somewhat highly adaptable activity, but industrial development is exacting in its requirements, and resource extraction is quite site specific.

The maximum benefit approach to land use allocation would, therefore, emphasize adaptability and productivity. Where two or more potential uses were in competition for a piece of land, the one with the higher adaptability would be displaced. When two activities were equally adaptable, the one giving the greater economic benefit would be given preferential treatment. This process would be carried through the planning area until all foreseeable demands had been met. So, each piece of land would

be allotted to the most profitable activity that had the greatest need for the characteristics which it possessed.

On the other hand, under the maximum option approach, conservation of highly versatile land would be studied to determine all potential uses that could be made of it, and a versatility rating given to each piece of capable land, ranging from most versatile to least versatile. In other words, activities would be guided to lands where they would have the least compromising effects on other potential uses. It can be seen that this alternative stresses keeping options open to the extent possible for those lands with the greatest versatility.

It must be emphasized that the difference between the maximum benefit and maximum option approaches is considerably more complex than presented above because there are numerous other factors, such as projections of land demand, availability of infrastructure, tax policies, etc., that would be taken into account in final planning decisions. The purpose of this discussion is simply to introduce the concept to assist in the formulation of policy. Perhaps an example would provide further illustration.

Consider a parcel of stable highland adjacent to navigable waterway. Further assume that the parcel is provided with access, utilities and a nearby labor force. These factors render it highly versatile since it could accommodate many uses. Yet, certain uses (port development), because of critical siting requirements, are less adaptable to other areas and are, thus, in need of this particular parcel, but not in the immediate future. In the meantime, the

pressure for residential development of a recreational/second home nature appears strong in the area in question. Should the area be allocated to residential development or preserved for waterfront dependent development? One allows immediate economic gain (income and taxes) and the other keeps the option open. A possible compromise to this seeming dilemma consists of retaining public control over the parcel but allowing the parcel to be used by non-preemptive uses until needed for the less adaptable use. Examples of such uses include amusement parks, fairgrounds, playgrounds, open storage, etc. In other words, primarily non-structural uses.

Governmental tools to achieve this objective include public acquisition and lease back with restrictions, public land development corporation, and first purchase option as well as zoning.

Policy Statement

> The opportunities afforded to man by the capabilities of natural features and resources to support, tolerate, or withstand various activities must be given prime consideration in selecting areas for future human settlement.

Implications

Much of the coastal area is either ecologically valuable, environmentally unsuitable, technologically difficult, or economically unfeasible for urban-type development. Given this situation, land intrinsically suited for accommodating residential, commercial, and industrial growth will become increasingly more valuable in the future. From a regional perspective, there is an ample supply of land capable for urbanization, but some urban areas have grown extensively and in a horizontal fashion to the point that these more appropriate areas are becoming quite scarce.

For example, it is estimated that Savannah/Chatham County must bring into urban use by the year 2000 some 4,500 acres of land based upon population projections translated into land comsumption standards. However, at present there are only approximately 3,000 acres which are vacant and most capable of supporting this growth. If these calculations and projections prove to be reasonably accurate, future growth will be forced into less capable areas or adjacent counties. Other possibilities include infilling by-passed parcels or redevelopment at higher intensities. The latter two options offer only partial solutions. Thus, the conversion of raw land to urban uses is expected to be the primary means of accommodating growth. Consequently,

it is imperative that those geographic areas most capable of supporting various land uses be designated as soon as possible as a service to developers, the environment and other legitimate land uses which suffer from urban encroachment.

Not only must most capable areas be delineated, guidelines must be formulated to manage the land use conversion process. A more rational planning and management process will reduce the economic burden faced by taxpayers as well as protect critical environmental areas through the coordination of public and private decisions.

The forumulation of development guidelines which protect critical environmental areas and manage growth associated with large-scale facilities is a responsibility of the state whereas the responsibility of managing growth as it occurs in areas appropriately designated is a local and regional responsibility.

Once guidelines are established, a review process is necessary in order to monitor their utilization. This review process should contain an appeals mechanism with which to challenge significant violations.

Policy Statement

> The coastal settlement pattern, besides being guided by favorable natural features, should be influenced by both the existing and future placement of public facilities and services such as roadways, utility systems, schools, power, etc. Although decentralized population growth should not be restricted by governmental discouragement of employment opportunities outside major urban concentrations, the scale of the development must be carefully tailored to the capability of the selected community to adequately absorb resultant impacts.

Implications

Within areas designated as capable of supporting more intensive physical development, selected areas would be delineated as preferred growth areas due to the existence of support services. Such services include the more conventional public infrastructure elements as well as those unique natural resource concentrations which make development more appropriate as well as attractive. Governmental designation of these areas will naturally influence land values and merely their identification may, in itself, encourage new development. This is not only to be expected, but should be considered desirable. While justified private development rights would be protected, land use conversion expectations, in terms of greater financial return, may not materialize since inappropriate areas would not receive the support of public policy.

A related aspect of this policy statement involves deciding whether or not it is in the public interest to encourage future growth in an area with unfavorable environmental factors. For instance, constructing dikes to contain flood waters in a

recognized flood plain in order to protect a small population cluster or paving a road serving a sparsely populated area which does not have sewers and the soil exhibits a high water table. Obviously there are numerous other examples. Although the existing residents may not have had knowledge of the natural conditions prior to their having located there and the improvement makes for a better living environment, subsequent new development may be encouraged in an inappropriate area.

A primary tenet of many small (and sometimes not so small) cities in the coastal area is the belief that one day they too will have the luxury of experiencing extensive economic growth and its resultant development activity. In order to increase the likelihood of this coming about, strong efforts are made to attract industry by constructing water and sewer systems, encouraging new highways and interchanges, rezoning their lands, and so on. The CZM program must deal with this value system and assess how it might affect future settlement. Designating areas as having limited growth opportunities may frustrate these long held expectations and desires. The belief that this is a regional or local development issue and thus, does not warrant the attention of the CZM program, is without merit.

Policy Statement

> The extent and type of environmental impact generated by both existing and proposed activities will be considered a prime determinant in preparing development plans and making resource use decisions in order to meet National, state and local environmental quality goals, develop a healthy regional economy and, in general, achieve a high quality of life for the coastal population.

Implications

This policy statement has three main thrusts: 1) the establishment of a method of assessing the environmental impact of coastal uses, 2) applying the method in a manner that determines which uses have direct and significant impact on coastal waters, and 3) operationalizing a mechanism for controlling those uses identified by the impact assessment process.

Discussion relating to each of these aspects is contained in a separate working paper.

Policy Statement

> A major output of the planning program must be the establishment and adoption of a process within which all state, regional and local decisions involving the allocation of coastal resources leads to a consistent application of established program policies. This will ensure that effective progress is made toward the realization of previously established goals and objectives.

Implications

One of the major problems with planning efforts has to do with their lack of implementation. Many plans are prepared only to satisfy bureaucratic requirements and sufficient commitment to their application to the established institutional structure does not result. It is one thing to go through the exercise of setting goals and objectives followed by the formulation of appropriate policies with which to achieve those desires, and it is another to achieve the consistent application of policies to situations which arise in the decision-making process.

The above policy statement is concerned, of course, with assuring that this consistent application aspect of the program indeed occurs. In this regard, one form of assurance could involve the establishment of a review process which has as its objective that of determining whether adopted policies were being applied in resource allocation decisions.

A primary function of regional planning agencies, metropolitan planning bodies, and state agencies involves a review of Federally assisted projects through their designation as A-95 Clearinghouses.

This role provides some measure of assessing the consistency of certain proposals against adopted areawide policies. However at least four factors serve to reduce the effectiveness of this assessment tool:

1. Many times planning jurisductions are deficient in formulating and adopting effective and comprehensive policies;

2. The effective application of adopted policies to decision situations is reduced due to lack of manpower and/or the complexity of carrying out a thorough assessment;

3. Local governments or special interests often possess sufficient political power to prevent objective assessment; and

4. Comments are purely advisory and, thus, do not provide veto power.

The A-95 process can provide a means to review decision-making for consistency with program policies but, lacking a backup system which is more authoritative, it cannot provide fail-safe assurances.

Such a fail-safe method might involve the creation of a state agency or department with authority to review certain decisions. Given findings indicating an unreasonable or improper applications of policies, the reviewing authority could either (1) possess veto

powers, or (2) possess appeal powers to a level of authority sufficient to resolve the matter.

Obviously, the definition of what constitutes matters necessitating review and appeal authority is a subject needing further investigation. The CZM Act provides guidance to this by listing those activities in which the proper siting thereof may involve the national interest. Along with these developments of more than local significance might be added areas of particular concern and critical shorelands.

Policy Statement

> State and local governmental agencies whose projects, programs and activities either directly or indirectly impact the coastal zone must be held accountable for consistency with program goals, objectives and policies. This needed accountability can best be achieved through the establishment of a permanent, broad-based policy development body comprised of individuals, including lay citizens, knowledgeable of coastal activities and processes.

Implications

Although certainly to be met with resistance, debate as to whether a permanent coastal commission is needed will arise. This policy statement expresses the positive alternative, mainly for discussion purposes.

Some entity must be charged with the implementation of the program. Policy development is a continuous process and must not be left exclusively to single-purpose bureaus. The CZM program, being of such scope that it touches several elements of the coastal environment affecting many individuals, must be guided by those which stand to be affected by it most. This guidance must not be a one-shot exercise but a continuous function throughout implimentation. Presented below are some reasons for this position along with potential considerations.

A primary force of physical change to the environment is government. State agencies, unless assisted by Federal funds, are not required to assess the environmental impact generated by their projects. Because of this situation, environmental protection (NEPA-like) laws have been passed in several states. By requiring near autonomous state department to adopt and comply with an environmental

element, it is hoped that environmental factors become more a part of project plans. Of course, if by some unfortunate reason this needed sensitivity fails to materialize, then the making public of the impact statement subjects proposed actions to public scrutiny and challenge.

An alternative to a state environmental impact statement could be a requirement for the proposing agency to submit a statement addressing the compatibility of the project to the completed coastal program, particularly those portions which are related to or may conflict with program policies.

The coastal commission, with the assistance of staff or state agency personnel, could review the project and its accompanying statement and make its recommendations to a final authority such as the Governor. Hopefully, there would be a few instances where a no-construct recommendation resulted, but instead recommendations for modifying the project. Functioning in this manner, such a policy body would not have veto power but rather considerable influence, a necessary condition for maintaining the integrity of the coastal program.

A second function provided by the coastal commission could be that of assisting with the development and certification of local planning programs. Staff attached to the commission could provide technical assistance to regional agencies and local governments during plan preparation. Following preparation, local governments would submit their plans and related implementation measures to the coastal commission for review and certification.

The debate to establish a permanent coastal commission would necessarily include a discussion concerning the future nature and function of the Marshlands Protection Committee (MPC). Obviously, such a special purpose body as the MPC, which is made up solely of appointed state officials, could not serve as the coastal commission. However, the service provided by that body would continue to be necessary. Staff providing the permitting function could merely transition over to the coastal commission.

Along with the relationship of the coastal commission to the MPC is its relationship to the Coastal APDC. Two primary options exist here. The first one consists of expanding the make-up of the Coastal APDC Board to reflect state-at-large as well as special interests. Considerations examined would be much like those found in the CZM Advisory Council study. The second option entails the creation of a coastal commission as a separate body. Presented below are representative roles of each under the latter option.

Coastal Commission

1. Formulate continuous public policy for the use of the coastal zone through the application of long-range plans and scientific research.
2. Establish minimum criteria and standards for use by local governments in preparing plans and implementing regulations.
3. Review local plans and regulations for consistency

with management program policies.

4. Coordinate the assessment of governmental and large-scale private activities for consistency with the management program.
5. Regulate permissible uses which have direct and significant impact on coastal waters through a centralized permit process.

Coastal APDC

1. Develop and coordinate the implementation of plans for the achievement of areawide objectives consistent with the CZM program.
2. Evaluate certain public and private activities for consistency with areawide policies via the A-95 Clearinghouse designation and state enabling legislation.
3. Assist local governments with the preparation of local plans and programs.
4. Assist local governments in making decisions involving matters of regional significance by preparing impact assessment reports on such matters.

Policy Statement

> The private and public sectors whose functions consist of using and managing coastal resources respectively, must realize that only by joining together in a meaningful dialogue can effective plans, programs, and policies be developed which maximize long-term use, enjoyment and productivity of the coastal zone.

Implications

A primary tenet of the ideological foundation and historical development of this country is the concept of private ownership and use of land and resources. The material success enjoyed by many Americans is due in large part to the ability of individuals to own and develop natural resources for personal economic gain. This right is guaranteed by both National and State Constitutions.

However, as our population has increased considerably through the years creating stringent demands on natural resources, there has been an increasing need for private actions to take public needs into account. The private sector must increasingly consider the overall public good in its decisions. Only by doing this can the institution of private property be preserved.

This last decade, possibly more than any other period, has seen a marked shift in the definition of what constitutes the rights accompanying the ownership of private property. Aided by both legislatures and the courts, the trend in this continuing dialogue is one of increasing public restrictions placed on the use of private property. The public and private sectors must conduct more

meaningful information exchanges if inappropriate restrictions are to be prevented. Needless restrictions will only result in increased time frames for needed developments resulting in greater costs borne by the consumer. On the other hand, only by a private sector which increasingly seeks to understand an evolving public consciousness followed by the incorporation of that consciousness in its activities can much needed progress be made in responding to overall human needs and desires.

The coming together of private and public interests has been made possible initially through the establishment of the CZM Advisory Council. This sharing of information and perspective should be continued in the management phase.

Policy Statement

> Those individuals and agencies having responsibilities for making decisions which affect coastal users, their livelihoods and environment, must make a genuine and concerted effort to inform, educate and provide them with an opportunity for meaningful involvement in the discussion and resolution of coastal issues. Broad public awareness and understanding of issues should be recognized as constituting built-in support for future positions and actions taken by both appointed and elected officials.

Implications

Although this policy statement is concerned more with the process of developing a CZM program than with that of carrying out a program, citizen participation efforts must continue on through the implementation phase. Thus, there is a need for the management program to contain a continuing citizen participation element. Should the management program call for the development of local management plans, local citizen advisory councils could be established. Such councils would be provided with the outputs of the program development phase (surveys, data, findings, policies, etc.) with which to prepare both general and special purpose plans.

Policy Statement

> Given the fact that the natural resources of the coastal zone are finite and, therefore, exhaustible, their allocation among competing uses must be carefully evaluated so that optimum multiple use benefits are realized. The allocation problem can be significantly aided through the establishment of a scientific research and educational program which adopts as its central purpose the accomplishment of science which focuses upon the investigation of public policy questions and social problems on a priority basis, thus providing maximum support to the planning and management function.

Implications

Many natural resources found in the coastal zone are owned by the public and are thus considered to be "free goods". That is the air, groundwater, rivers, marshlands, estauries, and so on do not belong to any one individual but to everyone. The state is responsible for the management of these resources under the "public trust" doctrine.

Unfortunately, because such resources often do not receive the same type of management as those which are privately owned, their quality is subject to deterioration. Users often place excessive demands on such resources to the detriment of other legitimate users. This policy statement is concerned with this very problem.

From a public policy standpoint, the use of the coastal zone must be guided in three principal areas: continuous management, long-range planning, and scientific research. The function of long-range planning is to develop horizon year objectives which maximizes the conservation and development of coastal resources. Continuous

management serves to keep day-to-day activities on the proper path so that the objectives are realized. And, scientific research provides the knowledge and understanding necessary to both develop plans for the future use of resources as well as make better, more beneficial decisions as the occasion arises. Thus, scientific research supports the other two functions considerably.

Certainly research is currently underway which examines those situations which often result in conflict between competing uses. The University System of Georgia, through its Sea Grant program, has been investigating marine matters for several years. But, are the situations being researched directly related to the resolution of major public policy questions? Does the information that has and is being generated contribute in a meaningful way to the development of the Coastal Zone Management program? There are divergent viewpoints on both of these questions.

In order for scientific research to contribute significantly to resource allocation problems, those doing the research must have input from those affected by and concerned with the problems. Therefore, it seems appropriate for the CZM Advisory Council to become acquainted with the types of research questions both currently being examined and planned. This will allow both the allocators and recipients of coastal resources to become involved in the process of identifying needed research. Hopefully, by fostering a closer relationship between the researcher and his client better and more relevant research will result. Also, this should provide the opportunity for more direct involvement by the academic and scientific community in the development of Georgia's first major coastal planning and management program, something that is sorely needed.

Alternatives in Defining Georgia's Coastal Zone

3

Summary Statement

The purpose of this paper is to satisfy work element 2B as requested and described in the contract between the Coastal Area Planning and Development Commission and the Office of Planning and Budget, dated June 4, 1976, and covering the period from October 1, 1975 to June 29, 1976.

As specified in the Scope of Services of said contract, documentation related to products shall contain a summary of requirements pursuant to the CZM Act and associated documents. Listed below is a summary of applicable requirements:

2B: Alternative CZM Boundaries

Sec. 305(b): An identification of the boundaries of the Coastal Zone subject to the management program.

This paper sets forth inland boundary alternatives within three categories: administrative/political, biological/natural and cultural/man-made. Additionally, it identifies further boundary determinations as required by the rules and regulations of the CZMA, namely the territorial sea; transitional and intertidal areas, salt marshes, wetlands and beaches; and, federally owned or controlled lands. Subsequent to these inventories, recommendations are presented concerning a tiered approach to Georgia's inland CZM boundary.

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I.

Background

The management program developed under Section 305 of the Coastal Zone Management Act (CZMA) must include the establishment and application of a procedure for identifying the boundary of the state's coastal zone. The CZMA and subsequent rules and regulations thereof, provide general guidelines to coastal states in defining their coastal zones. The Act itself provides definitions of the "Coastal Zone" and "Coastal Waters". These definitions constitute the overall framework within which each state must define its own coastal zone. These definitions are provided below:

Section 304(a): "Coastal zone means the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends seaward to the outer limits of the United States territorial sea and inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on coastal waters. Excluded are lands held in trust by the Federal government."

Section 304(b): "Coastal waters means those waters, adjacent to the shorelines, which contain a measurable quantity or percentage of sea water, including, but not limited to, sounds, bays, lagoons, bayous, ponds, and estuaries."

The general nature of the Coastal Zone definition as it applies to the inland boundary was purely intentional on the part of Congress. The terms of the definition acknowledge the varying needs of the thirty Coastal States. This definition allows the State of Georgia to define its own Coastal Zone after careful consideration of alternative boundaries and their management implications.

II.

Coastal Zone Boundary Components

The rules and regulations (15 CFR Part 923) pertaining to Coastal Zone Boundary Definition procedures require, at a minimum, the following products:

1) A determination of the inland boundary required to control, through the management program, shorelands the uses of which have direct and significant impacts upon coastal waters.
2) A determination of the extent of the territorial sea, or where applicable, of State waters in the Great Lakes.
3) An identification of transitional and intertidal areas, salt marshes, wetlands and beaches.
4) An identification of all Federally owned lands, or lands which are held in trust by the Federal government, its officers and agents in the coastal zone and over which a State does not exercise any control as to use.

With the exception of item one (1) above, each of these requirements is relatively finite. Therefore, this paper will primarily concern itself with the various options available in defining the inland extent of the Coastal Zone. The other boundary requirements (items 2,3 and 4 above) are briefly inventoried and depicted by the following text and the accompanying map.

A. A Determination of the Extent of the Territorial Sea...

The Georgia Code annotated defines the state's territorial sea as follows:

Title 15, Boundaries, Jurisdiction and Time of the State

> "15-101 (16) Boundaries of the State...; thence along the middle of (the St. Mary's River) to the Atlantic Ocean, and extending therein three geographical miles from ordinary low water along those portions of the coast and coastal islands in direct contact with the sea or three geographical miles from the line marking the seaward limit of inland waters; thence running in a northeasterly direction and following the direction of the Atlantic coast to a point opposite the mouth, or inlet, of said Savannah River; and from thence to the mouth of inlet of said Savannah River, to the place of beginning; including all the lands, waters, islands, and jurisdictional rights within said limits, and also all the islands with 20 marine leagues of the seacoast."

Georgia's geographical three mile limit is depicted by the accompanying figure. The location of this line was determined by the U. S. Department of the Interior, Bureau of Land Management (BLM). It derived directly from BLM's Outer Continental Shelf Official Protraction Diagrams which were prepared in accordance with 43 Code of Federal Regulations 3301.1.

B. An Identification of Transtitional and Intertidal Areas, Salt Marshes, Wetlands and Beaches

The intent of this identification is to determine the inland limit (primary) of coastal waters. Coastal waters were previously defined as containing a measurable quantity of sea water. One method of determining the upland extent of coastal waters is, therefore, by delineating the physical presence of salt tolerant vegetation as related to the tidal creeks and coastal rivers.

Definitions utilized by the Georgia Coastal Marshlands Protection Act of 1970 can be utilized in delimiting this area. The Act defines marshlands as those areas upon which grow one, but not necessarily all, of the following:

Saltmarsh grass (Spartina alterniflora)

Black grass (Juncus gerardi)

High-tide bush (Iva frutescens var. oraria)

Saltmeadow cordgrass (Spartina patens)

Big cordgrass (Spartina cynosuroides)

Saltgrass (Distichlis spicata)

Coast dropseed (Sporobolus virginicus)

Needlerush (Juncus roemerianus)

Bigelow glasswort (Salicornia bigelovii)

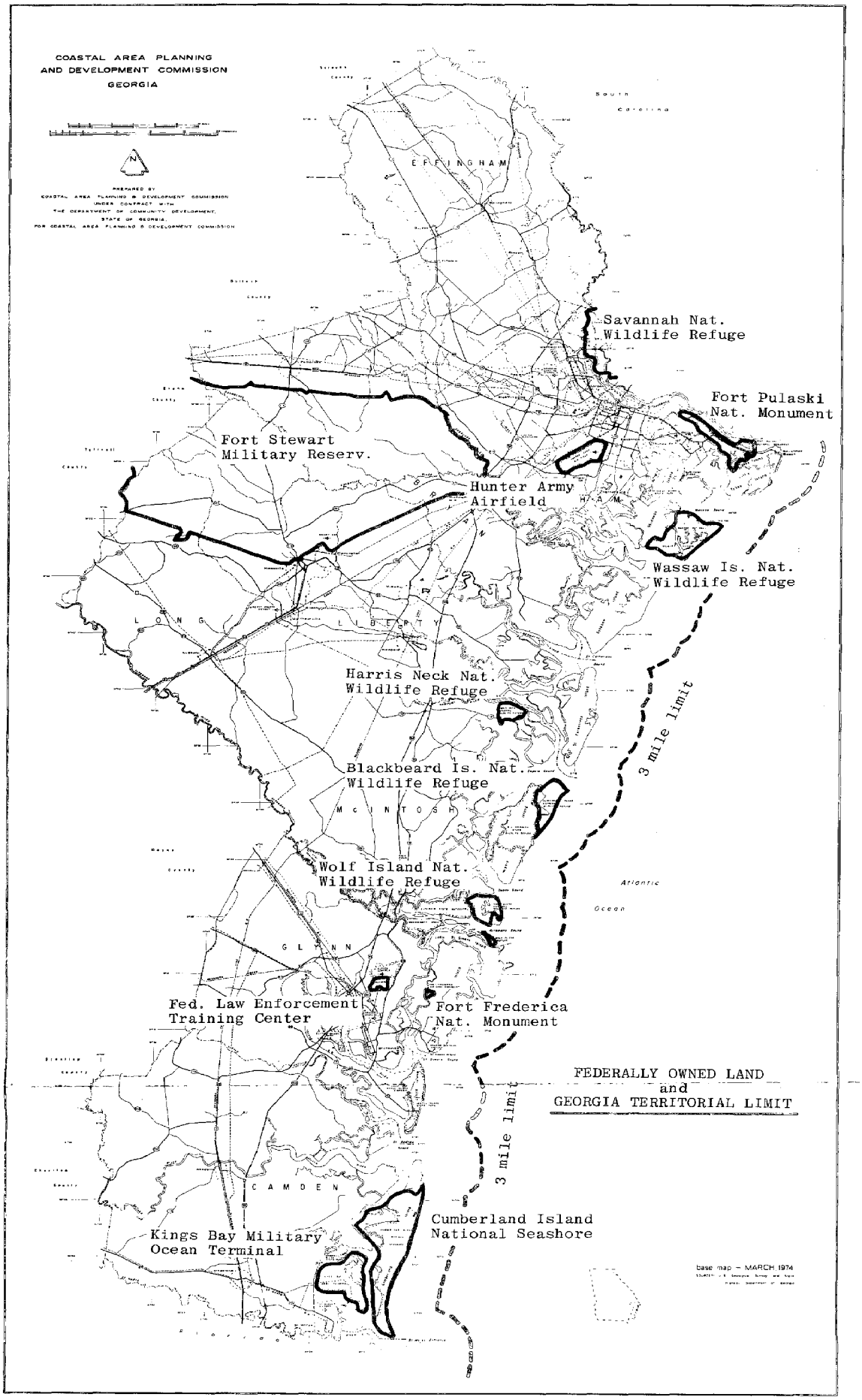
Woody glass swort (Salicornia virginica)

Saltwort (Batis maritima)

Sea lavender (Limonium nashii)

Marsh elder (Iva frutescens)

Sea oxeye (Borrichia frutescens)


COASTAL AREA PLANNING
AND DEVELOPMENT COMMISSION
GEORGIA
PREPARED BY
COASTAL AREA PLANNING & DEVELOPMENT COMMISSION
UNDER CONTRACT WITH
THE DEPARTMENT OF COMMUNITY DEVELOPMENT,
STATE OF GEORGIA,
FOR COASTAL AREA PLANNING & DEVELOPMENT COMMISSION
South Carolina
EFFINGHAM
Savannah Nat. Wildlife Refuge
Fort Pulaski Nat. Monument
Fort Stewart Military Reserv.
Hunter Army Airfield
Wassaw Is. Nat. Wildlife Refuge
LIBERTY
Harris Neck Nat. Wildlife Refuge
3 mile limit
Blackbeard Is. Nat. Wildlife Refuge
McINTOSH
Wolf Island Nat. Wildlife Refuge
Atlantic Ocean
GLYNN
Fed. Law Enforcement Training Center
Fort Frederica Nat. Monument
FEDERALLY OWNED LAND
and
GEORGIA TERRITORIAL LIMIT
3 mile limit
CAMDEN
Cumberland Island National Seashore
Kings Bay Military Ocean Terminal
base map – MARCH 1974

Additionally, the occurrence and extent of salt marsh peat at the undisturbed surface is deemed to be conclusive evidence of salt marsh.

The remaining portions of this section include the balance of the estuarine system such as beaches, sounds, rivers and creeks.

C. An Identification of all Federally Owned Lands...

Federal lands, over which the state does not exercise any control as to use, are exempted from the management programs and therefore must be delineated within the Coastal Zone. In Coastal Georgia, significant federal holdings consist of military installations, national wildlife refuges, national monuments and parks, national seashores and training centers. These areas are identified by the attached map.

D. Inland Boundary Alternatives

It is the intent of this paper to identify and delineate the numerous inland boundary options available to Georgia's CZM program. As the management program is further developed, the State must determine what constitutes direct and significant impact. This is undoubtedly the key determination affecting the boundaries issue and subsequently the overall scope of the CZM program.

The factors influencing the various inland boundary options are numerous and unquestionably complex. Primary inland boundary determinants include two basic components:

Coastal waters and the adjacent shore lands which are strongly influenced by each other; and

Shorelands, the uses of which have a direct and significant impact on Coastal Waters.

Additional influencing factors of primary importance include Areas of Particular Concern (APC's) and permissible land and water uses as well as key facility siting. The geographic extent of designated APC's will undoubtedly influence the inland limit of the Coastal Zone. Similarly, those uses that are determined as having the potential to cause direct and significant impact on coastal waters and key facility siting will affect the final delineation of the coastal zone.

For inventory purposes, boundary options can be organized into three basic categories: Administrative/Political, Biological/Natural and Cultural/Man-Made. The following provides an inventory of boundary options within these categories via narrative and maps. The chosen option may, of course, consist of any combination of these boundaries or a tiered approach where varying degrees of management/regulation would be applied within the coastal zone commensurate with the vulnerability and value of the areas being managed.

Administrative/Political Boundary Alternatives

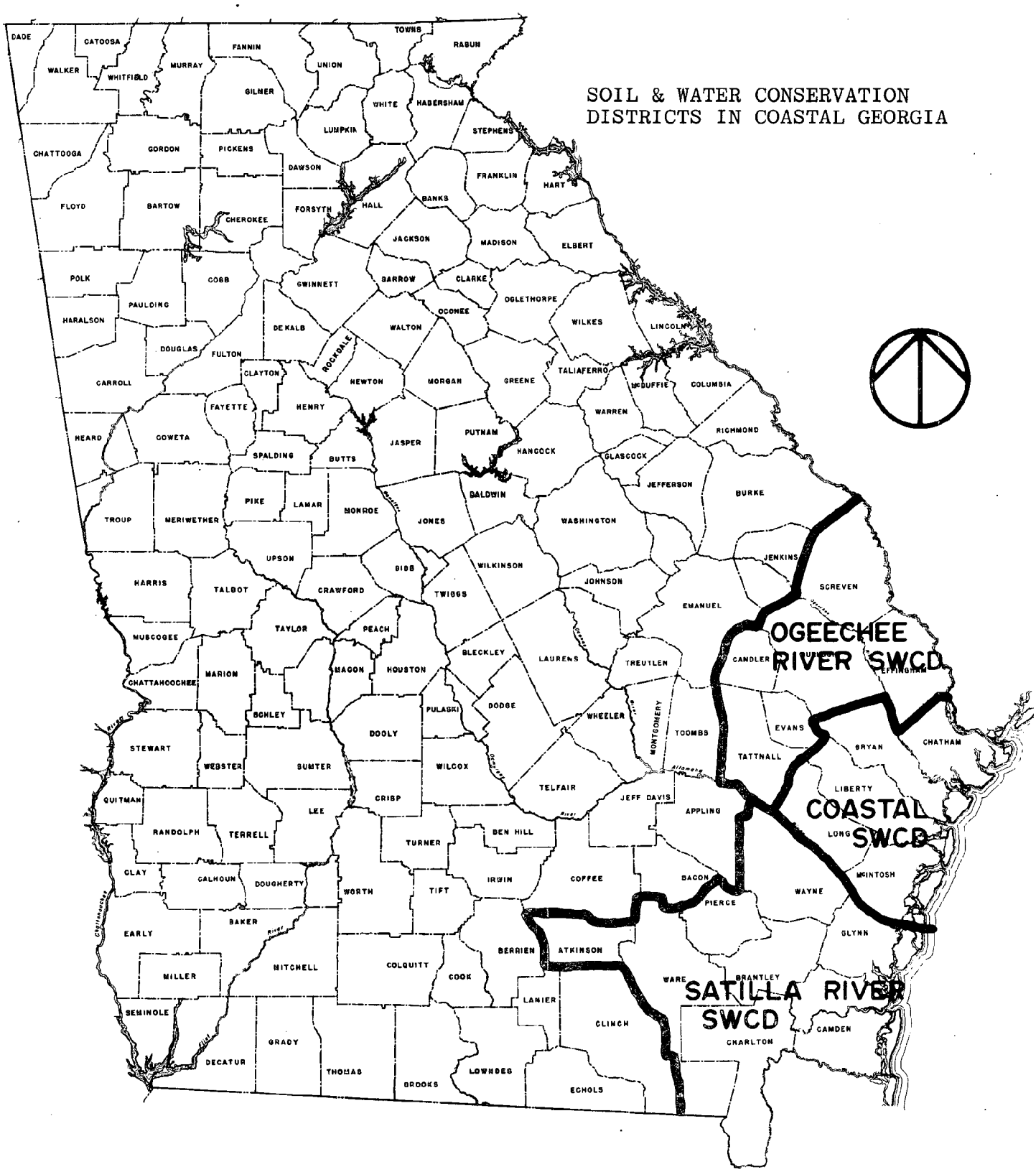
These jurisdictional units are, in most instances, not unique to the coastal area. Regardless of whether a specific boundary or a combination of boundaries within this category is chosen, they must be given careful consideration in the development of the CZM program. If they are not given adequate consideration during program development conflicts may arise between the various political entities, thereby hampering the effectiveness of Georgia's coastal program.

Soil and Water Conservation Districts

There are 27 Soil and Water Conservation Districts in Georgia, two of these, Coastal and Satilla River, encompass the first tier of coastal counties. These two SWCD encompass seven counties within the Coastal APDC. Effingham County is in the Ogeechee River SWCD.

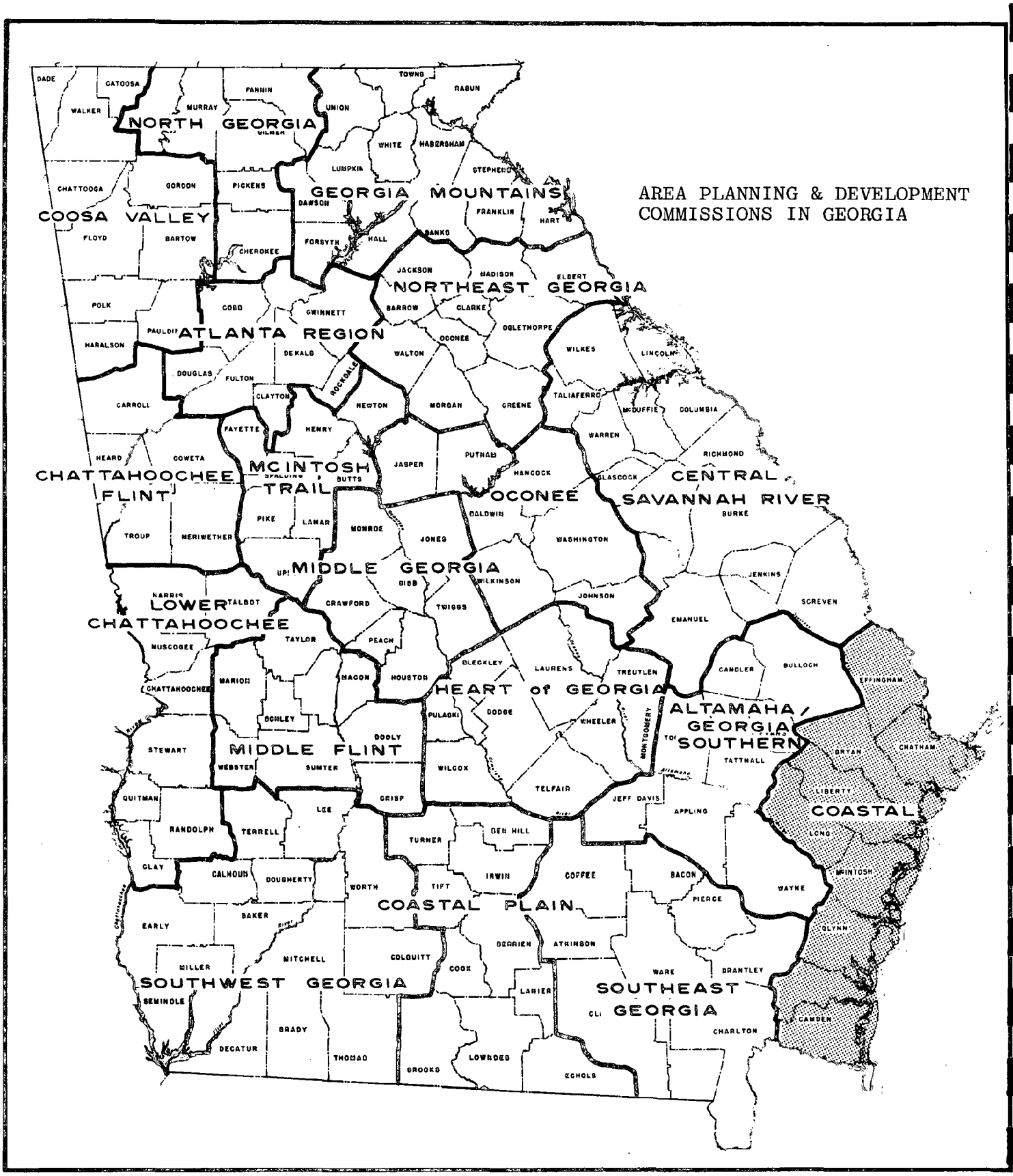
SWCD's are authorized to regulate land use by Georgia Law (Ga. Code Ann. Section 5-2101, 1962 Rev.). The regulatory power can only proceed if approved by a referendum of land owners within the affected district. To date, this power has not been exercised in Georgia.

SOIL & WATER CONSERVATION DISTRICTS IN COASTAL GEORGIA



Area Planning and Development Commission

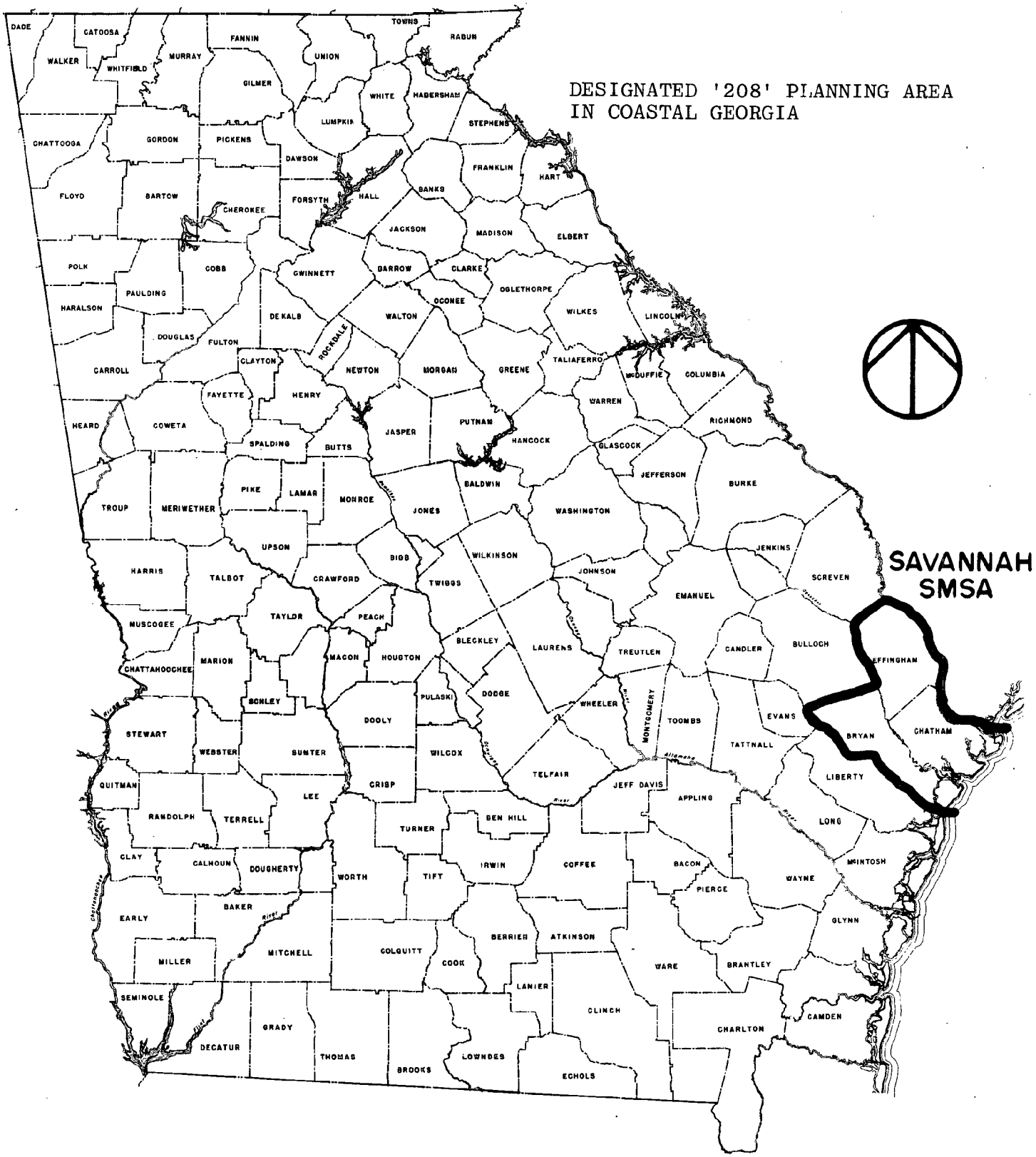
There are 18 Area Planning and Development Commissions (APDC's) in Georgia. These Regional Planning and Development Agencies operate in accordance with Georgia Act 1066 which provides for their boundaries, representatives, authority and duties and funding. The Coastal APDC encompasses the first tier of Georgia's coastal counties and the inland counties of Effingham and Long. The eight county Coastal APDC is a designated Areawide Planning jurisdiction by the U. S. Department of Housing and Urban Development. Additionally, the Economic Development Administration has designated the Coastal APDC as an eight county Economic Development District.


AREA PLANNING & DEVELOPMENT COMMISSIONS IN GEORGIA
NORTH GEORGIA
GEORGIA MOUNTAINS
COOSA VALLEY
NORTHEAST GEORGIA
ATLANTA REGION
CHATTAHOOCHEE FLINT
MCINTOSH TRAIL
OCONEE
CENTRAL SAVANNAH RIVER
MIDDLE GEORGIA
LOWER CHATTAHOOCHEE
HEART of GEORGIA
ALTAMAHA / GEORGIA SOUTHERN
MIDDLE FLINT
COASTAL
COASTAL PLAIN
SOUTHWEST GEORGIA
SOUTHEAST GEORGIA
DADE
GATOOSA
WALKER
MURRAY
FANNIN
UNION
TOWNS
RABUN
WHITE
HABERSHAM
LUMPKIN
STEPHENS
CHATTOOGA
GORDON
PICKENS
DAWSON
FRANKLIN
HART
FLOYD
BARTOW
CHEROKEE
FORSYTH
HALL
BANKS
JACKSON
MADISON
ELBERT
POLK
COBB
GWINNETT
BARROW
CLARKE
OGLETHORPE
PAULDING
HARALSON
DEKALB
WALTON
OCONEE
WILKES
LINCOLN
DOUGLAS
FULTON
ROCKDALE
CARROLL
CLAYTON
NEWTON
MORGAN
GREENE
TALIAFERRO
MCDUFFIE
COLUMBIA
FAYETTE
HENRY
WARREN
HEARD
COWETA
JASPER
PUTNAM
RICHMOND
SPALDING
BUTTS
HANCOCK
GLASCOCK
PIKE
LAMAR
MONROE
BALDWIN
BURKE
TROUP
MERIWETHER
JONES
WASHINGTON
UPSON
GIBB
WILKINSON
JENKINS
HARRIS
TALBOT
CRAWFORD
TWIGGS
JOHNSON
SCREVEN
EMANUEL
MUSCOGEE
TAYLOR
PEACH
BLECKLEY
LAURENS
TREUTLEN
CANDLER
BULLOCH
EFFINGHAM
CHATTAHOOCHEE
MARION
MACON
HOUSTON
PULASKI
DODGE
WHEELER
MONTGOMERY
TOOMBS
SCHLEY
DOOLY
STEWART
WEBSTER
SUMTER
WILCOX
TATTNALL
BRYAN
CHATHAM
LIBERTY
QUITMAN
GRISP
TELFAIR
JEFF DAVIS
APPLING
LEE
RANDOLPH
TERRELL
TURNER
BEN HILL
LONG
CLAY
CALHOUN
DOUGHERTY
WORTH
TIFT
IRWIN
COFFEE
BACON
MCINTOSH
WAYNE
PIERCE
BAKER
EARLY
GLYNN
MITCHELL
COLQUITT
DEGRIEN
ATKINSON
MILLER
COOK
WARE
BRANTLEY
SEMINOLE
LANIER
CLINCH
CAMDEN
GRADY
CHARLTON
DECATUR
THOMAS
BROOKS
LOWNDES
ECHOLS

'208' Areawide Waste Treatment Management Planning Jurisdictions

Presently, there is only one such gubernatorially designed planning jurisdiction in the coastal region of Georgia. The SMSA of Chatham, Effingham and Bryan counties comprise this area. The overall objective of '208' planning programs that are part of the Federal Water Pollution Control Act Amendments of 1972 is to provide a management mechanism to monitor development in all areas within the context of water pollution control. This concept has often been referred to as "pre-construction review" with the general question being asked "What impact will a given land use decision have on water quality?" The importance of this program in relation to the CZM program is obvious.

The recognition of these planning boundaries by CZM programs is mandated by Section 307(f) of the Act and Section 923.44 of the regulations which states "...the management program must be developed in close coordination with the planning and regulatory systems being implemented under the Federal Water Pollution Control Act...". The regulations go so far as to suggest possible development of joint '208' and Coastal Zone Management programs.


DESIGNATED '208' PLANNING AREA
IN COASTAL GEORGIA
SAVANNAH
SMSA
DADE
CATOOSA
WALKER
WHITFIELD
MURRAY
FANNIN
UNION
TOWNS
RABUN
GILMER
WHITE
HABERSHAM
LUMPKIN
STEPHENS
CHATTOOGA
GORDON
PICKENS
DAWSON
FRANKLIN
HART
FLOYD
BARTOW
CHEROKEE
FORSYTH
HALL
BANKS
JACKSON
MADISON
ELBERT
POLK
COBB
GWINNETT
BARROW
CLARKE
OGLETHORPE
PAULDING
HARALSON
DEKALB
WALTON
OCONEE
WILKES
LINCOLN
DOUGLAS
FULTON
ROCKDALE
CARROLL
CLAYTON
NEWTON
MORGAN
GREENE
TALIAFERRO
McDUFFIE
COLUMBIA
FAYETTE
HENRY
WARREN
HEARD
COWETA
JASPER
PUTNAM
HANCOCK
RICHMOND
SPALDING
BUTTS
GLASCOCK
JEFFERSON
BURKE
PIKE
LAMAR
MONROE
BALDWIN
TROUP
MERIWETHER
JONES
WASHINGTON
UPSON
JENKINS
BIBB
WILKINSON
HARRIS
TALBOT
CRAWFORD
TWIGGS
JOHNSON
SCREVEN
EMANUEL
TAYLOR
PEACH
MUSCOGEE
BLECKLEY
LAURENS
TREUTLEN
CANDLER
BULLOCH
EFFINGHAM
MARION
MACON
HOUSTON
CHATTAHOOCHEE
PULASKI
DODGE
WHEELER
SCHLEY
DOOLY
TOOMBS
EVANS
STEWART
WEBSTER
SUMTER
WILCOX
TATTNALL
BRYAN
CHATHAM
TELFAIR
JEFF DAVIS
LIBERTY
QUITMAN
CRISP
LEE
APPLING
RANDOLPH
TERRELL
BEN HILL
TURNER
LONG
CLAY
CALHOUN
DOUGHERTY
WORTH
TIFT
IRWIN
COFFEE
BACON
McINTOSH
WAYNE
PIERCE
BAKER
EARLY
GLYNN
BERRIEN
ATKINSON
MILLER
MITCHELL
COLQUITT
COOK
WARE
BRANTLEY
LANIER
SEMINOLE
CLINCH
CAMDEN
GRADY
CHARLTON
DECATUR
THOMAS
LOWNDES
BROOKS
ECHOLS
MONTGOMERY

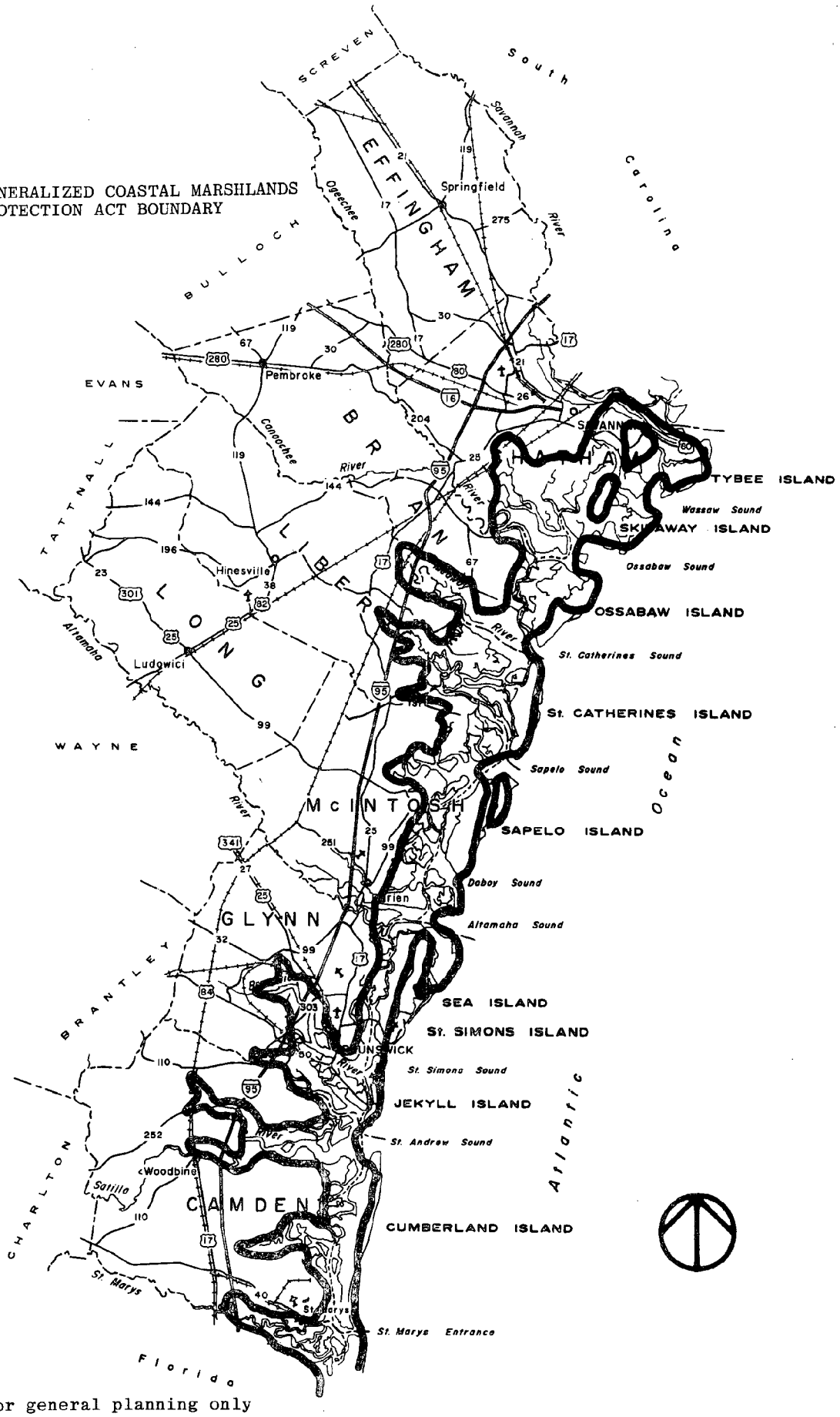
Counties and Municipalities

Counties and municipalities are the principal units of local government in Georgia. By virtue of the General Planning Enabling Act of 1957, as amended, these units of local government are authorized to create single and/or joint planning commissions, prepare comprehensive plans for the development of their jurisdiction, adopt and enforce zoning and subdivision regulations, and prepare and adopt official maps. The broad planning and regulatory powers of counties and cities cause their role in the management program to be essential. (A map specifically delineating these common political jurisdictions is not provided.)

Coastal Marshlands Protection Act Boundary

This 1970 Georgia Act provides a permit system designed to control alterations of the marshlands. The Coastal Marshlands Protection Committee and the DNR are charged with the responsibility of administering and enforcing the Act. The mandate of the Act is to insure that Georgia's coastal marshlands are used in the public interest for the benefit of all citizens.

GENERALIZED COASTAL MARSHLANDS
PROTECTION ACT BOUNDARY



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Biological/Natural Boundaries

The purpose of this paper is to identify areas which may require management program controls. The identification and delineation of natural resource system boundaries is fundamental to the fulfillment of this intent because it is within these systems that mans actions alter the equilibrium of nature and subsequently cause impacts on coastal waters.

When man changes the use of land he sets in motion a series of events which may permanently alter the natural balance within the environment. Assessment and subsequent regulation of these man-made alterations must take place at a system-wide level if overall management success is to occur. Recognition of natural resource boundaries is also essential to the development of a "tiered" boundary approach where management regulations are commensurate with resource value and vulnerability.

It should be noted that this paper does not attempt to identify all possible alternatives within this category. It is anticipated that the Department of Natural Resources will provide a more complete and detailed listing of these options. Additional examples of alternatives within this category include: wetlands, flood plains and vegetation.

River Basins

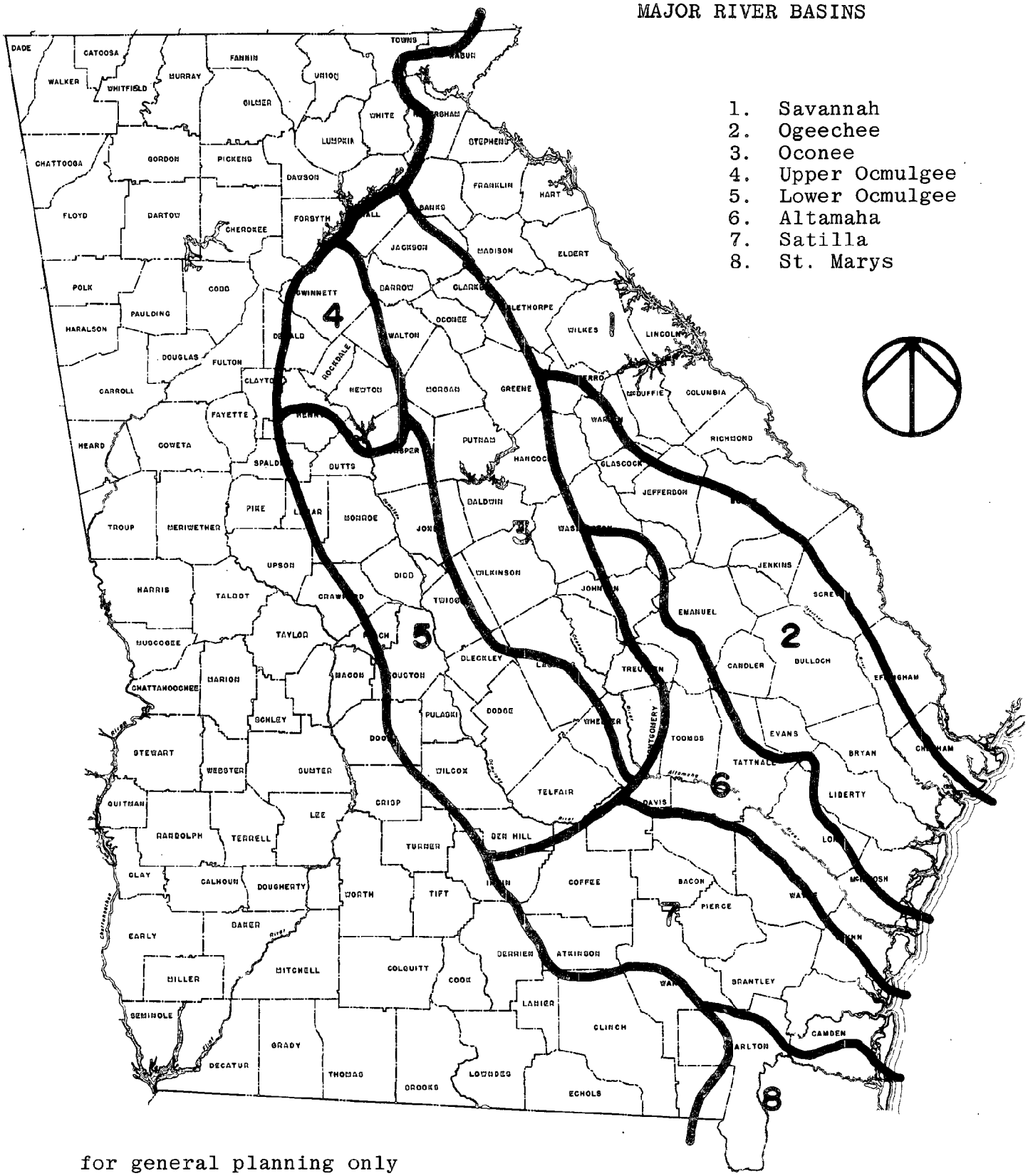
The State of Georgia was divided into 15 major river basins by the Environmental Protection Division of the Department of Natural Resources pursuant to Section 303e of the Federal Water Pollution Control Act Amendments of 1972. Eight of these major river basins, Savannah, Ogeechee, Oconee, Upper Ocmulgee, Lower Ocmulgee, Altamaha, Satilla and St. Marys, flow into Georgia's

coastal waters as illustrated by the following figure. These river basins are complete systems within which all inland man-caused, land based sources of pollution to Georgia's coastal waters must occur.

Because the CZM Act's regulations require program development to be closely coordinated with Federal Water Pollution Control Act regulations, the Water Quality Management Units (WQMU) which subdivide each river basin must be noted. Each WQMU is basically a self contained hydrological subdivision of its river basin. These units are also delineated in accordance with Section 303e of the Federal Water Pollution Control Act and are the basic units of point and non-point source pollution inventories and waste load allocation modeling. Because WQMU's are self contained hydrological subdivisions they may be utilized in distinguishing between various natural resource systems which vary in vulnerability and therefore regulation requirements. This is especially applicable if a tiered management approach is utilized. A delineation of the WQMU's within the 5 river basins directly adjacent to coastal waters follow the river basin map.

MAJOR RIVER BASINS

1. Savannah
2. Ogeechee
3. Oconee
4. Upper Ocmulgee
5. Lower Ocmulgee
6. Altamaha
7. Satilla
8. St. Marys



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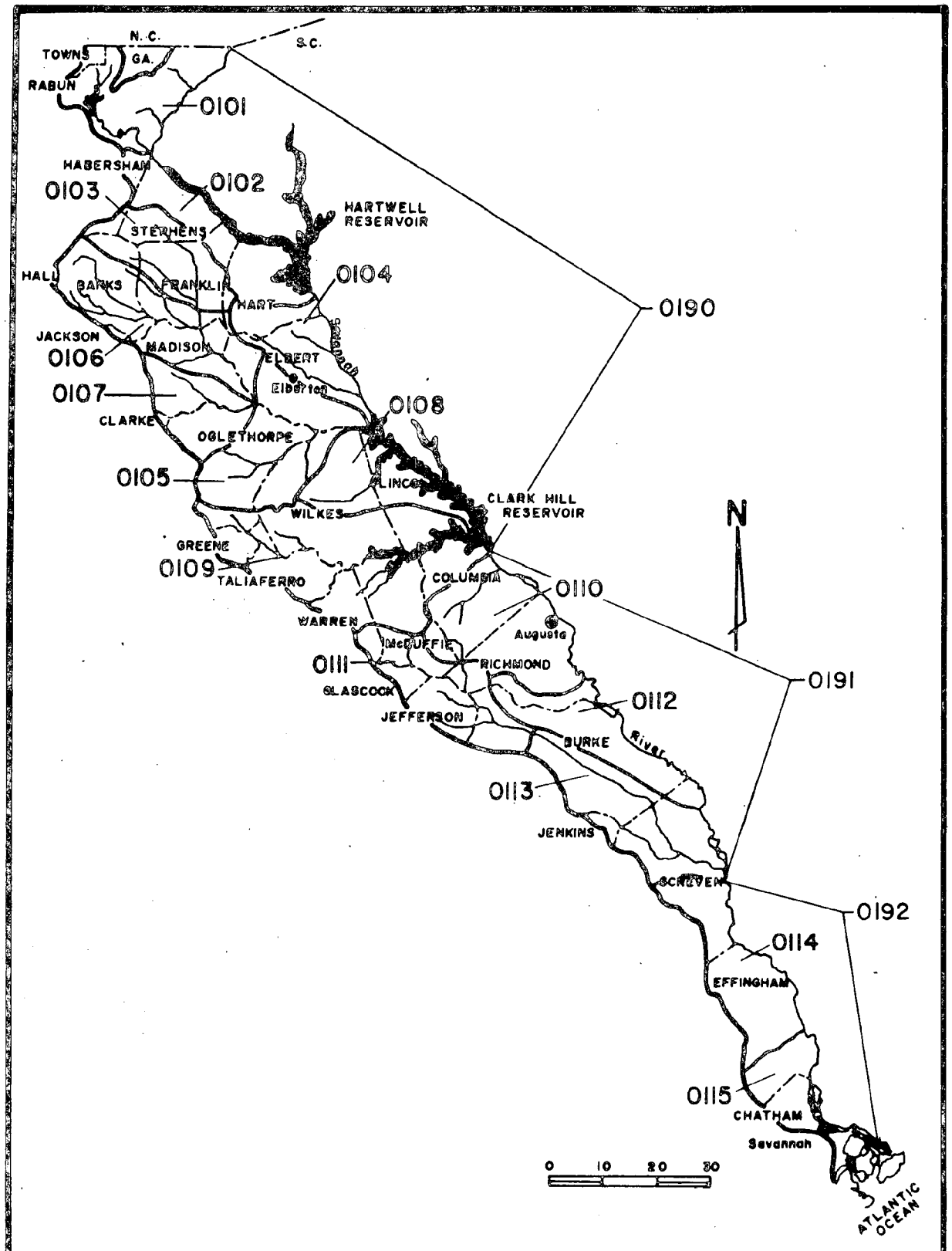
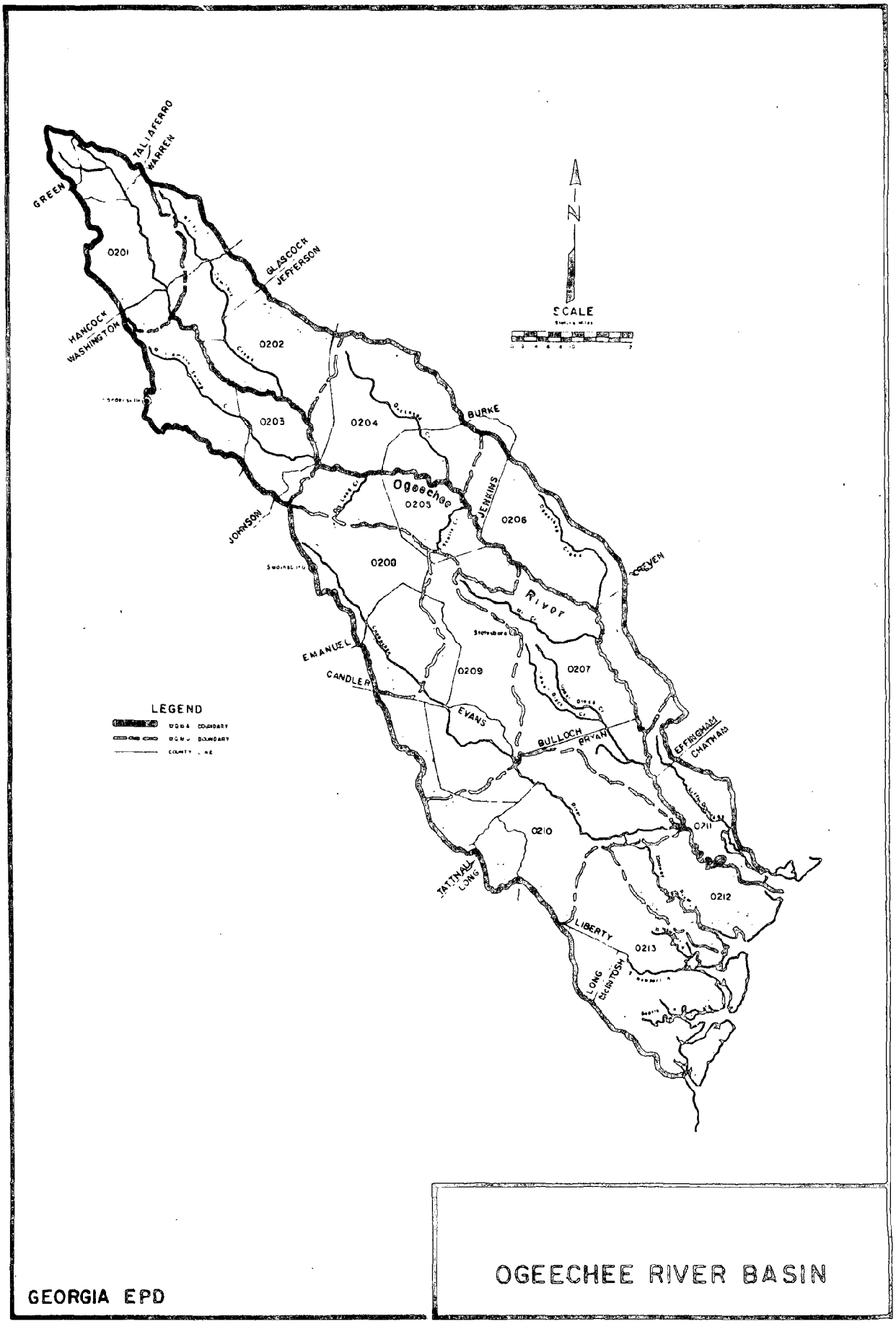
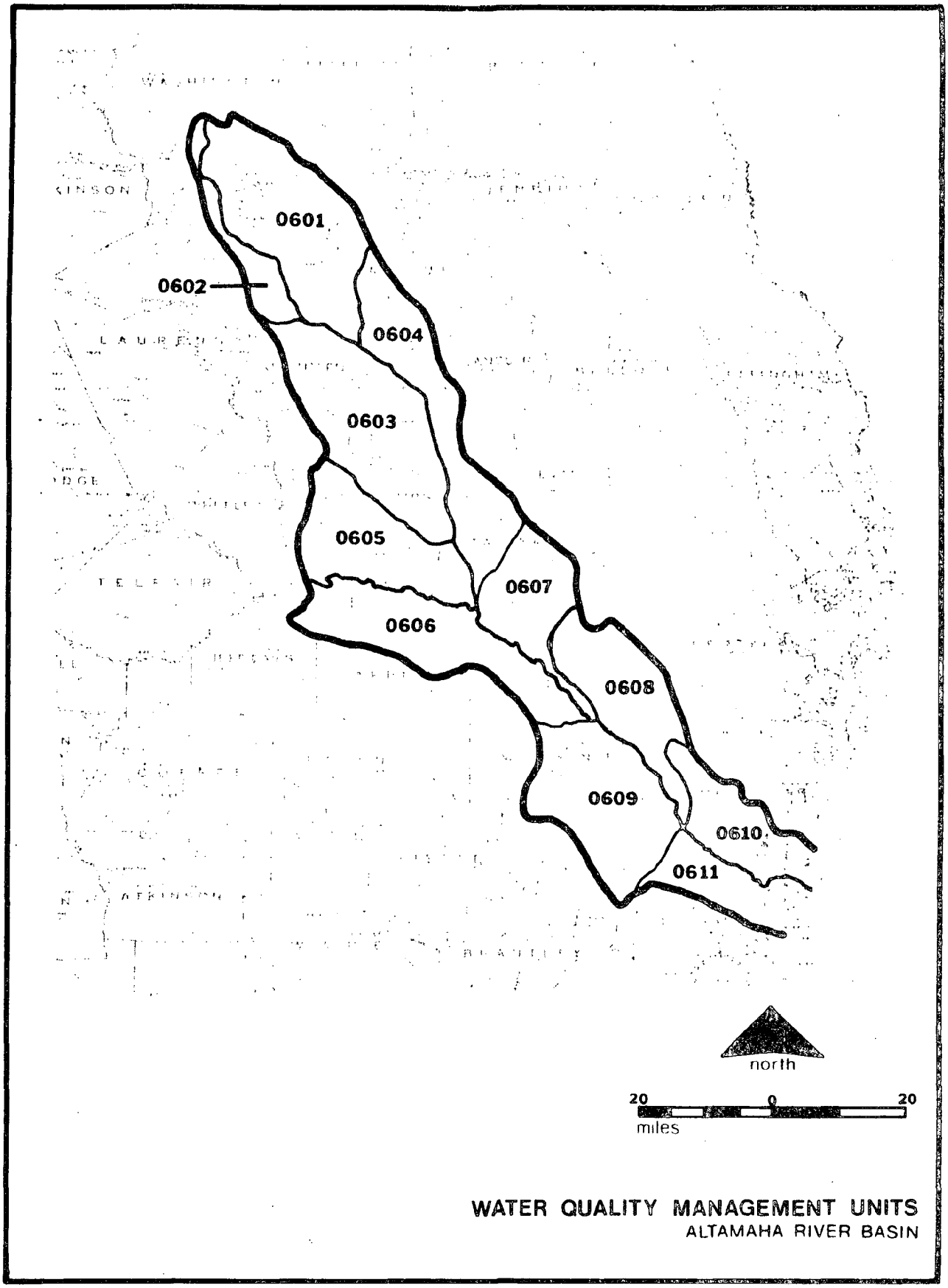


SAVANNAH RIVER BASIN
Water Quality Management Units

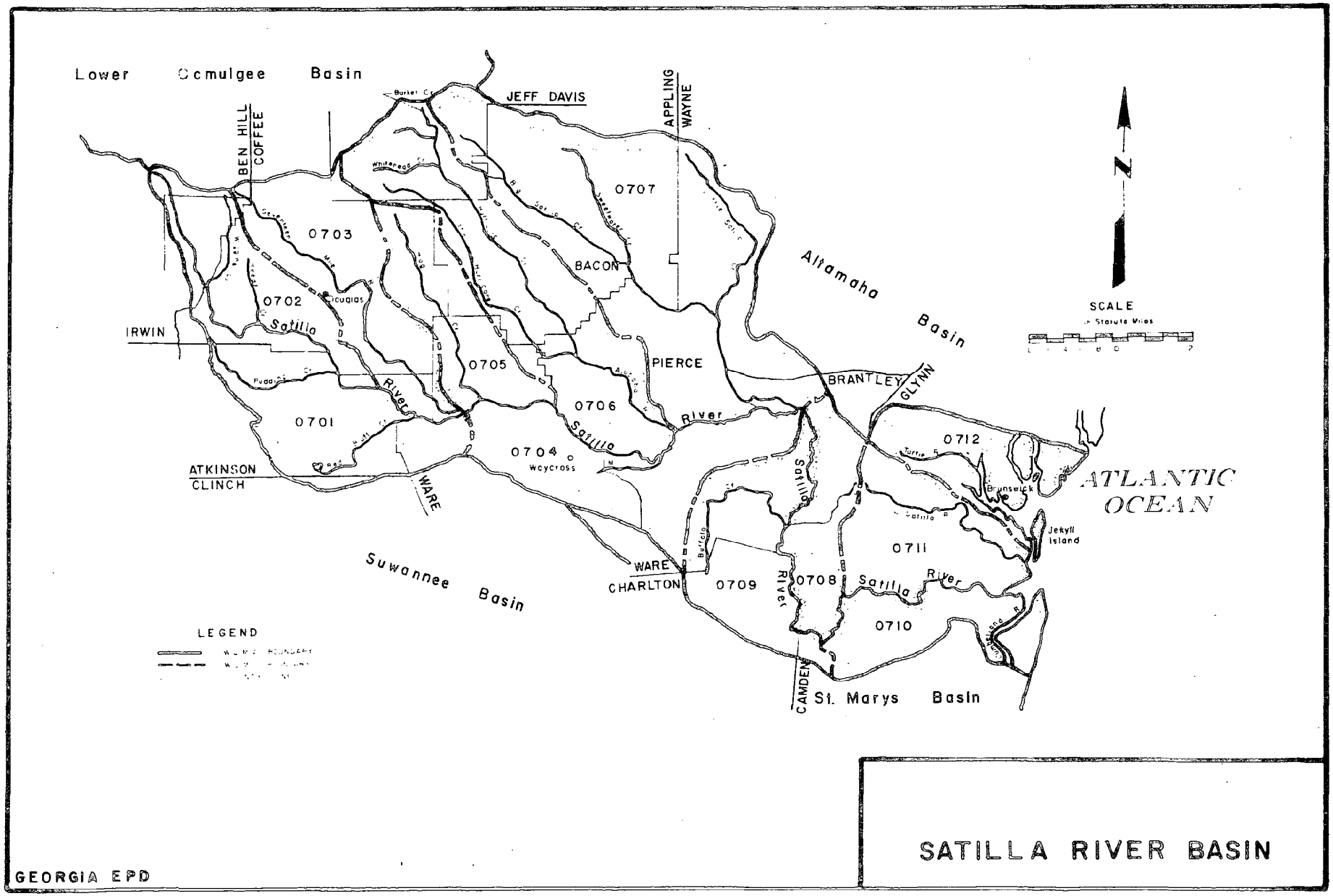


GEORGIA EPD

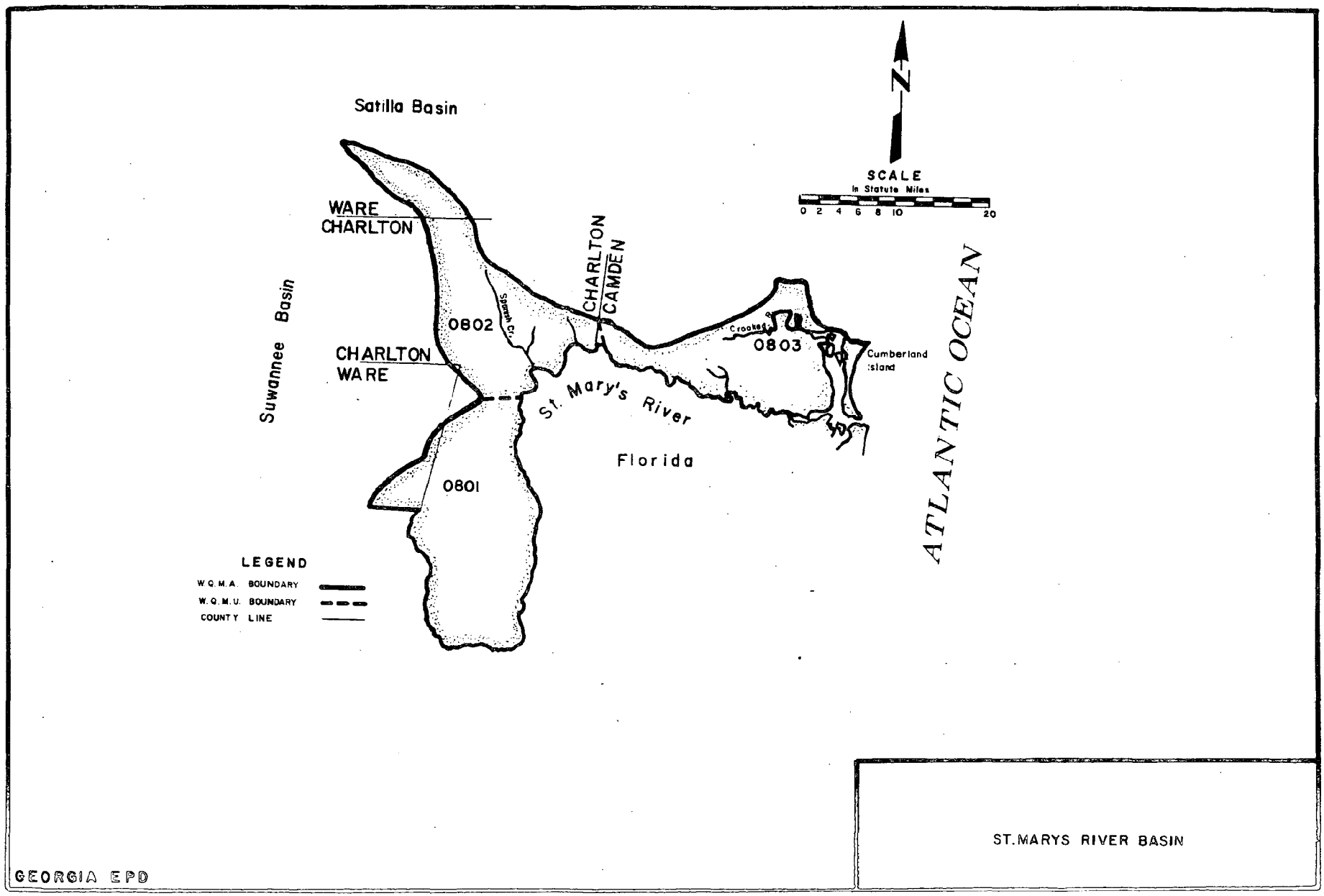
OGEECHEE RIVER BASIN



WATER QUALITY MANAGEMENT UNITS
ALTAMAHA RIVER BASIN



SATILLA RIVER BASIN

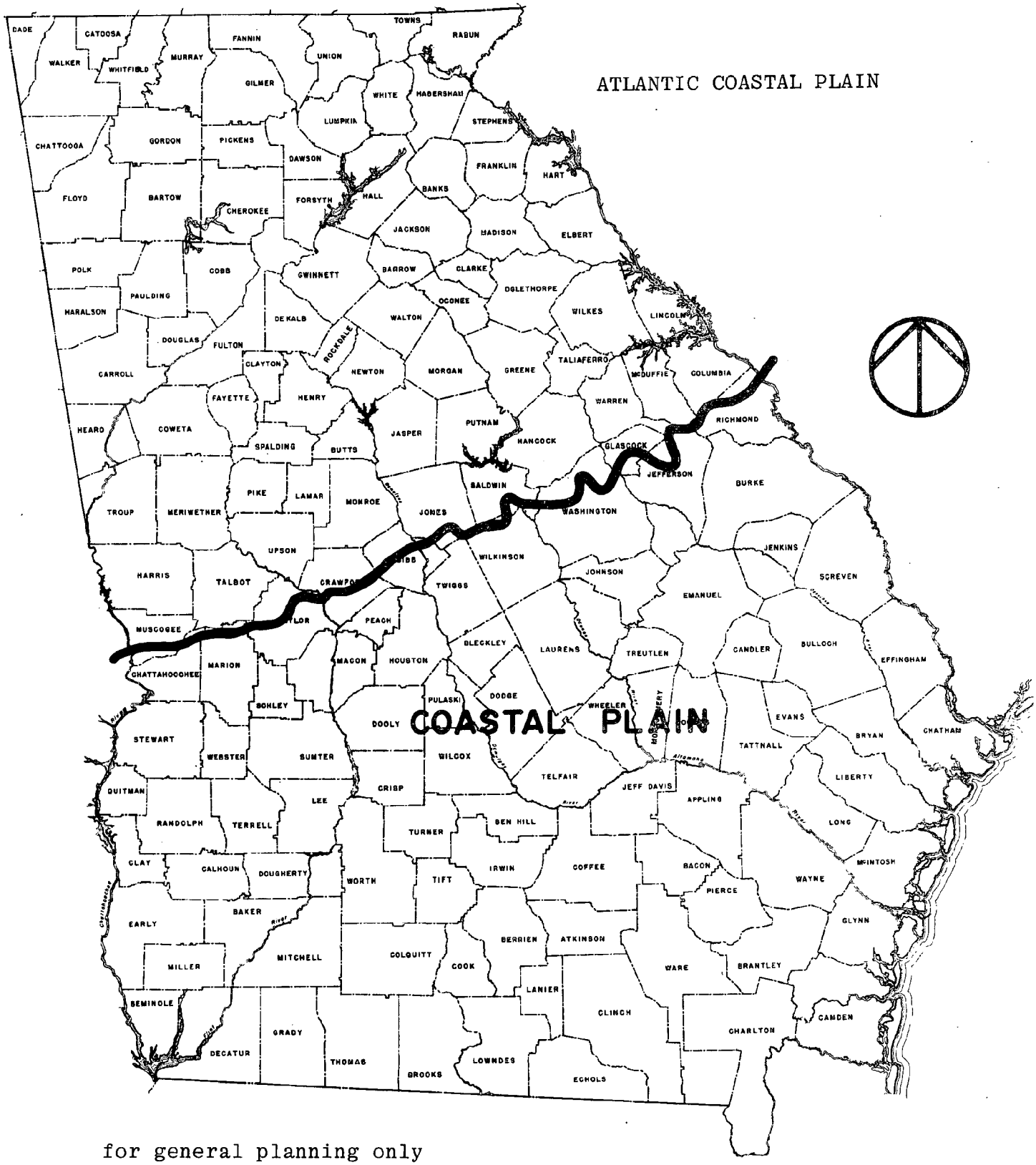


ST.MARYS RIVER BASIN

Atlantic Coastal Plain

The river basins of the previous inventory drain three major physiographic provinces: Blue Ridge Mountain, Piedmont Plateau and the Atlantic Coastal Plain. Each province's geology greatly influences the quantity and characteristics of surface water, groundwater, and sediments that are transported to coastal waters.

The Atlantic Coastal Plain is distinguished from the Piedmont Plateau by the Fall Line. The Fall Line is an old shoreline marking the greatest advance of the sea more than 70 million years ago (late Mesozoic Era). The Coastal Plain may be considered the most extensive geologic delimitation of Coastal Georgia. It represents a region geologically comprised of sedimentary strata formed by numerous fluctuations in sea level associated with glaciation during the Tertiary and Quarternary periods (65 million years before present).



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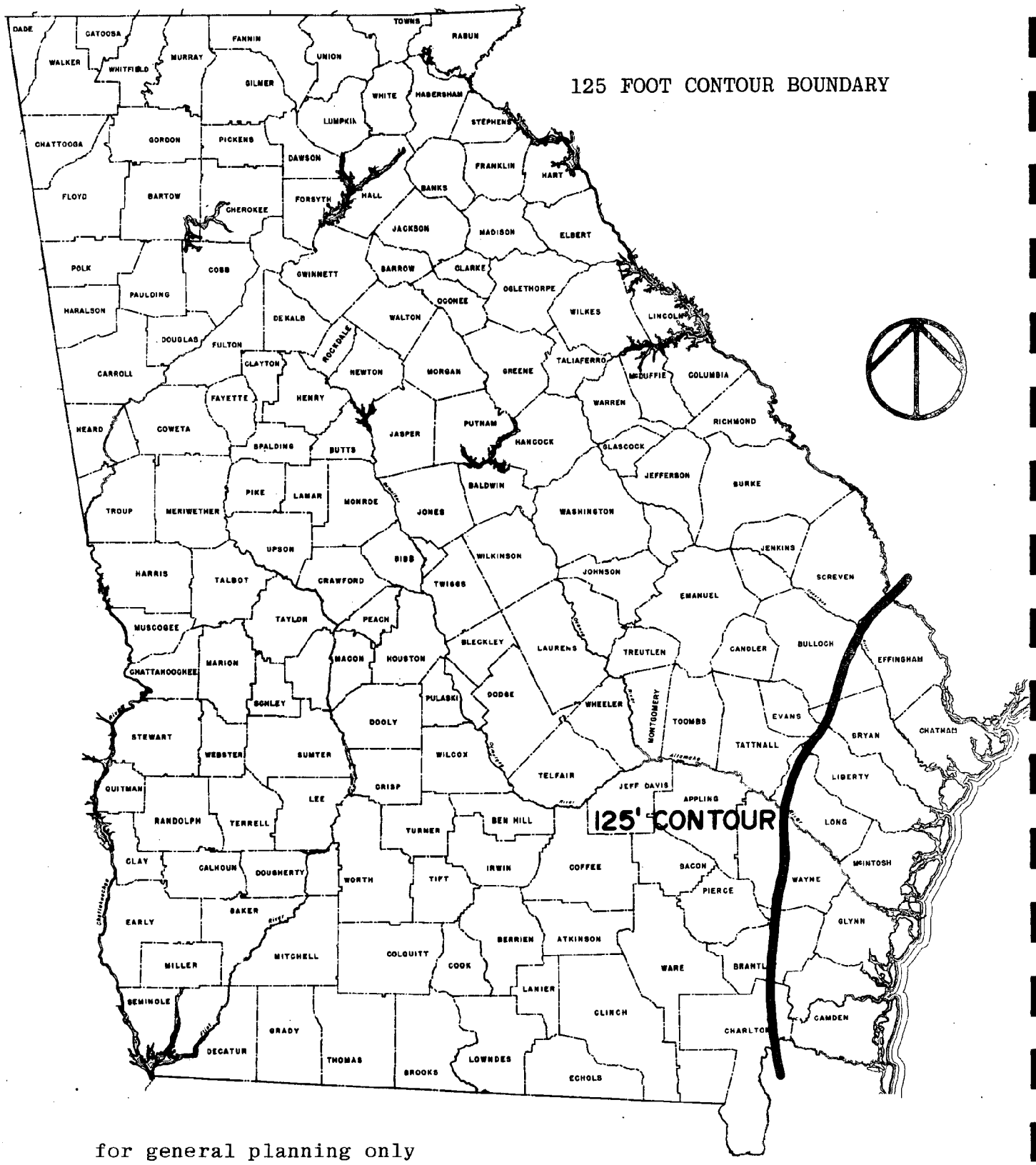
Geologic Coastal Georgia

This natural boundary corresponds to the 125 foot contour. From this contour seaward is an area of uniform soils (predominantly sand and sandy clays) and drainage patterns that typify Georgia's coast, thus the term Geologic Coastal Georgia. This option includes the coast's primary concentration of fresh and saltwater wetlands.



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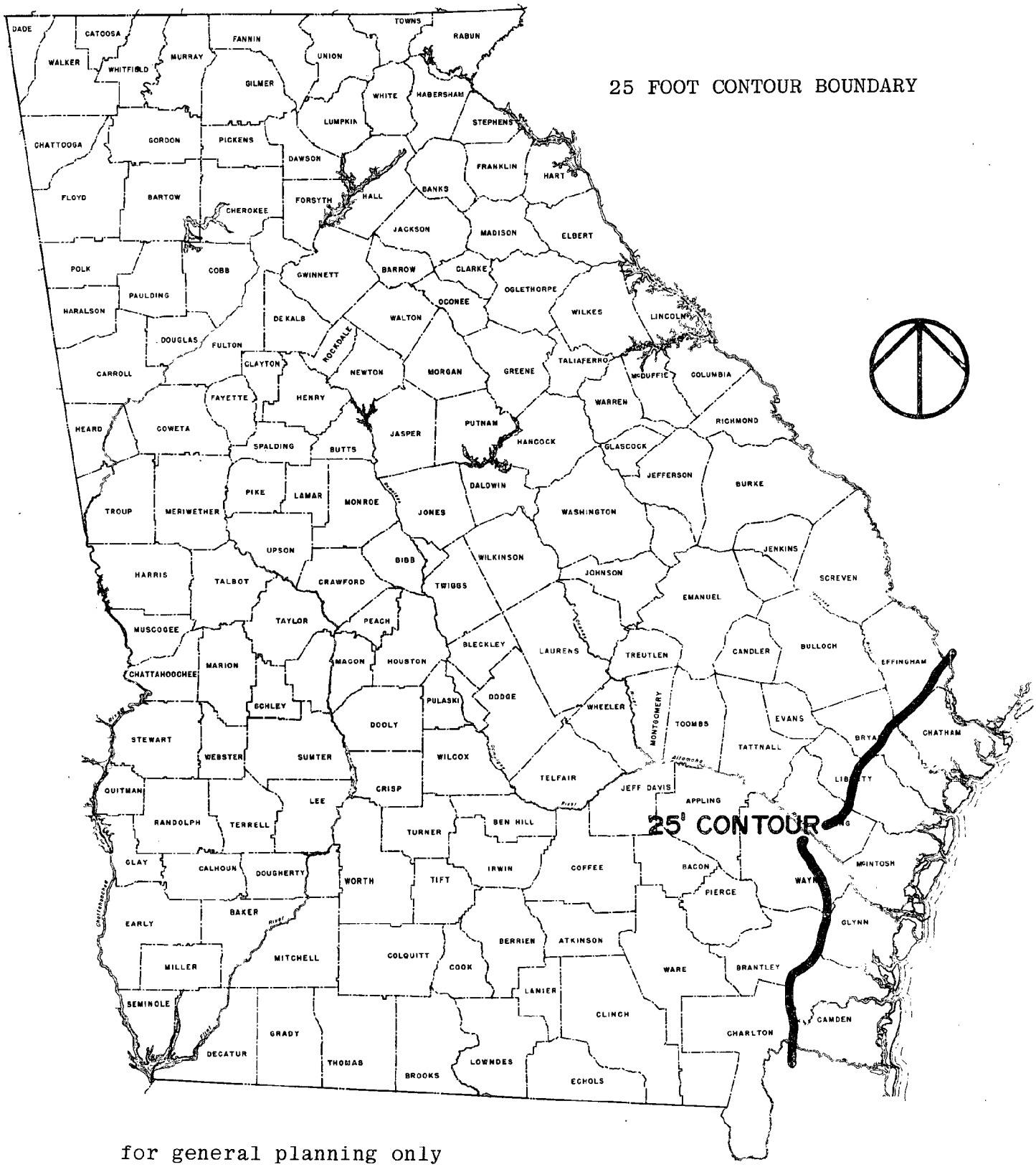
Primary Geologic Coastal Georgia

Corresponding to the 25-foot contour, this inland boundary approximates the ridge of the Talbot-Penholoway relic barrier island complex. The 25-foot contour line approximates the first tier of coastal counties. Because this boundary corresponds to relic barrier island ridges, it includes natural drainage ways that flow into the estuary.



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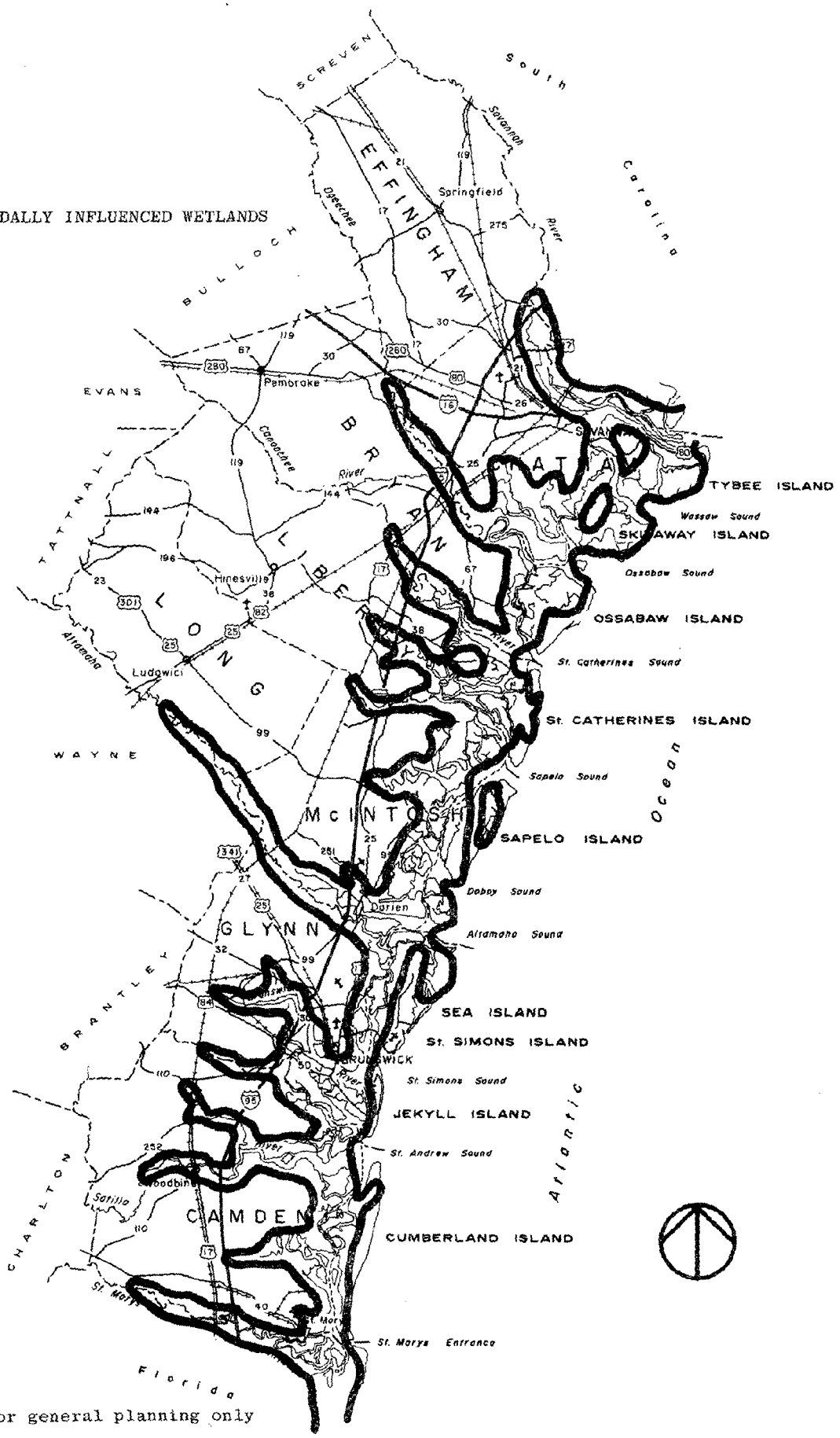
Area of Tidal Influence

The area of Tidal Influence extends inland beyond that of brackish water, spreading freshwater river flows over their banks and into the flood plain. It is a distinct natural system area in that its habitats are directly dependent upon daily water fluctuations caused by the tide. This area corresponds to the protection area of the Common Law Public Trust.

TIDALLY INFLUENCED WETLANDS



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Cultural/Man-Made Boundary Options

This category includes the most easily recognized boundary alternatives. Examples include highways, canals, urban areas, railroads, etc. If ease of identification is considered an important factor, these options have obvious advantages. They can provide a distinct and accurate boundary line. If an option within this category is chosen, it must, however, be demonstrated to approximate the biophysical process. The biophysical process identifies criteria upon which the extent of coastal waters and shorelands, the use of which have a direct and significant impact on coastal waters, are determined.

Once the state has arrived at its functional classification of direct and significant impact with accompanying criteria, etc., a cultural boundary may be selected that approximates the necessary inland extent of the coastal zone. By referring to a highway map of Georgia, the numerous options become apparent. Alternatives within this category range from the designation of a single highway which runs parallel to the coast, such as Interstate 95, to the use of numerous highways and railroads via meets and bounds description.

No attempt to identify and delineate cultural boundary alternatives is made here. Such identification would prove nebulous prior to the basic determinations implict in the Act's definition of the Coastal Zone. Once these determinations are made, however, options within this category offer a concrete means of delimiting otherwise elusive natural boundaries.

III.

Inland Boundary Recommendations

Until the passage of the Coastal Zone Management (CZM) Act and amendments to the Federal Water Pollution Control Act in 1972, typical land use planning and water quality management programs were formulated and operated independent of one another. Today, we clearly recognize (although a thorough understanding is often lacking) the direct relationship between water quality and the use or misuse of land. This relationship is paramount in the development of Coastal Zone Management programs.

While traditional planning programs have been initiated within defined boundaries, Coastal Zone Management programs are charged with determining their own boundaries. The interdependence of land use and water quality is implicit within CZM boundary determination procedures. As discussed previously, inland boundary determination is pivotal with the interpretation of "...direct and significant impact on coastal waters". The final interpretation of direct and significant impact will be, in essence, a value judgement that represents a consensus among the various interests within Georgia. Regardless of what is finally determined as specifically constituting direct and significant impact, the inland boundary of the coastal zone will be identified through the examination of land use and water quality relationships in conjunction with the reality of political and administrative jurisdictions.

There are several distince variables that influence land use and water quality relationships. For example, different land uses obviously result in varying impacts on similar water resource systems. Likewise, impacts resulting from a given land use will

vary according to the environmental particulars of different locations. To directly address this, the CZMA and the rules and regulations thereof provide for the regulation of (1) "permissible land and water uses which have a direct and significant impact on coastal waters" and (2) the identification of areas of particular concern. As stated previously, determination of the inland boundary is closely related to the issues surrounding these two CZM requirements. Management options are also closely related to the entire boundary issue. The following recommendations provide an approach to defining the inland boundary of Georgia's coastal zone. These boundary recommendations imply certain management options as discussed by contract item 3a, Legal Analysis.

A. A Tiered Boundary Approach

The boundary approach advocated by this paper involves a tiered division of the coastal zone. Such a boundary scheme provides for management commensurate with resource vulnerability and institutional regulatory capacity. For example, certain areas in the coastal zone demand the degree of regulation that only direct state control can assure. Conversely, the entirety of the coastal zone will undoubtedly include areas that do not require management beyond the capacity of local government through existing police powers.

The following text carries through Coastal APDC CZM staff thoughts concerning a tiered coastal zone boundary.

First Tier

The proposed first tier would be comprised of Coastal waters, intertidal areas, and tidally influenced wetlands. The composite of these first tier components represents the area most directly vulnerable to human activities and therefore requiring the most stringent regulation regarding uses. Existing authority to regulate this area is vested in the state as follows: in what is commonly referenced as the "beach ownership" case, the Georgia Supreme Court upheld State ownership of the area between low and high water; the Coastal Marshlands Protection Act of 1970 which provides state regulation of marshland alterations via a permit system administered by the Department of Natural Resources; and the Common Law Public Trust Doctrine which mandates state conservation of the trust area for traditional public uses such as recreational pursuits. Direct state regulation of this area would not preempt existing local authority and would insure its protection for the future use and benefit of the public.

Second Tier

As proposed, the second tier would encompass shorelands within a prescribed distance (not yet determined) of coastal waters and all designated areas of particular concern. Two management approaches seem appropriate to the regulation of this tier; local regulation in accordance with state established standards and criteria, or state administrative review of public or private actions for consistency with the management program. Both of these management options are dealt with in more detail by contract item 3A. The most environmentally critical areas with this tier may require closer monitoring than others and would therefore require

perhaps, a state issued permit. Such areas would undoubtedly be coterminous with delineated areas of particular concern and special regulatory provision might be considered.

Another option to consider concerning the critical areas would be the establishment of an interim state permit system, the administration of which could be taken over by local government at such time that a local program received certification or approval by the state. This would encourage local government to enhance their regulatory ability within state established guidelines.

Legal authority for management within this tier is currently limited to local government police powers. The March, 1976 constitutional amendment providing for "...restriction upon land use in order to protect and preserve the natural resources, environment and vital areas of this state", if ratified by Georgia voters in November, will lay the ground work for state regulation of environmentally critical areas.

Third Tier

The third tier is proposed as encompassing the remainder of the coastal zone. It is suggested that the inland limit of this zone be contigous with a tier of counties parallel to the coast. This may be the first tier of coastal counties or as many tiers inland as may be necessary to meet the Act's requirements. This recommendation is based on the requirement of recognizing political and administrative realities. Since counties possess the power to regulate land use, it makes sense that the inland delineation of the coastal zone be contigous with county lines.

Management of this tier is proposed as local planning and regulation based on state established criteria and standards. State review should be required thereby making regulation more than voluntary but less than mandatory. Authority to manage the area comprising the third tier exists via local police powers.

Summary of Tiered Boundary Approach

	GEOGRAPHIC AREA	REGULATION	LEGAL AUTHORITY
First Tier	Coastal Waters Intertidal Areas Tidally influenced wetlands	Direct State Regulation	·"Beach Ownership" ruling ·Coastal Marshlands Protection Act ·Common Law Public Trust Doctrine
Second Tier	Shorelands within a prescribed distance of coastal waters Areas of Particular Concern	a) local regulations within state established guide- b) State administration review for consistency with management program c) Interim state permit until local program is certified	·March 1976 Constitutional amendment ·Regulatory police powers
Third Tier	Remainder of Coastal Zone inland boundary contigous with specified tier of counties	Local planning and regulation based on state guidelines	·Regulatory police powers

State and Local Options in
Planning for and Managing
the Coastal Zone

4

Summary Statement

The purpose of this paper is to satisfy work elements 3A, 4 and 5 as requested and described in the contract between the Coastal Area Planning and Development Commission and the Office of Planning and Budget, dated June 4, 1976, and covering the period from October 1, 1975 to June 29, 1976.

As specified in the Scope of Services of said contract, documentation related to products shall contain a summary of requirements pursuant to the CZM Act and associated documents. Listed below is a summary of applicable requirements:

3A: Legal Analysis

Sec. 305(b)(4): An identification of the means by which the state proposes to exert control over the land and water uses referred to in paragraph (2) of this subsection, including a listing of relevant constitutional provisions, legislative enactment, regulations, and judicial decisions;

Sec. 306(c)(7): The state has the authorities necessary to implement the program, including the authority required under subsection (d) of this section.

Sec. 306(d): Prior to granting approval of the management program, the Secretary shall find that the state, acting through its chosen agency or agencies, including local governments, areawide agencies designated under Sec. 204 of the Demonstration Cities and Metropolitan Development Act of 1966, regional agencies, or interstate agencies, has authority for the management of the coastal zone in accordance with the management program. Such authority shall include power -

(1) to administer land and water use regulations, control development in order to ensure compliance with the management program, and to resolve conflicts among competing uses; and

(2) to acquire fee simple and less than fee simple interests in land, waters, and other property through condemnation or other means when necessary to achieve conformance with the management program.

Sec. 306(e): Prior to granting approval, the Secretary shall also find that the program provides:

(1) for any one or a combination of the following general techniques for control of land and water uses within the coastal zone:

(A) State establishment of criteria and standards for local implementation, subject to administrative review and enforcement of compliance;

(B) Direct state land and water use planning and regulation; or

(c) State administrative review for consistency with the management program of all development plans, projects, or land and water use regulations, including exceptions and variances thereto, proposed by any state or local authority or private developer, with power to approve or disapprove after public notice and an opportunity for hearings.

(2) for a method of assuring that local land and water use regulations within the coastal zone do not unreasonable restrict or exclude land and water uses of regional benefit.

4. Areas of Particular Concern

Sec. 305(b)(3): An inventory and designation of areas of particular concern within the coastal zone;

Sec. 306(c)(9): The management program makes provision for procedures whereby specific areas may be designated for the purpose of preserving or restoring them for their conservation, recreational, ecological or esthetic values.

Sec. 305(b)(5): Broad guidelines on priority of uses in particular areas, including specifically those uses of lowest priority.

5. Permissible Uses

Sec. 305(b)(2): A definition of what shall constitute permissible land and water uses within the coastal zone which have a direct and significant impact on the coastal waters.

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I.

Introduction

With passage of the CZM Act of 1972, Congress placed a greater share of the responsibility of managing the coastal zone with the states. Such problems as water pollution, conflicting land and water uses, expanding public needs to be met by this valuable resource, and a host of other issues were not being effectively addressed by a decision-making structure comprised of mission oriented governmental agencies, numerous special purpose districts, and politically and economically motivated local governments.

This working paper is concerned with an examination of possible approaches to develop a management program for Georgia. The first section considers the nature and implications of selecting various techniques as presented in the CZM Act and accompanying regulations for controlling land and water uses in the coastal zone. The various planning and management functions of state and local governments are investigated relative to each option. This is followed by an identification and discussion of various factors to consider in selecting a particular option.

Section II presents an examination of the most appropriate roles for different levels of government in formulating an effective approach for planning and decision-making in a coastal environment. This is followed by a description of a possible management structure which utilizes the above mentioned roles to their best advantage.

Section III applies this possible approach to specific elements of the CZM Program and, where possible, offers examples which demonstrate its applicability.

II.

Management Options

Among the conditions of submitting a proposal to implement a management program is a demonstration that the state has the authority of legal structure necessary to carry out the objectives of the program. The Act provides for any one, or a combination of, the following general techniques for controlling land and water uses:

A) State establishment of criteria and standards for local implementation, subject to administrative review and enforcement of compliance;

B) Direct state land and water use planning and regulation, or

C) State administrative review for consistency with the management program for all development plans, projects or land and water use regulations, including exceptions and variances thereto, proposed by any state or local authority or private developer, with power to approve or disapprove after public notice and an opportunity for hearings.

Following is a discussion of each option in terms of the extent of planning required, the differing roles of state and local governments, commitments of future resources, etc. In other words, the implications of selecting each option.

A. Local Regulation in Accordance with State Criteria

The commencing action under this option is the formulation of development guidelines and use policies which reflect the best known scientific, economic and public policy practices in incorporating both local and statewide interests. This need not be a detailed plan depicting a schedule of actions to be accomplished during specific

time intervals, but could instead be a comprehensive statement of objectives, policies and standards for the allocation of coastal resources.

Local governments would then enact appropriate development controls or regulations in order to ensure compliance with state established criteria.

However, to remain consistent with proven planning thought, local plans should be developed prior to the enactment of development codes. Local plans would consider local goals and objectives, detail development patterns along shorelines and other conflict areas, determine preferred growth areas, establish a process to assess development proposals, in general, articulate public policy concerning physical development. Local plans would be prepared with the assistance of state guidelines, so that program findings, recommendations and policies are not compromised.

Following preparation of local plans and attendant implementing tools, the responsible state agency or commission would have to approve a local program before it could be implemented. In those cases where local governments were either unable or unwilling to prepare and implement an effective program, the responsible authority would do so.

Upon approval of the local program, enforcement would rest primarily with the local government and the state's role would essentially be one of administrative review to determine if local regulations remained intact and were being administered and enforced consistent with the established criteria and standards. In addition, authority

to correct violations would have to be available at the state level.

Geographic coverage of the above option would consist of those shorelands the uses of which have or could have direct and significant impact upon coastal waters. Assuming that such lands represent adjacent wetlands, as well as uplands, the state does not have present, nor would have under the above option, any general permitting authority other than what is currently exercised pursuant to special purpose environmental control laws.

If it is deemed necessary to establish more direct state control over the use of sensitive areas (areas of particular concern) or the siting of large-scale facilities, an approach utilizing an interim state permit could be established. Upon enactment of this approach, no development activity of a specified type or in a specified area could occur without both local and state approval. State permitting would continue until the local government received approval of its program. Thereafter, the procedure would be the same as in the first instance.

An areawide agency (APDC) might have an advisory role in assisting the local governments in plan preparation, code adoption and project review.

It can be seen that this approach relies greatly upon local governments to implement the program. This is accomplished by bolstering the ability of local governments to deal with troublesome and complex issues primarily through the development of effective local plans, regulations and administrative procedures. The process is initiated by the state with the formulation of workable guidelines.

B. Direct State Planning and Regulation

As the description implies, under this option the state would be the regulatory agent for the management area with authority to approve or disapprove use requests. Operationally, it would be similar to the Marshlands Protection Act with use permits evaluated independently according to administrative rules and regulations established in response to a coastal act. Since this approach would pre-empt what has traditionally been local prerogative, it would most assuredly be politically controversial. However, it has applicability in complementing a total management program as the state currently has some direct authority to regulate certain areas.

C. State Administrative Review for Consistency with the Management Program

This approach entails a state review of both public and private actions to determine their appropriateness as specified in a completed coastal plan. Actions include plans, projects and development controls. While the specifics of each of the above actions would not be addressed, their intent and actual effect would have to be respectful of the policies of the coastal program. Actions consistent with the program would be treated as uses by right with exceptions subject to state approval. This frees coastal users and local governments to proceed unencumbered with state criteria and standards as long as their actions are in keeping with program parameters. However, since the only measure of appropriateness is the completed coastal plan, it must obviously be comprehensive and thorough.

D. Factors to Consider

So, the question the state must answer is which option most appropriately meets with its desires and authority, yet satisfies the CZM Act's requirement. In responding to this situation, the state must seriously investigate two critical areas: its institutional and political willingness, and its legal authority.

1. Institutional and Political Willingness

More than occasionally on the coast, the question is asked, "Suppose that a plan is prepared which represents a relatively informed opinion concerning the manner in which the coast should be used during the coming years, who would ensure that it be implemented? Is the state willing to assume a stronger role in decision-making and, if so, how strong?"

This is a political question. The governmental history of this state, not unlike most others, has relied strongly on its cities and counties to provide services for the population. This has been particularly true for land use planning and regulation. However, in recent years, several laws have been enacted by the General Assembly to govern the use of natural resources and regulate specific activities. Yet, these laws fall considerably short of a general state land use act which meets more closely the requirements of the CZM Program. The constitutional questions and difficulties encountered in passing the above laws, as well as the failures in passing environmentally oriented critical area legislation, certainly places an uncertain future on the passage of state land use or coastal zone legislation. Moreover, the perceived conservative philosophy will

not lend favor to such an action. Yet, other factors, such as citizen support for the resolution of persistent problems, must be considered. But, it is too early to tell how much influence this may have.

Consequently, if legislation is enacted at all, it will most probably be in a form which only meets the bare minimum necessary to establish an acceptable state role in coastal zone management. If this assessment is correct, then certainly Option "B" is ruled out, and the most politically feasible of the remaining two gets the nod.

In addition to the support needed from citizens and state policy makers, key state agencies must soon decide what level of involvement with regards to coastal planning and implementation they are administratively willing to accept plus politically capable of achieving. It seems a fair statement to say that in the past little planning and even less regulation has been carried out directly by the state. Method "B" requires direct state regulation although planning could be scant, though unwise. The remaining two options require considerable planning, but differ in which level of government is to accomplish it. In method "A", planning is almost entirely done by local level although the state has an obligation and role in specifying what is to be addressed in the plan (criteria and standards). Method "C", on the other hand, asks that planning be done primarily by the state, although local governments could be involved. It would be highly questionable for a state to base its method of control (review for consistency) entirely on a plan in

which it had no lead role in formulating.

2. Legal Authority

As previously stated, land use planning and regulatory responsibility has traditionally rested with Georgia's local governments. This is made possible by the state granting local subdivisions the right to exercise planning and zoning functions through enabling legislation pursuant to the State Constitution. But, recently several laws to protect natural resources through a scheme of regulating land and water uses have been passed by the Legislature under the authority of the police power. However, other bolder attempts to establish land use planning programs have failed. What has been the problem? Mainly, it has to do with a series of Georgia Supreme Court rulings which have viewed land use regulation, particularly zoning, as taking of property without just compensation and thus unconstitutional. In addition, the court has conveyed a very narrow interpretation regarding the authority of the state via the police power maintaining that the zoning power is derived explicitly from the Constitution rather than being inherent in sovereignty as is the prevalent view in American planning law.

This perspective has 1) created an uncertain General Assembly who sees itself walking on thin constitutional ice everytime it considers a land use bill, 2) left the Georgia Attorney General's office with a posture in which it holds that the state is without power to enact broad laws dealing with planning and zoning matters, and 3) left the State Office of Planning and Budget with a very unclear perspective as to the extent to which the state, through the

General Assembly, may engage in land use planning and regulation without an explicit constitutional amendment.

With this as background, the state has two choices open to it in order to meet the legal authority asked for in the CZM Act. The General Assembly can pass the required legislation under the authority of the police power and let a final decision rest with the Supreme Court should the law be challenged. It is contended by some that the Georgia Constitution is actually a very broadly worded instrument and ample use of the state's planning power is available. In addition, recent Supreme Court rulings suggest an increased tolerance for planning and regulation.

The remaining option consists of amending the Constitution to specifically permit the State Legislature to pass broad land use legislation. In fact, this appears to be the direction being taken by the General Assembly who, in March 1976, approved a revision of the State Constitution to be voted on in November which includes the following language:

> "The General Assembly shall have the authority to provide restriction upon land use in order to protect and preserve the natural resources, environment and vital areas of this state."

If approved by Georgia voters, the amended Constitution will add greatly to the state's authority to become active in controlling land and water use and the many factors which interact to affect it. However, one obvious risk of granting this increased authority to the state is that it appears to give blanket authority while not specifying much needed goals, policies and responsibilities for planning and management of the state's resources.

III.

Selecting an Effective Planning and Management Approach

During the past few years, it has become obvious that both Federal and state governments have begun to exercise a much more direct role in resource use matters. This is evidenced by the National Environmental Policy Act, Federal Water Pollution Control Act Amendments, Clean Air Act, and the now at hand Coastal Zone Management Act. This has resulted mainly because local governments have generally failed to properly exercise their responsibilities which they have traditionally possessed, and aggrieved individuals and groups have more frequently taken their case to Congress and/or the courts.

Given this situation, local units of government essentially have two choices: 1) they can take a relatively passive role and absolve themselves of influencing future decisions in a significant way while other levels of government (usually higher) will be increasingly called upon to intervene, or 2) they can face up to the problems and forces of change and choose to manage their jurisdictions in a manner that gives increased meaning to the concept of home rule.

Regional entities have to a large degree been bypassed as an acceptable alternative to Federal and state levels of government mainly because local political units have looked unfavorably upon the possibility of creating regional governments. Also, local public officials have been reluctant to establish areawide bodies capable and effective at making decisions of more than local significance. Traditions and constitutions are difficult to modify.

A. Suggested Government Roles

Although it is difficult to achieve complete agreement on the

relative roles of various levels of government in land use matters, there must be a sharing of power with each doing what best matches its inherent capabilities. The following roles are suggested:

State Role

- Prepare and implement statewide development plans.
- Identify, prepare and implement controls for matters of statewide interest and developments of more than local significance.
- Establish minimum criteria and standards consistent with Federal requirements for resource planning and regulation for application by local governments.
- Provide adequate financial assistance and incentive to regional agencies and local governments for appropriate planning and regulation.
- Conduct a statewide inventory and analysis of natural, economic and cultural resources with the assistance of Federal, areawide and local agencies.

Regional Agencies

- Develop and coordinate the implementation of plans for the achievement of areawide objectives.
- Evaluate local activities for consistency with areawide objectives.
- Develop and utilize impact assessment techniques for matters of multi-jurisdictional concern.
- Assist local government in understanding and responding to resource planning and management requirements as specified by state criteria and standards.

- Maintain, with the assistance of the state, a regional inventory and analysis of natural, economic and cultural resources.

Local Role

- Develop jurisdictional management plans consistent with state criteria and standards.
- Develop appropriate legal/technical tools and community programs for implementation of the management plan.
- Consult with and provide adequate involvement in decision-making for other affected local jurisdictions and state government for matters of more than local significance.
- Detail, at the jurisdictional level, an inventory and analysis of natural, economic and cultural resources for inclusion in public decision-making and as a service to the private sector.

B. A Possible Coastal Management Approach

Although statewide interests should be reflected to a certain extent in local decision-making concerning coastal resources, city and county governments are nearer the problems and accessible and accountable to their constituents. Thus, primary responsibility for implementing the coastal program should rest with local governments.

Following legislative or executive action establishing Georgia's coastal program, all local governments affected by and addressed in that program would have a specified time period (1-2 years) to prepare local management plans or bring their planning programs into conformity with the overall management program. Local governments

would submit their plans to an established coastal commission for review and approval.

To ensure that certain improper actions did not occur while local plans were being prepared, a permit and appeals system would be established. In conjunction with any local approval, a state permit would be required. Review would be by the coastal commission with approval or denial based upon conformance with program policies. Permits would be required for designated geographic areas of particular concern, certain critical shorelands, and specified developments of regional significance. Appeals of permit decisions could be made to the Governor, Attorney General, or Supreme Court by any aggrieved party.

When all local programs had been approved, the function of the coastal commission would be reduced to one of monitoring actions in geographic areas of particular concern, certain critical shorelands, and developments of regional significance. The coastal commission would have appeal powers to the Governor, Attorney General, or Supreme Court in order to ensure that local programs were being implemented properly and, thus, management program policies were being adhered to and not compromised.

IV.

Development of the Management Program

The focus of the planning process is on developing a management framework which systematically and with appreciable certainty guides decision-making not only at the local and state levels, but to a certain extent at the Federal level as well.

An effective planning and management program should possess the following elements:

1. It should ensure that comprehensive, accurate and needed data is acquired and actually used in all decisions which affect the use of resources;
2. It should ensure that such decisions are understood and supported by those members of the public which are affected;
3. It should ensure that the legal methods chosen for regulating and implementing activities which achieve program objectives are defensible in court; and
4. It should ensure that a system of correction is built-in so that changing conditions, goals and problems are accommodated in a responsive manner.

During the first and second year, program efforts have focused on several work elements. The list of elements is too numerous to examine each and every one in a paper of this scope, but in an effort to communicate how the criteria and standards approach can be utilized in the development of the management program, four work tasks are examined below: capability of natural resources and systems to sustain use; permissible use strategies; alternative policies for

areas of particular concern; and local management plans.

A. Natural Resource and System Capability

Elements of the natural environment vary in their inherent ability to tolerate or support human activities. The more natural resources possess the characteristics sought after by man in pursuit of his activities, the more potential there exists for the realization of those activities. Conversely, the fewer the supply of favorable characteristics, the greater the constraint posed by the natural environment. However, land can be developed for many uses and without significant adverse environmental impact provided someone is willing to spend the money necessary to overcome the limitations and mitigate the impacts. After all, why should certain areas be closed to development because of the natural limitations if the developer is willing to provide the technological measures necessary to overcome the limitations and prevent adverse environmental impact? To do otherwide places the public sector in the possible position of taking private property without just compensation.

Traditional resource capability methods generally point out what uses are most compatible with the intrinsic qualities of the landscape while assuming that few, if any, technological measures will be employed to modify the conditions. More recently, the performance standards approach is being utilized as a means of incorporating technological and legal factors. Resource capability, based on performance standards, allows development as long as certain standards are met. To illustrate the utilization of the performance standards approach, soils as a resource element and high water table

as a soils property are examined below.

Soils

In an examination of soils for planning purposes, one encounters the term "type" and "association". A soils association is a relatively large area characterized by an aggregation of similar soil types forming a distinct pattern or homogenous area. A soil type is a name given to a particular or unique kind of soil, so classified because of its distinctive characteristics, such as slope, chemical balance, hydrology, etc. Thus, each soil type has definite properties. Knowledge of these properties permits evaluation of each type according to the particular limitations or capabilities for different uses. For resource development purposes, soil types play an important role in the determination of the development potential of an area. In assessing the development potential, the area's soil types are examined for such properties as:

1. corrosivity to metals,
2. depth to bedrock,
3. susceptibility to flooding,
4. steepness of slope,
5. shrink-swell potential,
6. permeability or drainage, and
7. depth to water table.

These characteristics are instrumental in determining sewage disposal limitations, construction problems, costs of development, highway alignment and construction methods, recreational opportunity, agricultural suitability, etc.

High Water Table

Problems and Constraints. In many areas of the coast, poor drainage is a major problem because of the high water table. This situation impacts the forestry industry by reducing the yield of timber on lands so affected. Also, residential development is affected in that on-site sewage treatment is made less viable and results in either:

1) preventing developments;
2) increasing the need for additional financial outlay in terms of collection lines and treatment facilities; or
3) a health hazard and/or water pollution problem.

The filtration fields which accompany septic tanks are generally installed about three feet below the surface. A groundwater table, which either permanently or periodically enters this three-foot zone, acts to hinder aerobic bacterial action normally present in this top soil layer, increasing the likelihood of lateral transport of fecal coliform bacteria which often leads to contamination of nearby surface water as well as domestic wells. Also, the permeability rate, being the ability of the soil to absorb liquid over time, is necessarily affected by a high water table. Together, a high water table and slow permeability rate affects the ability of a septic tank filtration field to drain properly and, thus, naturally decompose.

However, these factors do not make development impossible -- just expensive. Many of these problems associated with on-site waste disposal might be solved by technical methods, such as tile drainage, increasing lot size, importing top soil, connecting to

sewer lines, etc.

Policy Statement. Developments utilizing on-site sewage treatment of the septic tank filtration field type should only be permitted under certain conditions in those areas with a permanent or seasonal high water table of less than three feet.

Performance Standards. All permanent, habitable structures utilizing the septic tank/filtration field method of sewage treatment shall be located only in areas where the depth to high water table is greater than 37 inches, unless filling or drainage is accomplished which effectively reduces the water table to 37 inches as measured from the new or existing grade level, respectively. Under no circumstances can the extent of filling or cover exceed twelve inches. Developments served by approved public water systems must have a minimum of 12,000 square feet. Developments served by on-site wells must have a minimum lot of 15,000 square feet, with the minimum distance between the septic tank/filtration field and the well being 100 feet.

B. Areas of Particular Concern

An additional requirement of the Coastal Zone Management Act is that the state establish a process for designating and managing geographic areas of particular concern (GAPC). Generally speaking, three approaches have been taken by states to designate GAPC's:

1. State Initiated

This approach consists of the state acting generally through its Legislature in the enactment of laws regulating specified areas. Georgia used this approach when it passed the Marshlands Protection Act.

2. Nomination Process

This approach is usually carried out with extensive public involvement under the guidance of a state agency. Nominations are secured then legislation or an executive order effects regulation.

3. Cooperative State/Local Effort

Here the state works cooperatively with localities with each designating areas and sharing in regulation thereof.

Although a process described in a separate discussion paper suggests the utilization of an approach combining Options 2 and 3, further comments here are directed at discussing a possible method of displaying in an understandable way the numerous components related to the areas of particular concern concept. This is followed by a discussion of a method of establishing priority of uses within areas of particular concern.

The following schedule identifies suggested GAPC components in a rational order of fabrication along with a description of each.

Components of the APC Concept

Category	-	Designated area of particular concern.
Definition	-	Physical description of the area.
Significance	-	Functions, values, threats, vulnerabilities, qualities and benefits of and to the area.
Techniques for Identification	-	Description of materials and methods used such as maps, aerial photography, field surveys, etc.
Program Objectives	-	Statement expressing desires held for the future of the area.
Program Policies	-	Specific actions which will lead to the attainment of the objectives.
Priority Use	-	Preferred uses to which the area should be put in order to achieve the objectives, plus remain consistent with program policies.
Criteria/Standards	-	A yardstick or guage against which performance towards the achievement of program policies is measured.
Implementing Devices and Responsible Entity	-	Legal/technical tools and public programs which control actions and uses so that criteria and standards are adhered to. Consists of both existing and needed measures equated to the responsible level of government or agency.

An Example of the APC Concept

Resources Area	Island Sand Dunes
Category	Article 923.13 Items: 1, 3, 7 and 8
Definition	See DNR Resource Notebook, p. 6-22
Significance	See DNR Resource Handbook, p. 6-22
Techniques for Identification	See DNR Resource Handbook, p. 6-23
Program Objectives	Ensure to the maximum extent possible that the system remains free to respond to the natural forces of wind, waves and currents. Protect the dunes from unnecessary erosion and development actions which inhibit their functioning as a storm barrier and beach delineator.
Program Policies	Prohibit any development which would damage, destroy or remove any portion of a dune or its vegetation. Encourage the use of established foot traffic corridors over dunes and prohibit cutting through dunes for beach access. Prohibit any action which results in the removal of sand from beaches and offshore bars. Encourage the retention and planting of appropriate vegetation for stabilization purposes. Require boardwalks to be placed over dunes at all major public and private access points.
Priority Use	Recreation (Passive) Aesthetic appreciation Protection of properties from destructive natural processes.

(continued)

Priority Use (continued)	Beach Replenishment Wildlife Habitat
Criteria/Standards	Erosion Potential Flooding Frequency Flood Hazard Designation - FIA Potentiometric Surface
Implementing Devices and responsible entity	Zoning Ordinance - Cities and counties Dune Ordinance - Cities and counties Construction Practices - Cities and counties Sea Oats Regulation - State Soil Erosion and Sediment Control - State and local State Permit-state agency or commission

From the array of GAPC components listed above, the determination of priority of use is a major program requirement. Although substantial insight can be gleaned from information contained with the significance, objectives and policies components, other considerations are needed to further determine preferred or priority uses. These include:

1. Resource Capability - ability of the area's resources (soils, vegetation, groundwater, etc.) to support various uses;
2. System Capability - susceptibility of inter-connected elements of the system (beach, dunes, offshore bars) to alteration and possible effects of such alterations;
3. Use Compatibility - conflicts between uses and restrictions placed on other potential uses;
4. Ancillary Needs - supportive requirements such as utilities, services, access, etc.; and
5. Socio-economic Demands - functions provided by the area to the public and private sectors (environmental quality, deep water access, development space, etc.)

GAPC Management Options

1. State Permit

This option entails the issuance of a permit for development in areas designated as geographic areas of particular concern. Operationally, either a state agency or coastal commission would issue or deny permits based on conformity with policies for the management of the area, as well as overall program policies. The requirement for a state permit for alteration or development of the sand dunes, for instance, would not prevent the local government from also regulating the area via zoning or special ordinance.

The selection of this option would appear to be available if the constitutional amendment on planning and zoning succeeds in November. Otherwise, a Coastal Management Act, based on the police power, would be necessary.

2. Interim State Permit

Upon formal designation, either by legislative act or executive order, no development activity could take place in a GAPC without both state and local approval. Again, state approval would be in the form of a permit issued by a state agency or coastal commission. During the interim period, detailed GAPC plans and appropriate regulatory measures would be prepared for the area. (Note: the preparation of GAPC plans and local code adoption could be an activity of the Administration Phase - Sec. 306. The legislative act or executive order activating the process could be considered as completing the Program Development Phase - Sec. 305.) The designated permitting body and the local government(s) having jurisdiction would jointly participate in these efforts with program and GAPC policies and

standards serving as guidelines.

Upon approval of the permitting body of an area plan and formal adoption of the regulatory measures by the local government, the requirement for a permit would cease and primary enforcement would rest with the local government.

Thereafter, an applicant desiring to undertake an activity in the designated GAPC would submit an application to the local government. Notice would be given by the local government to the former permitting body, regional agency, and the public. The regional agency would assist the local government in the performance of an assessment of the request followed by a recommendation to the local government and former permitting body. If denied by the local government, the applicant could seek relief in the courts; if approved, the decision could be subject to review by the permitting agency and/or the Attorney General.

3. Local Permit

This option places the GAPC management function with the local government. Detailed GAPC plans would be treated as special planning areas in required local management plans. Local governments would be required to develop plans and establish regulatory measures within a specified time period (1-2 years). Local plans and regulatory devices would have to be approved by a state agency or coastal commission. Failure to meet the deadline would constitute reason for the overseeing state agency or coastal commission to intervene and establish regulations for the use of the area (a permit process).

C. Permissible Use Strategies

The CZM Act requires that the management program include a definition of what shall constitute permissible land and water uses within the coastal zone which have a direct and significant impact on coastal waters.

In attempting to establish direct and significant impact criteria, three general options appear available:

1. Quasi-Arbitrary Determination

This option suggests the selection of specific types of activities or scale of developments based on value judgement concerning the expected magnitude of impact. For example, Maine has concerned itself with development of 10 acres or more, commercial or industrial buildings of 10,000 square feet or larger, and public sewage treatment plants. Implied in this approach is that the impact resulting from such activities is substantial and thus in need of some sort of management. Clearly, this is a somewhat subjective and imprecise method of determination, yet it has some measure of effectiveness.

2. Environmental Indices

In recent years, considerable effort has been directed toward the development of indices to measure impacts to the natural environment. Measures of wastes and residuals allow environmental managers to determine how productive activity affects the quality, assimilative and further productive capacity of the receiving environment. The Council on Environmental Quality (CEQ) has reported that progress in developing indices for air pollution is more advanced than in any other environmental area as evidenced by the development of at least

three operational indices.

However, additional indices have been or are being developed for other areas of environmental concern, such as water pollution, pesticides, toxic substances, land use, and wildlife. For each of these areas, CEQ has identified what it assumes are the critical indicators with final testing and aggregation of individual indices into an overall environmental quality index remaining to be done.

Although progress in this area might appear promising, this approach is extremely complex and technical, and several years may be necessary for it to become available for numerous uses and at an acceptable cost.

For the manufacturing industry as a broad use category, a methodology called the Industrial Pollution Index has been developed to evaluate the environmental impact of various industrial sectors. The Industrial Pollution Index accounts for several environmental degradation indicators which are then aggregated to form a single composite index number representing the relative degree of potential pollution for each industry evaluated.

This methodology was applied in a study of environmental constraints and potential industrial uses for Colonel's Island, an industrial site in Glynn County. Seventeen industries were evaluated in terms of three equally weighted criteria: air pollution, water use, and water pollution. The results of this are presented below:

INDUSTRIAL POLLUTION INDEX

RANK	SIC	CIN	
1	25	-.6811	Furniture and Fixtures
2	31	-.6799	Leather and Leather Products
3	38	-.6651	Instruments and Related Products
4	39	-.6603	Miscellaneous Manufacturing
5	24	-.5845	Lumber and Wood Products
6	30	-.5691	Rubber and Miscellaneous Plastics
7	36	-.5599	Electric and Electronic
8	34	-.5541	Fabricated Metal Products
9	22	-.5081	Textile Mill Products
10	35	-.4788	Machinery except Electric
11	37	-.4224	Transportation Equipment
12	32	-.3047	Stone, Clay, and Glass Products
13	20	-.2422	Food and Kindred Products
14	29	.5245	Petroleum and Coal Products
15	26	.7950	Paper and Allied Products
16	28	2.2334	Chemicals and Allied Products
17	33	2.5729	Primary Metal Industries

NOTE:
1. The resulting industrial rankings are presented in the order of most desirable to least desirable.
2. SIC - Standard Industrial Classification (code)
3. CIN - Composite Index Number

The study emphasized that these indices are expressions of potential pollution for each industry type and actual pollution may vary greatly from industry to industry depending upon several factors. Indeed, the point is that it is impossible to objectively assess the degree of impact on the environment of any given industry without being able to categorically identify discreet production processes, volume of production, and the pollution control and treatment processes. The reason being that the degree of impact is dependent

upon the willingness of any given developer to absorb the cost of advanced state of the arts pollution control processes and waste treatment facilities.

So, even with this comparative index, one is still left with selecting at which point or threshold level an industrial use may result in direct and significant impact.

A related application of this general technique has been instigated by the Environmental Protection Division (EPD) of the Georgia Department of Natural Resources (DNR) through its water quality standards. However, the standards are not tied to specific uses but represent established levels of pollutant types for each water body classification. All uses are thus affected by the standards.

The Georgia Water Quality Control Act and the rules to carry out the Act establishes general criteria governing the quality of all waters of the state. State waters are to be free from material deposits, debris, chemicals, and radio-active substances to the degree that the conditions created do not "become objectionable", "interfere with legitimate water uses", "become harmful to humans, animals or aquatic life", or "reduce the waste assimilative capacity of streams". Obviously, the criteria are normative and open-ended and do not provide concrete yardsticks; however, they assist in a further provision of the Act, that of establishing specific standards for water use classification.

The EPD has established water use classifications as follows:

- drinking water supplies
- fishing, propagation of fish, shellfish, game and other aquatic life
- recreational
- agricultural
- industrial
- navigation
- wild river
- scenic river
- urban stream

All surface waters of the state have been placed in one of the above classifications with delineation through Water Quality Management Units. Standards have been established for each classification dealing with the following water quality properties:

- amount of bacteria that may be discharged into the receiving stream
- dissolved oxygen level
- pH range
- temperature level
- presence of toxic waste and other deleterious materials
- presence of floating solids, settleable solids, sludge deposits or any taste, odor or color producing substances
- any other areas specifically addressed in the rules and regulations

Such standards have substantial utility in a program regulating point source discharges because measurements at the source of the emission can be conducted. But, for those non-point pollution sources, measurement becomes a problem.

3. Determination of Significant Status

Although similar, this approach goes beyond Option #1 (Quasi-Arbitrary Determination) in that considerable investigation and evidence gathering is undertaken for various activities. This leads to a more justifiable determination of what constitutes substantial environmental impact.

The Georgia DNR's Planning Section has assisted in identifying the impact of uses on coastal waters through the development of various planning and assessment methods. Although information contained within their report "Methodology for Assessing Environmental Impacts" relates the actions of water and air discharges and the pumping of groundwater to the manufacturing industry, constituting adverse impact on water quality, groundwater supplied, wildlife and vegetation, there is no estimation of the degree of adversity.

However, it is appropriately pointed out that it is the way in which the use is conducted not the use itself which is environmentally destructive. In order to glean further insight into the environmental effects of various uses, a resource system capability method is suggested along with other planning methods. In essence, expected or potential environmental impacts resulting from various actions associated with conducting specific uses are compared with the values and vulnerabilities of natural systems.

But, this does not complete the determination because of the necessity to incorporate economic and social needs into the permissible use question. Certainly, some uses (paper mills) have considerable detrimental impact upon coastal resources, yet they are employment centers and sources of income for the region. So, the true question becomes how can certain problematical uses which are a part of the socio-economic system modify their operations in order to reduce environmental impacts to a tolerable level? For example, some coastal paper mills have installed pollution control devices capable of mitigating many environmental effects.

An investigation of each major use covering the following factors

should provide answers to the above question:

Background

description of use

Findings

socio-economic benefits derived from use

problems/impacts associated with the use

capability of coastal resources to sustain the use

Policy Recommendations

needed modifications in the conduct of the use

Implementation Measures

This approach is not going to lead to a precise determination of whether each use examined does or does not constitute direct and significant impact on coastal waters, but it will point out whether or not some of the developmental or operational processes associated with the use either do or could result in adverse impacts on coastal resources. The point being that determination of which uses require action by the management program remains a qualitative or normative judgement based on ecological and social values, as they influence the political system, except in those cases in which there exists a clear threat to the public's health or safety.

The following major uses need to be addressed in the planning process:

Forest Management Practices
Agricultural Practices
Resource Extraction
Residential Development
Commercial Development
Industrial Development
Waste Disposal and Treatment
Transportation
Institutional Facilities
Shoreline Structures
Recreation
Utilities
Fishing

D. Local Management Plans

The utilization of a management approach emphasizing local control involves the development and implementation of local management plans. Such plans would function to detail the overall management program and accomplish certain objectives for which local governments are particularly suited.

Given this approach, a major element of the CZM Program development phase should be to specify guidelines for the development of local management plans. Presented below are some suggested guideline categories along with a brief listing of possible contents of each:

1. Plan Development Process
   - citizen participation
   - public hearings
   - time period
2. Local Plan Requirements
   - plan elements
   - degree of investigation
   - policy guidelines to incorporate
3. Plan Review and Certification Process
   - submission procedure
   - conflict resolution process
4. Plan Implementation Measures
   - required measures
   - suggested measures
5. Implementation Measures Review and Certification Process
6. Measures Application Monitoring Process
   - review and appeals process

V.

Conclusion

This discussion paper has attempted to present in a communicative way the choices available to those interested in and charged with developing a management program which meets the requirements of the CZM Act, yet is compatible with Georgia's situation. This is not a simple task.

It appears that the most suitable approach is to charge local governments with the responsibility of implementing a major portion of the program. However, they must be afforded an opportunity to participate in the design of the program, provided an understanding of what is expected of them and given an adequate level of financial assistance, so that they can meet their responsibilities.

In the final analysis, the most effective approach will be one which results in a sharing of the responsibility for managing the coast commensurate with the authority to carry out that responsibility.

Sources Consulted

. Wickersham, K., et.al., A Land Use Decision Methodology for Environmental Control, EPA-60015-75-008, 1975.

. Coastal Zone Management Program Approval Regulations, Federal Register, Vol. 40, No. 6, January 9, 1975.

. Berger, Ann H., Method of Control of Land and Water Uses in the Coastal Zone, OCZM, October, 1975.

. Futrell, J. William, "The Hidden Crisis in Georgia Land Use", Georgia Law Review, Fall, 1975.

. Brewer, Jr., William C., "The Concept of State and Local Relations and the CZMA", William and Mary Law Review, Summer, 1975.

. Harris, Fredric R. Inc., Colonel's Island: Evaluation of Environmental Constraints on Development and Identification of Potential Industrial Uses, September, 1974.

. Godschalk, David R., Carrying Capacity: A Basis for Coastal Planning? June, 1974.

. Bishop, A. B., Carrying Capacity in Regional Environmental Management, EPA 60015-74-021, 1974.

. "Summary", California Coastal Plan, 1975.

. Howard, Roger D., Environmental Regulations for Georgia Industry, Georgia Bureau of Industry and Trade, January, 1976.

. Final Guidelines - Shoreline Management Act of 1971, State of Washington, Department of Ecology, June 20, 1972.

. Coastal Resource Planning Notebook, Resource Planning, Georgia Department of Natural Resources, December, 1975.

Geographic Areas of
Particular Concern:
Designation Alternatives

5

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INTRODUCTION

The designation of Geographic Areas of Particular Concern (GAPC) is a required element within Georgia's Coastal Zone Management Program, as mandated in Section 305(b)(3) of the Coastal Zone Management Act of 1972 (P. L. 92-583).

This paper addresses the GAPC designation process and introduces to the Governor's Coastal Zone Advisory Council an inventory of site specific lands the utilization of which could be of particular concern to the people of Georgia.

For the purpose of this paper, Geographic Areas of Particular Concern are defined as those economic, cultural, historic and natural resources within the coastal region the loss of which would have irretrievable adverse impacts on the public good. All GAPC's are to be located within the defined coastal zone, and management policies must be formulated and operationalized to govern their future use and development.

Published rules and regulations concerning program management applications (Federal Register, January 6, 1975) outline various criteria for the identification of such areas. The criteria represent public values derived from the existence of such areas and aids immensely in the identification of possible areas.

Additionally, the program must make provision for the designation of specific areas for the purpose of preservation and restoration (APR). In most all cases, such areas should be considered as APC's. The formulation of specific criteria to assist in the designation of APR's is left to the state.

Up until now, the identification of APC's has been largely conducted by various agencies participating in the CZM program Staff from DNR have conducted substantial investigative and research work aided by scientific papers culminating in the recommendation of several types of resource areas for consideration as APC's. In addition, during recent months, CAPDC CZM staff, in cooperation with MPC CZM staff, have concentrated on the identification of economic areas of particular concern. This effort has resulted in a sizeable list of possible areas with supporting rationale.

However, at this point, the program is faced with several unanswered questions:

1. Will additional interest groups, public agencies, or individuals be allowed or encouraged to nominate other areas for consideration?

2. What criteria or standards are needed in order to evaluate and substantiate areas nominated for designation as APC's?

3. How will the existing management of identified APC's be assessed for adequacy? If found inadequate, what additional management tools should be implemented?

4. What should be the role of various levels of government in providing management for an area?

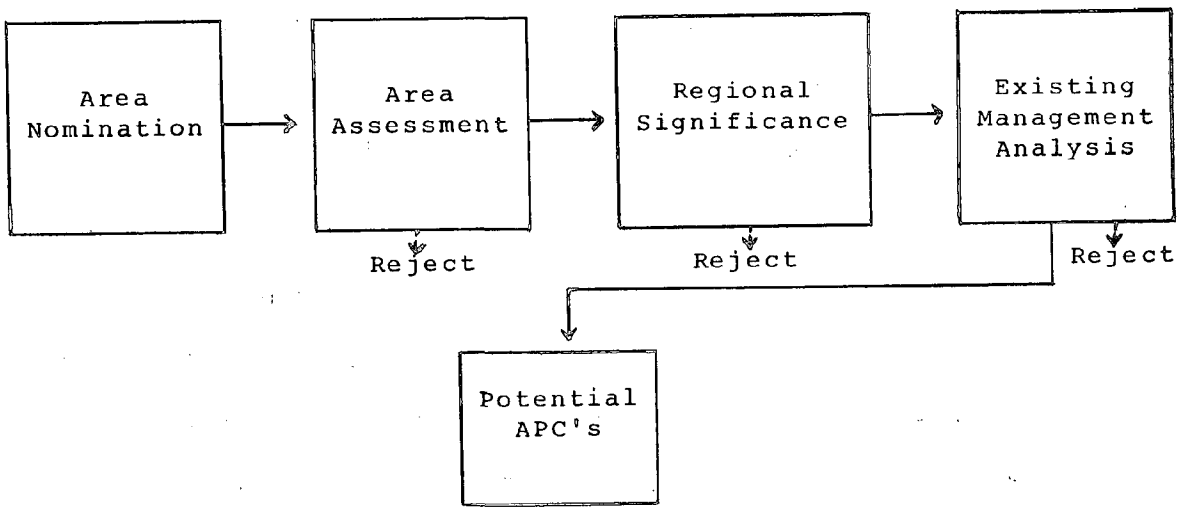
5. What are the economic implications of institutionalizing a set of use regulations for an area?

II.

A Process for the Selection of Areas of Particular Concern

The opportunity to gain answers to these, as well as other questions, can be provided through the establishment of a process to guide the selection of APC's. For discussion purposes, the process can be divided into two parts - the Nomination Phase and the Designation Phase.

The Nomination Phase



Area Nomination

Criteria found in the Federal Register outlining program approval requirements should be the primary factors considered in identifying and nominating an area. However, additional criteria in order to effectively and accurately identify an area having potential for designation should be included. Although

areas should be nominated by type (barrier islands), common place names (Little Tybee) could be effectively utilized in subsequent steps. Additionally, any unit of government, state or Federal agency, individual citizens, or private interest group should be allowed to recommend an area for consideration. Local units of government should be particularly encouraged to nominate areas.

Area Assessment

This step consists of a concise but comprehensive description of the nominated area. In other words, the reasons for nominating the area. The following points should be addressed:

1. The significant characteristics and qualities of the area.
2. Public values derived from the area.
3. Threats to the public interest from unwise use of the area.
4. Benefits to be derived from its wise use.

Additionally, the area assessment should consider specific factors in the form of criteria and standards so that particular areas from each type can be evaluated in order to substantiate them further as indeed areas of particular concern. The attached schedule outlines possible criteria for use in the assessment phase.

Regional Significance

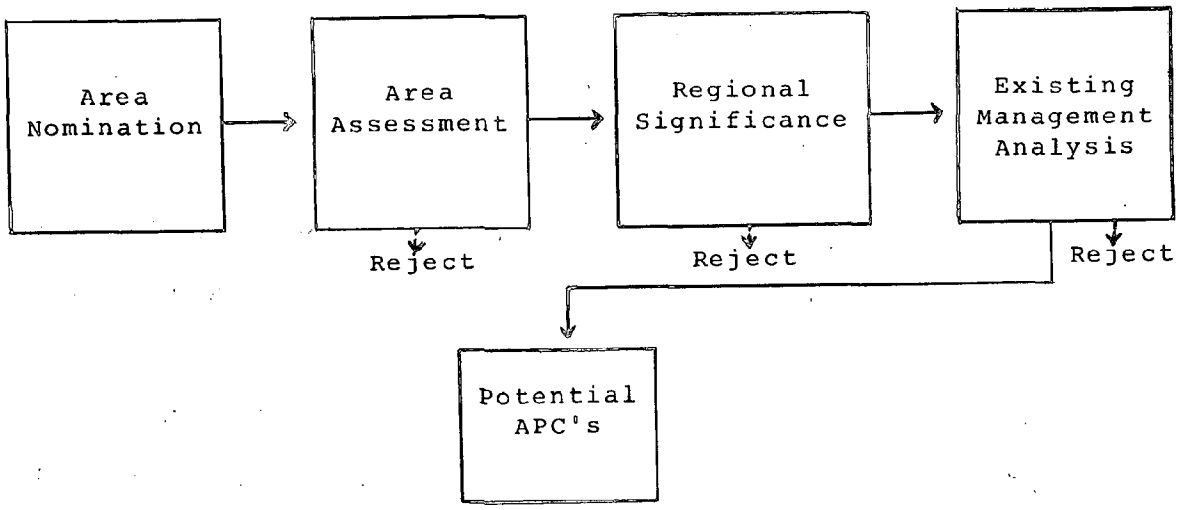
This step is concerned with examining whether or not the area is of significant regional or statewide public interest. Information available from the area assessment phase would be instrumental in making this determination. Also, state needs being met or to be met by the area would be examined and described.

II.

A Process for the Selection of Areas of Particular Concern

The opportunity to gain answers to these, as well as other questions, can be provided through the establishment of a process to guide the selection of APC's. For discussion purposes, the process can be divided into two parts - the Nomination Phase and the Designation Phase.

The Nomination Phase



Area Nomination

Criteria found in the Federal Register outlining program approval requirements should be the primary factors considered in identifying and nominating an area. However, additional criteria in order to effectively and accurately identify an area having potential for designation should be included. Although

areas should be nominated by type (barrier islands), common place names (Little Tybee) could be effectively utilized in subsequent steps. Additionally, any unit of government, state or Federal agency, individual citizens, or private interest group should be allowed to recommend an area for consideration. Local units of government should be particularly encouraged to nominate areas.

Area Assessment

This step consists of a concise but comprehensive description of the nominated area. In other words, the reasons for nominating the area. The following points should be addressed:

1. The significant characteristics and qualities of the area.
2. Public values derived from the area.
3. Threats to the public interest from unwise use of the area.
4. Benefits to be derived from its wise use.

Additionally, the area assessment should consider specific factors in the form of criteria and standards so that particular areas from each type can be evaluated in order to substantiate them further as indeed areas of particular concern. The attached schedule outlines possible criteria for use in the assessment phase.

Regional Significance

This step is concerned with examining whether or not the area is of significant regional or statewide public interest. Information available from the area assessment phase would be instrumental in making this determination. Also, state needs being met or to be met by the area would be examined and described.

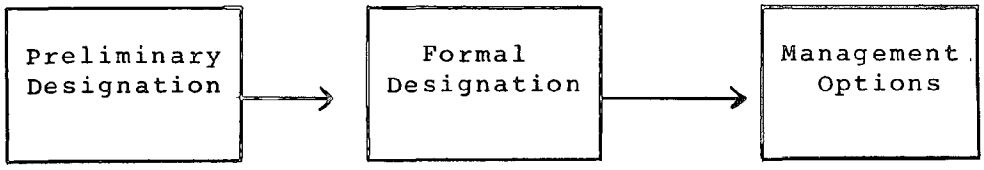
Existing Management Analysis

This phase consists of an assessment of the adequacy of existing controls for the proper management of the area and would include the following factors:

1. Ownership of area.
2. Existing area plans and the extent of implementation.
3. Existing area regulations and the extent of enforcement.
4. Public support for additional regulation.

A conclusion suggesting that the existing management is inadequate coupled with positive findings in prior analysis steps would be sufficient to place the area in prime contention for designation - the next phase.

The Designation Phase



Preliminary Designation

Preliminary designation of an area as one of particular concern would be in the form of a CZM Advisory Council report to the Governor stating that certain coastal areas have been found as possessing significant public values, threatened with imminent danger to their integrity, serving statewide needs, etc. such that the future use or development of the area requires close and thorough scrutiny. Contained within the report identifying the areas would be recommended principles and standards to

be followed in preparing and adopting plans and regulations for each recommended area, as well as a suggested priority of uses.

Formal Designation

This step would be in the form of a policy action either by executive order or by legislative act officially recognizing all or some of the recommended areas as areas of particular concern. Consonant with this action would be a description of the procedure to be followed in managing and regulating the designated areas.

Management Options

The management procedure chosen to govern the future use of areas of particular concern will necessarily need to be part of the overall coastal zone regulatory program. Likewise, an approach dealing with APC's is discussed in a separate working paper dealing with alternative state-local management mechanisms.

III.

Preliminary Nominations for Areas of Particular Concern

Georgraphic areas which exhibit Significant Natural Value are described in the "Coastal Resource Planning Notebook" published by the Georgia Department of Natural Resources. Supporting evidence along with appropriate maps of each natural resource can be obtained from the "Value and Vulnerabilities" volume from the Georgia Department of Natural Resources.

Two general categories are indicated by the Coastal Zone Management Act of 1972, but each contains two separate criteria for selecting GAPC's. The first category is: Areas Which Are Threatened for Various Reasons or Are Already Scarce.

The preliminary nominations for this category follow:

Cultural resources

Coastal river corridors/river swamps

Shellfish growing areas

Island sloughs

Offshore reefs

Open marine waters

Esturine waters

Sand sharing system

Ocala aquifer

Old barrier islands

Coastal barrier islands

Coastal marshlands

Natural areas

Deep water/highland interface

Islands/hammocks

The second category is: Transitional Areas Where Restoration or Further Development Is Called For Or Intensely Developed Areas Where Other Modification Is Necessary.

The preliminary nominations for this category follow:

St. Marys, Georgia

Hinesville, Georgia

Darien, Georgia

St. Simon's Island, Glynn County, Georgia

Brunswick, Georgia

Savannah, Georgia

Savannah Beach, Georgia

The following is a detailed information schedule for each of the preceding mentioned areas of particular concern proposed for preliminary nominations.

Site or Resource	Cultural Resources
Category	Scarce and Threatened
Definition	See DNR Resource Notebook-p. 6-32
Significance	" " " " "
Technique for Identification	" " " " "
Program Objectives	Restore and preserve physical remnents of coastal Georgia's past life styles Encourage compatible uses for these resources Maintain the fabric of coastal Georgia's history by integrating these sites into current community life
Program Policies	Encourage reuse of historic sites that are compatible maintain purchase/lease opportunities insuring preservation Assist owners of historic properties in obtaining restoration monies

Criteria/Standards	Age Integrity Education or Scientific Value National Register Status Land Use Conversion Pressure
Priority Use	Tourism Scientific and Historical Research Commercial,Residential Uses that are compatible with the resource
Implementing Devices and Responsible Entity	Historic preservation zoning- city and county Fee simple purchase and/or acquisition state, city and county Historic preservation grant and loans-Federal and state

Site or Resource	Coastal River Corridors/River Swamps
Category	Naturally significant
Definition	Those lands adjacent to the following rivers: Savannah, Ogeechee, Altamaha Brunswick, Satilla, St. Marys
Significance	Uncontrolled development in flood hazard areas results in increased flood heights and recurring flood damages to unprotected uses
Technique for Identification	Federal Insurance Administration maps Corps of Engineers Flood Plain maps
Program Objectives	To guide compatible land uses in flood hazard areas To reduce flood damage in riverine hazard areas To provide for adequate floodways along major river corridors in the coastal zone To control land uses in high hazard areas which may damage other lands
Program Policies	Prohibit any permanent development from major flood hazard areas Encourage the use of major river corridors as open space suitable for active and passive recreational use Control erosion and sediment loss from river banks

Criteria/Standards	Food Chain Criticality Ecological Significance Education and Scientific Significance Wildlife Dependency Erosion Potential Flooding Frequency Flood Hazard Designation-FIA Pristine Qualities
Priority Use	Passive recreation Active recreation Protection of properties from destructive natural processes Academic research activities
Implementing Devices and Responsible Entity	Subdivision regulations - cities, co. Zoning ordinance - cities/counties Building codes - cities/counties Permitting requirements - state Official maps - cities/counties Land acquisition - city, county, state, federal Tax adjustments to encourage open space uses Development rights acquisition - city, county, state, federal

Site or Resource	Shellfish Growing Areas
Category	Naturally significant
Definition	An area of commercially exploitable shellfish beds
Significance	Renewable natural resource-commercially and recreationally exploitable Encourages tourism
Technique for Identification	See DNR Resource Notebook - p. 6-19
Program Objectives	Manage the water quality of coastal waters Encourage commercial management of shellfish growing areas Encourage wise use of renewable resources
Program Policies	Prevent further pollution of coastal waters Make available known processes for establishing a larger shellfish industry Promote awareness of coastal Georgia's physical attractions

Criteria/Standards	Food Chain Criticality Economic Importance Ecological Significance Susceptibility to pollution Education and Scientific Significance Wildlife Dependency
Priority Use	Shellfish growing/harvest Active recreation
Implementing Devices and Responsible Entity	Permitting System- state Water pollution control laws

Site or Resource	Island Sloughs
Category	Naturally significant
Definition	See DNR Resource Notebook - p. 6-16
Significance	" " " " "
Technique for Identification	" " " " "
Program Objectives	Ensure that this resource is protected from man's encroachment Protect the island wildlife dependent upon this life-sustaining natural resource
Program Policies	Prohibit any man-made action which may jeopardize the island sloughs Encourage the preservation of barrier island wildlife and spawning grounds

Criteria/Standards	Food Chain Criticality Economic Importance Ecological Significance Susceptibility to pollution Education and Scientific Significance Wildlife Dependency
Priority Use	Passive and active recreation Wildlife habitat Aesthetic background for residential development
Implementing Devices and Responsible Entity	Zoning ordinance - cities/counties Soil erosion and sediment control - state/local Fee simple purchase - state, local, federal Health department sanitation codes Flood plain regulations - cities/counties

Site or Resource	Offshore Reefs
Category	Scarce-significant natural values
Definition	See DNR Resource Notebook - p.6-17
Significance	" " " " "
Technique for Identification	" " " " "
Program Objectives	Ensure the expansion of economic benefits associated with sport fishing, spear fishing, scuba diving and the commercial fishing commerce that offshore reefs provide
Program Policies	Prohibit any man-made action that would damage, destroy or alter the live and artificial reef bottoms Carefully monitor OCS development in offshore areas adjacent to existing live and artificial reef bottoms Encourage the maintenance and expansion of Georgia's artificial reef program Provide a stable surface for the attachment of offshore organisms important in the marine food chain

Criteria/Standards	Food Chain Criticality Economic Importance Ecological Significance Susceptibility to pollution Education and Scientific Significance Wildlife Dependency
Priority Use	Commercial fishing Recreation
Implementing Devices and Responsible Entity	Permitting process-state

Site or Resource	Esturine waters
Category	Significant natural value
Definition	See DNR Resource Notebook - p.6-20
Significance	" " " " "
Technique for Identification	" " " " "
Program Objectives	Ensure high water quality of coastal waters. Protect the commercially valuable marine life that live in esturine waters. Encourage an expansion of recreational opportunities. Preserve the aesthetics of near shore waters.
Program Policies	Lend support to other federal water quality programs. Prohibit bait shrimping in nursery areas. Encourage utilization/conservation of non-renewable resource areas. Increase access to esturine waters. Encourage understanding of the inter-relationships of resource systems through education. Prohibit mineral exploitation within view of the coast.

Criteria/Standards	Food Chain Criticality Economic Importance Ecological Significance Susceptibility to pollution Education and Scientific Significance Wildlife Dependency
Priority Use	Commercial shipping, fishing and related activities Active recreational use Aesthetic use Marine nursery grounds
Implementing Devices and Responsible Entity	Federal water pollution control laws State permitting process Federal OCS control laws

Site or Resource	Sand Sharing System
Category	Naturally significant-threatened
Definition	See DNR Resource Notebook, p. 6-22
Significance	" " " " "
Technique for Identification	" " " " "
Program Objectives	Ensure to the maximum extent possible that the system remains free to respond to the natural forces of wind, waves and currents. Protect the system from unnecessary dredging, erosion and development actions which inhibit its function as a storm barrier and beach delineator.
Program Policies	Prohibit any man-made action that would damage, destroy or alter the physical features of any dune, beach or sand bar. Encourage the use of established foot traffic walkways over dunes and prohibit man's physical presence on the dune surface. Prohibit any man-made action resulting in the removal of sand from beaches and offshore sand bars. Encourage the retention and restoration of appropriate vegetation on dunes for stabilization purposes. Require boardwalks to be placed over dunes at all major public and private access points.

Criteria/Standards	Erosion Potential Flooding Frequency Flood Hazard Designation-FIA Potentiometric Surface
Priority Use	Protection of property behind dunes from destructive natural processes. Recreation (active and passive).
Implementing Devices and Responsible Entity	Zoning ordinances - cities/counties Dune ordinance - cities/counties Subdivision regulations - cities/counties Sea oats regulation - state Building codes - cities/counties Erosion and sedimentation regulations - cities/counties.

Site or Resource	Ocala Aquifer
Category	Threatened - Significant natural value
Definition	See DNR Resource Notebook, p. 6-29
Significance	" " " " "
Technique for Identification	" " " " "
Program Objectives	Ensure water quality of coastal Georgia by limiting the amount of major extractions for non-consumption (i.e. industrial processing)
Program Policies	Continually monitor the extent of salt water intrusion into the Ocala aquifer. Industrial and commercial land use decisions will consider the water demand potential. In crisis situations where salt water intrusion is a threat, the state may require heavy water users to cut back to minimum demand.

Criteria/Standards	Economic Importance Known Reserves Potential Exploitation Areas Extent of Brackish Intrusion
Priority Use	Residential and institutional Commercial Light industry - heavy industrial
Implementing Devices and Responsible Entity	Permitting process- state, city,county Environmental review- state, city,co.

Site or Resource	Old Barrier Islands
Category	Significant natural value
Definition	See DNR Resource Notebook, p. 6-27
Significance	" " " " "
Technique for Identification	" " " " "
Program Objectives	Ensure that this "high ground" is used wisely for commercial, industrial, and residential development. Protect the significant cultural and historic resources existing on this high ground.
Program Policies	Land use authority should remain at the local level with State review of developments of more than local significance. Encourage the use of highland-water interface for activities needing water access. Prohibit developments which may encroach upon marshland or fresh water swamps. Preserve and secure the historic and cultural sites within the Old Barrier Islands geographic area.

Criteria/Standards	Uniqueness of geology Pristine qualities Remoteness/accessibility Economic Importance Development potential Known reserves Potential exploitation
Priority Use	All developments associated with urban expansion, including recreational sites, industrial, primarily those having water related activities.
Implementing Devices and Responsible Entity	Zoning ordinance, city/county Subdivision regulations, city/county Environmental impact review, State/city/county

Site or Resource	Coastal Barrier Islands
Category	Significant natural area, scarce, threatened
Definition	See DNR Resource Notebook - p.6-25
Significance	" " " " "
Technique for Identification	" " " " "
Program Objectives	Ensure, via land use control mechanisms, the wise use of barrier islands as non-renewable resources Preserve undeveloped islands for future utilization/conservation Preserve high hazard areas for public use Encourage tourism and appreciation of scarce natural, historic and cultural resources
Program Policies	Protect the indigenous wildlife present Limit automobile access only to developed barrier islands Promote the natural aura of barrier islands Discourage incompatible development Channel residential densities to high ground Encourage the designation of wildlife santuaries

Criteria/Standards	Erosion Potential Uniqueness of Geology Pristine Qualities Remoteness/Accessibility Educational and Scientific Significance Economic Importance Development Potential
Priority Use	Multi-use of barrier islands Storm hazard protection for mainland Recreational-resort use Natural experience fulfillment
Implementing Devices and Responsible Entity	Access permits-state Zoning ordinance-state,city,county Subdivision regulations-city,county Building and health codes- city,county Fee simple acquisition-state

Site or Resource	Coastal Marshlands
Category	Significant natural resource
Definition	See DNR Resource Notebook - p.6-12
Significance	" " " " "
Technique for Identification	" " " " "
Program Objectives	Ensure that the marshlands are not over-utilized commercially to the extent that their natural functions as spawning grounds, nurseries and protein growth areas are detrimentally effected
Program Policies	Encourage support for strict enforcement of Georgia's Marshland Protection Act Discourage the exploitation of marshlands for mineral extraction Discourage encroachment of urban development into open marshland Encourage recreational, scenic, educational and scientific endeavors that coincide with conservation techniques Encourage full understanding of the interrelationships behind prime natural resources

Criteria/Standards	Food Chain Criticality Economic Importance Ecological Significance Susceptibility to pollution Education and Scientific Significance Wildlife Dependency Mainland Protection from Storm Hazards
Priority Use	Active recreational use of tidal inlets Educational use Protects the mainland from high hazard storm waters Nursery compound Nutrient growth area
Implementing Devices and Responsible Entity	Marshland Protection Act- State

Site or Resource	Natural Areas
Category	Naturally significant/ Scarce/ Threatened
Definition	See DNR Resource Notebook, p.,8-1
Significance	Unique natural areas Mostly privately owned Urban encroachment
Technique for Identification	See DNR Research Notebook, p.,8-B-1
Program Objectives	Encourage protection for education and recreation purposes Protect these inventoried areas Regulate permissible uses Encourage appreciation and awareness Publically acquire
Program Policies	Seek donations of these areas from current land owners Conduct education trips and programs Encourage local governments to require environmental assessments prior to development approval Secure for the state first refusal on the fee simple sale of identified Natural Areas

Criteria/Standards	Criticality of Habitat Specie Diversity Criticality Educational and Scientific Significance Pristine Qualities
Priority Use	Educational Research Recreational Use
Implementing Devices and Responsible Entity	Fee Simple Acquisition-State Sensitive Area Zoning Classification-city and county Building Codes- city, county Tax Adjustments to encourage open space uses-city, county,state Permitting requirements-state Development rights acquisition-city county, state

Site or Resource	Deep Water/Highland Interface
Category	Scarce and threatened
Definition	Areas where highland fronts directly upon a deep water navigable channel rather than marsh, mud flats, or shallow water.
Significance	See attached
Technique for Identification	Maps, USGS quad sheets, field survey, marine charts
Program Objectives	The deep water/highland interface designation will be used to channel water access related development to the most capable and logical sites during future growth proposals.
Program Policies	1. Identification of all resource areas 2. Plan review of large developments to ensure wise utilization of this resource 3. Government cooperation to reduce the amount of new dredging permits for energy and resource conservation

Deep Water/Highland Interface

Significance

1. An ideal water access point
2. Dredging is minimized
3. Marsh destruction can be reduced
4. Construction and maintenance costs are minimized
5. One indicator for development feasibility of a site
6. If used, development would be utilizing natural processes for maintenance, i.e. resource conservation

Criteria/Standards	Population density Land Uses Land values Accessibility Ownership patterns Size of site/ Elevation
Priority Use	Water related/water access uses
Implementing Devices and Responsible Entity	Permitting process- Federal, State Zoning ordinance- city, county Building and health codes- city, co. Subdivision regulations- city, county

Site or Resource	Islands - Hammocks
Category	Significant natural value
Definition	All coastal islands/hammocks not protected by the Ga. Marshlands Act and not fronting on the Atlantic Ocean.
Significance	See attached
Technique for Identification	Air photos, USGS maps, field surveys
Program Objectives	The islands/hammocks shall be assessed to determine which uses and what amount of activity each may support. The use and value of this resource must be determined in conjunction with the major resource to enable proper resource utilization and growth planning.
Program Policies	1. Identify the resource, its capabilities, and relationship to the other natural systems of the region. 2. Restrict development according to size and performance guidelines. 3. Determine compatible uses within a framework of needs for future utilization of coastal resources.

Islands - Hammocks

Criteria/Standards	Erosion potential Ecological significance Flooding frequency Limited access Size of site
Priority Use	To be determined
Implementing Devices and Responsible Entity	Marshland protection act-state State permitting process Health-septic codes Zoning ordinance- city, county

Significance: (1) aesthetic value; (2) habitat for various plant/animal species; (3) recreational value; (4) may be threatened by development interests; (5) because of size development may cause related impacts to islands, marshes, and coastal waters.

Site or Resource	St. Marys, Georgia
Category	Transition
Definition	Incorporated city within Camden County
Significance	Small seacoast city Current atmosphere threatened by increased tourism
Technique for Identification	City limit maps of incorporated St. Marys, Georgia
Program Objectives	Plan for new growth resulting from Cumberland Island National Seashore Protect the current lifestyle of the community Encourage economic diversity
Program Policies	Encourage National Park Service Cumberland Island plans coordination with St. Marys Encourage city officials to engage in comprehensive land use planning Discourage high water use industries from locating within St. Marys

Criteria/Standards	Age Integrity Uniqueness Education or Scientific Value National Register Status Land Use Conversion Pressure
Priority Use	Tourism/residential/commercial/light industrial
Implementing Devices and Responsible Entity	Zoning ordinance-city Subdivision regulations-city Capital improvements program-city Official map- city Sensitive lands acquisition- state

Site or Resource	Hinesville, Georgia
Category	Transition
Definition	Ft. Stewart Impact Area
Significance	Major growth area w/o existing infrastructure or regulations
Technique for Identification	Ten mile radius of Hinesville, Georgia
Program Objectives	To establish growth patterns compatible with the natural systems to the maximum extent practicable To implement land use relationships which conserve energy and reduce conflicts among uncompatible uses
Program Policies	Implement comprehensive planning process Coordinate federal/state/local actions Develop Capital Improvements Program to guide growth Restrict development from fragile areas Regulate all new development

Criteria/Standards	Population Density Land Uses Land Values Accessibility Ownership Patterns
Priority Use	All uses
Implementing Devices and Responsible Entity	Zoning ordinance-city Subdivision regulations-city Capital improvements program-city Official map-city Sensitive lands acquisition-state

Site or Resource	Darien, Georgia
Category	Intensively developed-Transition area
Definition	City of 2000 within McIntosh County on Altamaha River, high tourism potential
Significance	Rural atmosphere, small town /fishing village mystique
Technique for Identification	City limit maps of incorporated Darien, Georgia
Program Objectives	Encourage tourism activities to reflect historic and fishing village mystique Utilize the Altamaha River for recreation/ tourism/education Encourage new development to complement and enhance the existing community atmosphere
Program Policies	Publicize tourism activities in Darien Encourage development in most capable areas Encourage utility expansion based on a capital improvement program Encourage restoration/renovation of existing structure Encourage new construction to be consistent with community atmosphere

Criteria/Standards	Age Integrity Uniqueness Education or Scientific Value National Register Status Land Use Conversion Pressure
Priority Use	Fishing/tourism/education/commercial/historic/recreation
Implementing Devices and Responsible Entity	Zoning ordinance- city Subdivision regulations- city Capital improvements program- city Historical restoration grants- state, federal Official map- city Sensitive lands acquisition-state

Site or Resource	St. Simon's Island
Category	Transition
Definition	As mapped
Significance	Proximity to urban Brunswick, Georgia Excellent recreation/tourism potential Desirable suburb accessible by auto
Technique for Identification	Glynn County maps showing St. Simon's Island
Program Objectives	Encourage further development within the natural resource systems capability Preserve small community atmosphere Retain residential, tourism, residential mix
Program Policies	Restrict industrial land uses to the mainland Utilize open space preservation and capital improvements program to encourage clustering on nonsensitive lands Discourage large commercial developments Encourage developers to pay their own way in utility extensions

Criteria/Standards	Uniqueness Accessibility Aesthetic Quality Demand and Need Factors Pristine Qualities Development Potential Water-based Recreation Potential
Priority Use	Recreation/Resort Tourism Residential Commercial
Implementing Devices and Responsible Entity	Zoning ordinance-county Subdivision Regulations-county Capital improvements program-county Official map - county Dune ordinance-county Sensitive lands acquisition-State

Site or Resource	Savannah/Brunswick
Category	Intensively Developed
Definition	Major urbanizing areas within coastal Georgia
Significance	Major retail/commercial centers; major port activities significant to state as a whole; cultural/recreational area
Technique for Identification	Savannah/Chatham County maps Brunswick/Glynn County maps
Program Objectives	Savannah/Brunswick should remain as the major growth areas on Georgia's coast Expand Savannah/Brunswick port activities Expand low/moderate income housing opportunities Concentrate urban expansion to non-sensitive lands
Program Policies	Encourage diversification of port-related activities Promote the historical, cultural, recreational attributes to increase tourism/conventions Conserve water access sites for developments dependent upon coastal waters

Criteria/Standards	Population Density Land Uses Land Values Accessibility Elevation Accessibility Proximity to Population Concentration Depth of Adjacent Waterway Size of Site Educational and cultural values Aesthetic
Priority Use	Within port areas-industry/shipping/ marine uses Islands/rivers-recreation/commercial fishing City-tourism/conventions/recreations/ residential
Implementing Devices and Responsible Entity	Continual comprehensive planning process Local state/federal development priorities State marshland protection act U. S. military/local coordination State/federal environmental regulations

Site or Resource	Savannah Beach, Georgia
Category	Intensively developed- Scarce
Definition	All land comprising Tybee Island
Significance	Major beach area for n.coastal Georgia Storm hazard area/ Tourism-recreation area Historic/ Beach erosion and dev. conflict
Technique for Identification	Chatham County maps showing Tybee Island
Program Objectives	Maintain existing facilities/atmosphere to insure continued enjoyment of tourism and recreation. Maintain residential nature of this barrier island
Program Policies	Encourage tourism to the area Restrict construction from hazard areas Encourage residential development Allow the natural processes to delineate beach Assist local governments in growth/development policy formation Restrict all activities that may be detremental to sand sharing system

Criteria/Standards	Accessibility Visitation Aesthetic Quality Natural Uniqueness Demand and Need Factors Water-based Recreation Potential Historic Character
Priority Use	Recreation Tourism Residential Commercial support facilities
Implementing Devices and Responsible Entity	Zoning ordinance-city Subdivision Regulations-city Dune protection ordinance-city Historic site acquisition-Federal/state Dredging permit process-COE

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