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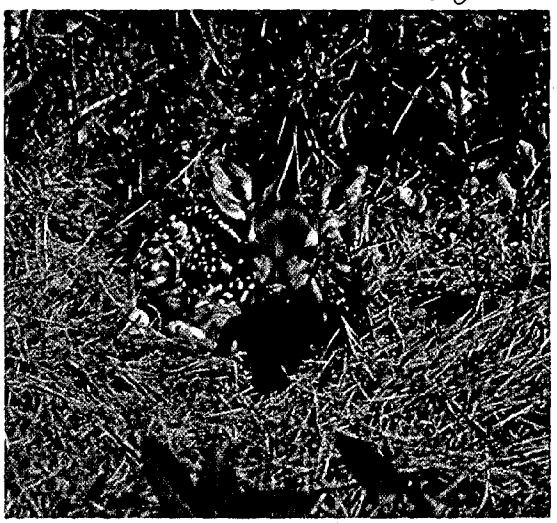

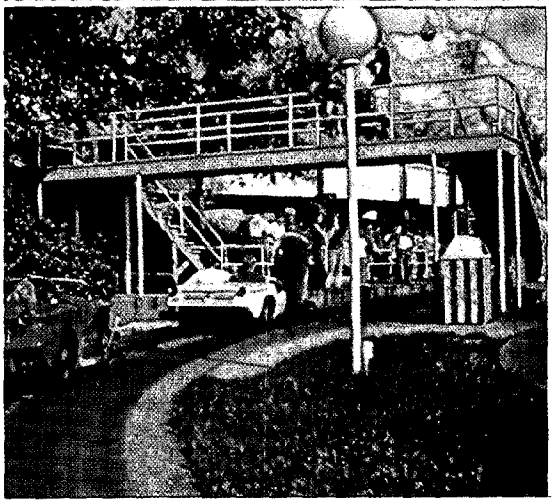

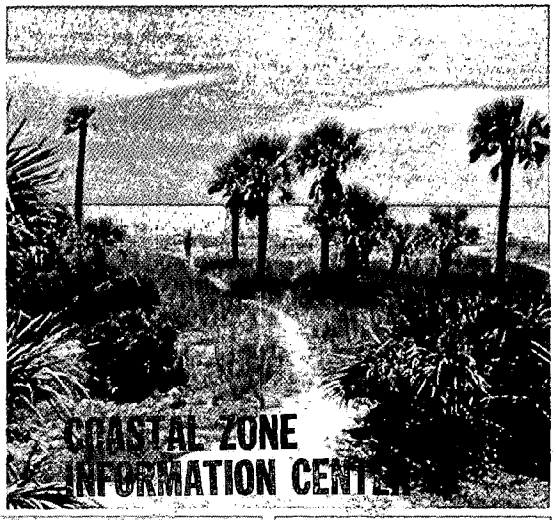

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Georgia State Comprehensive Outdoor Recreation Plan, 1972

prepared for

Georgia Department of Natural Resources
Division of Planning and Research

by

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The Georgia State Comprehensive Outdoor Recreation Plan (SCORP) 1972 is a great milestone in the history of state recreation planning. For the first time a thorough stratified random sampling of the population has been designed and carried out, including a field inventory which yielded 3,350 private and public outdoor recreation areas. This Plan updates the 1968 Georgia SCORP, which used national data for demand calculations and collected supply information for public recreation areas only. The 1968 study also lacked standard and carrying-capacity calculations.

At Georgia State University the project was commenced under the general supervision of Dr. Norman Harbaugh, Dean's office; Dr. Willys R. Knight, Director, Bureau of Business and Economic Research; and Professor Robert L. Chaffin. The project leader was Dr. Joseph C. Horvath, Chairman, Environmental Research Group. The demand survey coordinator was Professor Jere L. Atchison, and the supply inventory chief was Professor James E. Morrow. They were assisted by Dr. Gilbert L. Litton and Mrs. Adele Kushner, economists. Mrs. Mary Bowdoin worked as research editor. Donna Murdoch, Gwynne Guest, Gloria Studdard, and Sharon Long were the typists. Miss Nancie O'Sullivan, our resident graphic artist, was assisted by Miss Bee Lee Waddell and Susan Lightcap. Miss Judy K. Martin did the typesetting, and Mrs. Diane L. Fowlkes kept us in line with the budget. Mrs. Lucy N. Voight, Miss Marsha G. Moore, and Mrs. Susan Richards were research assistants. Mr. Ian McLeod Howard, chief of the Bureau's publications, and Miss Carolyn Pollard, assistant, were aided by Janice Snider and many student assistants–Maria S. Capo, K.M. Francies, Kathy E. Nikas, Juliette Wilson, Elizabeth Johnson, Leila L. Hartley, Mrs. Susan L. Turner, Mrs. Jane Black, Mrs. Beryl T. Birchenall, Joe Sturgeon, Patrice White, Terrilynn Harrison, Randy Ingram, Tim Jones, Susan Kushner, and Sherla White–who provided the many skills and efforts needed to produce the manuals for the supply inventory, demand survey, and other SCORP publications. The help of Miss Ellis Hughes is valued.

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* *

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ENVIRONMENTAL RESEARCH GROUP

Joseph C. Horvath, Ph.D.
Project Leader

INTRODUCTION

The statewide recreation demand survey (1970) of 2,140 Georgia households showed these major goals, desires, and needs of the people:

–Georgians want a quality environment;
–They want a three-dimensional recreational environment with a variety of outdoor recreation opportunities (as appropriate) within:
  the large urban or metropolitan areas;
  the rural districts and county centers of trade;
  the resource-based environments, including some wilderness areas.

The total area supply of the whole state, including the natural recreation resources, areas now managed for recreation and all other existing land use and development patterns, is 37 million acres.

Analysis reveals:

–In general much of the natural environment of Georgia is now of reasonably good quality;

–With development pressures growing, Georgia must act to develop policies and acquire key recreation areas if it is to conserve and protect needed natural, recreation, and historic areas;

–There are critical problem areas where action is needed now.

There is ample land, if we use it rightly, to meet the three-dimensional recreation environment goals expressed by the people.

If the variety of natural land water areas are used in harmony and accord with their natural characteristics, the natural processes for a high quality environment will remain; and the needs for urban, rural, and wilderness recreation opportunities can be met, as well as needs for food, shelter, industry, travel, and other special amenities of a modern technological society.

As one observes the total landscape from the mountains, through the inland rivers, across the plains to the sea, he sees a variety of naturally suited land management areas. Some are steep slopes with thin soils, forested to protect headwater supplies. Others are occupied by large and small cities with residential, recreation, and open space, industrial and commercial areas. Ample lands for food and fibre exist, and most of these are now managed as farmlands or forests. Fortunately, most of the rivers are still ribbons of green. Some rise from the mountain waterfalls to visit pastoral plains, cities, forests, wilderness gorges, and swamps on their way to the sea.

The estuarine and coastal islands are a very special part of the heritage of Georgia, and their quality maintenance is highly dependent on a continuous stream of nutrients from the inland rivers for beach sands and estuarine enrichment.

Whether Georgia's environment improves or degrades in quality is a continuous process of decision-making by an informed people and their leadership.

Will Georgia provide adequate recreation open space for its cities and rural centers as these areas grow; or will there be too little too late, as in many cities of other states?

Will Georgia evaluate and conserve the irreplaceable natural recreation resources of the regional landscape, or will Georgians pollute, dredge, build too many dams, and unnecessarily degrade these living resources as have so many other states?

The major purposes of this Georgia Statewide Comprehensive Outdoor Recreation Plan are to develop, refine, and maintain on a continuous basis:

–an inventory and analysis of the demand for outdoor recreation and the supply of outdoor recreation areas and facilities;

–an awareness of priority needs for recreation, the quality of the environment as affected by land use and development patterns and recreation resource allocations.

But most important is the action program for implementation, consisting of:

–the development of policy at the state and local levels; and

–the governmental investment program for recreation, conservation, and historic preservation by federal, state, and local agencies to meet priority needs, by type and location, in line with the Statewide Comprehensive Plan.

GENERAL PLANNING FRAMEWORK OF THE GEORGIA SCORP, 1972

General Considerations

The Bureau of State Planning and Community Affairs was assigned by the Governor the task of state level planning for outdoor recreation. The Bureau contracted with the Environmental Research Group of the School of Business Administration, Georgia State University, for preparation of the Georgia Comprehensive Outdoor Recreation Plan (SCORP), 1972. The Georgia SCORP, 1972 consists of the following publications:

EXECUTIVE SUMMARY
STATISTICAL SUMMARY
NARRATIVE PLAN–VOLUME I: STATE
NARRATIVE PLAN–VOLUME II: REGIONAL ANALYSIS

The *Executive Summary* is a small document on state-level recreation planning, including a presentation of the issues involved. It is primarily for the decision maker whose responsibilities have to do with providing outdoor recreation opportunities for residents of Georgia. Among other things in this document the problems are summarized and pinpointed, areas of greatest need are identified, and a plan for action is drawn.

The *Statistical Summary* is a three-volume document of regional and state level data on demand for, carrying capacity, and the need or idle capacity of outdoor recreation resources and facilities within the state of Georgia. The detailed analyses of these three parts of recreation planning will be sufficient for both public and private recreation planners for years to come.

The *Narrative Plan*, comprised of this "State–Volume I" and "Regional Analysis–Volume II," is in a narrative form. Volume II gives a detailed analysis of regional needs and relates them to the acquisition and development program. Special state level action programs and legislative and other issues are part of this publication.

The Acquisition and Development Plan is incorporated within the Regional Volume. This element will be updated annually.

The planning goal of the Georgia SCORP, 1972* is to provide better recreation opportunities for the population of Georgia, and its main planning objective is to meet that goal in time. The present plan provides answers regarding facilities needed now, in 1975, 1980, and 1985. These answers are concerned not only with the type of recreation resources and facilities needed, but their carrying capacities, and location within the various regions.

*Based on *Executive Summary, 1970*, pp. 30-31.

Objectives

The first objective of the Georgia State Comprehensive Outdoor Recreation Plan, 1972 was *to update the 1968 SCORP*. This was achieved by a thorough inventory of the public and private outdoor recreation areas in the state and a survey of a statistically significant number of randomly selected households to ascertain their recreation experiences, preferences, and related factors. The two functions, supply and demand, for outdoor recreation have been compared with the quality standards of outdoor recreation resources and facilities. The result is the need and/or idle capacity figures for 35 major recreation resources and/or facilities by region and for the state.

The second objective was *to meet the needs of the population in outdoor recreation*. This objective is as yet unfulfilled because of the limited financial resources of federal, state, and local governments. The private sector is rising to assist in meeting the needs. However, in urban outdoor recreation, the greatest deficiency area, private activity alone is not sufficient. More than half of the total number of recreation areas but less than one-third of the total acreages in outdoor recreation are owned by private businesses. Taking into account potential recreation areas and their carrying capacities, projections for the next fifteen years (see *Statistical Summary* for further details) show increasing needs. The second objective will remain a pressing one.

The third objective was *a plan for action to improve the environmental quality* of recreation resources. This objective was manifested in the high quality outdoor recreation resource and facility standards adopted by the state of Georgia for SCORP, 1971. Two documents were published on standards calculation; many meetings and discussions were held; and after about four months of work, from the grassroots up to state planners and back, the final standards were adopted. (See Table XI-1, Chapter XI, for further details.) The standards took into account a particular resource and/or facility, its physiographic location, distance to population centers, daily turnover rate, climate, soil type, frequency of use without quality deterioration, length of season, quality of actual recreation/experience, and other factors. A need for any one of 35 recreation resources and/or facilities was found if the demand for it exceeds the carrying capacity of the available supply. Some regions without current or potential resources to meet a particular need may be dependent in this respect on one or more other regions. Perhaps each region should be concerned with meeting only certain selected needs. These are alternatives to be considered by recreation planners at both state and local levels. The high quality of recreation/environment set by the adopted standards can be an incentive to investment by the private sector. This, in turn, would provide many employment opportunities. It is expected that the plans developed from this study will encourage the enlistment of private enterprise and outdoor recreation development. The Program Planning Section of the Department of Natural Resources is charged with assisting private developers along these lines.

The fourth objective was to establish a *framework of state policies and actions* for planning, staffing, and development. The publication, *Program of State Policies and Actions*, 1970, by the Bureau of State Planning and Community Affairs was revised to fulfill this objective. This document is the guide to continuous statewide recreation planning, conservation, and development in the state of Georgia. The framework encompasses 18 fields of endeavor and brings into focus an orderly system of outdoor recreation thinking in the state of Georgia. It represents the first attempt in the nation to program a policy action in outdoor recreation.

The fifth objective was *to determine priorities for resource acquisition and facility development*. This objective was met by the need calculation, the statewide and regional resource analysis, and by the setting of priorities within each region and at the state level. Though the need is so great for many of the recreation categories that they cannot be met with presently available funds from public sources, certain needs are more important than others.

The sixth objective was *to provide a guide for executive management*. The SCORP, 1972 has met this objective. The need or idle capacity for 35 items of outdoor recreation resources and/or facilities has been calculated by region on a comparable scale for the whole state. From this vast range of

basic information, priorities can be made. These priorities, in turn, guide executives in decision making in regard to land and water acreage acquisition and/or development of needed facilities. The *Statistical Summary,* explained in the *Narrative Plan* and backed by the Acquisition and Development Plans in the programs in the current State and Regional volumes, is the most up-to-date guide for executive management.

The seventh objective, the last, is not the least important: *acceptance of the Georgia SCORP* by the U.S. Department of the Interior, Bureau of Outdoor Recreation, in order *to qualify for funds under the Land and Water Conservation Fund Act, 1965.* Concerned officials and leaders in this entire effort have been in constant communication with the staff of the Bureau of Outdoor Recreation and have carefully used the Bureau's *Grants-in-Aid Manual* as a guide. The *Executive Summary*, the final *Statistical Summary*, the revised *Narrative Plans*, with their Acquisition and Development Programs, comprise the final documentation for qualification under the Act.

Schedule for Continued Planning

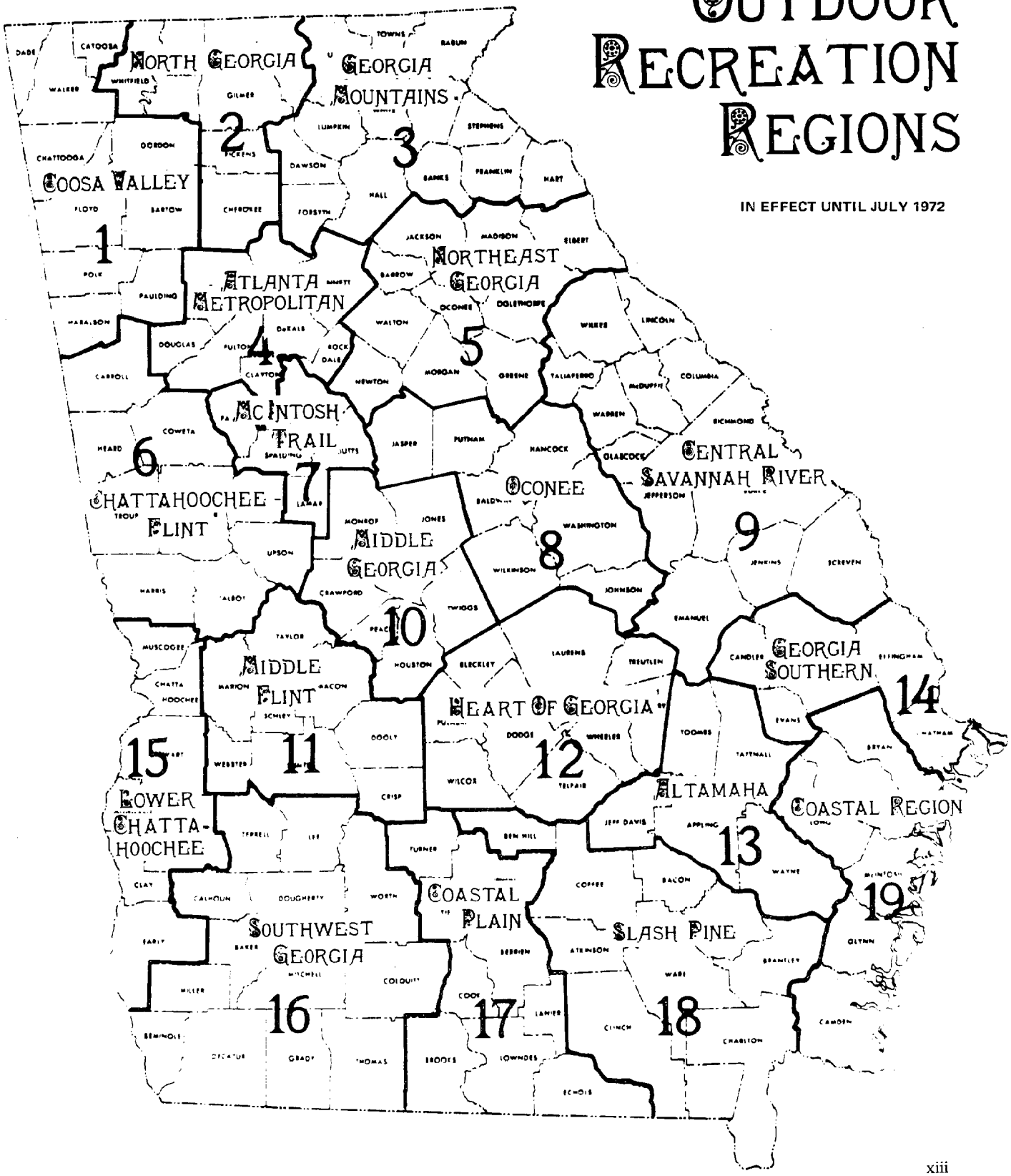
The Georgia SCORP, 1972 has been based on primary data, and both demand and supply represent early 1971 status. The population data used in the report is of 1970. Projections are listed for years 1975, 1980, and 1985. These last three dates include present potentially available recreation facilities and resources. It is therefore foreseen that every five years a thorough demand study and inventory should be made, along the lines of the two field surveys conducted in connection with this study. Within the periods of those five years, however, annual updating of the supply, policies and the Acquisition and Development Program should be made. The latter should concentrate on new additions to presently open recreation areas, and on entirely new recreation areas, thus updating the supply inventory each year. The observation posts for making this annual updating should be within those agencies that submit A&D schedules. New carrying capacities will be added to those presently available and will be compared with the demand. Computer tapes now available will facilitate this process. The annual updating, including comparisons with the A&D plans, can be published in a small document. The regional base of the outdoor recreation planning cannot be overemphasized, and updating will be shown in statewide systems and more specifically by each region.

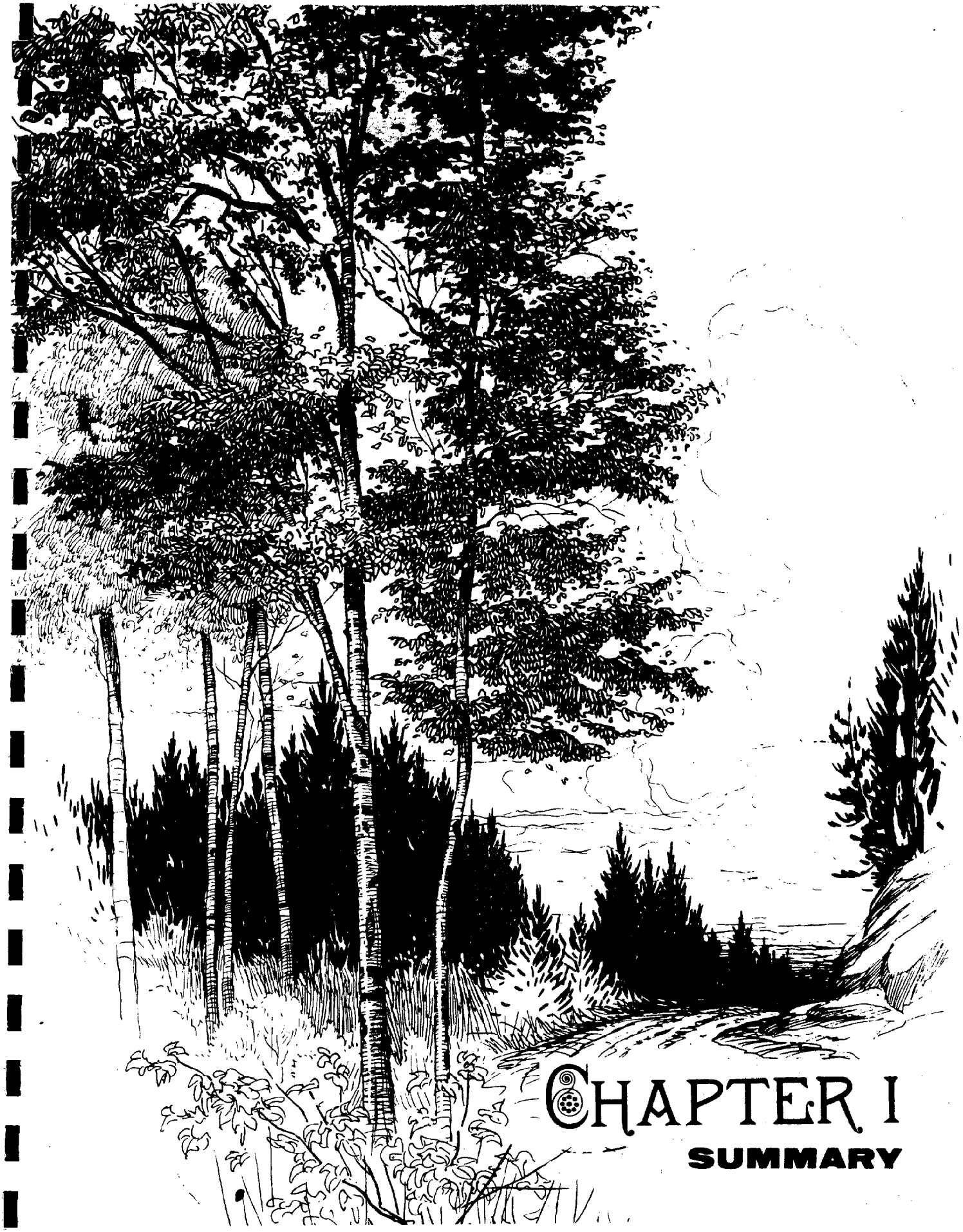
RESOURCE BASE ANALYSIS APPROACH

A Resource Base Analysis Approach has been added to the SCORP in 1972. This is discussed in the Georgia Environmental Mapping System, Chapter IV of this volume. The technique is applicable statewide, by region, and to major recreation areas or systems within regions. The state now uses this method in defining key potential resource-oriented recreation areas. For the first time the Area Planning Commissions used this method in their Regional SCORP Analysis and Plan. It will be a continuing planning tool. One of its chief values is in identifying the needs for special areas conservation. This need is founded in the irreplaceable nature and value of such areas, and the need for their protection is based largely upon their physiographic definition, size, and form on the surface landscape—as is necessary to preserve the integrity of such areas.

Outdoor Recreation Regions

IN EFFECT UNTIL JULY 1972





CHAPTER I

SUMMARY

CHAPTER I

SUMMARY:
CONCEPT, FINDINGS, RECOMMENDATIONS, CONTINUED PLANNING

A. GEORGIA SCORP CONCEPT

1. PURPOSE OF RECREATION PROGRAMS

This plan and its elements are part of an ongoing process of statewide comprehensive planning and decision making.

The State Recreation Program's major aims are:

--to provide for the recreational needs of the people of Georgia and out-of-state visitors; and

--to help maintain environmental quality through conservation of resource areas of critical concern.

The plan is a guide for government agencies and the private sector to acquire and develop recreation areas and facilities by functional types in the proper locations at the proper time.

The major tools of implementation are:

--the development of public policy to protect essential open space areas of critical environmental concern and provide adequate types of recreation areas as a primary land use; and

--the planning and programming of the governmental investment pattern for recreation at all levels--federal, state, and local--in concerted effort and complementary to the private sector.

2. PLANNING PROCESS

Illustration I in this concept is a diagram of the comprehensive Statewide Recreation Planning Process. The elements of this process are parts of an ongoing cycle. Some elements, such as the supply inventory, state and local policies, and the acquisition and development program must be updated on an annual basis. The whole plan, with all elements in concert, should be revised at five-year intervals.

3. PLANNING CONCEPT

Illustration II shows the planning concept of the total resource base and all land uses. The relationship of the supply of natural recreation resources, demands of people, and the transportation system to man's total environment is depicted.

Natural recreation resources exist in recreation resource oriented regions, in linear zones, and, as individual areas, upon the statewide landscape.

Human resources are the generators of recreation demands. Most people prefer a variety of activities which require different functional types of recreation areas. These areas range from neighborhood playgrounds to wilderness areas.

The planner must help separate the conflicts of recreation interests and use, while providing for a wide variety of recreation needs. The planner should compatibly relate the various recreation activities and let the natural characteristics of the land guide the use, site selection, site design, and the management of recreation resources on any particular piece of land. This concept is basic to comprehensive recreation planning.

This concept should be applied within the statewide framework, regionally within the statewide framework, and locally within each regions's plan. In this manner, a program leading to a more optimum use of the environment can be developed. Irreplaceable natural resources can be conserved. Man-made developments will occur at complementary locations. Environmental quality can be maintained; and, in culmination, the highest degree of user satisfaction can be achieved.

4. SYSTEMS OF RECREATION PLANNING AND MANAGEMENT

Illustration III generally shows types of recreation resources, types of management areas, their general service function as primarily vacation, weekend, or resident day use, and the level of governmental administration.

5. OVERALL PROGRAM MATRIX

Illustration IV is a matrix for overall planning through the SCORP with opportunity for planning and concerted actions among Georgia's state and local agencies, BOR, and other federal agency programs.

In Volume I of the Narrative Plan, this framework is applied statewide with the use of GEMS (Georgia Environmental Mapping System) and the compilation of federal and state investment programs. It is applied by APDC multicounty subregions in the Regional Volume of this plan, where federal, state, local government, and major private sector investments are considered in more detailed regional composition.

6. DEFINITIONS

The following narrative definitions and roles of national, state, regional, local public, and the private sector make the concept more meaningful.

a. National (Greater Regional) --recreational resources within Georgia of a kind and quality to be of sufficient interest to attract people from surrounding states for specific recreation uses. Their

significance is of national as well as state interest. These areas are generally beyond the state's ability to provide. The major responsibility for their provision is that of the federal government. Qualifying greater regional recreation resources are such resource-based recreation areas as national parks, national forests, wild and wilderness areas, national recreation areas, wild and natural recreation riverways, and Corps of Engineers impoundments.

b. Statewide and Subregional System (Regional Plans)--recreation resources and their created appropriate developments of at least statewide or multicounty regional significance. Such areas are of sufficient interest and attraction to people to motivate their frequency of use from over a geographic service area as large as the subregions defined in the statewide recreation plan. These are areas whose land and water characteristics meet the criteria to qualify them for state parks (natural, active, or historic types), state fishing and hunting areas, and state scenic wild river segments.

c. Local Recreation System (Community Plans)--those recreation areas and facilities basic to the daily needs of the residents of a municipality or county. These include such areas as municipal, county and school parks, natural areas, playfields, playgrounds, and swimming pools, the significance of which is first of local interest and a responsibility of the local governments to provide. These should be structured within each regional plan at complementary locations to assure conservation of the natural recreation resources defined in a and b above, and to meet priority recreation needs of the residents.

d. The Private Sector

(1) Commercial Recreation--the provision of specialized recreation areas and facilities at any of the above-defined levels of service which are of sufficient interest for use by people to realize a profit to the operator. This includes the service operation of food, lodging, and other special services which complement and supplement the public recreation resources and area/facility opportunities of a region. These services should be placed at locations complementary to the natural resource conservation areas.

(2) Quasi-public Agency Recreation--such as scouts or church-sponsored, not for profit.

Summary: Application of the Above

The statewide and regional plans should provide for an analysis of the recreation resources, the consideration of present and future population needs and transportation patterns, the selection, priority establishment, and implementation actions for recreation resources, areas, and facilities in a regional mix of all four systems identified above. The combined location and timing of public investments should be calculated to guide orderly regional and urban physical, social, and economic growth;

to provide for highest environmental quality and the values of human living through conservation of unique areas and opportunity for a broad variety of recreation activities.

7. PLANNING APPROACHES AND METHODOLOGY

Georgia, like many other states, uses several approaches in planning for recreation on a statewide basis. In addition to the on-going process defined above, the basic approaches are outlined here.

a. Resource-Based Approach--The GEMS technique described in a succeeding chapter employs techniques similar to those formerly utilized by Wisconsin and Hawaii. The distinctive areas of landscape are identified. Systems overlays show major geologic and physiographic relationships and outstanding natural, scenic, botanical, and zoological areas, major ridges, scenic rivers, and wetlands. The environmental corridor, an outgrowth of the Resource-Based Approach, is not confined to traditional definitions of recreation. This approach also includes major natural resource considerations of prime fish and wildlife habitats, historical and archaelogical sites, outdoor education and scientifically important areas, as well as recreation areas.

The competition for land is used as a positive planning argument, and those areas with inherent development limitations and features requiring open space management to maintain environmental quality are identified. Most of the critical resource areas can be assigned values according to their suitability for intensive, as well as low-density, types of recreational use. The approach is relatively simple and can be used to help plan a system of statewide and regional parks, fish and wildlife habitat zones, historic areas and statewide trail systems. It is highly useful when related to other systems, such as highways, as a tool to show opportunities for concerted action. It can be related to society's goals, such as our desire to shape the urban landscape in advance of urban sprawl.

b. Demand-Based Approach--This approach attempts to adapt the techniques of statistical survey analysis to the problem of estimating recreation demand. A statistical sample of the population is taken within which individuals are requested to indicate their particular preferences for various recreation activities, annual activity occasions (leisure time spent participating in each), and factors indicating education, income, occupation, etc. The population growth is projected for selected terminal years, with recreation activity demand projected for each terminal year.

The limitations of the approach lie in the assumption that succeeding age groups will continue to do proportionately what others do now. The traditional approach by itself concentrates on activities and maximized use. Georgia's demand study went beyond the approach used in the Outdoor Recreation Resources Review Commission report by attempting to measure the quantities of existing and needed supply to meet recreation demands. Georgia adopted and applied capacity space standards, and statistically compared demand with supply to determine needs and idle capacity.

c. Recreation Standards Approach--There are basically three types:

(1) Units per 1,000 population--This guideline uses the traditional number of supply units per 1,000 population for particular types of areas and facilities. It is most useful to indicate minimum acres of recreation open space needed for a given population area. Actual facility needs should be based on the age and interest composition of the particular population.

(2) Capacity-Space Standards--As used in this plan they are a statistical unit of measure expressed as quantities of activity occasions which given types of recreation areas and facility units can serve annually--for example, in the Georgia Highlands, Piedmont, and Coastal Plain regions. Such factors as quality versus density and climatic limitations are considered. This approach is explained more fully in the Demand Section of the Plan. While it is still imperfect, it holds promise for considerable refinement.

(3) Standards for Functional Types of Management Areas--This natural site identification and selection process uses several criteria for the selection and planning of major recreation areas. These include the location of types of areas considered in the Resource-Based Approach in relation to the needs to be served. Consideration is given to natural site characteristics, location in relation to other land uses, availability of access, potential compatible activities, and appropriate facilities. A master plan should be developed for each major area to consider natural land patterns and functional arrangement. Unique features, size, compatible uses, and quantities of appropriate facilties determine the daily, seasonal, and annual carrying capacities.

This system of applying multiple criteria is both an art and science to be applied by those specifically trained and experienced in natural resources and recreation areas planning.

Summary of Planning Approaches and Methodology

Some use of each of the above planning approaches and standards is appropriate in Georgia. No singular approach is perfect. It is highly important to have a resource-based analysis and land use plan as a guide in advance of development.

The state should refine its standard criteria for use in the selection of new major state areas. The resource inventory and analysis technique with system overlays will be highly useful. A master plan should be developed for each major state area, based on the area's theme and design for quality day-use capacity.

Each area that exists in an environmental corridor framework should be designed within the context, functions, and use pattern of that corridor. Many of the concepts are illustrated in the concept plan for the Suwannee National Wild and Scenic River.

Definitions

The new recreation-conservation concept deals with the ecology of man in his environment. The urban and regional areas of the state constitute a living organism within which man is an interdependent part, and yet the only agent free to plan and shape his destiny.

a. Recreation Planning is a process of planning for the continuous understanding, maintenance, and orderly evolvement of both natural resource and human resource recreation.

> Evolvement includes evaluation of man's physical environment, consideration of alternative plans of conservation and development, and selection of the optimum regional and urban design plans. For people, it involves the understanding of human growth and development of basic human values. The importance of recreation is that it is a basic human need and has potential as a constructive individual, social, educational, and economic force.

b. Natural Recreation Resource--natural resource area possessing inherent physical features of outstanding scenic, fish and wildlife, cultural, historic, scientific, outdoor recreational or outdoor educational values. These natural resource areas are of sufficient significance to merit state or local government policies and planning for protection to maintain their desirable physical environmental, social, and cultural values in each county.

c. Recreation Area--A designated, private or public, natural or man-made area for wholesome leisure time activities designed with appropriate facilities for its landclass and the compatible activities to be conducted thereon.

d. Stream Valley Park--A natural recreation resource utilizing the stream valley floodplain, designated as a public recreation area and planned with appropriate facilities, to which other public or private park nodes may be related to properly utilize the natural floodplain buffer, conserve scenic beauty and design with nature.

e. Natural Recreation Environmental Corridor--A natural resource (in contrast to man-made) which has inherent physical characteristics of high recreational, fish, wildlife, educational, scientific, and regional or urban environmental design values. Examples are:

(1) Scenic, wild, and recreation rivers and the adjacent lands paralleling these waterways.

(2) A generally undeveloped mountain corridor or ridge of high scenic, fish, wildlife, and outdoor recreation values of primitive and natural forms, such as hiking, wilderness camping, wildlife photography, or natural science study.

These corridors also serve as a broad green strip of natural open space providing a contrasting environmental zone between the mechanized urban and rural intermediate zones of our environment. They are fundamental components of nature's design which should be publicly conserved and protected by Georgians to shape and maintain the quality of their regional and urban environments.

ILLUSTRATION I

COMPREHENSIVE STATE RECREATION PLANNING PROCESS

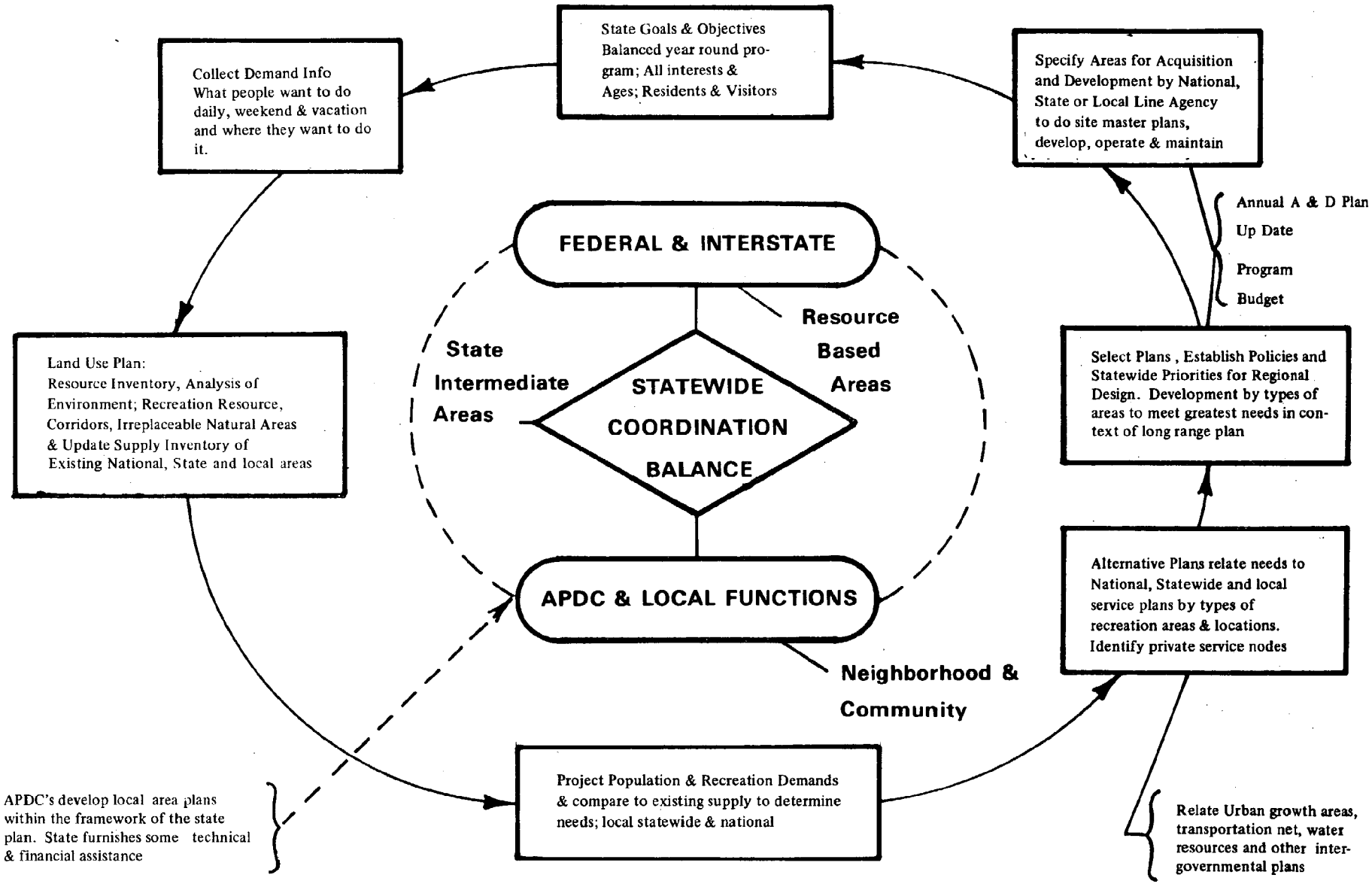


ILLUSTRATION II

STATE OUTDOOR RECREATION PLAN

TOTAL RESOURCE-BASE ENVIRONMENT-LAND-WATER-AIR-MAJOR URBAN AREAS-FOREST-AGRICULTURE-TRANSPORTATION

(The Resource Base Inventory and Analysis is a major determinate of the locations of the above and essential to determine all future recreation areas and facilities as well as all other land uses.)

SUPPLY

Natural Resources

Major Resource Based Recreation Oriented Regions

Environmental Recreation Resource Zones

Major Scenic Mountains, Riverways, Coastal Areas and Intercoastal waterways

BALANCE

Natural — Man-made

NATIONAL	STATE	LOCAL
Resource Based Areas	Intermediate Areas	Resident Based
Large Areas; Primary Attraction in Natural Resource Zones Transportation to the Areas in Complementary Location Selected Private Service or Intermediate Service Sites in Relation to the Macro Resource Base Usually a variety of types of resource areas in the same resource based region	4 Broad Classes Large Active Manmade, Unique Natural, Historic, and Special Conservation for Fish & Wildlife	Primary Urban and County Resident Areas Neighborhood, Playgrounds and parks; community district, playfields; community wide metropolitan regional or county wide parks Often major historic areas are found in Urban areas As well as certain types of major active areas

Transportation Ways Connecting and Relating people to their resident daily, regional weekend, and vacation recreation opportunities

walking biking driving boating flying horsebacking

DEMAND

Human Resources

People:
(1) Their leisure time preference
(2) Their place of residence
(3) The daily weekend and vacation areas selected for expression

Activity Groups

Major activity groups divide into sub groups, and they logically relate to different environments:

High density, medium density, low density & no development

or

Urban, rural and intermediate; resource based, including wilderness

Activity Groupings

EXAMPLE: with sub groups of each related to dimension of environment

ENVIRONMENT	CAMPING	FISHING	BOATING	WALKING
Urban (High Density)	Organized	Reservoir or Streams	Reservoir or Streams	Walking for Pleasure
Regional and Intermediate (Low Density)	Informal Cabin Lodge Tent Trailer	Scenic Rivers, & Impound-ment	Sail boats Power boats Small craft	Nature Walks Day Hikes
Resource Based (Lowest Density)	Wilderness	Wild river & Seashore	Canoe & small craft	Hiking in remote country

ILLUSTRATION III

COMPREHENSIVE STATE PLAN
SYSTEMS OF RECREATION PLANNING

MACRO LANDSCAPE OF THE ENVIRONMENT: Urban High Density; Rural Intermediate; Resource Based
(Level of service function-fixed resource, areas and facilities in relation to where people are.)

VACATIONS & WEEKENDS		PREDOMINATE WEEKENDS VACATIONS SOME DAY USE		DAILY RESIDENT
MOUNTAIN & RIVER VALLEYS		STATE INTERMEDIATE AREAS		LOCAL AREAS
1. Areas of Nat'l. Parks, Forests and Wildlife	Resource Based Zones & Areas	1. Unique Natural Sites	Generally State Provided	Neighborhood parks and playgrounds
MAJOR RESERVOIRS & LAKES	Areas often conserve other values such as water supply sources	2. Large Active Regional Sites Usually Water based	Unique Natural, Historical or important fish & wildlife habitats of national or statewide significance.	Playfields & Community District Parks
Fresh Broad Surface Water Based		3. Major State Historical Sites	Water based active and natural low density development parks to provide state regional balance.	Community-wide & Metropolitan Regional or County Parks
NATURAL LAKES	Usually Federally Owned or Controlled; some with joint state cooperative planning development and management functions;	4. Special state areas for fish and wildlife conservation	State parks Fish & Game Division of the Dept. of Natural Resources and the Georgia Historical Commission are the line agencies for acquisition, development & operation	Special conservation areas of local natural and historical significance
2. Corps of Engineers & private Impoundments				City and County Governments or Regional Cooperative Park Districts provide these areas and facilities
COASTAL REGION				
3. National Seashores National Park Service				
4. Large Special Conservation Areas for Fish & Wildlife				
5. National Historical Sites				

ILLUSTRATION IV

SCORP
STATEWIDE COMPREHENSIVE
OUTDOOR RECREATION-CONSERVATION-OPEN SPACE PLAN

STATE DEPARTMENT of NATURAL RESOURCES
PLANNING & TECHNICAL ASSISTANCE & PROJECTS ADMINISTRATION

FEDERAL DEPARTMENTS
PLANS & PROGRAMS ADMINISTRATION

WITHIN THE SCORP FRAMEWORK, PLAN THE MULTI-COUNTY REGIONS IN FUNCTIONAL REGIONAL LANDSCAPE COMPOSITION. USE RECREATION/CONSERVATION AS A PUBLIC INVESTMENT TOOL TO GUIDE ORDERLY REGIONAL AND URBAN GROWTH AND DEVELOPMENT FOR (1) THE QUALITY OF HUMAN LIVING (RECREATIONAL EXPERIENCES), AND (2) ENVIRONMENTAL QUALITY CONSERVATION BY PUBLIC PROTECTION OF KEY RECREATION AND CRITICAL OPEN SPACE AREAS.

ADMINISTRATION of PUBLIC RECREATION SYSTEMS	INTERIOR			HUD			AGRICULTURE		U.S. ARMY
	BOR L.W.C.F.	FISH & WILDLIFE D.J. P.R.	NATIONAL PARKS HISTORIC PRESERVATION	OPEN SPACE	URBAN BEAUTIFICATION	HISTORIC PRESERVATION	FOREST SERVICE	SOIL CONSERVATION SERVICE PL 566	CORPS OF ENGINEERS PL 89-72
FEDERAL	STATE RECOMMENDS	FISH WILDLIFE FISH & WILDLIFE ADMINISTERS STATE RECOMMENDS	NPS ADMINISTERS			STATE RECOMMENDS	NSFS ADMINISTERS STATE RECOMMENDS		CORPS ADMINISTERS LEASES MOST AREAS STATE COORDINATES & RECOMMENDS
STATE	ADMINISTERS			FOR A & D & ADMINISTRATION IN URBAN OR URBANIZING AREAS 50% COST SHARE				SMALL WATERSHEDS PROJECTS BY STATE OR LOCAL SPONSOR 50% COST SHARE	STATE MUST PAY 50% COST SHARE OF PROJECT
	APDC-REGIONAL PLANS AND LOCAL PLAN ASSISTANCE WITHIN A REGIONAL FRAMEWORK AS PART OF SCORP								
LOCAL	ADMINISTERS	PRIMARILY LOCAL GOVERNMENT SPONSORSHIP 50% COST SHARE						SMALL WATERSHEDS PROJECTS BY LOCAL SPONSOR 50% COST SHARE	LOCAL PROJECTS 50% COST SHARE

B. FINDINGS AND RECOMMENDATIONS

1. GENERAL FINDINGS

Georgia Statewide Comprehensive Outdoor Recreation Plan 1972 represents the compendium of 19 volumes of studies in outdoor recreation in Georgia since 1965. In addition, outdoor recreation has received attention in two other state documents, three intergovernmental studies (the Chattooga, Suwannee, and Chattahoochee special areas), and the Appalachian Regional Commission and Coastal Plains Regional Commission Plans.

Recreation is accepted as an important social and environmental need and an economic generator in Georgia.

A plan is more than a document. The recent reorganization of state government in Georgia, which located recreation program responsibility in the Department of Natural Resources, and the leadership of Governor Carter's administration together place recreation and the environment in a functional program category alongside transportation, industrial development, and housing.

This plan includes a five-year action program for acquisition and development related to responsibilities of all levels of government and the private sector to meet the needs for outdoor recreation in Georgia.

This plan uses the methods of Resource Analysis; Inventories of Demand and Supply; the National Recreation and Park Association; and capacity-space standards to determine recreation needs and priorities in Georgia. From these comparisons, needs are projected through 1985. The needs are cataloged on a statewide and regional basis as being either urban, rural, or resource based. Priorities exist in all three categories. Needs and priorities are established both statewide and by region.

In general the needs are great in Georgia for all types of areas and facilities. However, needs vary by region within the state according to the occurrence of unique natural resources; the existing supply of recreation areas and facilities; and the demands, composition, and recreation preferences of the residents of the respective regions. It is necessary to review the Regional Analysis (Volume II) for a more accurate determination of needs and priorities for each region.

2. NATIONAL PRIORITIES

The national recreation priorities of investment place emphasis upon the timely conservation of unique natural, wilderness, and major historic resources and protection areas of critical concern for environmental quality open space such as floodplains.

3. STATE PRIORITIES

Major active types of parks wherein the emphasis of use and attraction

is man-made facilities and activities are in fair balance. This role of service should be increasingly filled by the private sector. State parks designated "active" should have master plans with functional facility layouts and capacity space limitations designed with the land to avoid overdevelopment and loss of quality.

The state park system should reemphasize its policy and acquisition program to protect major unique natural recreation resources and to assist in providing major parks in urban areas before these sites are lost to other purposes. This action is essential to maintain environmental quality, shape the regional and urban environments, and provide adequate outdoor recreational, educational, and scientific opportunities for present and future generations.

It is evident that public acquisitions will cover only a small part of the needed protective environments conservation. The tax structure should be studied and revised to help assure that protective environments owned by the private sector are maintained in compatible open space uses.

Policies to permit public conservation easements and public use easements should be established in addition to the present fee acquisition and lease arrangements.

The public acquisition need for unique natural recreation resources is determined by a landscape physiographic definition of a special area's boundary--as necessary to protect the integrity of the area. Use is then determined in a master plan of appropriate facilities to guide compatible activities within a management plan of operation and maintenance to assure quality human experiences and protection of the resource values.

4. LOCAL AND URBAN PRIORITIES

Special problems exist in the large urban areas. Recreation and environmental open space is inadequate in each SMSA, and that which remains is vanishing to other competitive uses. Federal and state technical and financial assistance should be provided here to acquire key natural and active types of urban-shaping parks before the historical mistakes of other older cities in the nation are repeated in Georgia's larger cities.

Intergovernmental plans for investment and operation programs of major resources such as the Suwannee Scenic River should be pursued. The federal government should invest heavily in the special area-fragile resource zone which needs to be conserved. The state and local governments should be given opportunity to operate the unique natural and public park areas; and the private sector should be encouraged to provide the bulk of the food and lodging accommodations at strategic locations adjacent to the protective environments.

Summary of Findings and Recommendations for a Balanced Statewide Park and Recreation System

The national and state parks should primarily conserve major scenic,

unique natural resource oriented, and historic types of parks. APDCs and local governments should cooperate in establishing major national and statewide parks where irreplaceable resources justify their creation. Additional, smaller regional parks may be cooperatively provided by two or more local governments to meet additional demands of the people where needed and feasible. The cities and counties should complete the system by acquiring and developing the needed local community parks and recreation areas in the system. These are neighborhood parks, playgrounds, playfields, swimming areas, trails, boat access sites, citywide and countywide parks as required to meet the daily needs of the local residents.

In addition to the objective of meeting daily resident needs, the local parks and recreation areas should be developed in concert with the objective of properly shaping the local environment within the larger regional resource conservation framework. State technical and financial assistance should be provided to the APDCs and local governments to assure realization of these statewide recreation findings and needs.

5. TECHNICAL ASSISTANCE ARRANGEMENT

One of the most needed and productive state recreation services has been the provision of technical planning and program assistance which has been provided to the local governments and the APDCs by the Georgia Recreation Commission and the Office of Planning and Budget. These functions have now been transferred to the Department of Natural Resources.

It is important that this service be maintained if the application of concepts and goals, as outlined in the 1972 SCORP, Volumes I and II, are to be implemented.

As the focal point for park and recreation development in Georgia, the Parks and Recreation Division views the State Comprehensive Outdoor Recreation Plan as a major source of long-range planning and direction regarding parks and recreation in Georgia.

The Parks and Recreation Division views its involvement in SCORP as providing professional expertise to cities, counties, Area Planning and Development Commissions, and other departments and divisions within state government to determine the present and future park and recreation needs and services to be provided by the governmental unit involved.

By its very name, SCORP is an outdoor recreation plan and must receive the maximum professional direction that the Parks and Recreation Division can offer.

6. RECOMMENDATIONS:

1. Provide greater planning and technical assistance to cities and counties.

2. Maintain or increase the planning coordination between Area Planning and Development Commissions and the professional staff of the Planning

and Research, Game-Fish, Parks-Recreation, and other divisions of the Department of Natural Resources.

3. Fully utilize the Technical Services professional staff in providing planning and technical assistance to the total SCORP effort.

Recommendations from the Analyses of Protective Environments

1. Accelerate regional land use plans for the Highlands and Coastal outdoor recreation resource-oriented regions;

2. The U.S. Forest Service should play a major role in the conservation of the critical resources and special natural recreation areas in the Georgia Highlands;

3. Finalize and continue with the implementation of the Chattahoochee Scenic River Park Plan;

4. Obtain National Wilderness Protection of the Okefenokee Swamp by Congressional action;

5. Pass a sound Cumberland Island National Seashore Act to maintain this island as a true island with a natural, primitive, and historic theme;

6. Restudy the Alcovy and Flint River development proposals and consider all possible alternatives to maintain environmental protection of these natural scenic river resources;

7. Establish through Congressional Action National Policy creating the Chattooga and Suwannee wild and scenic rivers as components of the National Wild and Scenic Rivers System;

8. Coordinate State Education and Recreation Program efforts to emphasize a new joint program of environmental awareness and appreciation;

9. Maintain minimum flows below major reservoirs to maintain river values and uses.

Fish, Wildlife, and Boating

Fishery

Finding: The primary inland river fishery resources should be protected from unnecessary damaging pollution, channelization, dredging, and damming. Protection of the scenic shorelands and provision for adequate public access of appropriate types at proper locations are needed. (See map PE-3--Primary Fishery Waters, Chapter IV.)

Recommendation: The newly-programmed trout hatchery on the Chattahoochee River below Buford Dam should receive high priority for funding in Fiscal Year 1973.

Wildlife

Finding: A balance of both intensive and natural wilderness managed wildlife areas should be achieved to meet hunter and other environmental needs.

There are some areas within the state which, based on their natural use characteristics, are well suited for Class V-B wilderness classifica-

tion. These areas should be from 5,000 to 50,000 acres or larger in size.

Overall, Georgia has only 1,144,800 acres in state-managed wildlife lands including those lands in the National Forest. This is considerably less than have several other states, some of which maintain five acres of public hunting land per licensed hunter. The 1968 Statewide Recreation Plan showed a need for an additional 640,000 acres of wildlife land, but only a fraction of that has been obtained.

Recommendations:

1. Assign a top priority for acquisition and management to those primary wildlife habitats shown on the protective environment maps which also have other environmental quality values that justify their management as essential open space.
2. Some large wilderness sanctuaries should be established as refuges for the black bear before this noble animal becomes extinct in the state.
3. A State Recreation/Conservation Trust Fund should be created and include as a public purpose the acquisition of top priority wildlife areas while they are still obtainable, rather than wait until they are piecemealed out of existence for other purposes or costs become prohibitive.
4. The Bureau of Sport Fisheries and Wildlife should continue to work closely with the State Game and Fish Commission, other resource management agencies, and planning commissions in Georgia to plan and provide adequately for both intensively-managed and wilderness-type wildlife lands.

Transportation--Highways, Trails and Boat Access

Finding: In the planning of highways, additional environmental safeguards should be taken to avoid conflict with areas of critical environmental concern.

Recommendations: Such safeguards should consist of standing policy within the State Department of Transportation to avoid natural lakes, swamps, mountain environmental corridors, river and creek floodplains, prime fish and wildlife areas, historical sites, and marshlands unless no feasible alternative is available. If no feasible alternative is available, then the Department of Transportation should take every measure possible to minimize the damage. Such measures include the purchase of extra right-of-way, bridging, tunneling, and other special design considerations.

Finding: Interdepartment cooperation and coordination of efforts in the planning function on a continuous basis can realize many potential actions in the public interest. Opportunities exist in location planning of highways on the regional landscape and in urban areas.

Recommendations:

1. Strips of land may be acquired along highways to protect the scenic shoreline where these parallel scenic rivers floodplains. Appropriate trails should be considered for location in these greenways.

2. Where new highways cross major scenic rivers, public boat access for canoe and fishing trails should be planned and acquired as part of highway right-of-way acquisition.

3. Where feasible and appropriate, important historic and scenic views should be acquired and protected as part of the right-of-way acquisition.

4. Boat access areas should be planned, acquired, designed, and constructed concurrently with transportation planning where new highways cross scenic rivers or old bridges are replaced.

5. Where roads now pass through natural scenic corridors, they should be designated as scenic roads, within their functional classification, and upgraded in their scenic qualities.

Findings and Recommendations for Fund Allocation

Recommendation: As a general administrative guideline, land and water funds should be allocated 50 percent for state projects and 50 percent for local projects over the next five years. HUD open space funds should be used primarily to supplement local recreation acquisition needs.

State Projects

In the past six years, state projects have been invested largely in development projects (78 percent). Critical and irreplaceable area acquisitions have lagged while costs have skyrocketed.

During the next six years, the state should invest a greater portion of the funds allocated to state projects (75 percent) in top priority acquisitions before these areas are lost to other purposes or costs become prohibitive.

Local Projects

At the local level, a more equal balance between acquisition and development has been maintained. Still not nearly enough of the recreation open space needs have been met, particularly in the large urban areas such as Atlanta. In most areas of the state, less than half of the existing need is being met. Balance should be maintained through areawide and local plans and priorities.

Recommendation: The state should establish a State Recreation/Conservation Trust Fund for funding top priority state and local acquisition and development projects in line with the above principles and policy guidelines. Priority projects should be packaged by APDC and reviewed and updated on an annual basis by appropriate state, regional, local, and federal representatives.

Because needs vary within the regions and urban areas of the state, priorities within general plans and programs should be set by the state in cooperation with each region and local government therein. This revision of the SCORP, in its State and Regional volumes, reflects a first effort to accomplish this goal.

Recommendation: The process should be refined annually through concerted planning review and updating of inventories, policies, acquisition and development programs between the State Department of Natural Resources, its planning and technical service functions, the Area Planning Commissions and their local governments.

C. OUTLINE OF PROGRAM FOR CONTINUING PLANNING

The process of continuing planning is now greatly simplified by the adoption of State and Regional volumes and an atlas method of annually updating.

Each year the Public Supply Inventory and the Acquisition and Development Program will be updated.

The State Volume (I), including state policies, Management System Supply Inventories, and the Acquisition and Development Matrix will be revised and updated as needed. It is proposed that these components of the plan be multilithed and 100 copies made for continuous planning and updating among the federal and state agencies and APDCs.

The supply inventory summary as shown in the Supply Section can be updated annually as a running inventory. Both the State Management System Supply Inventory and Program Matrices are coded to the statewide GEMS Maps for general comprehensive planning with other systems.

The program matrix for each State Management System will be updated annually. As state priorities are refined within the system and master plans for state areas are developed to guide acquisition and developments, these changes will be reflected in the State Acquisition and Development Program each year.

The Regional Volume (II) contains Regional and Local Policies and Acquisition and Development components. State and federal areas are identified with major local areas on the regional sketch map and coded to each region's Acquisition and Development program. Other smaller local areas which are developed within this regional recreation and open space framework are not shown on the map, but they are included by county in the Acquisition and Development Program of each region.

The regional inventory can be updated as a running inventory in each region's statistical supply summary and on the one-page summary table of public areas in each region's part of the SCORP. This will be aided by a copy of the annual running inventory of the federal and state systems.

Regional and local policy changes as needed and developed in each region can be made annually, together with an updating of each region's A&D Summary. Federal and state actions will be reviewed and added. The Area Commissions will add acquisition and developments accomplished and programmed in their respective regions. They will furnish copies to the

state. The state will review the federal, state, and local updatings and strive to resolve conflicts.

The state will transmit the updating elements to the Bureau of Outdoor Recreation. These will include the inventory summaries, new policies, and acquisition and development elements from both the State and Regional volumes. The entire system should have a major updating and review at five-year intervals.

Special studies such as the Southern Highlands Regional Study, any other special area studies, or scenic river systems studies will be additional planning projects, and costs will be within the framework of the SCORP and its continued planning program.

TABLE I-1

OUTLINE OF CONTINUING SCORP PLANNING PROGRAM
1972-1977 (FYs 73-77)

Work Element	Time Period	Agency	Manpower Man-Months	Costs	
				State	Federal
Annual					
State Analysis & Plan Update	annual FYs 73-77	DNR--Planning & Research Division Secretary, Travel and Printing of Update Elements	30 annually	$22,500	LWCF $22,500
State Game-Fish Boating System Element					
1. Special Study for Determination of Economic Value of F&W Recreation		-DNR--Game & Fish Coordinators -U.S. BSF & Wildlife -Georgia State University	12	6,240	PR-DJ 12,480
2. Inventory and Map Maintenance; Environmental Corridors	annual FYs 74-77	-DNR-Planning & Research -Game and Fish Research Planner	18 annually	10,500	10,500

OUTLINE OF CONTINUING SCORP PLANNING PROGRAM

1972-1977 (FYs 73-77)

Work Element	Time Period	Agency	Manpower Man-Months	Costs	
				State	Federal
State Parks & Recreation Areas System Element	annual	DNR--Planning & Research	36 months	$26,000	$26,000
	annual	DNR--Planning & Research	12 months	15,000	15,000
State Historic Preservation System Element					
Historic Preservation Planning, National Regional Maintenance, Site Evaluation and A&D	FYs 73-74	Georgia Historical Commission Historical Preservation Planner Secretary & Travel	40 annually	100,000	100,000 National Park Service
SCORP Regional Analysis & Plan Update					
1. State Assistance to APDCs and Local Governments	annual	DNR--Parks & Recreation Division 3 State-Area Recreation Planners 1 Secretary Travel	30 annually	22,500	LWCF 22,500
Updating of:					
2. -Supply Inventories & Maps -Regional & Local Policies -Local Government A&D Priorities and A&D Program in Context with State Resource Management Systems	annual	APDC Recreation Resource Planners	36 man-months 2 man-months each APDC 2 x 18=36	27,000	LWCF 27,000

OUTLINE OF CONTINUING SCORP PLANNING PROGRAM

1972-1977 (FYs 73-77)

Work Element	Time Period	Agency	Manpower Man-Months	Costs	
				State	Federal
Southern Highlands Region Study	1-01-72 1-31-74	-DNR--Planning & Research -University of Georgia & other State Agencies	64 over 2 years	32,000	LWCF 32,000
Coastal Zone Regional Plan	11-01-72 11-01-74	-DNR--Planning & Research State Resource Specialists -University of Georgia Institute of Ecology -Coastal APDC	80 over 2 years	30,000	CPRP 90,000
Special					
Scenic River and other Special Areas Studies	7-01-72 6-30-77	-DNR--Planning & Research Division in cooperation with APDC	15 annually	7,500	LWCF 7,500

CHAPTER II

GOALS

CHAPTER II

GOALS

The establishment of recreational goals for the state received one of the most dramatic thrusts ever through Governor Carter's Goals for Georgia Program.

A. REGION WORKSHOPS

During the summer of 1971 over 5,000 Georgians attended regional workshops where they completed workbooks containing questions relating to their opinions and priorities on various aspects of state and local government in Georgia. One chapter in the workbook dealt with environmental and recreational concerns. The degree of enthusiasm for each program as expressed by regional conference participants is indicated in Table II-1. It is important to note the high 44.1 percent who expressed reservations regarding the wisdom of encouraging future expansion of population and economic development.

TABLE II-1

REGIONAL CONFERENCE RESULTS

Item	Percent Supporting
Public school instruction on the environment	94.7
Adoption of standards to eliminate environmental ugliness	94.4
State assistance for local waste disposal systems	86.9
Involve youth in fighting environmental problems	85.5
Establishment of stricter automobile pollution laws	81.5
Develop a central State agency for environmental planning	79.4
Establish uniform licensing standards for all park and recreation personnel	77.6
Establish stricter controls over use of farm pesticides	75.1
Provide more revenue for park and recreation facilities	74.0
Consolidate agencies performing environmental control functions into a single department	72.8
Discourage expansion of population and economy	44.1

B. SUBCOMMITTEE REPORTS AND THE STATEWIDE CONFERENCE

During the late summer and early fall of 1971 the subcommittees of the Committee on the Natural Environment worked to compile comprehensive recommendations to Governor Carter. The subcommittees, consisting of 183 citizens, produced reports which served as the working documents for the Statewide Conference on the Environment. At the conference, attended by some 600 Georgians, the workbooks were reviewed and revised to reflect the consensus of those present. The revised reports were then submitted to Governor Carter as the recommendation of the people on what Georgia's Natural Resources and Environmental Management Goals should be.

The following outline represents a selection of those goals which have direct implications for the state's recreation program. These recently-established goals are now in the process of being translated into executive and legislative policy, and in some areas a substantial degree of implementation is under way.

C. STATE ENVIRONMENTAL AND RECREATIONAL GOALS

1. REORGANIZATION

--Establish and adequately fund a single state agency with the responsibility for the protection of all natural resources of the state. During the 1972 legislative session, all agencies were combined except those responsible for forestry, the State Conservation Committee for Soil Conservation Districts, and those concerned with historical archaeological functions. Efforts should be made to cover these functions in the present planning process with the intention of including the related agencies in the Department of Natural Resources in the immediate future.

2. NATURAL RESOURCES INVENTORY

--Conduct a land characteristics and natural resources inventory of the state to provide information on the suitability of the land for development. The study should identify those lands most suited for various types of urban, commercial, transportation, and open space use.

3. STATE LAND USE PLAN

--Provide the state with authority to develop and implement a statewide land use plan with regional and local participation which would guide the development of the state's natural resource base.

4. STATE COMPREHENSIVE OUTDOOR RECREATION PLANNING

--Develop and maintain the statewide Comprehensive Outdoor Recreation Plan (SCORP), including its Policies and Priorities for Public Investment as a working tool in the process of allocating the expenditures of funds for the acquisition and development of recreation-open space facilities.

5. STATE CONSERVATION-RECREATION CAPITAL IMPROVEMENT FUND

--Provide a State Conservation-Recreation Capital Improvement Fund for the acquisition and development of needed state and local recreational and conservation areas. A source of revenue must be established if such a fund is to be of value. An increase in the income tax or a diversion of gas tax revenues attributable to boat fuel are possibilities.

6. REFINEMENT OF THE RECREATION CAPITAL IMPROVEMENTS PRIORITY SYSTEM

--Develop and adopt the Conservation-Recreation (acquisition and development funding priorities) System related to the conservation-recreation demand inventory and a land use plan containing controls to guide state and local governments in establishing budgets and programs which are consistent with the overall plan.

7. STATE WILD AND SCENIC RIVERS

--Conduct more detailed studies of those rivers considered most suitable for inclusion in the State Wild and Scenic Rivers System and to place those found eligible under public protection and management.

8. NATIONAL RIVER AND WILDERNESS PRESERVES

--Work closely with federal agencies to place the Chattooga and Suwannee Rivers under the protection of the National Wild and Scenic River System and the Okefenokee Swamp under the protection of the National Wilderness Preservation System.

9. CUMBERLAND ISLAND NATIONAL SEASHORE

--Cooperate fully with the U.S. Congress for the enactment of a sound Cumberland Island National Seashore Bill which provides for its management as a natural island environment.

10. CHATTAHOOCHEE RIVER

--Protect the Chattahoochee River Scenic Corridor from Buford Dam to Peachtree Creek, providing for acquisition, protection, and management of key natural areas and adequate park and boat access sites. Georgia should also assist in the development of basic criteria to guide development along the river to assure projects with minimal environmental effects.

11. CITIZEN'S ENVIRONMENTAL SUITS

--Permit any citizen to bring suit to enjoin the violation of any state law pertaining to environmental protection.

12. STATE ENVIRONMENTAL IMPACT ANALYSIS

--Require all agencies of the state government and its political subdivisions to formally prepare an environmental impact study and to consider alternatives before commencing any major action with possible significant adverse effects on the environment. Georgia should establish criteria to which any proposed project should conform and which must be included in the study if it is to be considered sufficient. These criteria would serve as project development guidelines.

13. AD VALOREM TAX REFORM

--Fix at a reduced tax rate according to their desirable and suitable limits of open space use, lands classified as possessing prime agricultural unique scenic, recreational, and historic value which, according to the desirable future growth patterns within the state, should be maintained as open space.

14. SOUTHERN HIGHLANDS REGIONAL PLAN

--Develop and implement a comprehensive regional plan to insure the balanced development of the Southern Highlands Region in harmony with the environment. The Southern Highlands Plan presently in progress will serve as the basis for initiating a comprehensive regional land use and development planning program.

15. ESTABLISHMENT OF FLOODPLAIN MANAGEMENT CONTROLS

--Enact uniform statewide floodplain management legislation to prevent alteration of the floodway which would block the floodwaters or cause public subsidization of property losses in the 100-year floodplains in the rivers and streams of the state. Provisions should be made to encourage the use of floodplains to provide recreation and open space resources to the community while allowing them to continue their natural ecological processes.

16. LICENSING OF PARK AND RECREATION PERSONNEL

--Upgrade the quality of recreation leadership by requiring mandatory licensing for park and recreation personnel (including the raising of minimum qualifications for the job) and urging local governmental units (cities and counties) to adopt personnel standards recommended by the state.

17. LAND DONATIONS FOR RECREATION ONLY

--Revise state law to permit donations of land to be earmarked for recreational uses only, in the expectation that land donations would be made more easily and frequently if such uses were guaranteed by state acceptance; and require conformance to state land use plan.

18. WATER RESOURCES PLANNING

--Develop a functional plan for water resources as a part of the total State Development Plan; require other state agencies to cooperate and coordinate their responsibilities within the plan. Benefits of the plan would be a systematic evaluation of the state's water resources for recreation-conservation and water quality and supply and the facilitation of orderly regional growth.

19. CONSERVATION EDUCATION CENTER

--A conservation education center should be developed by the state Parks and Recreation Division and operated by all resource agencies as an adjunct to the state school system. The center would be a group facility where school camping would be conducted during school months and other forms of outdoor education programs planned for winter months. With this as a demonstration pilot project, school systems would soon learn the value of this educational tool and begin to develop their own school camps. New parks need not necessarily be created for the above-mentioned purpose; upgrading of group camps in certain selected major regional parks can provide facilities. The initial center or centers should be in or near the six (6) major urban areas (SMSAs) of the state.

20. STATE AGENCY ENVIRONMENTAL EDUCATION EFFORTS

--The natural resource agencies of state government, such as State Parks and Game and Fish, and the Forestry Commission can make contributions to environmental education from within their existing staff and budgets. Study areas can be set aside on present landholdings for classroom study and research projects; rangers and naturalists can be made available to the classroom teacher to conduct field study trips; and interpretive devices, such as exhibits, trails, and museums, can be installed throughout the state.

21. RECREATIONAL AND EDUCATIONAL FACILITY COORDINATION

--Parks and recreation must take the lead in establishing agreements to insure that school facilities are made available for recreation during time of summer recess and other nonacademic periods. All schools should be planned and constructed to serve education and recreation. Recreation authorities should have a share in the planning. Facilities for recreation could be grouped at one end of

school buildings. In an effort to insure construction of school facilities useful for both school and recreation, the State Parks and Recreation Division should review the plans for new school buildings. Recreational use of school facilities should in no way interfere with regular school use. New urban parks should be planned contiguous with or adjacent to existing or planned schools. Outside park/recreation facilities should be designed to complement the school and to encourage maximum utilization of the open space by the school during school hours and by the general public during non-school hours.

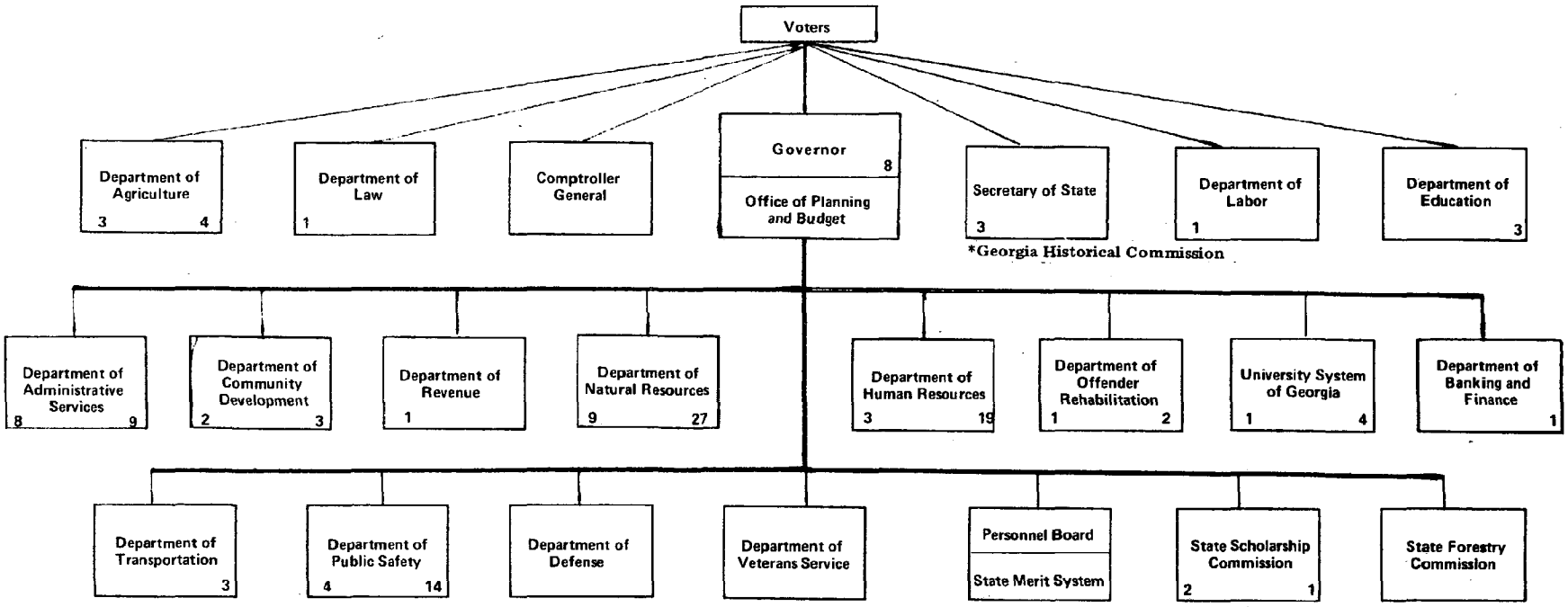
22. STATE THERAPEUTIC RECREATION PLAN

--Develop a comprehensive statewide plan for therapeutic recreation services to meet the needs, capabilities, and interests of the ill and handicapped citizens of Georgia. The plan should be established as an element of the State Comprehensive Outdoor Recreation Plan development process.

CHAPTER III

POLICIES

GEORGIA STATE GOVERNMENT -- EXECUTIVE BRANCH
REORGANIZATION STRUCTURE 1972



Other Agencies

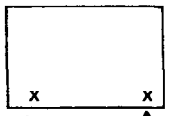
Lieutenant Governor
State Treasurer
Public Service Commission
Teacher's Retirement System
Employee's Retirement System
Soil and Water Conservation Committee
Forest Research Council
Literature Commission

Non-Budgeted Agencies

Georgia Fire Fighters Standards and Training Council
Professional Practices Commission
Georgia Development Authority
Richard Brevard Russell Monument Commission

Interstate Compacts

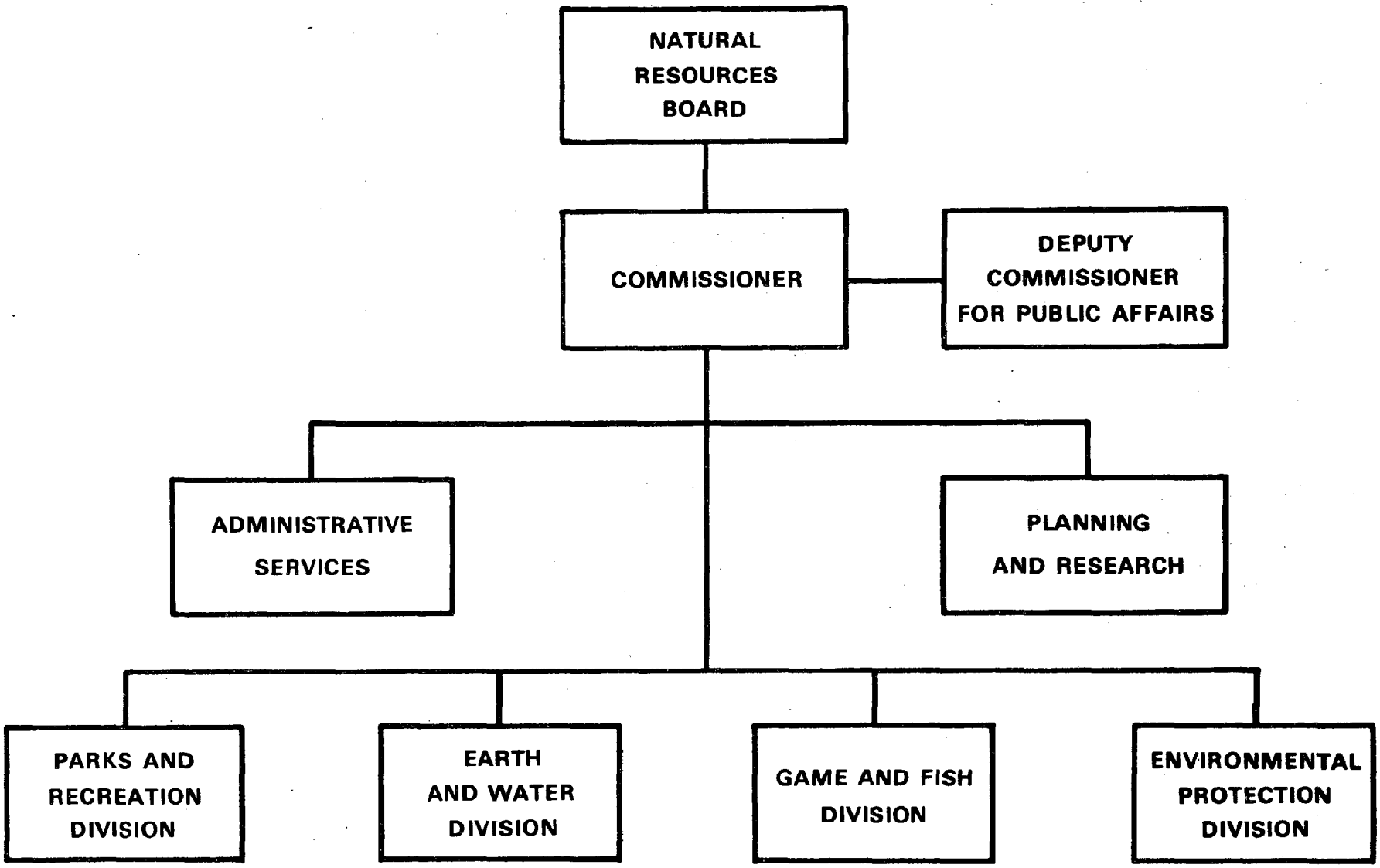
Southeastern Interstate Forest Fire Protection Advisory Committee
Atlantic States Marine Fisheries Committee
Interstate Environment Compact
Appalachian Regional Commission
Coastal Plains Regional Commission



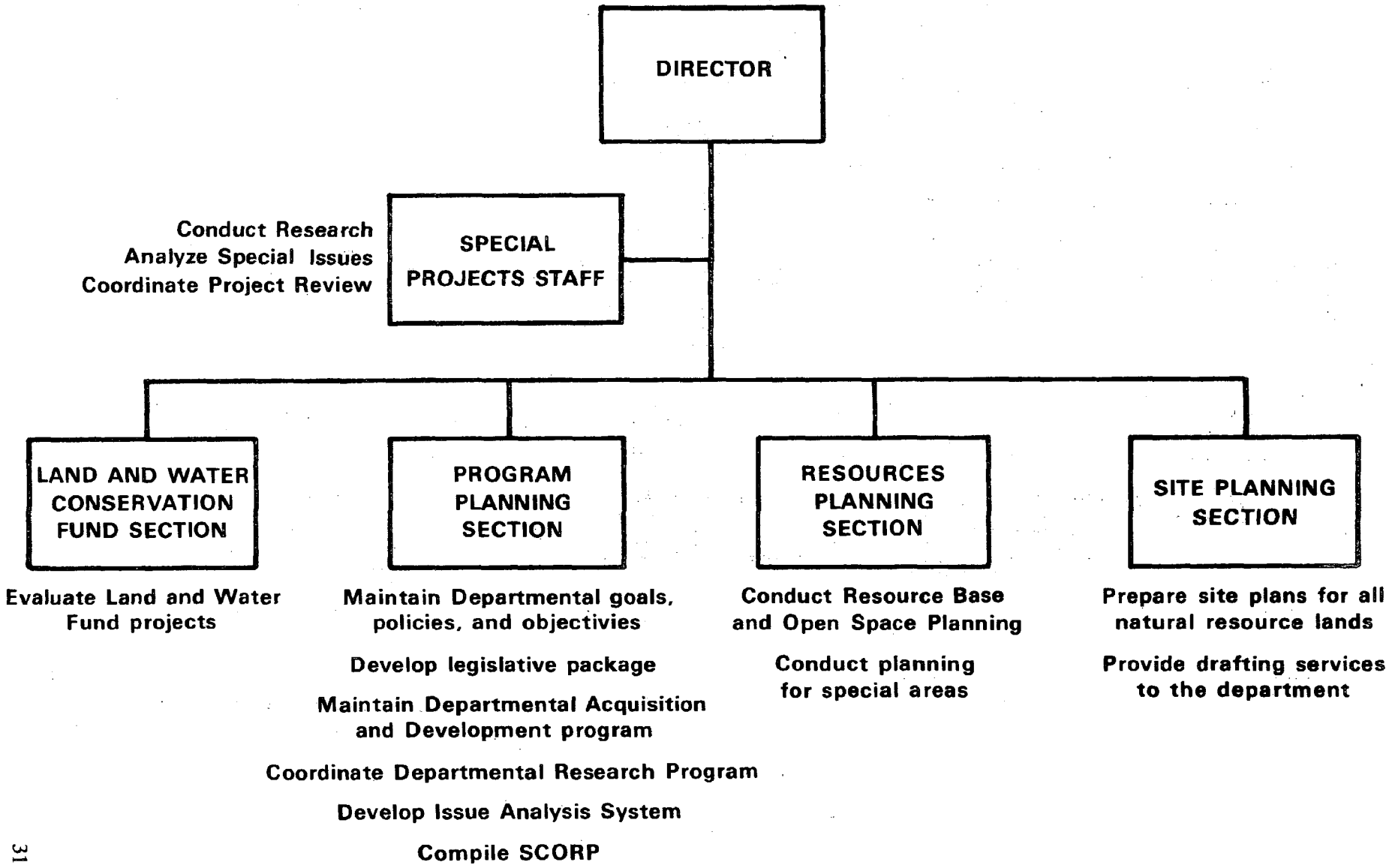
Organizational Units Transferred or Abolished

Organizational Units Attached Administratively

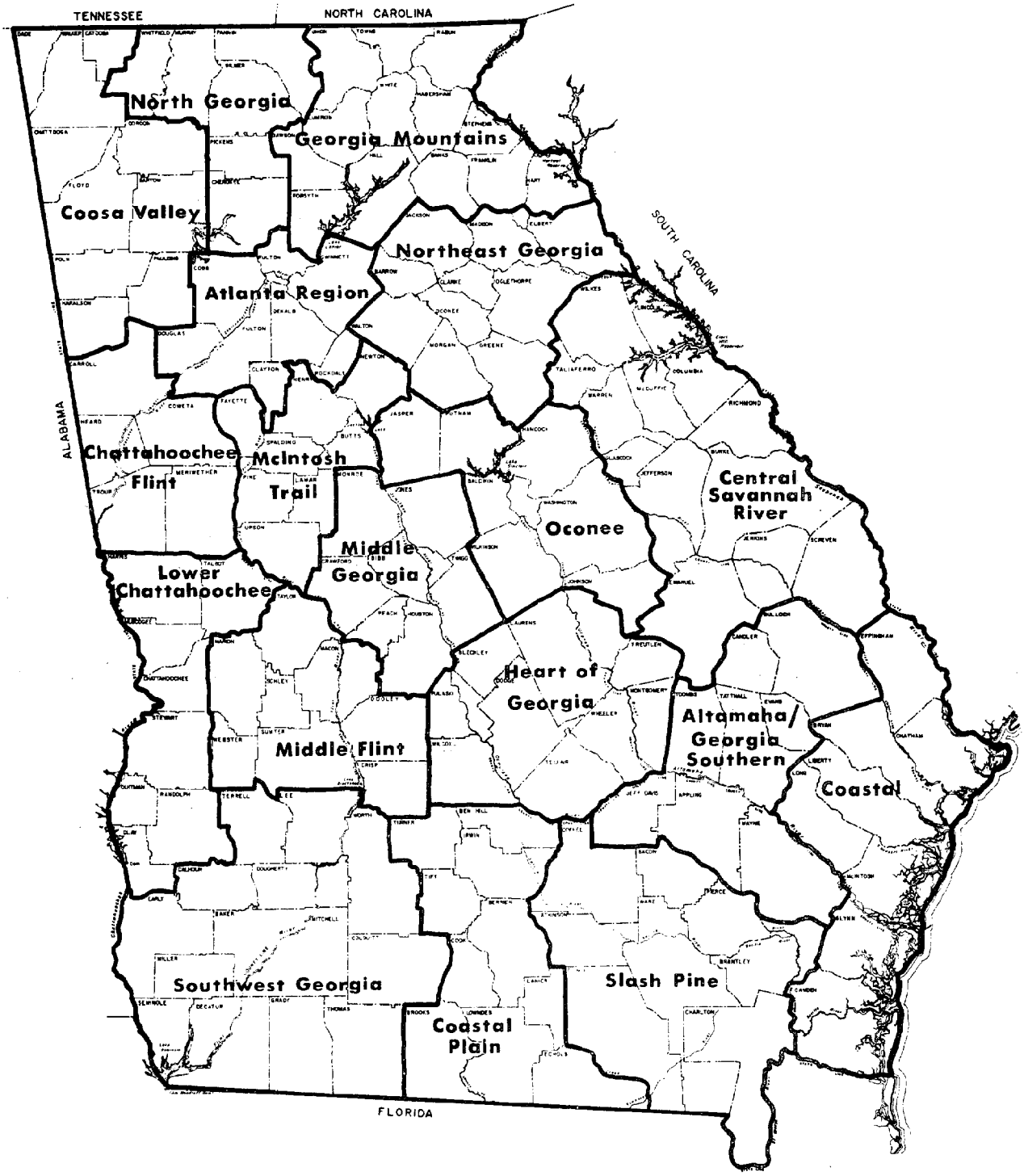
DEPARTMENT OF NATURAL RESOURCES



DEPARTMENT OF NATURAL RESOURCES
PLANNING AND RESEARCH



AREA PLANNING AND DEVELOPMENT COMMISSIONS
EFFECTIVE JULY 1, 1972



CHAPTER III

POLICIES

Over the past eight years, Georgia has developed a number of programs which are based upon executive and legislative policies. Those policies designed to fulfill the needs of the state in the area of recreation and environmental management are outlined below.

The completed extensive revision of the state's goals and the newly enacted extensive reorganization of the state's Executive Branch of government now in progress will probably result in a continuing substantial revision of the state's guiding policies over the coming months and years.

There have already been extensive changes in legislative policies as enacted by the State Legislature during the 1971 and 1972 sessions. The most innovative of these laws thus far have dealt primarily with environmental quality control and the structure of government. The indications are that much future action will be in the areas of land use management and funding of public acquisition and development programs.

This chapter includes the following:

--An outline of the state's Executive recreation policies as they can best be expressed at this time;
--A list of significant state legislation enacted during the past two legislative sessions (1971 and 1972);
--Significant federal legislative actions of the past few years; and
--A description of the most important environmental and recreational legislation currently pending before Congress.

A. STATE RECREATION POLICIES

1. INTERAGENCY PLANNING AND STAFFING

In order to implement a comprehensive program of planning, programming, and evaluation to provide all Georgians with adequate recreation opportunities, the Department of Natural Resources will foster coordinated planning at the state, regional, and local levels of government.

2. COMPREHENSIVE STATEWIDE RESOURCES INVENTORY AND LAND USE PLANNING

Provision of a basic analysis of the state's resources and land capabilities will serve with social and economic data as a guide for decisions regarding the protection and management of the state's natural resources. The process will involve basic mapping of the state's land and water resources with an analysis of the characteristics of the natural resources regarding their value and suitability for development.

The general land use inventory and analysis will be developed largely by the Department of Natural Resources with the cooperation of other appropriate agencies. It will be utilized in the State Comprehensive Development Planning Process through policy planning and coordination with the Office of Planning and Budget, the Department of Transportation, the Department of Industry and Trade, and others as appropriate.

3. SOUTHERN HIGHLANDS PLANNING

Through the Southern Highlands Study, the state seeks to create and implement an optimum regional plan of balanced conservation, an orderly development and management of the natural and manmade recreation resources of the Southern Highlands region. The Governor has committed funds from the Governor's Contingency to initiate the study in cooperation with North Carolina, South Carolina, the Bureau of Outdoor Recreation, and the Appalachian Regional Commission.

4. FLOODPLAIN MANAGEMENT

To encourage wise use of the land and avoid flood damage in flood-prone areas along our rivers and coast, the state seeks to prepare and implement a Floodplain Management Program which will:

--Establish statewide enabling legislation and environmental standards.
--Coordinate federal, state, and local efforts in floodplain management.
--Encourage state and local authorities to adopt and enforce adequate floodplain protection within zoning ordinances, subdivision regulations, building codes, health regulations, and other measures designed to reduce damage and loss of life from flooding.
--Make maximum use of flood-prone lands for such activities as recreation, agriculture, and other open space needs.
--Assist and encourage communities and municipalities to become eligible for and participate in the flood insurance program under the Flood Insurance Act of 1968.

5. STATE PARKS

Provision for public appreciation and use of natural, scenic, historic, and recreational areas of statewide significance involves the development of a system of state parks which matches the various recreational and educational needs of Georgians to the opportunities presented by the state's natural heritage. Parks will be themed as active, natural, and historic, according to the unique natural features which justify their creation. Compatible facilities and a program of activities will be developed within this context to provide maximum public benefit consistent with the preservation of the parks' unique characteristics.

6. STATE SCENIC TRAILS

The state seeks to establish a Scenic Trails System to be administered

and coordinated within the duties of the Division of Planning and Research of the Department of Natural Resources. The Scenic Trails System seeks out points of scenic, geologic, and historic interest and develops a balanced system of trails throughout the state. It will include trails to serve the needs in urban centers as well as rural and wilderness areas and will also serve the needs of various types of trail users such as hikers, horseback riders, and bicyclists. The System will also accommodate the variety of ability levels and distance requirements of the users.

7. SCENIC ROADS

The development of roads serving recreation and pleasure will be encouraged, insofar as they are consistent with balanced regional development, which includes urban, rural, and wilderness environments. The State Department of Transportation will seek to prepare and implement a Scenic Roads Program to:

--Coordinate federal, state, and local efforts in the selection, preservation, and development of roads that are scenic-oriented. Priority will be placed on beautifying existing roads.

--Encourage state and local authorities to adopt and enforce adequate regulations to include zoning ordinances, building codes, easement devices, and other measures designed to protect, maintain, or enhance the scenic aesthetic and recreational qualities of the corridor outside the right-of-way through which a scenic road passes.

8. ENVIRONMENTAL QUALITY MANAGEMENT

The state will continue to repair and maintain the quality of Georgia's air, water, and land resources by limiting emission of pollutants and controlling resource consumption. The development and implementation of recycling and pollution abatement technology and participation in comprehensive land and water resource-use planning to achieve these goals will be encouraged.

9. ESTUARINE AND COASTAL ZONE MANAGEMENT

The state program of estuary management, through the Department of Natural Resources, seeks to unify the many public and private coastal interests into a comprehensive study, use development, and management process for the estuarine zone as a part of the orderly protection and management of the overall Georgia coast.

This study process will promote a balanced program of optimum long-run management through:

--Protection of the area's fragile resources.

--Compatible use of estuarine resources within an overall general land use plan for the coastal region.

--Application of the principle of sustained yield in the development and use of biological resources.

--Evaluation and assurance that short- and medium-range development plans and decisions are in context with long-range environmental, social, and economic benefits.

--Establishment of federal, state, local, public, and private interagency planning, coordination, review, conservation, development, and management processes.

10. NATURAL AREAS PRESERVATION

In order to study the ecology of man in Georgia, or the relationship of human life to environment, the state has prepared and seeks to implement a program of locating, studying, and preserving undisturbed natural areas in Georgia. The purposes of the program are to:

--Locate, study, and preserve these natural environments, which are usually irreplaceable plant and animal habitats.

--Coordinate federal, state, and local efforts in Natural Areas preservation and serve in an advisory capacity regarding existing state- and federally-owned lands in Georgia.

--Guide the citizenry of Georgia toward a more perceptive and sensitive land use in the hope of improving the quality of our environment.

11. SCENIC RIVERS PRESERVATION

In order to preserve outstanding rivers or sections of rivers within Georgia for the enjoyment and enlightenment of future generations, the state established a State Scenic Rivers policy. Its purposes are to:

--Identify, study, and preserve rivers or sections of rivers in Georgia having outstanding scenic quality and add suitable rivers to the state system by state legislative act.

--Coordinate federal, state, and local efforts in Scenic Rivers preservation.

--Inform and educate Georgia citizens on the need for and wise use of Scenic Rivers.

--Encourage state and local authorities to adopt and enforce adequate regulations governing pollution control, zoning, and other measures designed to preserve the natural qualities of areas designated as Scenic Rivers.

12. URBAN NEEDS

The state recognizes the value of recreation services to the community and to man as an individual. Therefore, the state provides planning and technical assistance to local and regional subdivisions to assist in their efforts to plan and implement recreation programs consistent with the availability of funds and the needs of the community.

13. THE PRIVATE SECTOR AND STATE ASSISTANCE FOR PRIVATE DEVELOPERS

The state seeks to encourage the private sector to provide outdoor recreation opportunities and services where feasible and consistent with

state, regional, and local plans.

Profit-making enterprises currently satisfy a significant part of the total recreation needs, but they could further enhance and augment government efforts. Specifically, the role of the private sector in providing outdoor recreation opportunities should be to:

--Cooperate in planning and development of a complementary regional recreation investment pattern between the public and private sectors for environmental quality enhancement--the government investing in protective environments of critical concern and the private sector developing at adjacent strategic locations.

--Lessen the pressure from existing public areas and facilities.

--Provide areas and facilities which meet special needs not offered by other agencies.

--Insure a wide variety of wholesome recreation opportunities to the general public and generate an interest in tourism locally, regionally and statewide.

--Increase and insure sound and stable economic growth for the area and the state.

14. NEGOTIATION WITH FEDERAL PLANS AND PROGRAMS

Through close coordination and communication, the state will attempt to effect a clear understanding with federal agencies so the establishment and implementation of federal programs and projects can be the most effective possible and, therefore, can be used to the greatest extent by state and local agencies. Decisions regarding federal projects with Georgia which relate to recreation should be made only after consultation and coordination with the Department of Natural Resources. Georgia's Environmental Mapping System (GEMS) is to be used as a tool for functional systems planning of parks, fish and wildlife areas, historic sites, forestry management, and transportation systems in cooperation with respective state and federal program agencies.

15. RECREATION FOR THE HANDICAPPED

The needs of the handicapped should be met through the modification, design, and adoption of facilities for the handicapped within the general facilities plan of man-made recreation facilities. In addition, the provision of special facilities and programs and the employment of qualified staff are necessary so that the handicapped may have an opportunity to enjoy the benefits of recreation deserved by all Georgians.

The development of a statewide plan on Recreation for the Mentally Retarded would include a statewide inventory of existing programs and facilities available for use by the mentally retarded. The plan would also identify priorities with recommendations on personnel, programs, areas and facilities, and funding sources. In addition, this plan would be incorporated as a component of the Statewide Comprehensive Outdoor Recreation Plan and other appropriate state plans concerned with programs and services for the mentally retarded.

In developing guidelines for eliminating architectural barriers from park and recreation facilities, minimum standards would be prepared and hopefully adopted by the state whereby any park and recreation development utilizing state and federal funds would be required to meet these standards.

16. ENVIRONMENTAL SANITATION AND SAFETY IN RECREATION AREAS

The state seeks to insure the adequate protection of the health and safety of individuals visiting, residing, or working in recreation areas through:

--Consideration of suitable drainage, soil permeability, and ground water levels
--Assurance of an adequate and safe water supply
--Proper collection, treatment, and disposal of sewage wastes
--Proper storage, collection, and disposal of garbage and other refuse
--Inspection of kitchen, dining, and other food service facilities
--Certification of food sources
--Adequate and safe building facilities
--Control of insects and rodents
--Proper design and operation of outdoor bathing areas and swimming pools
--Minimization of accident hazards and promotion of safety.

17. HISTORIC PRESERVATION

It is a state policy to identify historical objects, sites, areas, and ruins; to select from the total inventory those of special significance for state preservation; to preserve and make available for scientific study those items of particular vulnerability; and to open those suitable for public recognition so that Georgians may better appreciate their cultural heritage.

18. HUNTING, FISHING, AND BOATING

Georgia attempts to protect, manage, research, and develop the wildlife and boating resources of Georgia by:

--Providing and maintaining the maximum population of game animals, game birds, and fur-bearing animals compatible with available wildlife habitat and food
--Permitting an orderly harvest of surplus wildlife in a manner that will provide the greatest benefit to the greatest number of Georgia citizens
--Developing and maintaining the fish resources of the state while providing the maximum degree of orderly utilization of the resource on a sustained yield basis
--Enforcing all laws, rules, and regulations pertaining to wildlife and boating
--Encouraging safe boating practices on the state's lakes and rivers.

B. STATE LEGISLATIVE POLICY ACTIONS

1971 LEGISLATION

Bill No.	Name	Act No.
HB 1	Reorganization of State Government	2
HB 5	Amend Board of Recreation Examiners; Add Fees	318
HB 55	Shrimp Season	86
HB 77	Litter Control--Penalties	787
HB 84	Std. Metro Statistical Areas: Create	5
HB 153	Water Pollution Control: Grants to Authorities	61
HB 210	Watercraft Capacity	378
HB 219	Fulton Co., Rapid Transit Authority; Local Sales Tax	46
HB 220	Metro Atlanta Rapid Transit Authority; Retail Sales	47
HB 234	Protection of Alligators and Crocodiles	998
HB 244	Game & Fish Commission Acquire Certain Property for Boat Access	382
HB 271	Foxes--Hunting with Recorded Sounds	558
HB 340	Change Hunting & Fishing License Fees	8
HB 369	Water Quality Control Mandamus Proceedings	34
HB 473	Jekyll Island State Parks (Limit Dev. Lands)	427
HB 537	Cities & Counties, Recreations Systems, Board Members	131
HB 661	Georgia System of Scenic Trails: Create	Vetoed
HB 1000	Colonels Island Transfer Georgia Port Authority	808
SB 2	State Athletics Commission: Creat	Vetoed
SB 3	Georgia Surface Mining--License Fees	75
SB 52	Landscape Architects--Applicants Exam. Fee	526
SB 66	Air Quality Control--Violations--Penalties	66
SB 67	Air Quality Control--Pollution Permit	67
SB 68	Motor Vehicle Emissions Control of Diesel Vehicles	68
SB 131	Motor Vehicle--Devices Emissions	69
SB 153	Creating a Citizens Environmental Council	707
SB 216	Land Covenants--Time Limitation	715
SB 248	Water Quality--Pollutants Discharged	70
SB 249	Water Quality Control--Judgment--Enforcement	71
SB 250	Air Quality Control--Judgment--Enforcement	72
SB 303	Interstate Environment Compact	73
SB 306	Architects: Relating to Qualifications	730

Bill No.	Name	Act No.
HR 205	Apalachicola, Chattahoochee, Flint Rivers	
HR 276-893	Corridor Loop Study Committee: Create	95
HR 289	Chattooga National Wild & Scenic River--Congress: Create	
HR 312	Preservation of Native Trees, Shrubs and Plants	
SR 64	Appalachian National Scenic Trail	44
SR 85	White House Conference on Aging in Georgia	
SR 87	Study Feasibility of Statewide Zoning Practices Law	
SR 88	Interstate Highway System--Study Committee: Create	
SR 89	Chattooga River, Congress Add to Nat'l. Scenic System	
SR 103	Rapid Transit Study Committee: Create	
SR 150	Moratorium on Rezoning on Chattahoochee	
SR 159	Atlanta Area Chattahoochee River Study Committee	

Some of the most significant actions are summarized as follows:

Environmental Quality Management Regulations

Act 34 -- Water Quality Control--Mandamus Proceedings: Amends the Water Quality Control Act to provide for mandamus proceedings for violation after investigation and public hearing.

Act 61 -- Water Pollution Control--Grants to Authorities: Amends the State water pollution control law to authorize the state to make grants of assistance for water pollution control projects to any public authority, agency, or commission.

Act 70 -- Water Quality--Pollutants Discharged: Any person who intentionally or negligently causes pollution to the waters of the State shall be liable in damages to the State and any political subdivision for all costs caused by such deposits.

Act 66 -- Air Quality Control--Civil Penalties: Amends Air Quality Control Law to provide that violators shall be liable to a civil penalty not to exceed $1,000 for such violation and an additional $500 for each day during which such violation continues.

Act 67 -- Air Quality Control Pollution Permit: Requires new developers to obtain a permit for construction in advance of development of new construction which may result in injurious air pollution.

Act 69 -- Motor Vehicle Emissions Control: Amends Uniform Act Regulating Traffic on Highways to require owners or operators of vehicles which have an

emission control device required by PL 90-148 to operate the vehicle with the device in serviceable condition. Operators may convert to petroleum gas or make other modifications to reduce atmospheric emissions.

Act 787 -- Amends the Litter Control Law: By authorizing the increase in fine from $25 to $100 or authorizing in lieu thereof the judge, of convicted cases, to direct violators to pick up and remove litter from a street, highway, public beach or parks, or upon private land on which a violator has littered.

Hunting and Fishing Regulations

Act 8 -- Change Hunting and Fishing License: Provides for additional licenses, including a trout stamp, and for the increase in State hunting and fishing license fees.

Preservation of Natural Areas and Acquisition of Lands

SR 64 (Act 44) -- Protection and Management of Appalachian Scenic Trail: Resolved by the General Assembly that the State of Georgia (through its agencies) shall cooperate with the U. S. Department of Agriculture, the U. S. Department of Interior, and the Appalachian Trail Conference in the preservation, protection, and development of that section of the Appalachian Scenic Trail within the State of Georgia.

Act 382 -- Acquire Certain Properties for Boat Access: Amends the State Properties Acquisition Law to permit Game and Fish to acquire parcels of property not to exceed three (3) acres for the purpose of boat launching ramps where no cost of land to the Commission is required.

Act 427 -- Limit Development of Lands on Jekyll Island: This Act reduces the amount of high ground which the authority may subdivide from 50% to 35%.

SR 89 -- Designate the Chattooga as a Component of the National Wild and Scenic Rivers System: Resolved by the General Assembly of Georgia that the State of Georgia strongly endorses the proposal to designate the Chattooga River as a component of the National Wild and Scenic Rivers System.

SR 150 -- Moratorium on Rezoning on Chattahoochee River: Resolved by the Senate that the governing authorities of Cobb, Forsyth, Fulton, and Gwinnett Counties are urged to declare a moratorium on rezoning of any lands along the Chattahoochee from Buford Dam to Peachtree Creek unless such rezoning would further restrict development along the river.

HR 289 -- Chattooga National Wild and Scenic River: This resolution recognized the outstanding natural recreation fish and wildlife and water supply values of the Chattooga River and recommends that Congress take action to place this river in the National Wild and Scenic River System.

Environmental Agencies

Act 2 -- Reorganization of State Government: Charges and authorizes the Governor to direct and effectuate the reorganization of State Government, except where an agency is established by the Constitution. Where an agency is created by statute, the Governor's proposal must be submitted for ratification by the General Assembly. Elected department heads must also approve their proposed departmental changes.

Act 5 -- Creating a Metropolitan Area Planning and Development Commission (in each Standard Metropolitan Statistical Area of Georgia having a population of more than 1,000,000): This Act made the Atlanta Region Metropolitan Planning Commission an APDC with legal rights of other Area Planning and Development Commissions. The Commission shall be designated as the official planning agency for all State and Federal programs to be carried out in the area; act as the regional planning and review agent for all local government plans in the area; develop guides consisting of policy statements, goals, standards, programs and maps for orderly development, public and private in the area. Development guides shall encompass physical, economic, and health needs and consider future development. The guides shall include land use, water and sewer systems, parks and open spaces, land needs, transportation systems, and other public and community service facilities. The Commission is authorized to engage in a continuous program of planning of these matters in its area; to receive gifts; apply for grants and contract with Federal, State, and local agencies.

Act 73 -- Interstate Environment Compact: This Act adopts the interstate environment compact.

HR 276-893 (Act 95) -- Corridor Loop Study Committee: This Resolution appoints a study committee of State legislators, State Planning and Area Planning Commissions to study the need and proposed location of an outer perimeter around I-285 and Atlanta. Growth points and natural and recreation open space conservation is to be considered in selecting any location.

Act 131 -- Cities, Counties and School Boards Authority to Provide Recreation System: Amends 1971 Enabling Act to provide that any two or more counties, any two or more cities, or any county or municipality, or any county and municipality may cooperate to provide a recreation system. Any school board may join with any municipality, county, or any other school board in conducting and maintaining a recreation system.

Act 318 -- Amends Board of Recreation Examiners: By increasing the education and experience requirements for registration and increasing the registration fee.

Act 707 -- Creating a Citizens Environmental Council: Created a seven-member Environmental Council appointed by the Governor. Council to advise the Governor on comprehensive environmental policy for the State; make or recommend special environmental studies as needed; and recommend to the Governor actions to be taken.

SR 159 -- Creating Atlanta Area Chattahoochee River Study Committee: A ten-member joint Committee of the Senate and House shall coordinate a study with State, local, and other agencies and individuals to regulate development and preserve environmental values along the Chattahoochee from Buford Dam to Peachtree Creek. Committee shall consider the form that legislation, if any, should take and report to the 1972 session of the General Assembly.

1972 LEGISLATION

Bill No.	Name	Act No.
HB 491	Citizens Right to Information	1483
HB 571	Pesticide Use & Application	1303
HB 1244	Ground Water Use Act of 1972	1478
HB 1323	Georgia Scenic Trails	842
HB 1474	Water Pollution & Sewage Treatment	1330
HB 1497	Changes in Hunting & Fishing Regulations	1332
HB 1552	Flooding Easements on Boat Ramps	1336
HB 1837	Transportation Planning	1538
HB 1914	Landowner Contracts	1401
SR 48	Georgia Financial Investment Comm.	245
SB 481	Air Pollution Control Devices	1479
SB 487	Coastal Marshlands Enforcement	1480
SB 488	Air Pollution Unlawful	1481
SB 490	Expands Surface Mining Act	1482
SB 493	Water Quality Control	1484
SB 494	Water Quality Order Final	1485
SB 495	Solid Waste Management	1486
SB 517	Fishing in Salt Water Streams	863

Some of the most significant actions are summarized as follows:

Environmental Quality Management

Act 1303 -- Pesticide Use and Application Act: Provides controls over the use of pesticides. Authorized the Commissioner of Agriculture to promulgate regulation. Requires license for applying pesticides to lands of another.

Act 1480 -- Coastal Marshlands Enforcement: Extends to the Coastal Marshlands Protection function enforcement provisions similar to those currently in effect for Water Quality Control. Its provisions include: the authority to issue cease and desist orders, civil penalties, writs of mandamus, restraining orders and injunctions, and hearings for aggrieved parties.

Act 1486 -- Solid Waste Management Act: Provides the State the authority to implement a state-wide program of solid waste management and requires local political jurisdictions to prepare solid waste management plans.

Act 1478 -- Groundwater Use Act of 1972: Provides for the regulation of use of groundwaters through the designation of areas potentially subject to

capacity use and the permitting of water consumption within those areas. Today this control is of particular importance in the coastal regions where there is an immediate danger of excessive draw down and salt water encroachment.

Act 1538 -- Transportation Planning: Provides for the development of long-range plans for alternate modes of transportation.

Act 1479 -- Air Pollution Control Devices: Provides that air pollution control devices installed due to Federal requirements (from 1968 on) will be made part of the State annual safety inspection of motor vehicles to assure that they still are in effective working condition.

Act 1481 -- Air Pollution Unlawful: Requires that anyone operating an air pollution source shall, when requested by the Department of Natural Resources, install monitoring devices and make periodic reports concerning emissions to the atmosphere and also that it shall be unlawful to create air pollution in the State or to emit contaminants that would violate any rules or orders established under the law.

Act 1482 -- Expands Surface Mining Act: Expands the definition of surface mining to include under its provisions all forms of mining except dimension stone quarries, and simplifies requirements for proof of mining in cases where litigation is required.

Act 1483 -- Citizens Right to Information: Authorizes that information directly affecting any person which is obtained by duly authorized agents of the State Water Quality Control Board shall be admissible as evidence in any legal actions involving private rights or riparian owners.

Act 1484 -- Water Quality Control: Amends Water Quality Control Act by providing for civil penalties of up to $500 per day of violation.

Act 1485 -- Water Quality Order Final: Amends the "Georgia Water Quality Control Act" to provide that any Order of the Director of the Division of Environmental Protection of the Department of Natural Resources shall become final unless the person aggrieved requests in writing a hearing before the Director within 30 days.

Hunting and Fishing Regulations

Act 863 -- Fishing in Saltwater Streams: Provides for public access to and freedom to fish in any of the saltwater creeks, streams, estuaries, sounds, rivers or bays.

Act 1332 -- Changes in Hunting and Fishing Regulations: Prohibits the possession of wildlife illegally taken; legalizes use of tree stands for hunting; removes statutory limit of five (5) rabbits per day; removes restrictions on basket fishing and leaves the matter to the Commission of Natural Resources.

Preservation of Natural Areas and Acquisition of Lands

Act 842 -- Georgia Scenic Trails Act: Authorizes the Department of State Parks to identify and plan a system of Scenic Trails throughout the State. These include: urban trails; bicycle trails; horse trails; rural hiking trails; primitive hiking trails; and historical trails.

Act 1336 -- Boat Ramps on Flooding Easements: Allows the expenditure of funds for the construction of boat ramps on property whose deed includes a flooding easement.

Act 1401 -- Landowner Contracts: Authorizes the Game and Fish Department to enter into contracts with private landowners to make their lands available for public hunting and fishing.

New Financial Arrangements

Act 245 (SR 48) -- Georgia Financial Investment Commission: Allows the State of Georgia to incur bonded indebtedness. To be voted on in November as State Resolution 245.

Act 1330 -- Water Pollution and Sewage Treatment: Authorized counties to levy taxes for Water Pollution and Sewage Treatment.

POSSIBLE FUTURE LEGISLATION

--Tax reform aimed at removing existing incentives for environmental abuse and replacing them with environmentally-sound incentives.

--State Floodplain Zoning legislation to prevent unwise use of floodplains.

--A State Environmental Protection Act to supplement the national one, with requirements that all State agencies prepare environmental impact studies and investigate alternatives before commencing any major action with possible adverse environmental effects.

--Establishment of a State Conservation-Recreation capital improvement fund over the next five (5) years to provide additional funds for the acquisition and development of needed recreational and conservation areas.

--Establishment of a comprehensive program of environmental education.

--Revision of the 1937 Revenue Certificate Act to enable local governments to finance solid waste management programs through revenue bonds.

--As an alternative to more specialized action, legislation to provide the State with the power to protect areas of critical environmental concern, such as the coastal zone, floodplains, wetlands, and the mountains. (See map PE-1, Protective Environments, Chapter IV.)

C. FEDERAL LEGISLATIVE POLICIES

1. RECENT ACTION

During the past decade there has been much legislation at the federal level which greatly enhances our ability to assure the preservation of a

quality environment. Many of these Acts have very positive implications on our society's ability to provide the people with an adequate opportunity to enjoy a quality outdoor recreation experience. The most innovative legislation enacted during the past few years deals primarily with the effect a project has on the environment. This legislation concentrates its effect either on a study of the specific project or upon a comprehensive study of broad geographical areas to determine the most suitable location for various types of projects.

Project Impact Evaluation

The National Environmental Protection Act of 1969 (NEPA) was of such far-reaching effect and magnitude that the country remains very conscious of its impact. Under this new legislation, several federal agencies and departments have been confronted with perplexing new mandates to include in their project plans a full consideration of the environmental impact and evidence that these effects will not be severe. The National Environmental Policy Act of 1969 requires that the above agencies prepare and implement guidelines which will meet the criteria set by Section 102 (C) of the Act.

As the courts clarify NEPA's scope and administrative difficulties are solved through refined guidelines, provisions of the Act will become more integrated into our governmental process. NEPA undoubtedly will go far toward assuring that environmental considerations are integrated into planning from a project's conception.

Comprehensive Resource Planning

An emerging recognition of the centrality of comprehensive land use planning is very evident in the legislation enacted by the 91st Congress (1970). Among the acts implicitly or explicitly referring to land use plans were the Airport and Airway Development Act of 1970 (P.L. 91-258), Urban Mass Transportation Assistance Act of 1970 (P.L. 91-453), Resource Recovery Act of 1970 (P.L. 91-512), Clean Air Amendments of 1970 (P.L. 91-604), and the Federal-Aid Highway Act of 1970 (P.L. 91-605). Three other bills specifically aimed at land use planning were introduced. Though these bills died at the end of the 91st Congress, they nevertheless indicate the direction of Congressional thinking.

2. PENDING LEGISLATION

A number of bills are under consideration by both the House and the Senate which, if passed, will greatly strengthen our ability to protect the environment and provide for wise and beneficial use of our natural resources. Many of the new management tools will improve our ability to allocate land and other natural resources to recreation in the most efficient manner possible. At the same time, many areas will be maintained in a condition suitable for recreation which might otherwise be destroyed through inappropriate use.

Land Use Planning

Both the House and Senate are presently considering legislation to provide for the establishment of a national land use policy and to authorize the Secretary of Interior to make grants to the states to assist in developing and implementing state land use programs and to help in coordinating federal programs and policies which have land use impact.

This legislation authorizes appropriations to the Secretary for his use in grants to the states of not more than $100 million annually. The grants would be appropriated to the states on a 90 to 10 percent basis for their use in developing plans and implementation of programs.

If enacted, this money could be available for expenditure in FY 1973.

Coastal Zone Management

Proposed legislation in the House and Senate would provide for the management of the Coastal Zones and Estuarine Zones. It authorizes the Secretary of Commerce to make development grants and operational grants to states, assist them in developing their management programs, assist in the administration of these programs for land and water resources of their coastal zones, and help in the coordination of federal activities within the states.

Both bills authorize the appropriation of $50 million for operational grants. The House bill authorizes $15 million annually for three years for development grants. The Senate bill authorizes $12 million annually for four years for operational grants. Funding would be limited to 66-2/3% of the expenditures under either operational or development grants. If passed, the grants could be available in FY 1973.

Federal Water Pollution Control

The legislation pending before Congress declares as National policy the elimination of the discharge of pollutants into navigable waters by 1985. In the House bill, however, this date is set as a National goal, subject to a future feasibility study to be conducted by the National Academy of Sciences. Both bills are similar with respect to total spending and grants for the construction of waste water facilities, but they differ in the criteria for disbursement of funds. The House bases disbursement on need while the Senate's criteria are based on the ratio of population of one state to all states. If passed, the funds could be available in 1973 with the maximum federal share of costs to be 75 percent if the state pays 15 percent leaving only 10 percent for the local government share.

Surface Mining

Both the House and Senate committees have held hearings on a large number of bills to regulate surface mining. The Heckler-Nelson companion bills would end coal stripmining six months after enactment of the bill.

Other measures provide for reclamation and performance requirements for mining operations.

Most of the legislative proposals for mining give states the primary role in regulating surface mining. Generally, state regulations would be subject to federal approval, but flexibility would be encouraged to suit varying conditions.

Power Plant Siting

The legislation in the House calls for coordinated, long-range regional planning for the construction of power facilities. The bill provides for review by industry regional councils to determine whether plans for any site development balance reasonable power needs and reasonable environmental factors, and it requires a ten year advance identification of power needs and a five-year identification of plant sites and transmission routes to allow opportunity for public scrutiny.

Environmental Pesticide Control

The House bill overhauls the 1947 Federal Insecticide, Fungicide and Rodenticide Act, moving from the present system of simple labeling and registration to one in which the Environmental Protection Agency has broader regulatory authority and enforcement powers over the use and manufacture of pesticides. It also provides for research by grant and assistance to state agencies in developing and administering state programs for training and certification of pesticide applicators.

Noise Control

Pending bills before the Congress propose to control the emission of noise detrimental to the human environment. The legislation would provide for the coordination of federal research and activities, establish federal noise emission standards for commercial products, provide information to the public about the noise characteristics of these products, and authorize appropriations for grants in support of noise pollution control programs. S.3342, unlike HR-11021 prohibits preemption of state standard-setting authority.

Marine Protection

The bills now pending before Congress would provide for the regulation of ocean dumping.

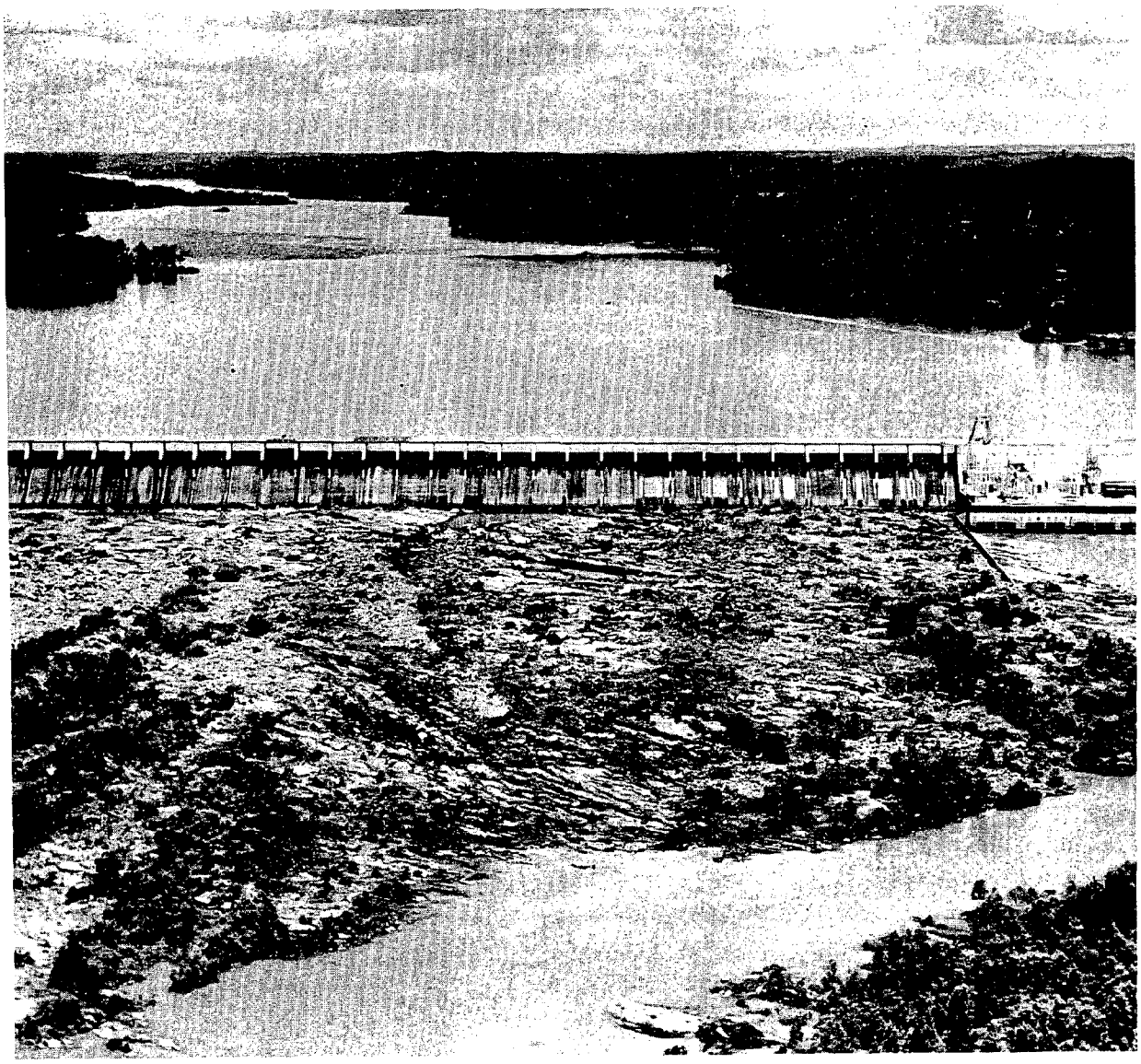
National Environmental Center

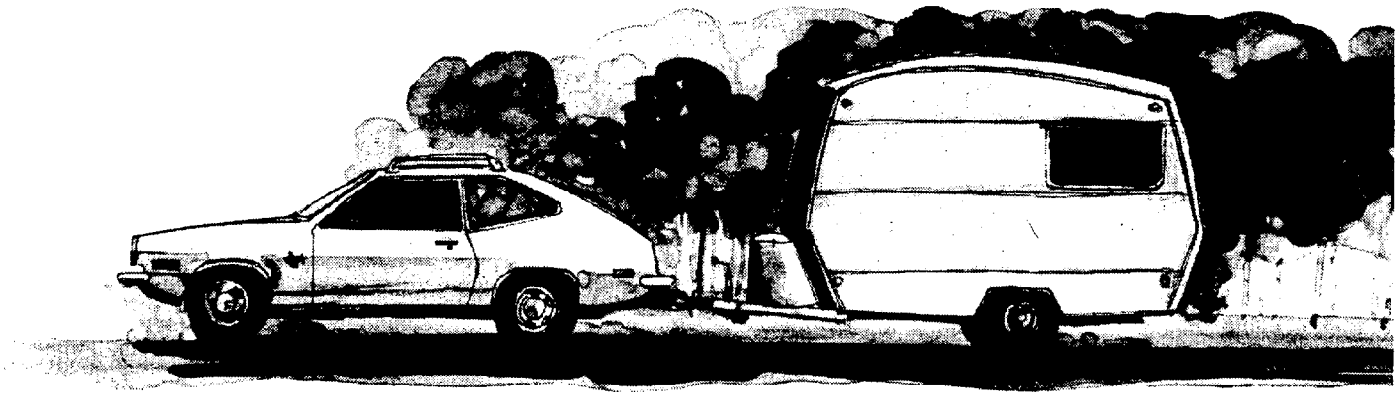
The bill before the Senate provides for the establishment of National Environmental Laboratories, with the geographical distribution of any such laboratories to be determined by the Board of Trustees of the National Environmental Center. The bill authorizes the appropriation of $50 million annually for the maintenance and support of long-term research activities in the Center and authorizes the appropriation of $126 million, $40 million

for FY 1973 and $80 million for FY 1974, for the operation of the National Environmental Center and constituent laboratories.

Technology Assessment

The bill presently pending in the House provides for the establishment of an office of technology assessment for the Congress as an aid in the identification and consideration of existing and probable impacts of technological applications. It provides for the amendment of the National Science Foundation Act of 1950.





STATE RESOURCE BASE

CHAPTER IV

CHAPTER IV

STATE RESOURCE BASE

A. GEMS AND ITS USEFULNESS IN RECREATION/CONSERVATION DECISION-MAKING

This introduction describes the use of Georgia's Environmental Mapping System (GEMS) in Statewide Regional and Local Recreation and Environmental Systems Planning.

Georgia's Environmental Mapping System was developed by directive of the Governor as an initial phase of Statewide Development, Policy and Public Investment Planning to meet the following needs:

1. Reduce conflicts in the public investment process as identified through A-95 and Environmental Impact Statement Reviews;

2. Provide the initial thrust in comprehensive statewide land-use (conservation and development) systems planning by broadly identifying and classifying the natural resources of the state according to their natural characteristics and existing locations for use and management;

3. Identify and classify the primary natural recreation resources as protective environments for policy development in order that they may be appropriately considered in the development of highways, dams, agricultural, industrial, urban, or other intensive land uses;

4. Establish, coordinate, and plan priorities of a functional management system of state parks and recreation areas, game and fish hatchery and boat access areas, historical and archaeological areas, and other natural areas of critical concern;

5. Provide a simple method of updating the system on a continuous basis.

GEMS has been developed primarily as a policy planning tool for the statewide development plan. These maps and the process are useful as a briefing device systems inventory and update, an analytical tool for consideration of public investment alternatives in relation to other systems, and for report purposes.

The initial GEMS maps are on a scale of 1:500,000, are prepared on standard mylar, and are reproduced on color sensitive stable, clear mylar. As of this time, 45 system maps have been developed, consisting primarily of natural environmental systems; man-made systems such as transportation and water resource developments; and a population map representing social systems.

The Natural Resource Protective Environments and the Public Recreation and Conservation Management Areas for the SCORP have been developed as integral parts of the GEMS and the State Development Plan.

Through the use of GEMS, the various natural and man-made systems can be shown on a statewide, state subregional, and local basis by use of more detailed standard system maps. In this regard, the Area Planning and Development Commissions of Georgia were requested to utilize prints of the 1:250,000 USGS (United States Geological Survey) maps for their initial work in developing their regional SCORP analysis and plans. Varying degrees of success were realized in their initial effort. The regional volume of the SCORP update includes 8-1/2 x 11 illustrations of the relationship between: critical environmental open space systems and parks recreation, fish, wildlife, and historic areas; existing population patterns and urbanizing areas; and the major highway system relating people to the major regional and local natural recreation resources and man-made recreation areas and facilities.

The Tri-State Southern Highlands Study, and interstate effort being developed between Georgia, North Carolina, and South Carolina, is expected to utilize the techniques of this system. The study should serve as a working model to the southeastern states, as well as to effectively coordinate, consider alternatives, and synthesize in an optimum plan the efforts, policies, and investments of federal, state, and local agencies and the private sector. Perfection of the GEMS system in detail can be highly beneficial to Georgia for use at the APDC substate regional level.

During the next few months the state Office of Planning and Budget, under the reorganized state government of Georgia, will be using GEMS to assist in the development of alternative physical development policy plans.

Through the direction of the Governor, working-briefing sessions have been held between the Governor and the state department heads and between the state technical staffs of natural resources, recreation, and transportation planning. These executive sessions will be followed by working-briefing sessions with the House and Senate Natural Environment Committees of the General Assembly. In addition, the executive directors and the chairmen of the Area Planning Commissions have been briefed on the use of the GEMS.

As a result, state agencies are making use of GEMS and assisting in their updating. The Southern Highlands Study is now proceeding, in cooperation with the chief of topographic mapping of the U.S. Department of Interior, in adopting and standardizing more detailed statewide maps, land use information, symbols and methods of graphic display. Potentially, a refined process of planning and of selection of conservation areas and development alternatives should result, in addition to an improved system of map updating.

SUMMARY

Many state and federal agencies have provided information and work in the preparation of the GEMS maps. When overlays identify development projects, the agencies have prepared tabular data coded to the maps. These tables identify funding sources and management responsibility; the location, size and function of the project; the status of the project (existing, programmed, planned, or proposed); and the fiscal year of funding. These overlay maps and tables can be updated regularly to keep the information as current as is feasible.

For simplicity, the system is divided into three major groups of maps. One group is concerned with the natural resource-base environment without man-made alterations. This group includes the categories geology, landform, hydrology, and the land areas best suited for management as agriculture, forestry, and protective environments. Each of these is color-coded.

The second major group includes overlay maps which deal with development projects, management areas, and man's environmental alterations. These are also color-coded. The categories of this group include: parks and natural resource management systems, water resource developments, and transportation networks.

A third group of socioeconomic overlay maps will be developed and added to this mapping system, relating human and economic development conditions and trends to the environmental resource conditions.

The GEMS mapping system represents a first step in the physical development policy planning process. It represents an inventory of Georgia's natural resource systems, man's alterations and planned alterations of these systems, and their interrelationships. From this inventory it will be possible to identify the major environmental issues, problems, and opportunities facing state government in environmental management. The existing situation will be assessed; physical development, conservation, and environmental protection strategies can be designed. Physical development policy can then be implemented in terms of human, economic, and environmental goals.

The system will be improved with more detailed and accurate information on a larger scale using inputs from APDC's planning. The regional analyses for the SCORP represent a first step in this direction. Later, this Environmental Information System can be automated, using computer grid-coordinate and a land-use classification program. This will provide a more effective, computerized environmental monitoring system, permit continuous updating with new information, and more thorough and reliable quantitative analytic techniques.

The use of GEMS in statewide recreation and environmental systems planning is illustrated in the following Atlas presentation of 16 maps with narrative on opposite pages. The resource base maps are designed to present the reader with a conceptual picture of Georgia through it's natural resource protective environments and the resulting management

and development systems. The resource base maps, when compared with the existing, programmed, and proposed state investment patterns, indicate the relationship of existing policy to the wise management of our natural resources.

An examination of the 1970 population pattern, existing and proposed arterial highways, and current recreation and conservation management systems indicates alternatives which should be considered as a basis for future public investment decisions at the federal, state, and local levels.

The State Management System maps are followed by inventory tables in Chapter VIII. Acquisition and development program matrices are included in Chapter X. Basic in beginning an ecologically-based description and understanding of natural processes in the state is geology. GEMS can help us describe the state and understand some of these natural processes.

The sequence of GEMS illustrations as presented here is: geology, landform, hydrology plant cover, protective environments, natural resource management (system shown as existing, programmed, and proposed), water resources, transportation, and socioeconomic development systems. These interacting systems, or interdependent parts of man's environment, may be viewed as a layer cake of the earth on which we live. The layers include:

1. The natural systems and their living processes which we inherit--as represented by geology, landform, climatology, hydrology, soils, plant cover, and animal life; and

2. Our cultural development systems--as represented by the following land uses: residential, social, recreation/conservation, industrial, commercial, transportation, agriculture, forestry, and mining.

These natural and man-made systems may be viewed as interrelated parts in a planning and decision-making process over periods of time--of long-, medium-, and short-range.

The general planning goal may be stated: to plan for the needs of man in harmony with the environment.

When used in this context over a short-, medium-, and long-range view, these interrelated parts of man's environment become bases of decisions for land use, environmental design, and management of both natural and human resources. Not the least important is environmental education, of which the recreation experience is both a fundamental tool and an end in itself. The objectives then are to:

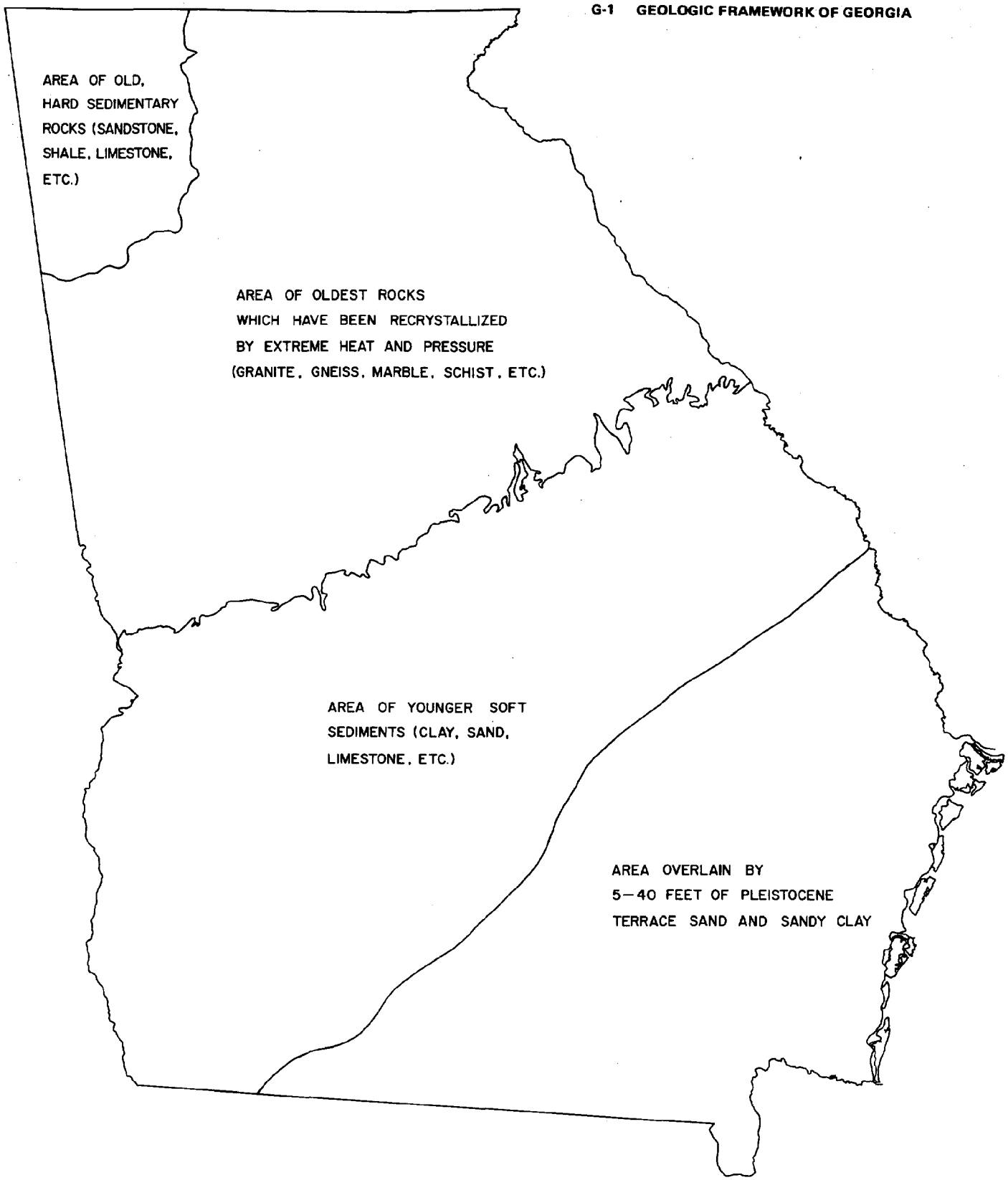
1. Maintain or restore good environmental quality by developing in harmony with natural processes.

2. Provide adequately for the physical, social, and spiritual needs of people, and

3. Maintain and regenerate human values and develop the social system.

The layer-cake concept of planning for the needs of man in harmony with his environment may be observed (or discussed) from either end of the spectrum--beginning with geology (the rocks) or Homo sapiens (man). Since the rocks do not change much, and we need a better understanding of the natural processes if we are to plan and develop in harmony with them, we start with geology.

G-1 GEOLOGIC FRAMEWORK OF GEORGIA



G-1 GEOLOGIC FRAMEWORK OF GEORGIA

Geology, or earth study of the underlying rocks and the landform, is basic to the understanding of the earth, its natural processes, good environmental land and water use, and recreation planning.

The present state geologic map was published in 1939. Although the rocks do not change much, new geological information is becoming available. The state should therefore develop its geological survey and complete more detailed geologic mapping of its regions and their respective counties.

As shown in the accompanying map, the geological framework of Georgia shows three general types of rocks: sedimentary, metamorphic, and igneous. This geological framework has great influence on the earth's structure.

The fall line, a zone of sand hills, extends from Columbus to Macon to Augusta. Old Indian trails and the Bartram Trail traversed this zone. Another important recreation planning point based on the geology is the rapids formed by the Savannah and Ocmulgee Rivers where they cross rock layers near these large urban centers. Here, they provide a natural recreation facility of potential use for a two-dimensional aquatics program. They are convenient in their location for large numbers of people to learn basic skills which are then useful on exploratory trips to other unique water resources of the state. Such natural outdoor recreation areas and associated recreation activities provide a tremendous catalytic potential for environmental awareness and education as people learn directly from the experience that all things in the environment are somehow connected (ecologically).

The southern part of Georgia below the fall line has younger soft sediments of clay, sand, and limestone. This is the major groundwater recharge region for well waters used by residents in this area on the coast and in Florida.

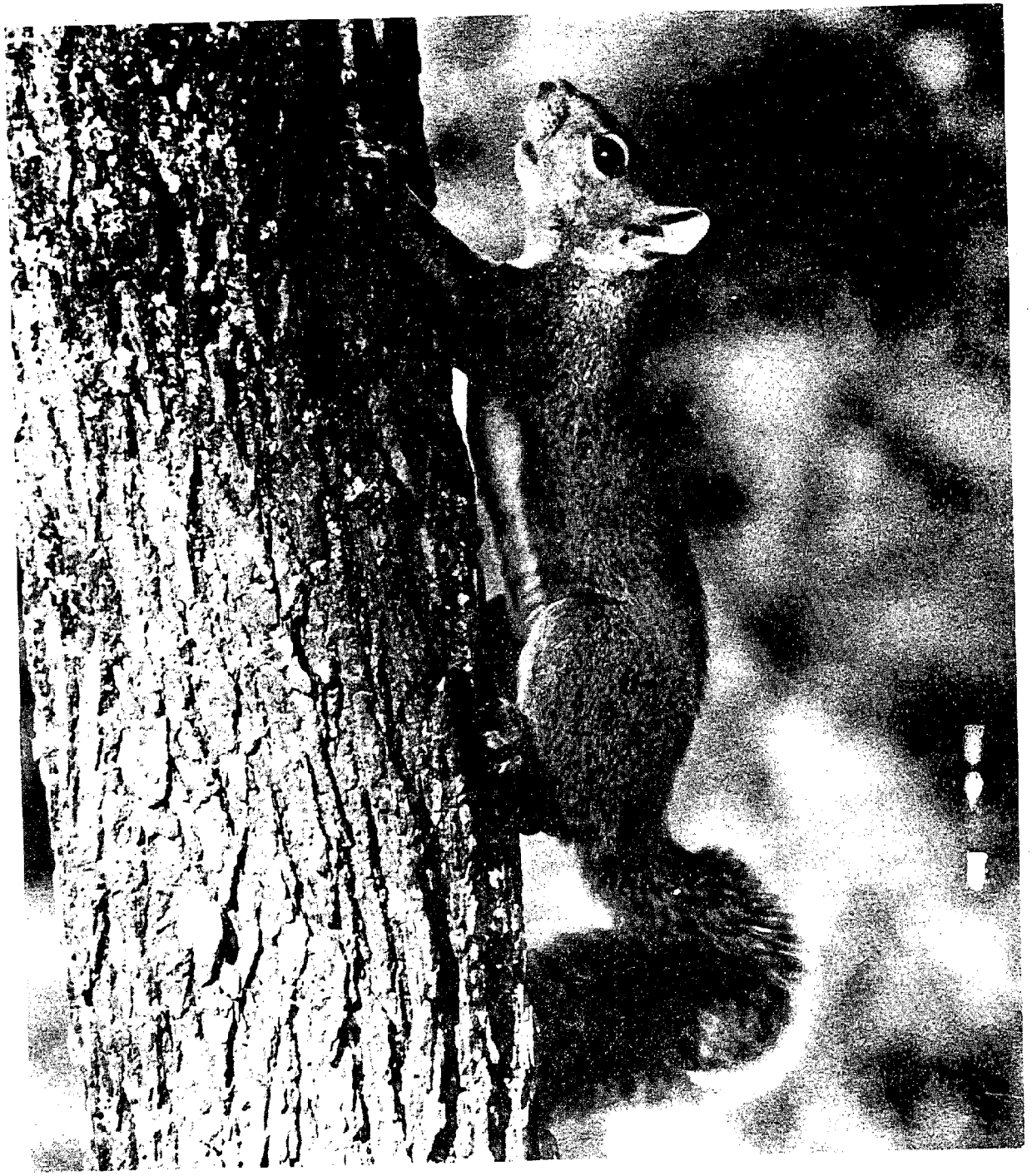
Radium Springs, near Albany, is a recreation point of interest where groundwater under pressure flows from a limestone base. The scenic Alapaha River in the Coastal Plain APDC flows into a hole and entirely underground just north of the Florida line. Great care should be exercised with pesticides and other pollutants in such areas in order that water supplies are not polluted.

The pleistocene terrace portion is generally covered by 5 to 40 feet of sand and sandy clay. Geophysical processes have played no small part in the formation of the Okefenokee Swamp and the Barrier Islands of Georgia.

North of the fall line is the area of older rocks which have been recrystallized by extreme heat and pressure. This area includes granite gneiss, marble, and schist. The first gold discovery was at Dahlonega. Gem hunters still range this region of the state. The geological framework creates a striking topographical base for some of the best forested

mountain scenery, hiking, hunting, fishing, and white-water canoeing in the Southeast.

In the northwest section of the Coosa Valley and part of the North Georgia APDC areas are the Appalachian Plateau and Ridge and Valley area, which includes old hard sedimentary sandstone shale and limestones. Cave exploring and fossil hunting are natural recreation activities here, in addition to outstanding scenic and natural areas opportunities.



L-1 PHYSIOGRAPHIC MAP

L-1 PHYSIOGRAPHIC MAP

When the overlays of other geological and landform systems are related with the base geological framework, the state takes on added detail and perspective with each system.

Physiographic Map. The Physiographic overlay divides the state into areas of roughly similar topography, elevation, drainage, and general landform. It is important in determining proper land and natural resource use patterns.

Escarpments, Ridges, Mountainous Areas. This system locates major escarpments, linear ridges, and generally mountainous areas. The underlying geology of the area directly influences these landforms. The Pine Mountain and Blue Ridge areas, for example, are clearly identified.

Flat Rock Granite Areas. Several widespread granite areas occur near the surface in the Georgia Piedmont. Granite areas, because of their hard and impermeable nature, have a direct effect on construction and the availability of groundwater. Flat rock granite outcrops are ecologically unique and have a characteristic plant cover of great interest to botanists. Panola and Arabia Mountains have been accorded natural area protection.

Major Faults. Much of the area of North Georgia has been torn and broken by large faults which are fractures in the earth's crust. These faults are not presently active, but their occurrence has influenced the land's surface, drainage, forest, and crop types. The Brevard fault has determined the location of the Chattahoochee River and the Industrial Belt of Atlanta, The Towaliga and Goat Rock faults have brought the quartzite to the surface which is the foundation of Pine Mountain.

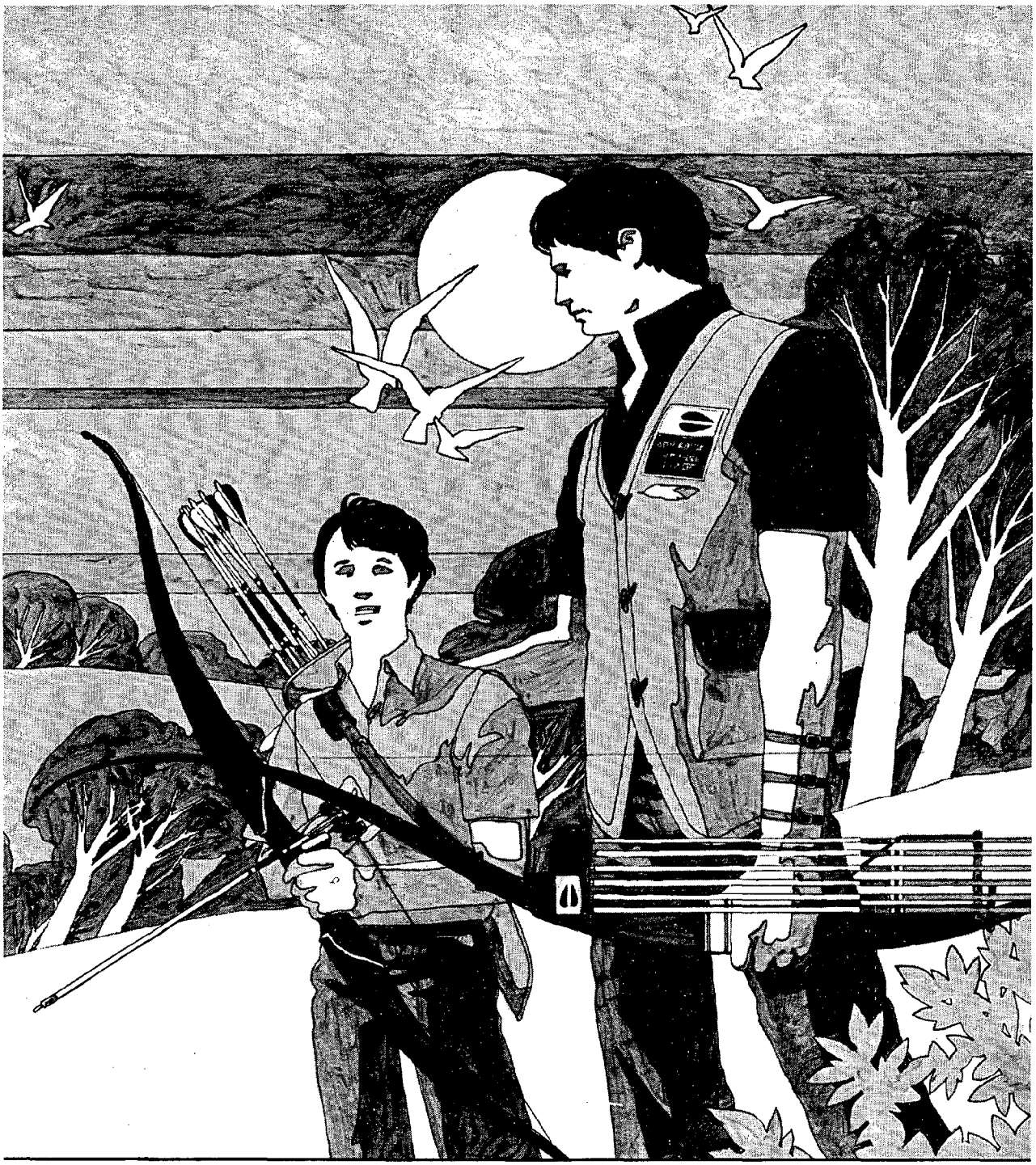
Solution Depression Areas (Limesink). These are areas which were underlain by limestone which has been dissolved to form sinkholes and caverns. Since limestone carries the groundwater supplies for much of the state, these areas are important because polluted water can enter our water supply here. Also, these caverns often collapse into new sinkholes at the surface and can disrupt developed areas considerably.

Mineral Resources. Georgia is the world's leader in kaolin production, the nation's leader in both granite and marble quarrying, and a foremost producer of industrial minerals. Georgia's mineral resources are an essential part of Georgia's economy. The construction industry is dependent upon a continuous supply of quarried stones and metallic minerals. Also, many mineral-processing operations are located in smaller, rural areas providing job opportunities in these communities. From a mineral-related recreational standpoint, rock hunting, gem polishing, and jewelry making are of interest to an increasing number of people.

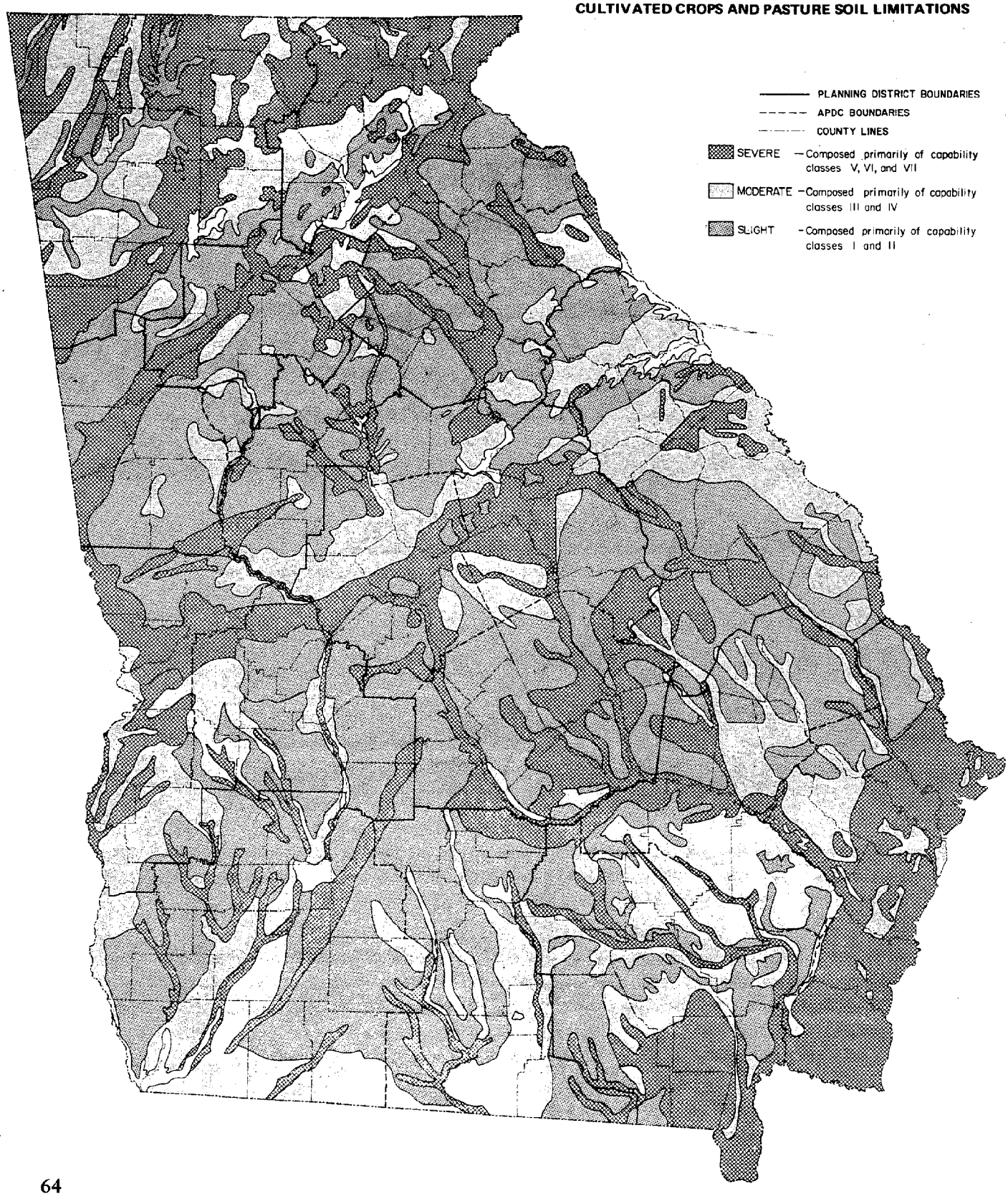
Summary. The unique landforms are part of the scenic and natural spiritually-based heritage of Georgia. Where outstanding features exist,

their statewide, regional, and local public significance should be identified and public policies and investment actions taken to assure their lasting protection.

All land and water should be considered valuable. Where mining occurs, the land should be reclaimed. Some areas should not be mined because of their outstanding recreation, natural area, or other environmental values. Stewardship should prevail in attitude, policy, and action.



A-1 AGRICULTURE: CULTIVATED CROPS AND PASTURE SOIL LIMITATIONS



A-1 AGRICULTURE: CULTIVATED CROPS AND PASTURE SOIL LIMITATIONS

Cultivated Crops and Pasture Limitations. This overlay identifies soil limitations for cultivated crops in three categories--severe, moderate, and slight. Note, for example, the severe soil limitations in the extreme northeastern section of the state. This is due primarily to the steep slope gradient. Other factors affecting soil capabilities include the inherent soil characteristics. In addition, note the severe limitations in the large floodplain areas subject to periodic flooding.

Current Usage of Cropland and Pasture Limitation Classes. Additional statistical overlays (not shown) reflect, by APDC and by county, the percentage of land with soil capability limitations and that percentage of land presently used for cropland and pasture.

These maps were developed with the assistance of the Soil Conservation Service of the U.S. Department of Agriculture and Department of Agricultural Economics of the University of Georgia College of Agriculture.

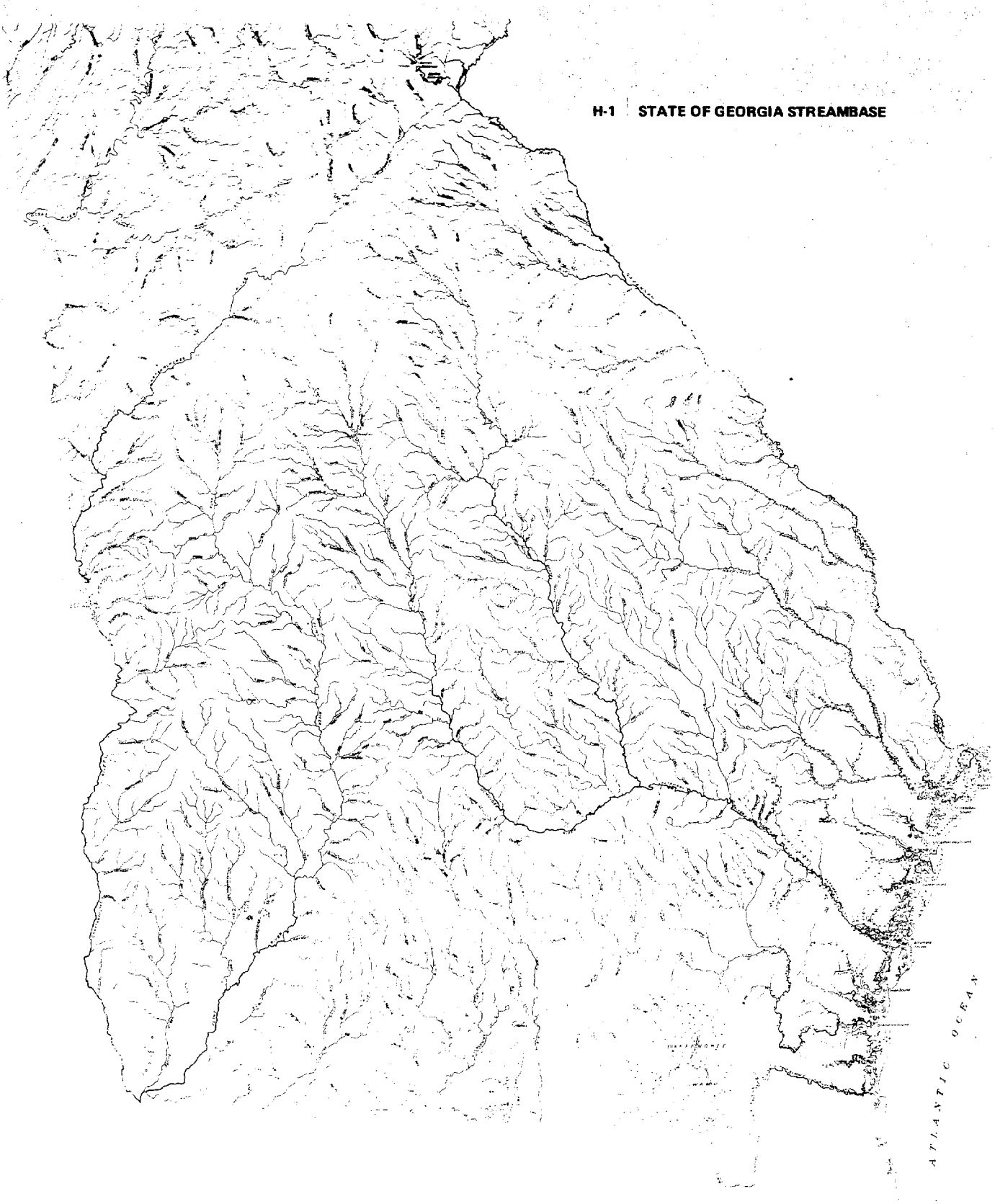
Soils by types, as analyzed and classified by professional soil scientists, with wetland and steep slopes limitations considered, were utilized in developing this generalized statewide soils map.

In planning for the orderly physical, social, and economic development of the state, it is important to consider and protect adequate lands for food and fibre. As shown, there are ample well-suited agriculture soils to supply most of Georgia's needs and part of the rest of the country if we manage these lands wisely.

The statistical maps were developed to indicate how these respective groups of soils are actually being used at present. Most of them are being utilized according to their naturally suited characteristics. However, there are areas where important land use changes should be made--areas where man's activities are in conflict with naturally suited use characteristics.

In comparing the Protective Environment Maps with this soil map, it is found that the limited mountains, scenic rivers, outstanding natural areas, estuarine zone and islands which are desirable to manage as environmental quality and recreation open space are generally not in conflict with soil areas of the state which are best suited for cropland.

Public policies and public investment actions should be developed to manage these natural resources in accord with their natural suited characteristics in order to protect both the prime food and fibre lands and the irreplaceable natural recreation resources.



H-1 STATE OF GEORGIA STREAMBASE

CLIMATOLOGY AND HYDROLOGY

For brevity and simplicity, climatology and hydrology are discussed here with the statewide surface waters map as an illustration to be considered in relation to other components of the system and the planning and programming process.

In the GEMS Hydrology System, nine maps and interpretive briefs have been developed using the 1:500,000 USGS Stream map as a base. These component system maps are: Annual Precipitation in Inches; Average Annual Runoff in Inches; Average Discharge of Principal Rivers; Hardness of Water in Small Streams; Availability of Groundwater; Areas of Artesian Flow; Hardness of Groundwater and Recharge Areas for Artesian Aquifers --Potential Areas of Salt Water Encroachment.

The 1:500,000 USGS Statewide Streambase is used as the ecological system index map together with geology and topography to relate other surface land uses--Protective Environments, Resource Management Systems, Water Resource Developments, and Transportation. All major public projects are shown as existing, programmed, or proposed and are cross indexed to the river basin and sub-basin and the APDC and county in which the project occurs.

Climate exerts an influence on man's actions through temperature, humidity, precipitation, wind, and atmospheric pressures. It is, therefore, very influential in determining types, times, and place of outdoor recreation activities. Water sports ordinarily occur only during sunny days of late spring and summer and tobogganing during winter snows. Georgia's climate, with its lack of extremes, provides opportunity for many different outdoor recreation activities for most of the year. Practically the only activities limited by inadequate climatic conditions in Georgia are winter sports requiring natural snow and ice. Due to the risk of a short and intermittent season, artificial snowmaking is required.

In Georgia, temperatures seldom rise above the 90's or drop below 0°F. On a typical July day in North Georgia, the range is from 92°F in midafternoon to 68°F at night; in January, it is 54° to 32°. Summer brings more rain than winter. In winter, precipitation frequently falls in the form of snow in the extreme northern region, but temperatures below 32°F are of short and intermittent duration. Southern Georgia rarely witnesses snow, and winter low temperatures average above 55°F, climbing to the 70's and 80's at midday, even during midwinter.

Most of Georgia has a comparatively favorable climate for many forms of outdoor recreation throughout the year. The mountains and the seashore regions have a most attractive summer climate, and southern Georgia and the coastal area have an excellent winter climate.

Annual precipitation ranges are:

Highlands: 72 inches in the northeast corner of the state, to 58 inches over the highlands;

Piedmont: 52 to 48 inches;

Coastal Plain: 48 to 44 inches, with Southwest Georgia and the coast averaging 52 inches.

Rainfall distribution in Georgia is generally related to topography which, in turn, is related to the basic geology.

WATER-SUPPLY QUALITY AND WATER RESOURCE DEVELOPMENTS.

As a matter of state water policy, areas of good water quality should be maintained, and degraded areas should be improved by cleanup of pollution at its source. Aided by good public support and federal assistance, the state is progressing in this direction.

A review of Georgia's basic hydrology, water supply, and growth information indicates these factors and alternatives:

Highlands Region. Highest annual precipitation occurs in the mountains. Steep slopes limit growth in some areas, but create a unique natural recreation resource. If the unique values are to be maintained, development should be clustered on the periphery of the steep slope core area rather than scattered over the mountains.

Piedmont Region. Good annual precipitation on the Piedmont averages 48 inches. This is the region where the greatest growth has been occurring. Groundwater supplies are greatly limited here. Most of the major feasible reservoir sites have been developed.

Special problems to consider. An ecological balance between water supply, quality maintenance, and large-scale development areas appears to be occurring here. Additional drawdown on Lake Lanier for water for Atlanta during summer and fall months will conflict seriously with the needs of millions of recreation visitors, revenue returns on Lake Lanier Islands investments, and other growing private investments in the Upper Chattahoochee Region. California water resource planners warn not to repeat their growth mistakes of putting too many people on too little land and transporting water at the cost of another region's environment.

Rather than growth like cancer, future growth patterns should consider alternatives like the planning of smaller growth centers by region in and near existing county centers of trade. Alternative impoundment sites could be selected from various tributaries. This would allow preservation of the unique stream valleys and permit the remaining undammed primary inland rivers to carry their replenishing nutrients and sands to the sea.

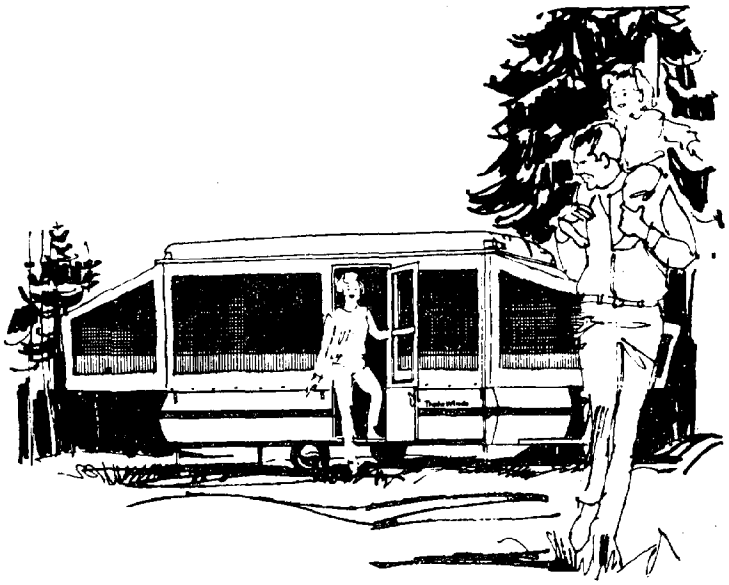
Piedmont and fall line urban areas should accelerate their water pollution abatement programs to avoid further surface and groundwater pollution to coastal region users.

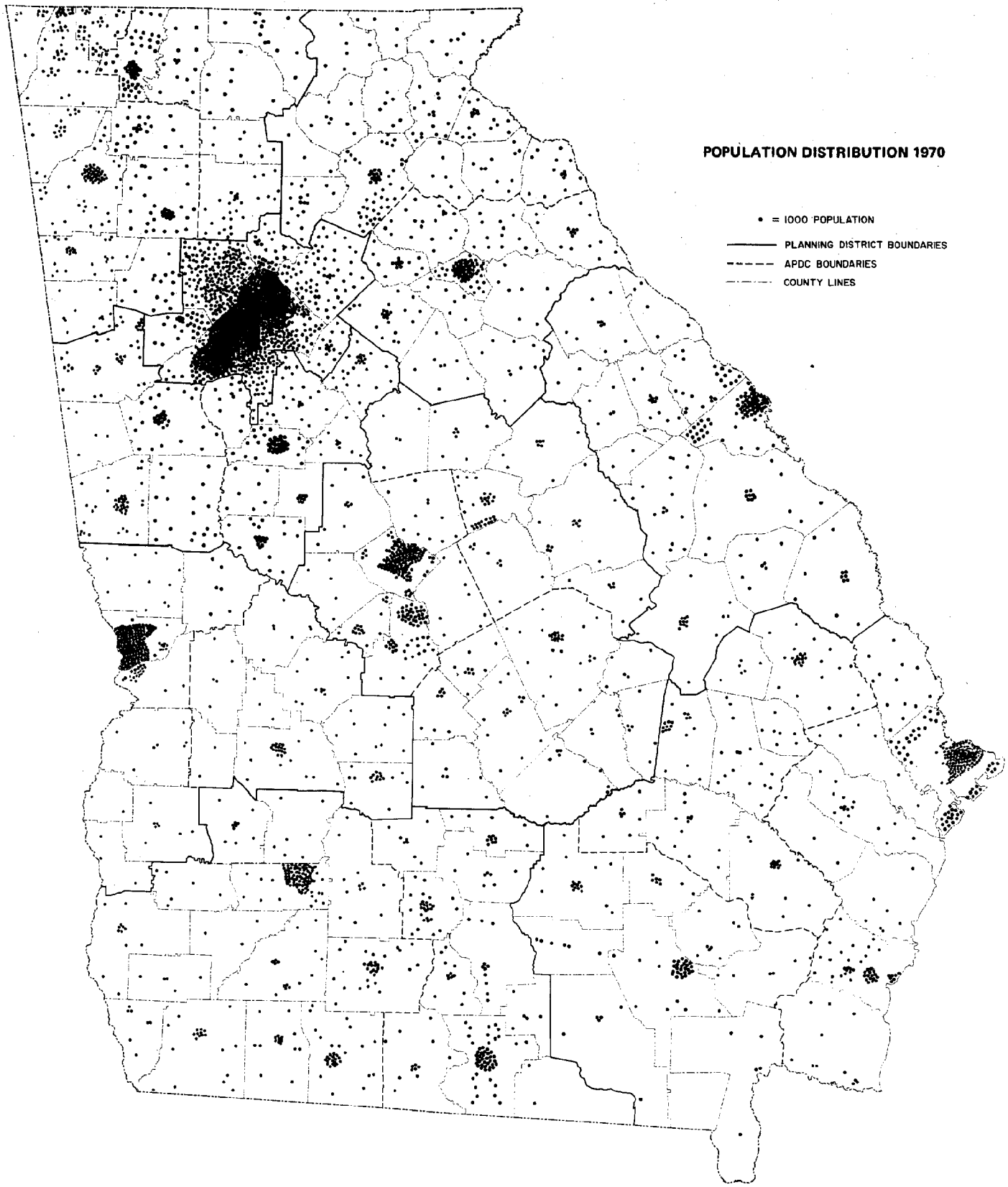
Coastal Region. Moderate annual rainfall of 48" is generally adequate most of the year except in growing areas of high demand. Groundwater is ample backup to surface water supplies except along the coastline where heavy water use industries withdraw groundwater to the extent of risking saltwater intrusion in the future. Where dam sites are deemed necessary to supply increases, they should be considered at alternative major tributary sites near the growth centers to be served.

Tobesofkee Reservoir at Macon, Bibb County, may be cited as an example of using a tributary for lake recreation supply near an urban center. (It is not used for water supply at the present time.) By locating close to the growth center, the supply is convenient for use. Less development costs are likely to be incurred in supply line construction. The urban environment is in part shaped by the recreation development. Active water-based recreation is provided near the people. Unique natural resources such as the Ocmulgee River rapids on the fall line can be conserved in the rural-urban balance.

As a policy guideline, the state should participate in the planning of any major reservoir, under the authority of Public Laws 89-80 and 89-72, to assure that:

1. A balanced statewide water resource plan is developed;
2. Natural resource allocation alternatives are fully considered;
3. Financial allocations are made in accord with statewide resource allocation objectives for urban-rural balance, growth center service, and environmental quality conservation.




POPULATION DISTRIBUTION 1970
• = 1000 POPULATION
PLANNING DISTRICT BOUNDARIES
APDC BOUNDARIES
COUNTY LINES

THE POPULATION FOR WHICH WE ARE PLANNING

We plan first to meet the environmental and recreational needs of the Georgia people and, second, to serve out-of-state visitors.

This population distribution map, developed from the 1970 census, shows the general location of Georgia residents. Each dot equals 1,000 people. The 1960 census population of Georgia was 3,943,116; the 1970 population was 4,589,575, an increase of 646,459 living residents over the last decade.

There is a need to stabilize a sound urban-rural balance. The trend has been continued migration to urban areas. Sixty percent of the state's population now live in urban areas, 40 percent live in rural areas. (Note the sprawl and crush over the Atlanta Metro Region.) Coupled with the movement to the cities has been increased growth pressure and considerable inability to keep abreast of recreational, housing, sewage needs, and even adequate job opportunities.

In the rural areas, about 24 percent of the farms, most of which are large farms, provided about 82 percent of the income from agricultural products of the state, according to the U. S. Department of Agriculture.

Among important factors which will help assure a stable balance is good land use planning at the urban and regional levels. This includes planning for:

--adequate and proper land and water areas for environmental quality conservation; and

--a balance of urban/rural and wilderness types of recreation areas and facilities.

Environmental/recreation planning will help to assure proper land use and to meet the variety of outdoor recreation activity needs of the people.

Compared Population in Georgia's six Standard Metropolitan Statistical Areas for 1960 and 1970 was as follows:

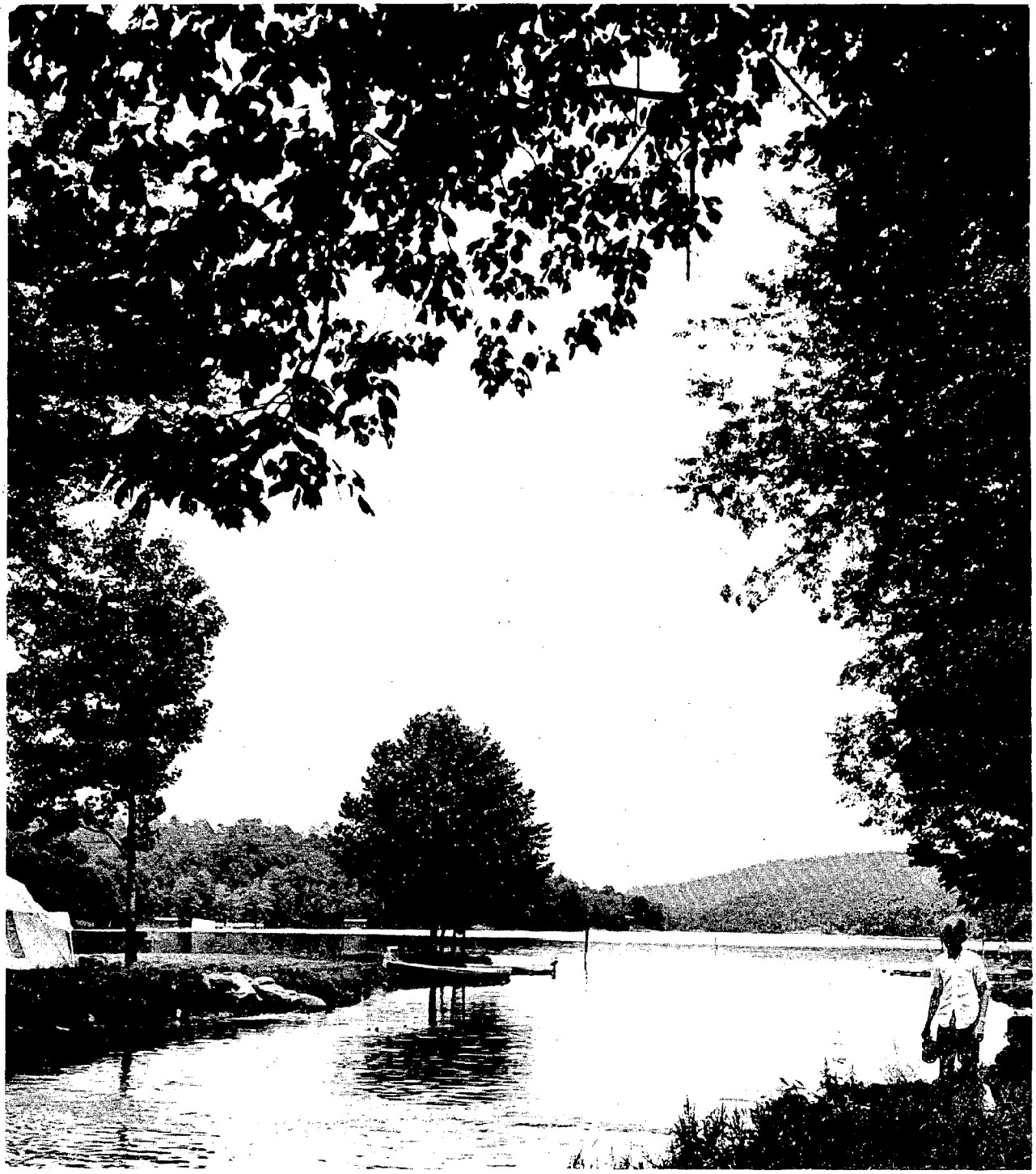
Vicinity	Population 1960	Population 1970
Albany	75,680	89,639
Atlanta	1,017,188	1,390,164
Augusta*	216,639	253,460
Columbus+	217,985	238,584
Macon	180,403	206,342
Savannah	188,299	187,767

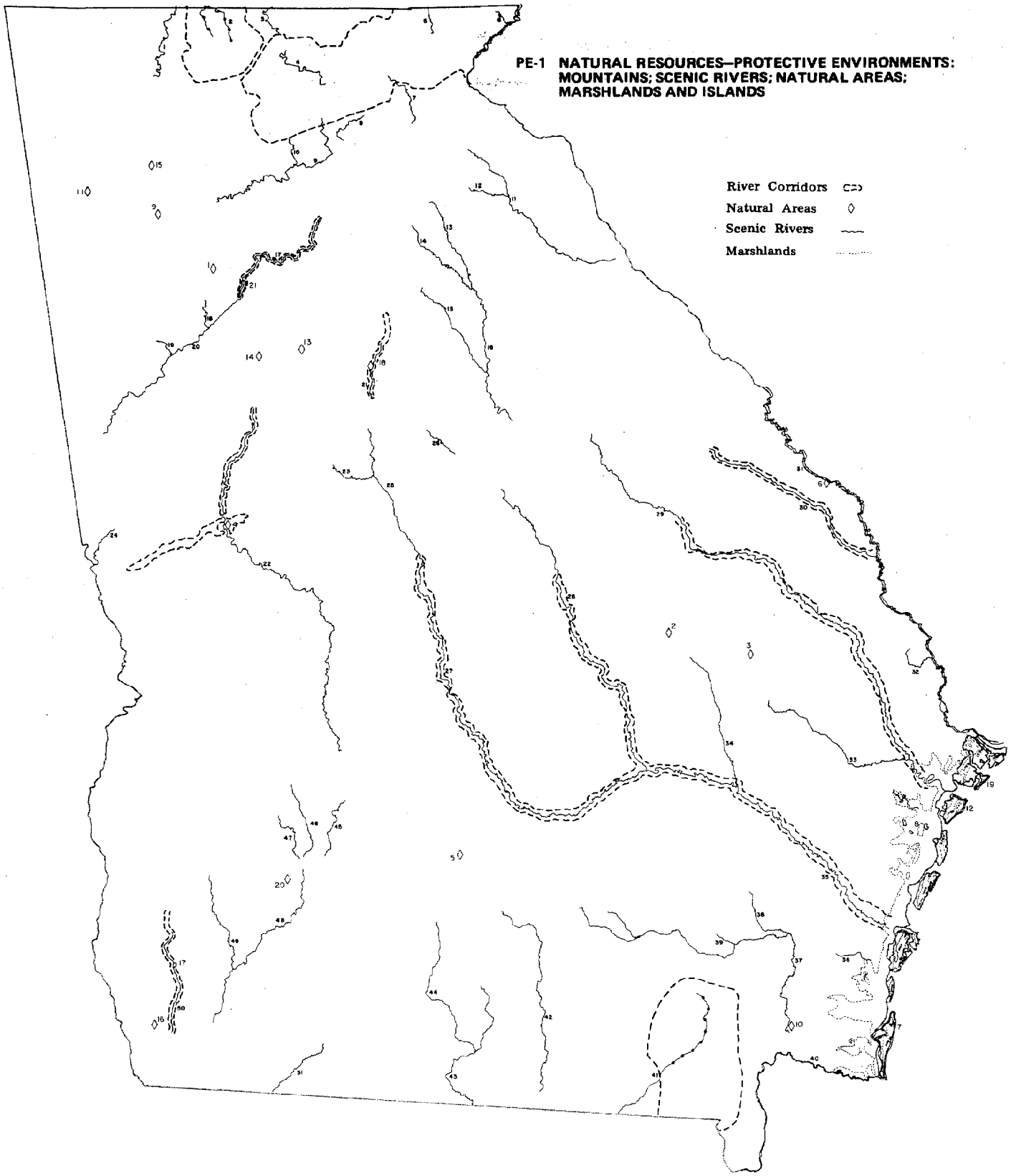
*Includes portion in South Carolina. +Includes portion in Alabama.

Georgia's water pollution problems, for example, are like the pattern in many other states, heavy man-made water pollution just below the urban centers.

In meeting the recreation open space needs of all the people, three categories of priority recreation land needs should be planned: 1) urban, 2) rural, and 3) wilderness. These priority categories should be planned by region where the opportunity still exists for environmental balance.

The large urban centers where most of the people live pose a special problem for planning. In the Atlanta Metro Area, for example (based on the regional minimum standard of 18 acres of recreation lands per 1,000 population), the present existing recreation lands represent less than one-third of the minimum presently needed to serve the existing population.





PE-1 NATURAL RESOURCES—PROTECTIVE ENVIRONMENTS: MOUNTAINS; SCENIC RIVERS; NATURAL AREAS; MARSHLANDS AND ISLANDS

PE-1 NATURAL RESOURCES—PROTECTIVE ENVIRONMENTS: MOUNTAINS; SCENIC RIVERS; NATURAL AREAS; MARSHLANDS AND ISLANDS

This map shows the Highlands Environmental Corridor, Scenic and Wild Rivers, Major Registered Natural Areas, and the Coastal Marshlands and Islands.

This system was developed through the cooperation of the Georgia Natural Areas Council. The inventory and classification of scenic rivers and outstanding natural areas shown with corresponding numbers on this map are cross indexed to the reports of the Natural Areas Council.

Additional major natural areas will be added to the system as the Council completes additional field reviews. In the recent reorganization of state government, the functions and staff of the Natural Areas Council were transferred to the Department of Natural Resources, where the Council's goals will be actively pursued.

The significance of the Protective Environment System as illustrated on this map is that it aligns with the goal to conserve those major unique natural resources which are irreplaceable on the state's living landscape.

These resources are comprised of limited mountain corridors which exist as scenic backdrops to a much larger portion of the regional landscape that is more suited for man-made developments. They include most of the scenic river corridors, their associated floodplains, prime natural stream fish habitats, and the major swamp areas:

--Unique geological, botanical, and zoological areas;
--The estuarine zone--saltwater fish nurseries and basic food supply source; and
--The Golden Isles.

These resources are part of the irreplaceable natural heritage of Georgia which should be conserved for present and future generations.

In total, these relatively thin bands of regional sustaining environmental life zones and unique natural areas comprise only about 15 to 25 percent of the state's land mass.* Yet, they enhance the whole state; incorporate most of the natural areas of critical concern for maintaining a functioning, natural, healthy environment; and comprise most of the high quality natural recreation areas.

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*Dr. Eugene Odum and Dr. H. T. Odum, in their paper "Natural Areas as Necessary Components of Man's Total Environment," propose that about 50 percent of the environment be managed as natural environment lands to balance lands required for food and fibre, commercial-industrial, and residential purposes.

These resources are not renewable. Once a stream has been channelized or dammed, it will never be the same. When a virgin forest is cut, it could take hundreds of years to return it to a likeness of its original state. A little development or overuse could completely destroy certain of our fragile natural areas.

Some of these areas can be and are being used for educational purposes such as field study trips. Others could be classed as scientific areas, wild areas, historical areas, or hiking trails.

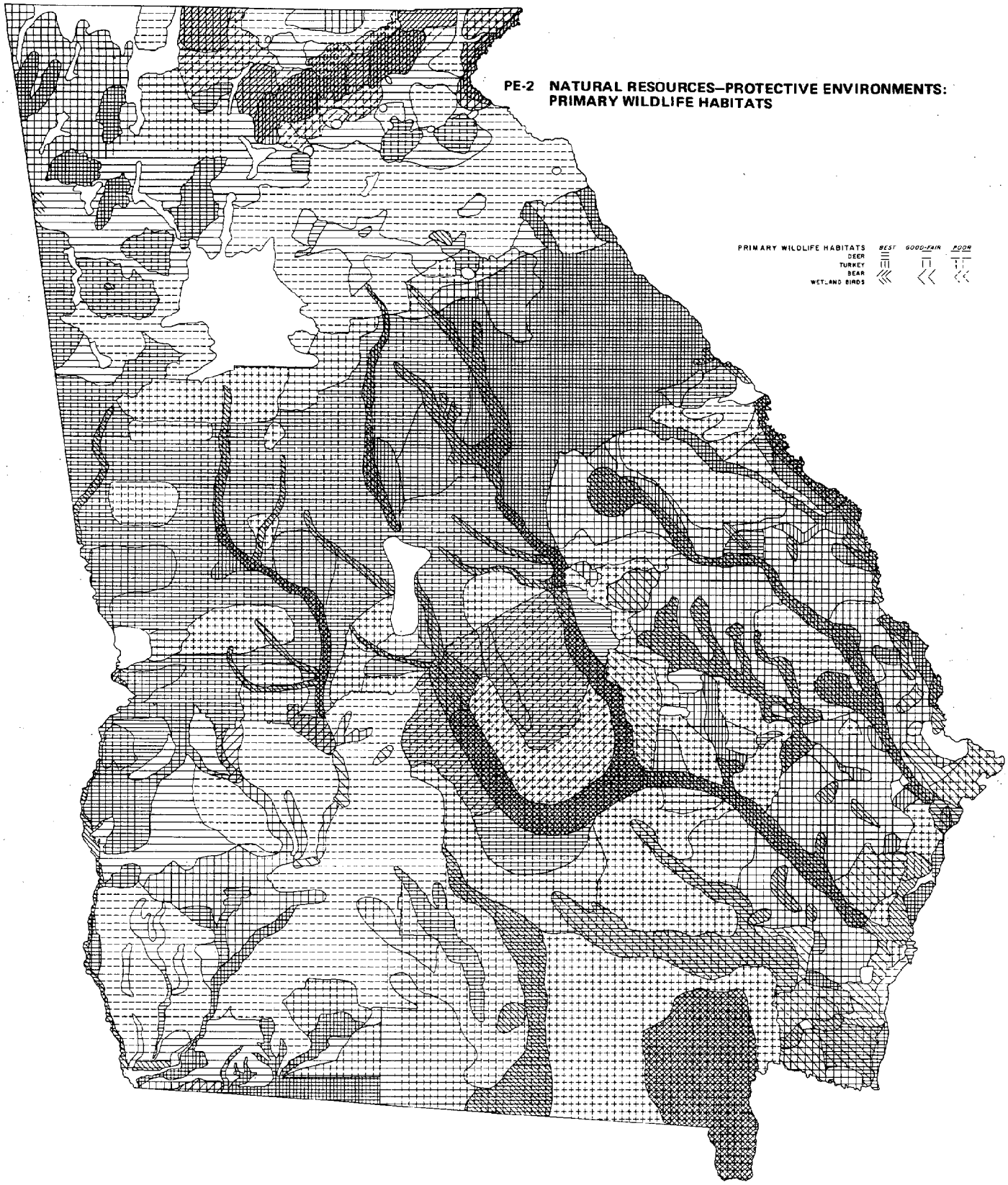
As our population expands, fewer natural areas will be found. It is imperative that we encourage people to preserve and manage wisely as many of these areas as we now can, in order to meet the increasing demands of the future.

Georgia is made up of many different ecosystems. Each is unique and forms an integral part of the state. By registering major examples of natural areas in these varied ecosystems and recommending rivers for Scenic River status, the Natural Areas Council hopes to encourage their preservation, thereby establishing a living record of the natural history of Georgia.

The Georgia Council for the Preservation of Natural Areas would like to see state protective policies established and a State Land and Water Conservation Fund set up for acquiring natural areas that are in danger of being destroyed. In many cases the private landowners would like to see this done. For example, they would no longer have to pay property tax on swamp lands that cannot be put into agricultural production. The natural functions that these swamps perform are far too important to have them drained for development. They are needed for environmental quality maintenance, for fish and wildlife habitat, for outdoor education, and for many forms of outdoor recreation.

Priority recommendations include:

1. Accelerate land-use plans for the Highlands and Coastal outdoor recreation resource-oriented regions;
2. Finalize and begin implementation of the Chattahoochee Scenic River Park Plan;
3. Obtain National Wilderness Protection of the Okefenokee by Congressional action;
4. Pass a sound Cumberland Island National Seashore Act to maintain this island as a true island with a natural, primitive, and historic theme;
5. Restudy the Alcovy and Flint River development proposals and consider all possible alternatives to maintain environmental protection of these natural scenic river resources;
6. Through Congressional action establish national policy designating the Chattooga and Suwannee wild and scenic rivers as components of the National Wild and Scenic Rivers System.
7. Coordinate state education and recreation program efforts to emphasize a new joint program of environmental awareness and appreciation.


PE-2 NATURAL RESOURCES–PROTECTIVE ENVIRONMENTS:
PRIMARY WILDLIFE HABITATS
PRIMARY WILDLIFE HABITATS
BEST
GOOD-FAIR
POOR
DEER
TURKEY
BEAR
WETLAND BIRDS

This map shows four maps in one: the Primary Ranges in Georgia for Deer, Turkey, Bear, and Wetland Birds. Deer are shown in horizontal lines; turkey in vertical lines; bear in right oblique; wetland birds in left oblique lines.

The closer the density of the lines the better the remaining range from which to choose management areas. Conversely, the wider the lines are apart the less opportunity for suitable range. Note the absence of these wildlife species where cities occur and, conversely, the predominate density patterns aligning with the river valley floodplain environmental corridors.

Bear: The most critical range needs are for the black bear. Unless some large remote reserves are set aside, this outstanding animal will soon become extinct in Georgia. Minimum size standard areas for bear should be 30,000 to 50,000 acres or larger. They should be selected from resource areas with land characteristics suited for wilderness management but with an adequate balance of food and cover. Roads should be either nonexistent within these areas or capable of being gated and closed to vehicular traffic except for administrative maintenance and emergency purposes.

While the bear exists as an endangered specie in Georgia, not one single federal or state area in the state is currently managed as a wilderness area. Wild turkey also require large remote habitats which generally correlate well with bear habitat requirements. The most suitable areas, as may be identified on the map, are: sections of the Blue Ridge cap, the Jacks-Conasauga of the Cohuttas; Coleman River drainage; the Chattooga River; sections of the Altamaha, Oconee, and Flint Rivers; and the Okefenokee Swamp.

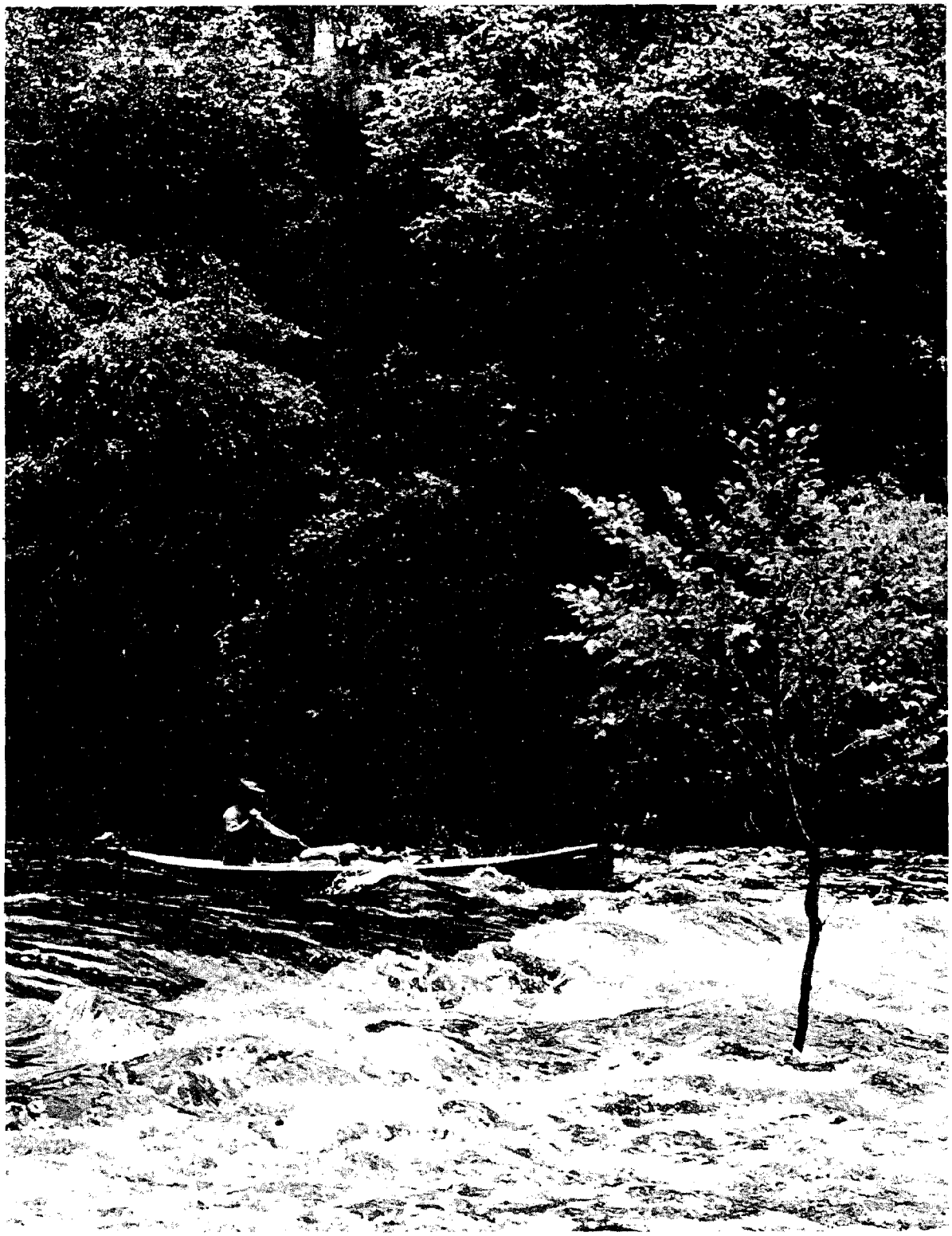
Deer, a fringe of the forest animal, will be found in lesser numbers in the primary bear range areas.

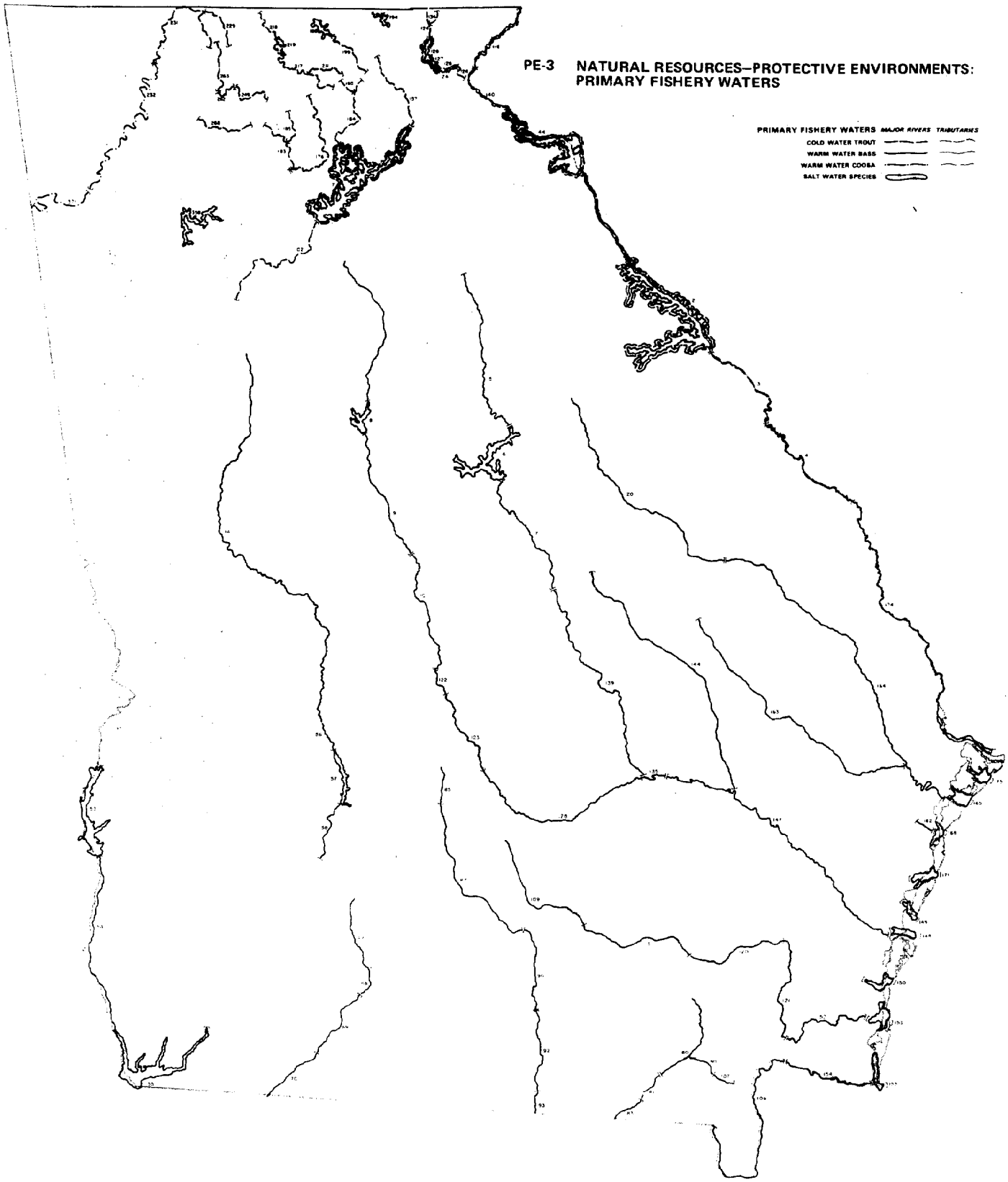
Deer: Highest deer populations are associated with large farm and forest land mixtures. The greater deer-carrying capacity exists where hardwoods are managed to provide a balance of food and cover. Unnecessary roads should be avoided in the primary deer ranges to avoid high fatality deer-kill by automobiles.

Wetland Birds: Ranges are confined primarily to the river floodplains and swamps. Since these ranges are minimal to meet hunter demands, and the habitats generally serve other useful purposes in their natural state, such as groundwater recharge, these areas should be protected where they exist. Wetland habitat is steadily dwindling and is very difficult to replenish. Emphasis on total protection of this habitat type should be stressed.

Turkey: Primary range for turkey consists of large mature tracts of hardwood timber interspersed with improved grasslands. This habitat provides excellent fall and winter food through hardwood mast and satisfies the turkey's spring requirements for high-protein insect foods found on grasslands. The minimum size of these tracts should be from 20,000 - 30,000 acres, since turkeys range over large areas and do not establish localized ranges as do deer. The wild turkey cannot withstand harassment. It is therefore essential to keep to a minimum the number of access roads located in good turkey range.

Consider the Georgia Piedmont and the twin objectives of protecting prime scenic rivers and potential wild land resources by managing those prime remaining wildlife habitats associated with the scenic rivers, their floodplains and shorelands. Note that only four large segments of primary fishery rivers and associated prime wildlife habitats remain on the Piedmont. These are Trotters Shoals on the Savannah; Oconee above Lake Sinclair; the Flint River; and the Alcovy River. Match the major public and private reservoir development system map to these four areas and observe that the first three are proposed for inundation by reservoirs. Alcovy, the fourth area, has been proposed for channelization. An alternative solution should be found to conserve at least one of these prime scenic rivers and associated wildland areas on the Georgia Piedmont.




PE-3 NATURAL RESOURCES–PROTECTIVE ENVIRONMENTS: PRIMARY FISHERY WATERS
PRIMARY FISHERY WATERS
MAJOR RIVERS
TRIBUTARIES
COLD WATER TROUT
WARM WATER BASS
WARM WATER COOSA
SALT WATER SPECIES

PE-3 NATURAL RESOURCES–PROTECTIVE ENVIRONMENTS: PRIMARY FISHERY WATERS

This system shows the major rivers, the major lakes, and the primary saltwater fishery waters. These primary fishery water inventories and classifications incorporate the criteria of water quantity, quality-chemistry, food and cover for major game fish species.

The waters are naturally subdivided into the primary habitats for cold-water trout, warmwater black bass and Coosa Bass, and saltwater species. Cold waters for trout are a recreation resource which is currently limited in supply when compared to present and projected demand. The cold waters exist naturally only in the shaded streams of the higher elevations of the Georgia mountains. They exist artificially in the depths of the mountain lakes--in Lakes Lanier, Hartwell, and Clark Hill--and in the tail waters below those major man-made reservoirs where a minimum flow is maintained.

The same highland waters of the trout are the fountain headwater supplies for the people and industries in Gainesville, Rome, Atlanta, Columbus, Augusta, and Savannah. In the interest of both the people and the trout, shade trees should be maintained over the trout streams to keep them cool, to protect steep slopes from erosion and the waters from siltation and other forms of pollution.

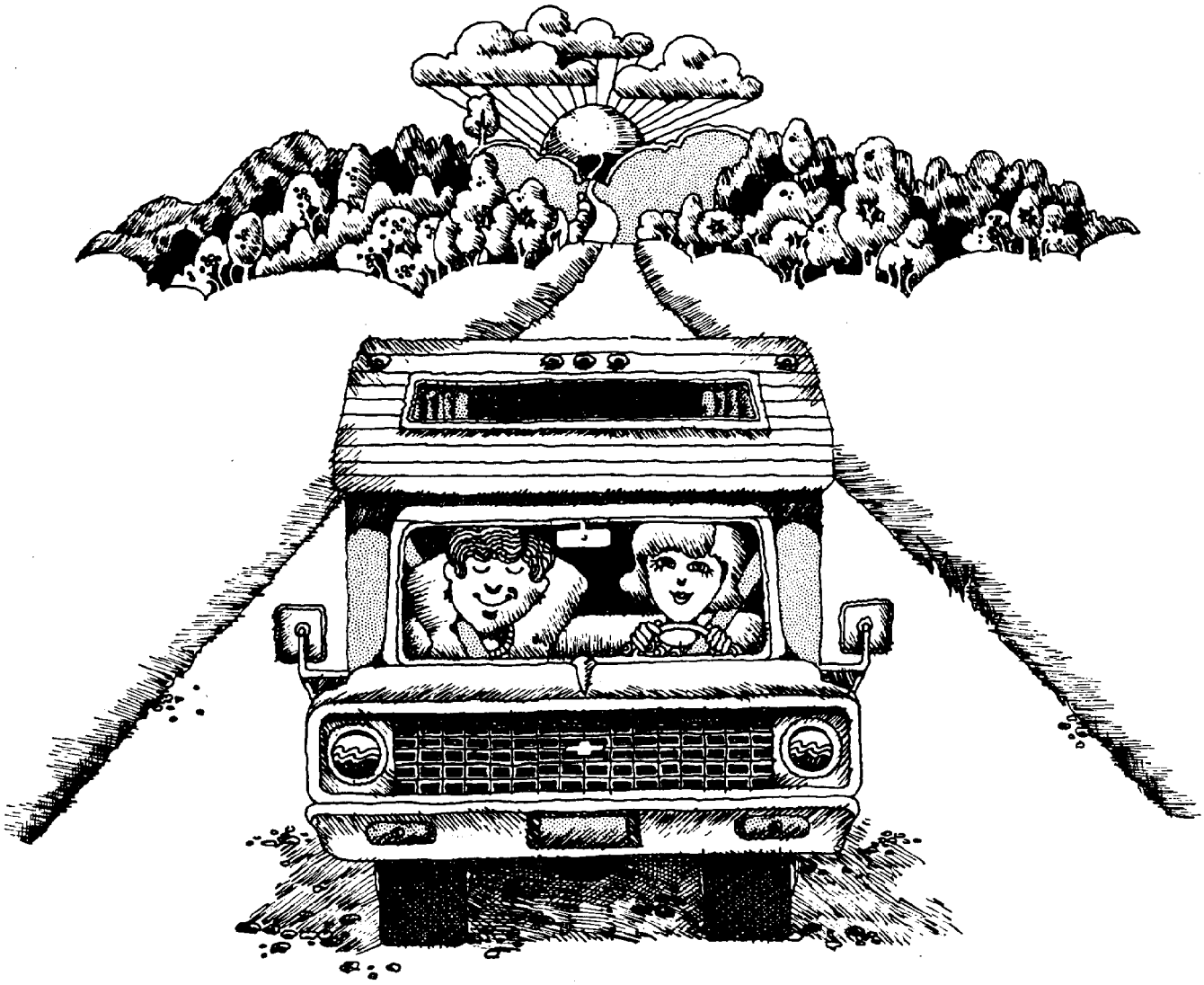
The Flint River Smallmouth, a variety of the Coosa Bass, is another species with limited range, being confined almost exclusively to the Flint and its tributaries. Significant portions of this drainage, where this species occurs, should be maintained in the free-flowing state and existing water quality maintained so as to preserve this unique fish form and fishery.

Only the mainstreams and certain major impoundments are shown on this system map. The mainstreams, however, are aggregate totals of their tributaries' inflows of good or poor quality. The lakes trap the silt loads from any silt erosion in their basins. This shortens the life of these reservoirs proportionately. Too many reservoirs will stop the nutrient cycles to the marshland nurseries for both the saltwater fin and shellfish. Mainstream reservoirs also landlock the sands which normally flow from the inland rivers to replenish the island beaches. In the coastal area, impoundments on mainstreams could block migration of important sport and commercial species.

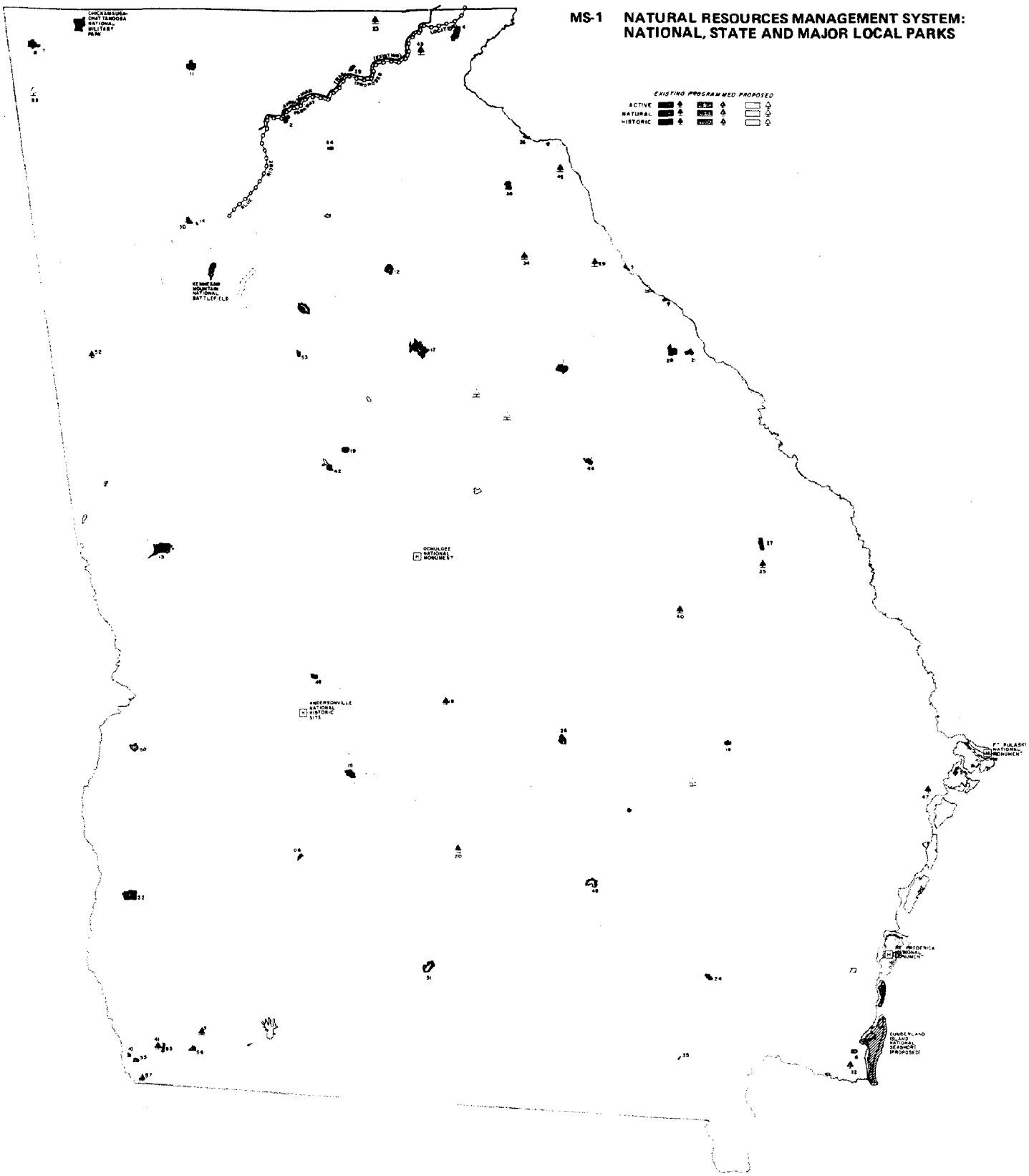
Unnecessary erosion siltation and other damaging man-made pollution should be corrected and controlled at its source.

Protection of the scenic shorelands and provision of adequate public access of appropriate types at proper locations are additional policy objectives.

Alteration of these streams and their tributaries by channelization or other improper use of the floodplain and watershed can cause serious degradation of these stream fishery resources. We now show a deficit of stream fishery resources, and projections of future use reflect an increase in the unsatisfied demand for this resource. Yet, no more streams will be created. These resources need protection.



MS-1 NATURAL RESOURCES MANAGEMENT SYSTEM: NATIONAL, STATE AND MAJOR LOCAL PARKS



MS-1 NATURAL RESOURCES MANAGEMENT SYSTEM: NATIONAL, STATE AND MAJOR LOCAL PARKS

The major Parks System in Georgia, showing the existing, programmed, and proposed parks, is located on this map.

Each park is shown in relative form and scale in its location on the landscape, with the exception of smaller state parks, which are shown as a tree symbol.

The number of each park corresponds to its inventory and program matrix, on which is shown the county, APDC, and river basin location; its acquisition and development project costs; and the fiscal years of funding.

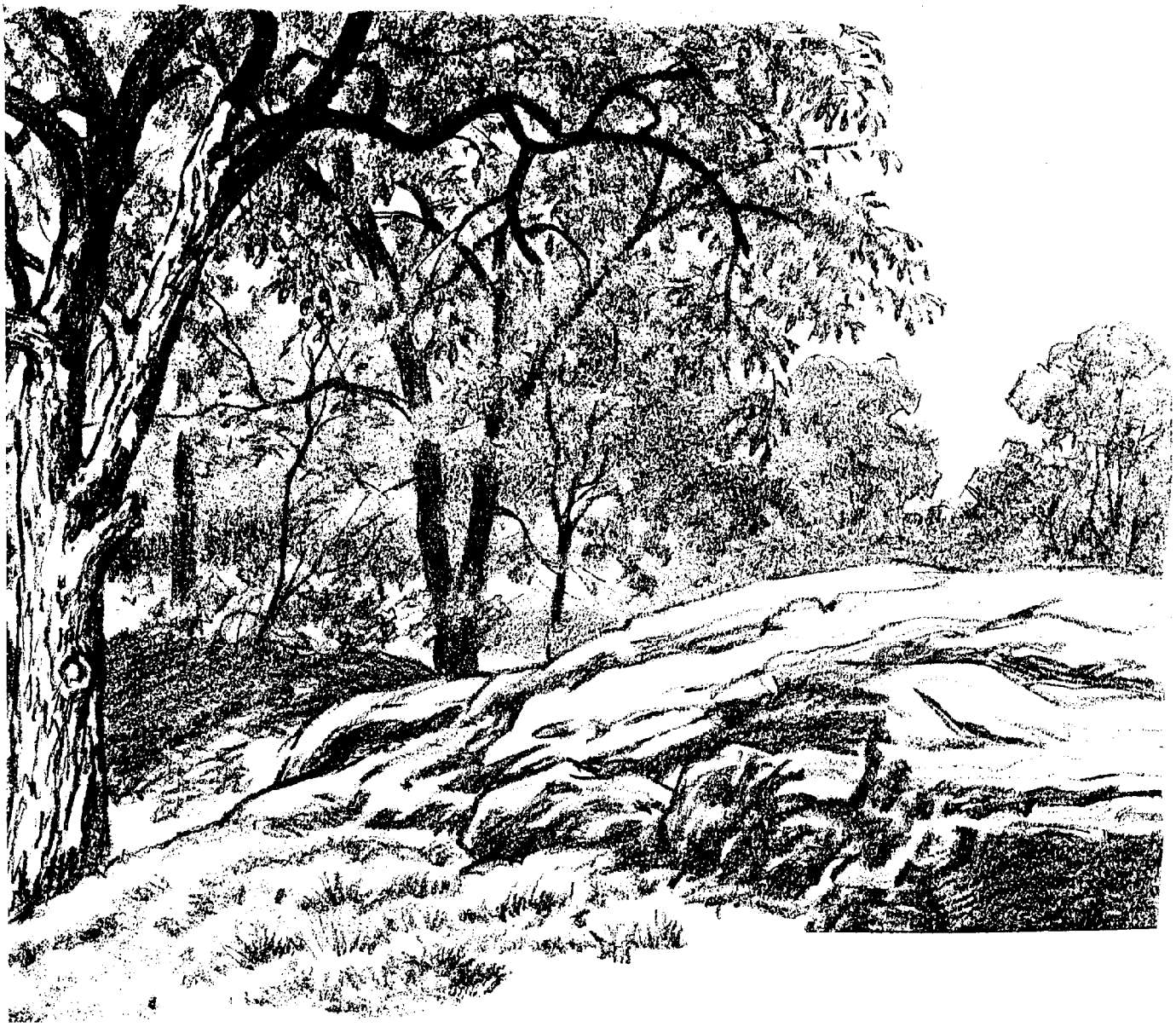
The active, natural, or historic theme designation for each park is a general guide for quality. Highest quality is achieved through a master plan designed for appropriate land use facilities, activities, and management. The general BOR land class for each park is a basic criteria for the park's master plan. The realization of such master plans will maintain and enhance the unique, inherent qualities of each park as an opportunity for the most meaningful human re-creational and educational experiences.

The National Parks Service and the State Parks and Recreation Division of the State Department of Natural Resources cooperated in the development of this map. The state authorities and the proposed major urban intergovernmental-financed park on the Chattahoochee River are also shown.

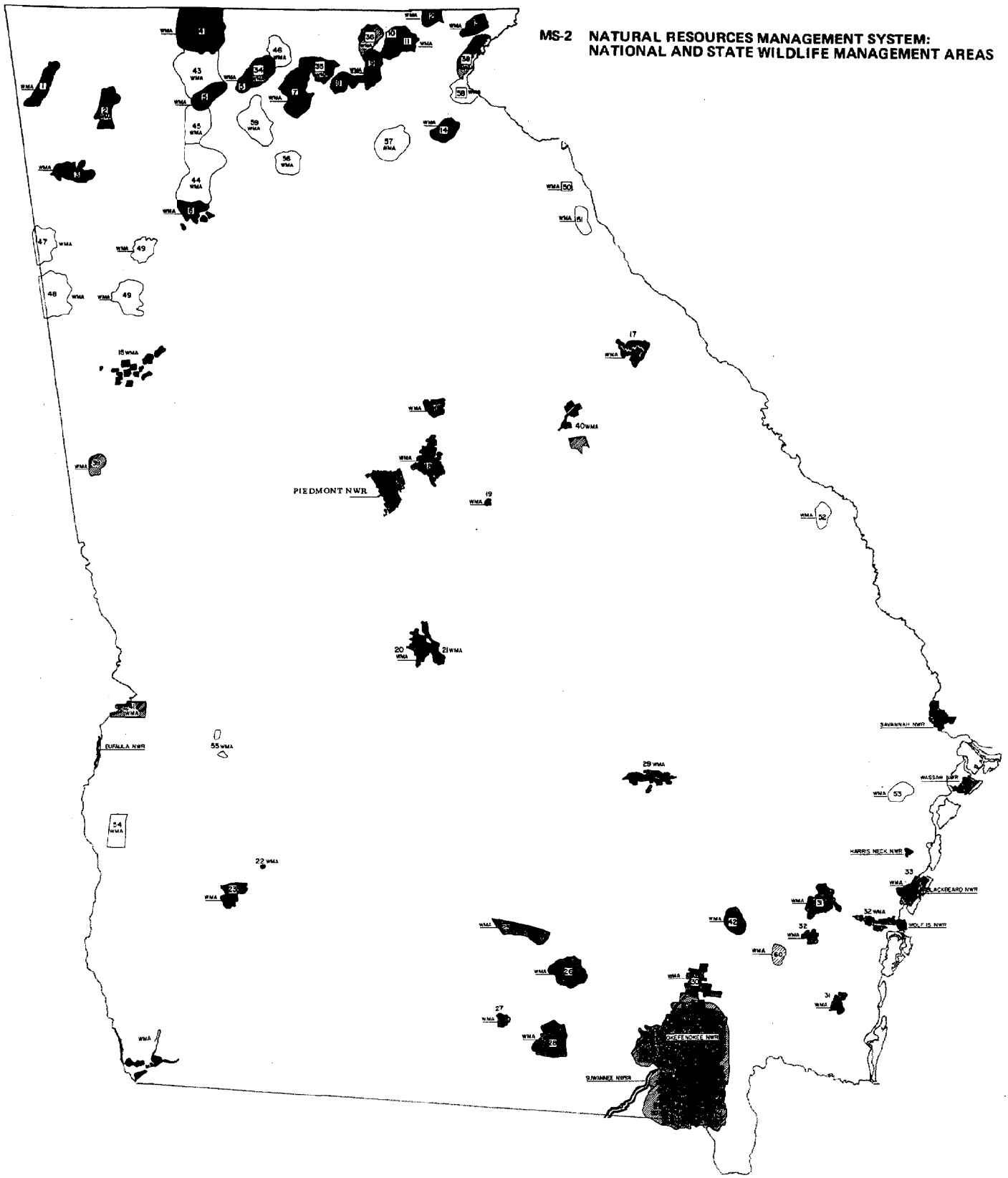
Parks and recreation areas should be planned as a functional system on a regional basis to meet the needs of people. All types of facilities and activities cannot be provided on the same piece of land; therefore, it is desirable to provide functional types of areas in a balanced park and recreation system. The national and state parks should primarily conserve major scenic, unique natural resource-oriented, and historic types of parks. APDC's and local governments should cooperate in establishing major national and statewide parks where irreplaceable resources justify their creation. Additional, smaller, regional parks may be cooperatively provided by two or more local governments to meet additional demands of the people where needed and feasible. The cities and counties should complete the system by acquiring and developing the needed local community parks and recreation areas in the system. These are neighborhood parks, playgrounds, playfields, swimming areas, trails, boat access sites, and citywide and countywide parks as required to meet the daily needs of the local residents.

In addition to the objective of meeting daily resident needs, the local parks and recreation areas should be developed in concert with the objective of properly shaping the local environment within the larger regional resource conservation framework. The larger regional resource conservation framework is represented by the preceding protective environment system maps. State technical and financial assistance should be provided to the APDCs and local governments to assure realization of these objectives.

Since parks and recreation facilities are needed (but expensive), and planning in harmony with protective environments that function regionally and statewide are twin objectives, more intergovernmental planning and more financing proposals such as the Suwannee and Chattahoochee River Plans should be developed.



MS-2 NATURAL RESOURCES MANAGEMENT SYSTEM: NATIONAL AND STATE WILDLIFE MANAGEMENT AREAS



The state and federal Game Management Areas and National Wildlife Refuges as existing, programmed, and proposed are shown on this Wildlife Management System map. It was developed with the cooperation of Georgia's Chief of Game Management, his regional biologists, and the U. S. Bureau of Sport Fisheries and Wildlife. In addition to the management of wildlife on state-owned lands, the State Game and Fish Commission conducts cooperative wildlife management programs on federal lands and, in general, manages the wildlife as a state resource.

Two general types of management areas are shown as follows:

1. BOR Class III Areas, which are general hunting areas with intensified management practices (as represented by Oaky Woods Wildlife Management Areas); and
2. BOR Class V or V-B Areas, which are areas managed largely by nature as represented by the wilderness area within the Okefenokee Swamp.

Most of the areas within Georgia are Class III type. (See the index of classified state wildlife management areas, Chapter VIII.) Not one single area in Georgia is now afforded wilderness protection under the National Wilderness Preservation System or by state policy. Both types of areas are badly needed.

There are some areas within the state which, based on their natural use characteristics, are well suited for Class V-B wilderness classification. These areas should be from 5,000 to 50,000 acres in size. Such areas are generally remote, based on their locations and mechanical accessibility. The high elevations of the Blue Ridge cap, the steep gorge-like lands of the Chattooga River Valley and the Cohutta Mountains, and major river swamps and floodplains on the Altamaha, Ocmulgee, Flint, and Alcovy rivers are good candidates. Wassaw, Wolf, and major portions of Sapelo and Cumberland islands should be seriously considered for wilderness management.

Overall, Georgia has only 1,144,800 acres in state wildlife managed lands including those lands in the national forests. This is considerably less than several other states, some of which maintain five acres of public hunting per licensed hunter. The 1968 Statewide Recreation Plan showed a need for an additional 640,000 acres of wildlife land, but only a fraction of that has been obtained.

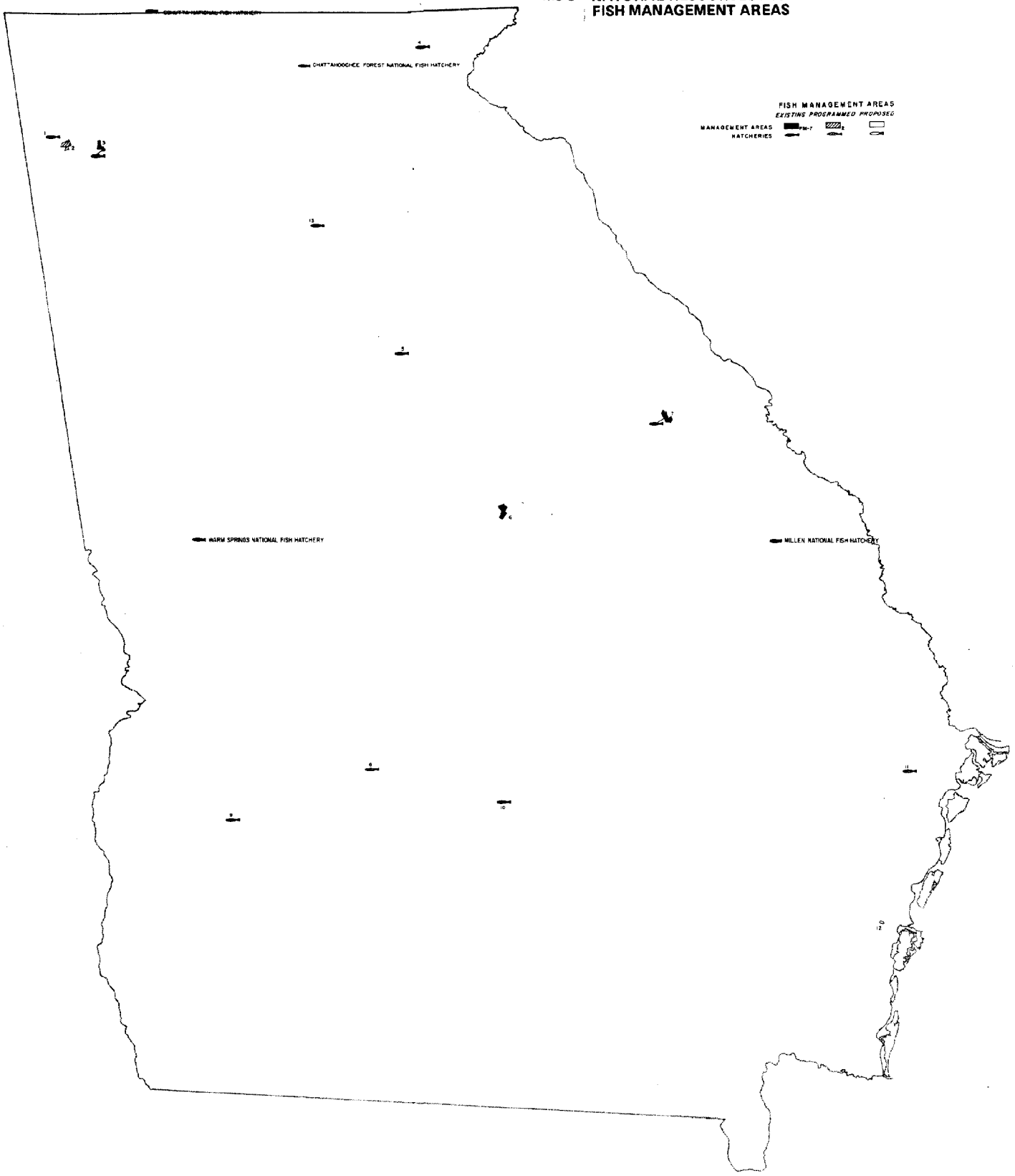
RECOMMENDATIONS

1. The state land-use and management objective should be to acquire and manage as wildlife areas those primary wildlife habitats shown on the protective environment maps which have other environmental quality values that justify their management as essential open space.

2. A State Land and Water Trust Fund should be created to acquire publicly top-priority wildlife areas while they are still obtainable, rather than wait until they are piecemealed out of existence for other purposes or costs become prohibitive.

3. The Bureau of Sport Fisheries and Wildlife should continue to work closely with the State Game and Fish Commission, other resource management agencies, and planning commissions in Georgia to plan and provide adequately for both intensively managed and wilderness-type wildlife lands.

MS-3 NATURAL RESOURCES MANAGEMENT SYSTEM: FISH MANAGEMENT AREAS



FISH MANAGEMENT AREAS AND HATCHERIES

This map shows the existing, programmed, and proposed State Fishing Areas, State Fish Hatcheries, and Federal Fish Hatcheries.

The increase in population will greatly exceed the increase in amount of water available for public fishing in future years. As a result, existing water resources will receive increased pressure. In order to maintain the present quality of fishing, three avenues of management are available:

1. Provide appropriate access to and promote fisheries that are not currently being utilized.

2. Create additional public waters.

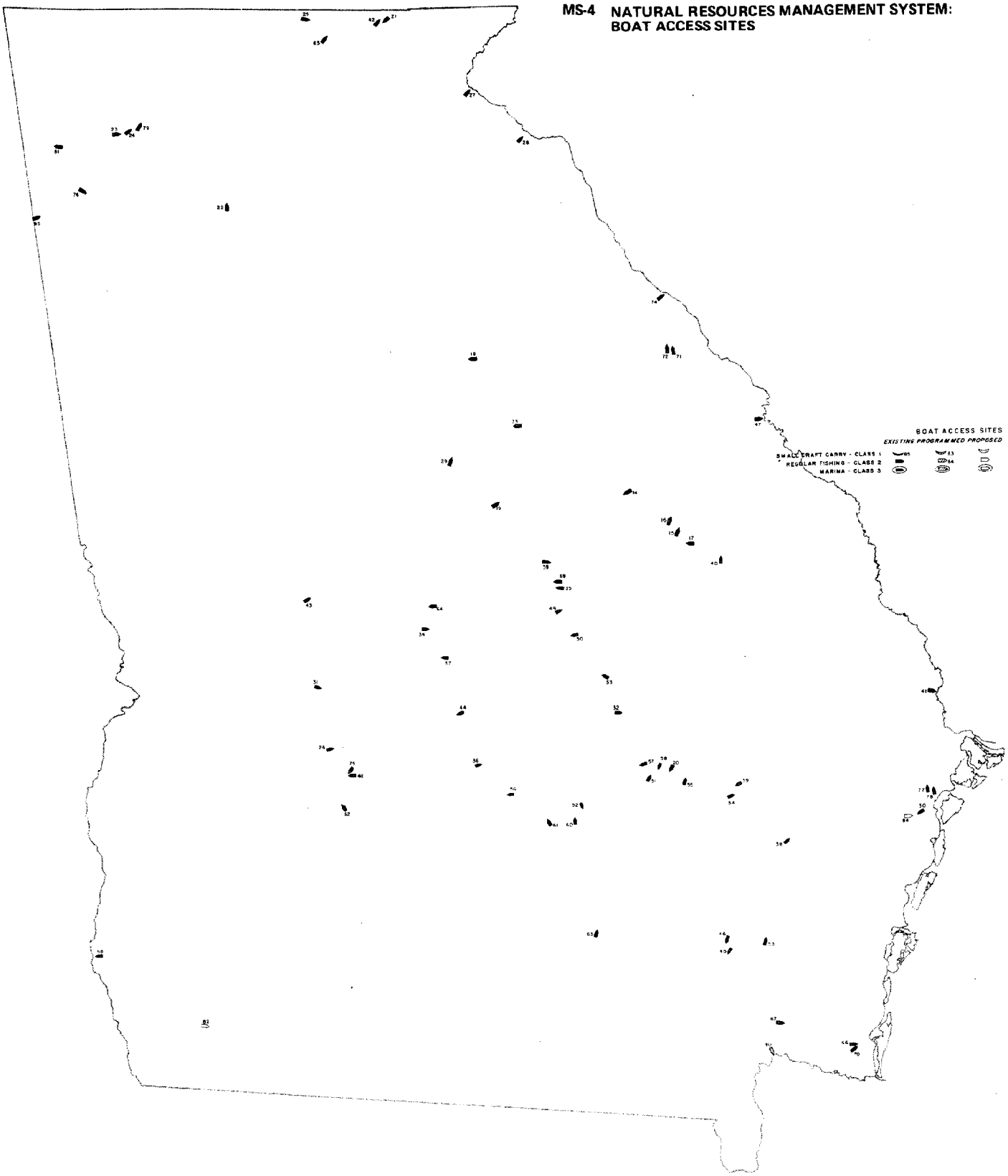
3. More intensively manage existing waters to increase sport fish production.

Public access to existing potential fisheries is being provided in part by the launching ramps program. Purchase of public interests in shoreline strips is important for bank fishing, as well as for shoreline protection. Identification of underutilized resources, as well as urban, rural, and wilderness management classifications, will be accomplished by a comprehensive inventory. These programs will be complemented by information and education activities sufficient to relay findings to the public.

Additional public waters can be created by outright purchase and development of public fishing areas by the state or by agreements or leases of private waters for public utilization. Advantages exist for both types of activities. However, since property values continue to rise disproportionately higher than other values, the cost of public acquisition and development in most areas can be partially offset by early acquisition and development. Where possible, floodplains and shorelands with prime wildlife values that adjoin prime fishing waters should get top priority for public acquisition.

A more intensive management program will require the provision of fish from hatcheries for initial stocking of new waters; introduction of new species, such as striped bass, where suitable habitat exists; restocking and corrective stocking of existing waters. In addition, catchable-size fish should be provided for limited production areas, such as trout water. The distribution as indicated appears adequate, although fish-rearing space is not sufficient to meet the demand. The newly programmed Chattahoochee Trout Hatchery, Number 13 on the map, should have a high priority for funding in fiscal year 1973. The statewide demands, the available quality and quantity resource, and location of this hatchery combine to justify a sound investment now.

MS-4 NATURAL RESOURCES MANAGEMENT SYSTEM: BOAT ACCESS SITES



MS-4 NATURAL RESOURCES MANAGEMENT SYSTEM: BOAT ACCESS SITES

This map shows the boat access sites which have been developed under the existing boat access program.

Under the existing program, local governments, individuals, or agencies normally donate the land and the State Game and Fish Commission builds the access facilities. Most of the facility developments shown are cost shared 50 percent with Land and Water Conservation Funds.

The various man-made facilities should be designed and fitted at appropriate locations to the natural landscape patterns. As a guide for land and water management, the land is classified according to natural use characteristics. Appropriate facilities to serve compatibly related activities are then functionally related to a particular land site after sufficiently detailed study of the area and the alternatives for optimum development. An even more correct application through planning is to study existing natural regional patterns of landscape to determine appropriate future conservation and development patterns. This is essential to properly relate regional systems in a pattern of regional design.

The proper planning of specific land areas and sites can be achieved with a greater degree of finesse to meet the intended purposes of service, functional design, individual user satisfaction, and environmental quality maintenance when classified land areas are developed within a regional framework.

Applying these principles to boat access sites, it becomes apparent that we need three types of access sites, as indicated by the map legend:

1. Small Craft Carry (portage) Sites, Class 1;
2. Regular (small motor) Fishing Sites, Class 2; and
3. Marina Sites, Class 3.

The correct classification of boating waters will include at least the following major criteria for the proper planning of water and related land uses for optimum human enjoyment:

1. Regional setting of the water area--either urban, rural, or wilderness (the associated stream class with the land area is generally a recreational, scenic, or wild river segment in accord with national and state acts);
2. BOR land classes of land and water areas within the region;
3. Existing water quality (pollution degrades esthetics and may present a health hazard);
4. Existing or potential fishery;
5. Skill class and safety requirements (as may be determined by the magnitude of rapids, waterwalls, narrowness of stream, available surface water areas and their capacity for safe usage, and abrupt water fluctuations);

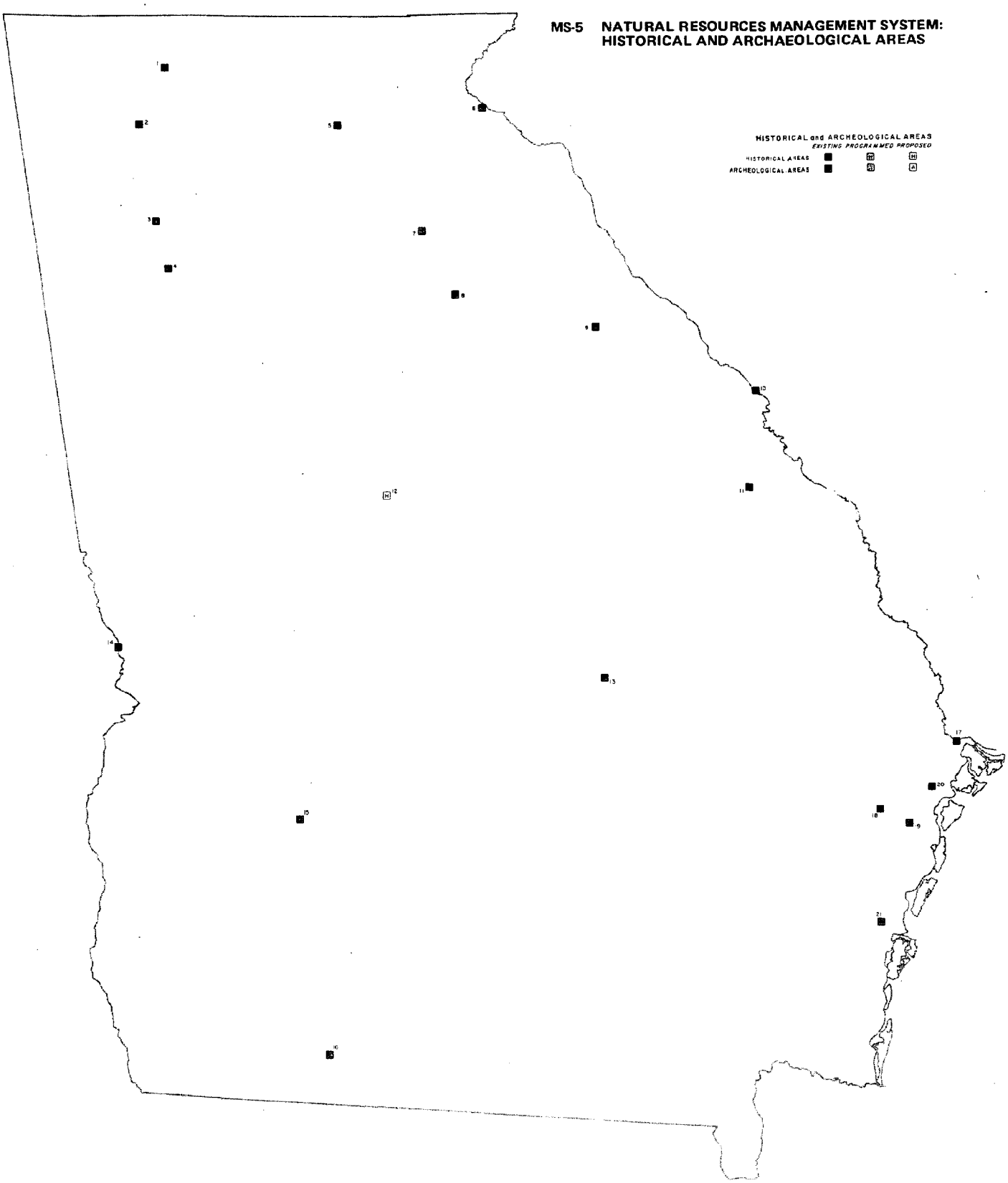
6. Season of use (the months of floatability as determined by necessary minimum flows for various types of watercraft usage).

When the system of boat access sites is considered in relation to the protective environments, their regional settings, land, scenic river, skill classes, existing patterns of development, and the present and proposed highway system, better alternatives for site selections can be made. When systems are planned in relation to each other, the environment can be planned as a whole rather than piecemeal. To illustrate, a boater who has lost his flat-bottom boat or sheared a pin at every bend in the Chattooga River of the Upper Savannah would consider it foolish to locate a Class 2 access site along the waterway. But a canoeist would agree that six Class 1 sites located at proper places along 40 miles of the same river are desirable.

The three needed classes of boat access sites may be acquired with Land and Water Conservation Funds. Class 3 marina sites may also be acquired through Corps of Engineer acquisitions on major public reservoirs. Private power companies may donate sites on their large reservoirs where recreation project plans are required by the Federal Power Commission.

Development of elaborate marina facilities with Land and Water funds is excluded in Georgia at this time. This is due to the limit of funds for basic rather than for high-cost, elaborate facilities. Where elaborate marina facilities are desirable, user fees may justify the cost of revenue bonds for financing the facility as a part of a larger man-made recreation complex.

MS-5 NATURAL RESOURCES MANAGEMENT SYSTEM: HISTORICAL AND ARCHAEOLOGICAL AREAS



MS-5 NATURAL RESOURCES MANAGEMENT SYSTEM: HISTORICAL AND ARCHAEOLOGICAL AREAS

This map shows the 20 existing Historical and Archaeological Areas managed by the Georgia Historical Commission, and one programmed area--Jarrell Plantation. Since most of the sites are relatively small and cannot be shown in scale, they are shown on this map by symbols.

The goal is to identify, classify, and select for public preservation outstanding examples of Georgia's cultural heritage. Other major historical and archaeological sites are now being inventoried and selected by the Georgia Historical Commission for addition to the state system. The comprehensive statewide historical sites survey includes over 2,200 places, of which 151 sites, as of May 10, 1972, have met qualification for the National Register of Historic Places under authority of PL 89-665 according to the Georgia Historical Commission. Qualification on the National Register is prerequisite to federal fund assistance through PL 89-665.

The Georgia Historical Commission has been designated by the Governor to develop the state's Historic Preservation Plan. As a part of this function, it will:

--Maintain the State Register of Historical and Archaeological sites;
--Update this map inventory and classification system to include both national and state significant areas;
--Show each project's status as existing, programmed, or proposed;
--Promote interest, appreciation, and education in the history and archaeology of the state;
--Encourage the preservation and appropriate interpretation of other important historic and archaeological sites by other state agencies, local governments, and the private sector; and
--Work with the Area Planning & Development Commissions to assure that major significant areas are appropriately considered in the regional conservation and development plans.

In melding the Statewide Historic Preservation Plan into the Statewide Comprehensive Outdoor Recreation Plan, the Georgia Historical Commission will annually:

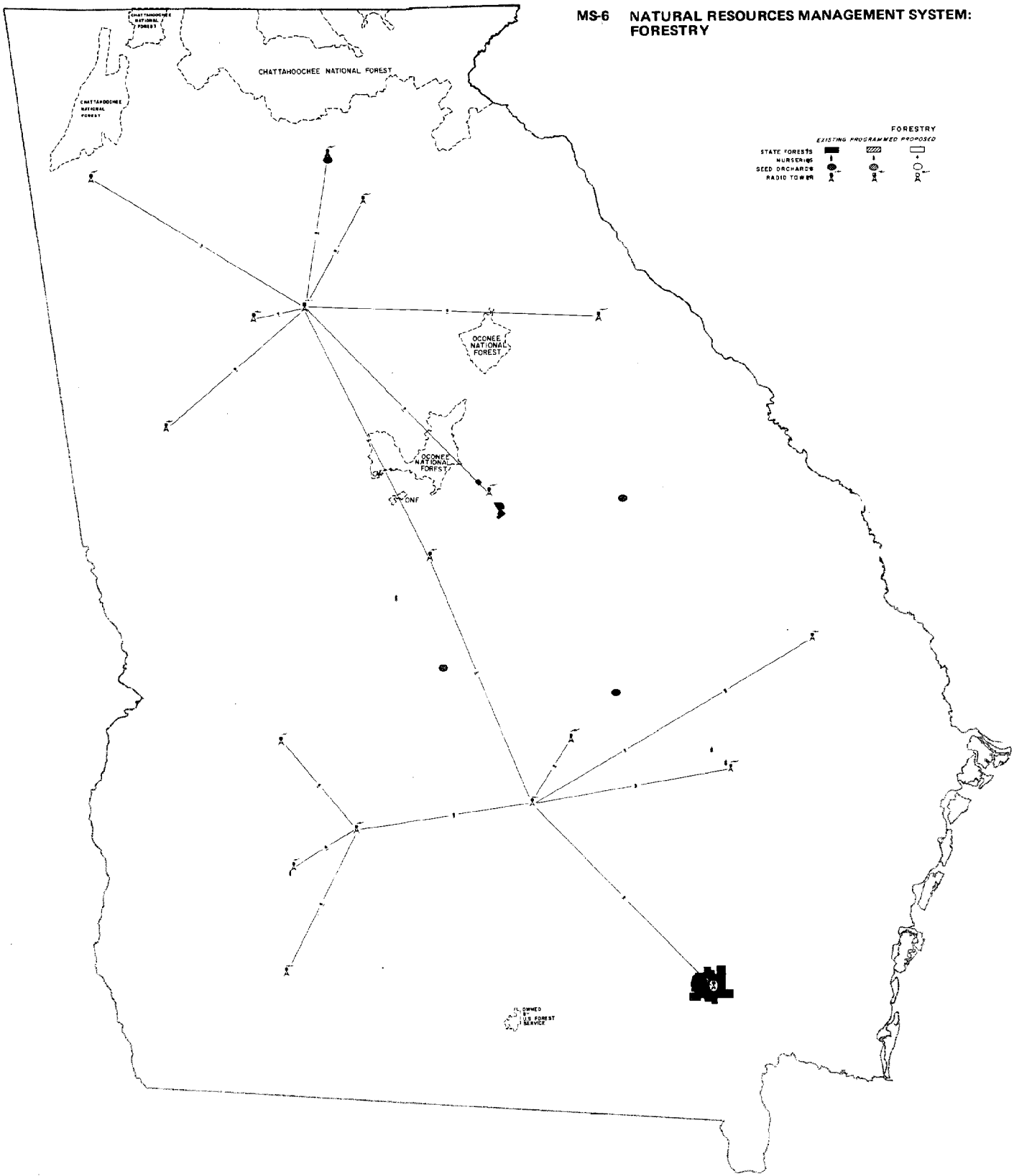
--Review and update as necessary the register and inventory of major historic and archaeological areas to be preserved and operated by the Georgia Historical Commission;
--Propose, review for approval, program and prepare budget as appropriate for the major historic or archaeological areas to be preserved and operated by the Georgia Historical Commission;
--Cooperate, advise, and assist the Department of Natural Resources in the preparation of plans for protection and proper interpretation of significant historic or archaeological sites existing on other state properties;
--Encourage local participation in Historic Sites Preservation.

RECOMMENDATIONS

1. Establish by State Act the state register of historic and archaeological places of statewide significance, and provide protection similar to that in the national act.

2. Transfer the function and positions of the Georgia Historical Commission to the State Department of Natural Resources.

MS-6 NATURAL RESOURCES MANAGEMENT SYSTEM: FORESTRY



NATIONAL AND STATE FORESTS, STATE NURSERIES, SEED ORCHARDS, AND RADIO COMMUNICATIONS SYSTEM

This map shows the National Forests and Georgia Forestry Commission's Management System of State Forests, Nurseries, Seed Orchards, and Radio Communications as existing, programmed, and proposed.

The map will be updated by the Georgia Forestry Commission to include lands now managed by the U. S. Forest Service and by major private forestry managers.

The Forestry Commission, in cooperation with the U. S. Forest Service, is in the process of developing another map showing the lands best suited for forest management in Georgia. When completed, it can be compared generally with the maps showing soils for prime agriculture croplands, the protective environments, water resource systems, urbanizing patterns, and transportation plans.

General management policies and land use decisions for conservation and development in balance and harmony with the total environment can be made with the aid of these forestry GEMS. Much better planning can be done by developing the GEMS information on more detailed regional and local standard scales.

GEORGIA HIGHLANDS PLAN

Some critical areas still need public protection in the Georgia mountains. These include high elevation, headwater steep slopes, and the narrow river valley floodplains. In addition, some unique natural and wilderness recreation areas should be publicly conserved. The U. S. Forest Service should play a major role in the conservation of these critical resources and special natural recreation areas. These areas are highly fragile for development; but they are of key importance as regional natural resource conservation attractions for local residents, Georgians statewide, and out-of-state visitors. The Chattooga River is one example of a major special natural recreation area. Such areas are the scenic settings and resource-based attraction for multiple outdoor-recreation activities for such communities and potential terminal service sites as Dillard, Clayton, Cleveland, Helen, Dahlonega, Jasper, Ellijay, Blue Ridge, Blairsville, and Hiawassee. The regional physiographic land pattern of the Georgia Blue Ridge with these potential service centers is a natural for a circumferential scenic route like the Great Smoky Mountain National Park region.

Policies should be developed now to assure public protection of the critical areas and special areas in an optimum plan of conservation, development, transportation system, and management of the whole Georgia Highlands region.

Good regional development sites at complementary regional locations should be left for quality development by private enterprise.

The Georgia Highlands Plan will be developed as a part of a Model Southern Highlands Plan for the southeastern states. Georgia will cooperate with North Carolina, the Bureau of Outdoor Recreation, and the Appalachian Regional Commission. The plan will serve as a more detailed application of the GEMS* and Planning Process. The planning process involves the synthesis and presentation of Regional Conservation and Development alternatives, policy formulation, and Public Investment Program Development. The Southern Highlands Plan will be a major part of the Georgia SCORP continuing planning program during the next eighteen months. It will also serve as a substate regional model for other regions of Georgia.

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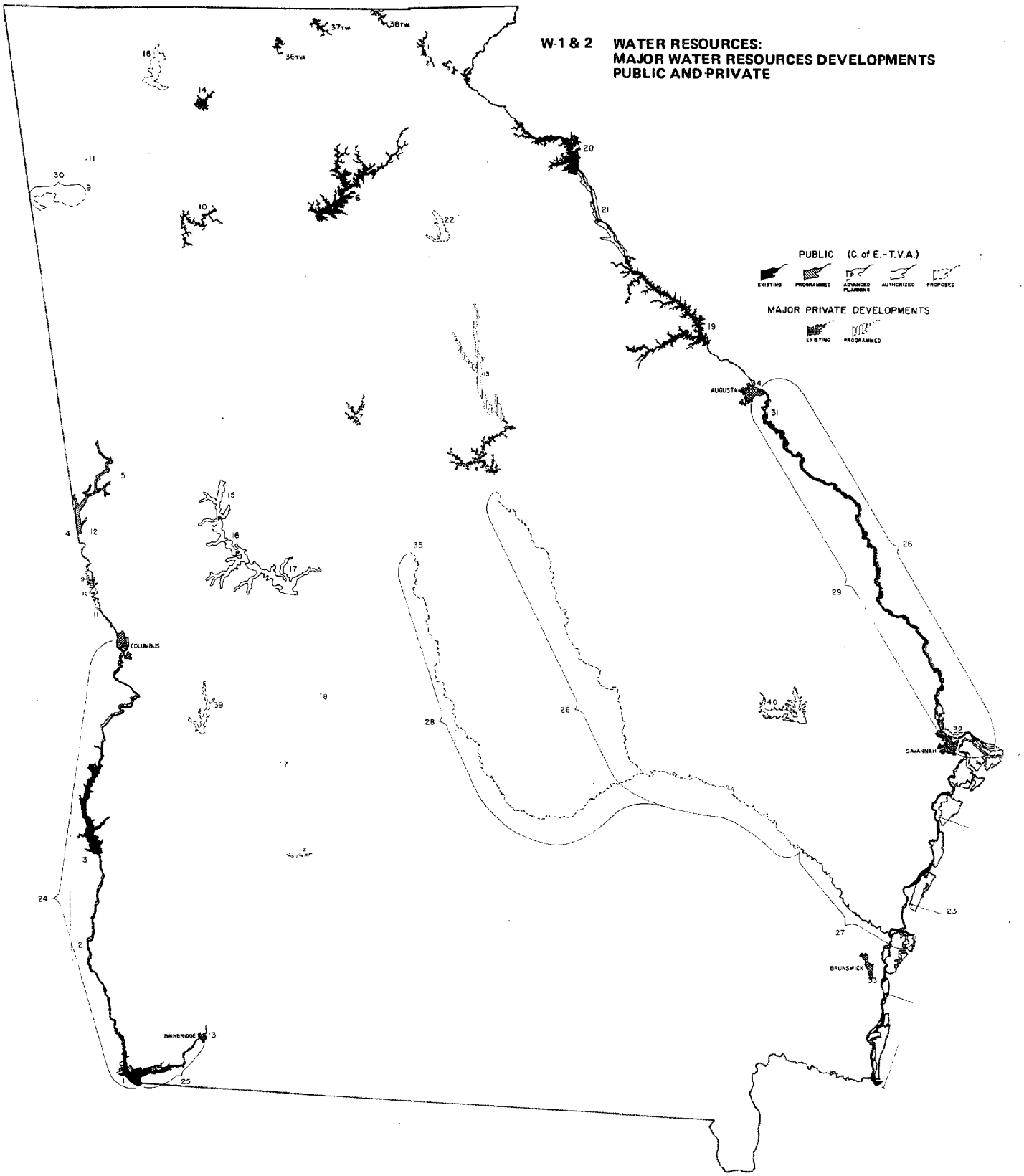
*The RIBS of the Southern Highlands Study is essentially the same process as GEMS.


W-1 & 2 WATER RESOURCES:
MAJOR WATER RESOURCES DEVELOPMENTS
PUBLIC AND PRIVATE
PUBLIC (C. of E.-T.V.A.)
EXISTING
PROGRAMMED
ADVANCED PLANNING
AUTHORIZED
PROPOSED
MAJOR PRIVATE DEVELOPMENTS
EXISTING
PROGRAMMED
AUGUSTA
COLUMBUS
SAVANNAH
BRUNSWICK
BAINBRIDGE

W-1 & 2 **WATER RESOURCES:**
MAJOR WATER RESOURCES DEVELOPMENTS
PUBLIC AND PRIVATE

Shown on this map are the major public reservoirs of the TVA and Corps of Engineers and the major private reservoirs of Georgia Power Company.

When planning for the use of water resources, the quality, quantity, protective environments, existing major land use and transportation patterns, and the desirable future statewide regional and local conservation and development patterns should be considered. Drainage basins must be planned, but must be in relation to other regional systems--as physiographic, social, economic, conservation, and transportation, etc. Too often in the past, one system has been planned out of context of a plan for the whole environment. This has sometimes occurred at the unnecessary expense of damaging other systems existing in balance in the environment and has resulted in further conflict.

One object of the GEMS is to reduce conflicts in the public investment process by considering the several systems and aiding in the selection of the optimum plan of regional conservation and development.

Major public Corps of Engineer projects are shown in five stages of development: proposed, authorized, advanced planning, under construction, and completed. Authorized means a project has been authorized by an Act of Congress but no funds have been advanced for design or construction. Once a Corps project has been authorized, it may have planning money authorized by Congressional action. Subsequently, acquisition and construction funds may be authorized and expended after planning has shown the project to be feasible and the environmental impact statement has been approved.

Most of the Corps projects are multipurpose reservoirs serving such purposes as flood control, hydroelectric power, streamflow regulation, and recreation. An exception is the Hartwell Reservoir, where no consistent minimum low flow is required. In comparison to the Lake Lanier Reservoir, whose minimum flow for the Chattahoochee River maintains a trout fishery 48 miles downstream into Atlanta, the Hartwell Reservoir of the Savannah River has an even greater trout fishery potential. However, the Savannah Trout Fishery and float potential is unnecessarily limited by the periodic zero flow release in the river to essentially no small craft floatation and to only 10 miles of trout water.

A good example of potential conflict can be seen by comparing this map with the proposed system of scenic rivers. The complex of three Flint River reservoirs is in the same area where the Natural Areas Council has proposed designation of a Wild and Scenic River. By pinpointing the location of the potential conflict graphically, the means for proposing alternatives and selection of the best plan of regional conservation and development can be provided.

The numbers opposite each major public reservoir project are codes to a matrix which gives the name of the project, the river basin, state of the project, breakdown of cost between federal and state, and fiscal year of funding.

In addition to reservoir projects, navigable waterways to accommodate commercial navigation and ports are shown.

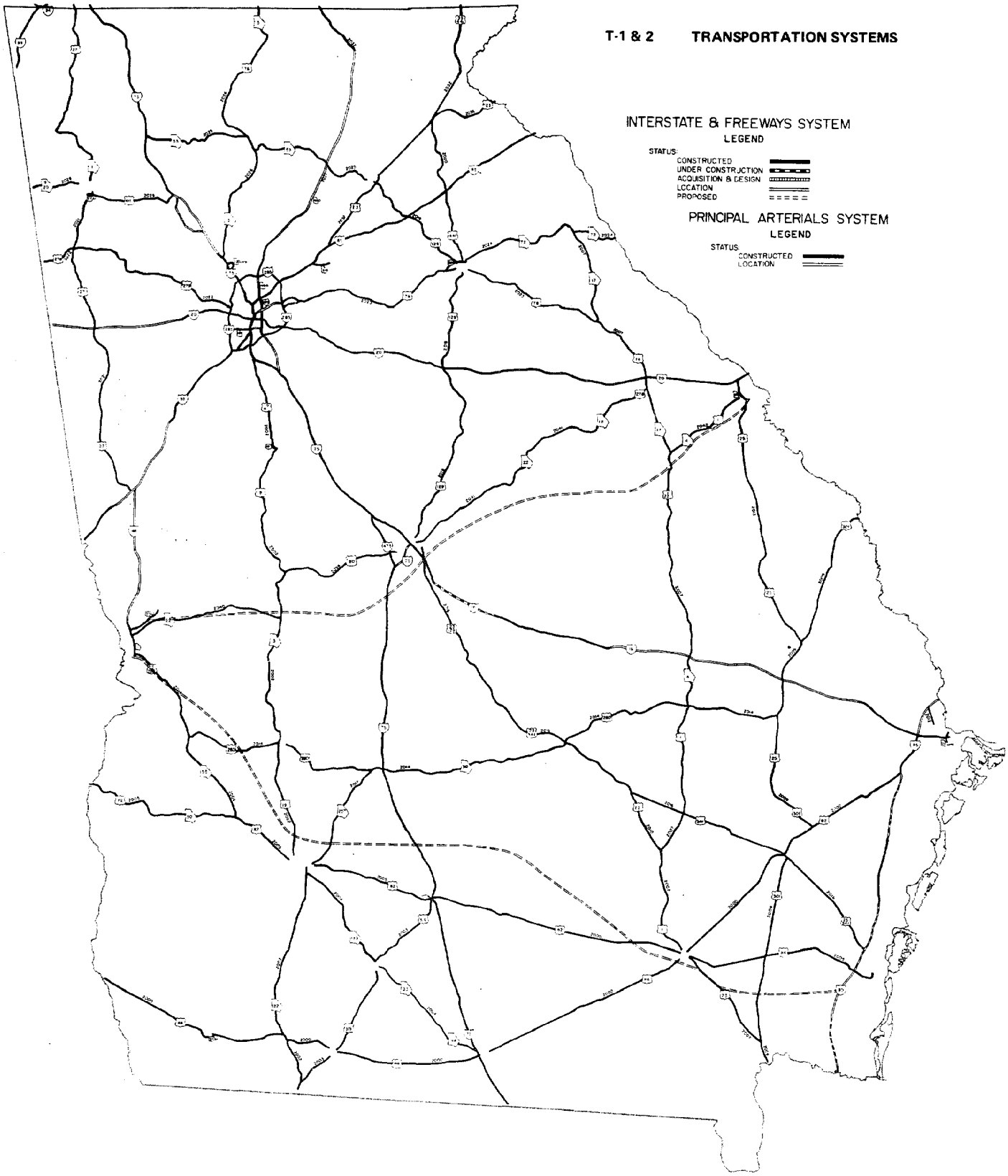
MAJOR PRIVATE DEVELOPMENTS

Georgia Power reservoirs are developed primarily for hydroelectric power and recreation. Only one reservoir--Laurens Shoals--is in the programmed stage. This reservoir, directly north of the existing Lake Sinclair, is on I-20 between Atlanta and Augusta. When using this overlay with the Corps overlay, it is easy to see where major reservoir recreation opportunities are located in relation to any demand needs in the state. Laurens Shoals Reservoir will serve most of the same Georgia regional population demands for broad water-type recreation as will Trotters Shoals Reservoir on the Savannah. Note that Trotters Shoals is proposed between two major existing reservoirs which serve the same region, while other regions of the state have no broadwater sites. This overabundance is further compounded by the fact that Georgia Power will give the state a major state park on Laurens Shoals.

SCS SMALL WATERSHEDS AND RESOURCE CONSERVATION AND DEVELOPMENT PROJECTS

The Small Watershed projects under the U.S. Soil Conservation Service program provide technical and financial assistance to help local groups plan watershed protection and flood prevention projects. Channelization projects, the Alcovy River in particular, have stirred much opposition from conservationists and ecologists. The Alcovy is one of the rivers proposed by the Natural Areas Council for Wild and Scenic status.

The SCS-Resource Conservation and Development projects, like Small Watershed projects, are initiated by local interests. However, the plan for the project is broader based, and several counties are usually involved. The plan for the project sets forth opportunities for economic growth resulting from the development, conservation, and utilization of the natural resources of the area. At present in Georgia, there are three operational RC&D projects, one in the planning state, and three additional applications. The SCS Small Watershed projects and RC&D projects are depicted graphically on GEMS overlays (not shown here) for consideration with plans of other systems and the environment as a whole.


T-1 & 2 TRANSPORTATION SYSTEMS
INTERSTATE & FREEWAYS SYSTEM
LEGEND
STATUS:
CONSTRUCTED
UNDER CONSTRUCTION
ACQUISITION & DESIGN
LOCATION
PROPOSED
PRINCIPAL ARTERIALS SYSTEM
LEGEND
STATUS:
CONSTRUCTED
LOCATION

T-1 & 2 TRANSPORTATION SYSTEMS

Shown here are the Interstate and Freeway System and the Principal Arterial System. Roads are coded as existing, proposed for location, under acquisition and design, or under construction. (Not shown are airports, rails, pipelines, navigable waterways, and major electric transmission system.)

A highway by its location can be either a blessing or a curse. It can be a physical complement to a comprehensive plan for the environmental, social, and economic needs of people and the land, or it can be a conflict severely diminishing environmental quality.

The total transportation system should appropriately fit the statewide landscape. The environmental corridors comprised of steep ridgelines and stream valleys' floodplains, as reflected on the protective environment map, are natural trailways for both people and wildlife. Highways should fit the more gentle grades, 0 to 12 percent, where they require less costly construction and will minimize erosion. They should be timely programmed to guide development in growth areas.

The statewide demand study of the leisure time interests of Georgians showed that foot trails and bicycle trails are two of the top priority recreation facility needs in Georgia. In addition to foot and bicycle trails, Georgians' needs are indicated for horseback, wilderness, and canoe trails. These should be planned as a part of the transportation system in a comprehensive statewide land use plan.

At present, Georgia has very few miles of primary recreation trails in total. Most of the existing trails are located in national forests; state, national, and local parks; and in large private recreation areas.

The Georgia Statistical Abstract (July 1, 1968) shows 88,605 miles of major highways existing. The Highway Department reported a total of 98,873.61 total public roads in Georgia as of May 12, 1972. The 1970 Statewide Recreation Plan showed the following types and quantities of trail needs in 1970 based on statistical demand indications and a quality space standard applied to the existing supply:

Recreation Facility and/or Resource	1970 Need (in miles)
Canoe Trails	2,140
Urban Nature Trail	10,472
Rural Nature Trail	78,635
Wilderness Trail	4,000
Bicycle Trail	88,571
Motorbicycle Trail	13,798
All Terrain Vehicle Trail	3,954
Horseback Riding Trail	7,308

Major historic trails and sites on trails should be protected wherever possible. It should be noted that most of the existing trail miles accounted for are actually existing roads. Yet, almost none of these road trails are marked for bicycles, nor do they have a wide berm for safety of cyclists or foot travelers.

A great opportunity for interagency cooperation exists to provide a total transportation system, including appropriate type and location of access modes to and within the natural environment and the major recreation areas. Scenic roads and parkways are an important part of the overall transportation system, especially in a region like that of the Georgia Mountains, where 2,000 miles of scenic highways now exist and should be maintained and upgraded in their scenic standards.

In the planning of highways, additional environmental safeguards should be taken to avoid conflict with areas of critical environmental concern. Such safeguards would consist of standing policy within the State Department of Transportation to avoid natural lakes, swamps, mountain environmental corridors, river and creek floodplains, prime fish and wildlife areas, historical sites, and marshlands unless no feasible alternative is available. If no feasible alternative is available, then the Department of Transportation should take every measure possible to minimize the damage. Such measures include the purchase of extra right-of-way, bridging, tunneling, and other special design considerations.

Interdepartment cooperation and coordination of efforts in the planning function on a continuous basis can realize many potential actions in the public interest.

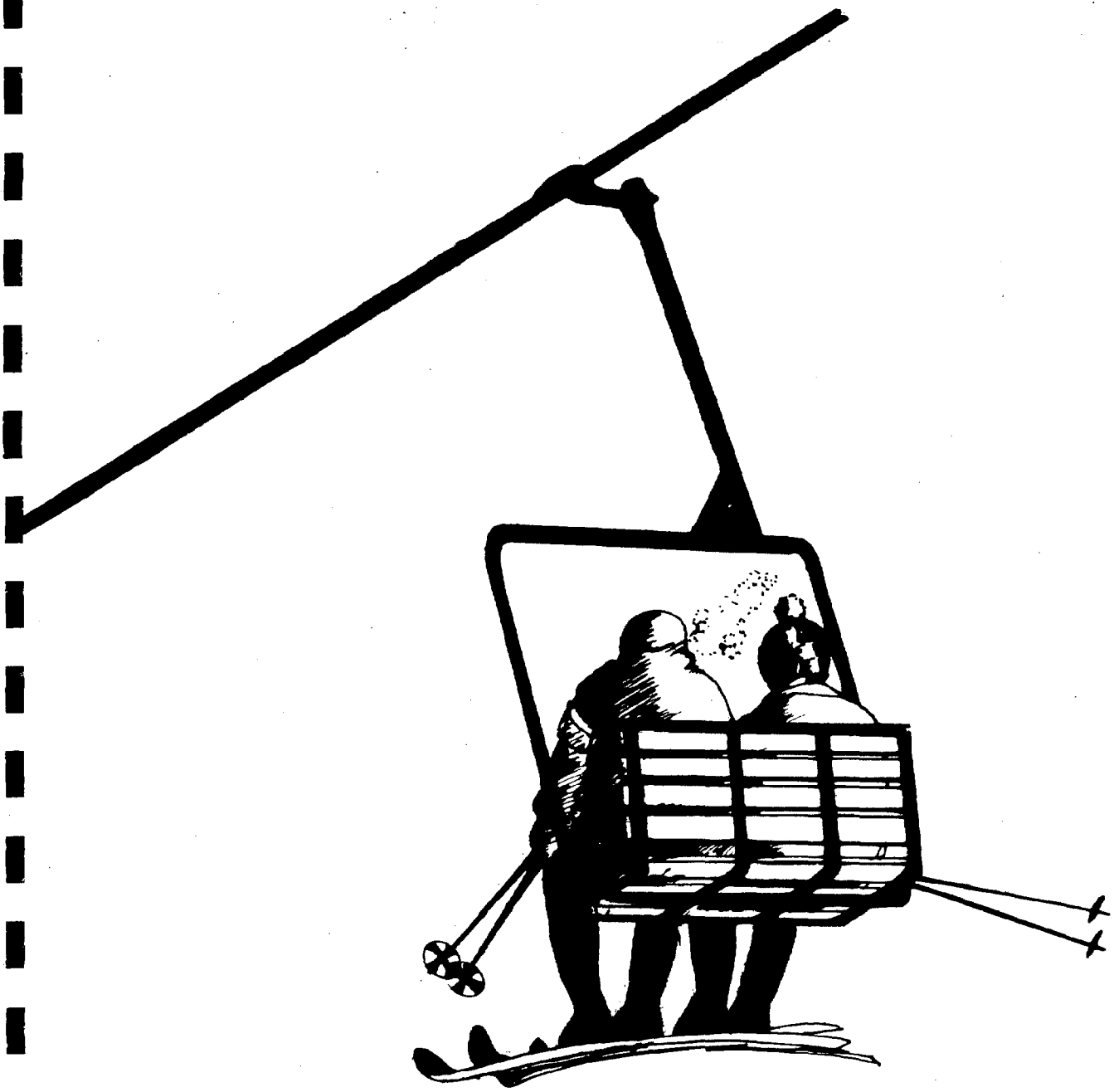
Opportunities exist in location planning of highways in regional and urban areas.

Strips of land may be acquired along highways to protect the scenic shorelands where the highways parallel scenic river floodplains.

Where new highways cross major scenic rivers, public boat access for canoe and fishing trails should be planned and acquired as part of highway right-of-way acquisition.

Important historic and scenic views should be acquired and protected as part of the right-of-way acquisition.

Present efforts to replace old bridges and the redesign of bridges and crossings for safety measures should consider the feasibility of boat access.



SPECIAL AREAS

CHAPTER V

CHAPTER V

SPECIAL AREAS

Within the features discussed in the last chapter as distinguishing Georgia's natural environment, seven areas are of particular recreational significance:

1) Chattahoochee River
2) Cumberland Island
3) Okefenokee Swamp
4) Chattooga River
5) Cohutta Mountains
6) Suwannee River
7) Flint River

These "Special Areas" have assumed topical importance because they possess ecological, scenic, or historic uniqueness in the context of statewide recreational needs. They have risen to prominence through increasing public sensitivity to their value and, often, the accompanying maturation of threats to their survival.

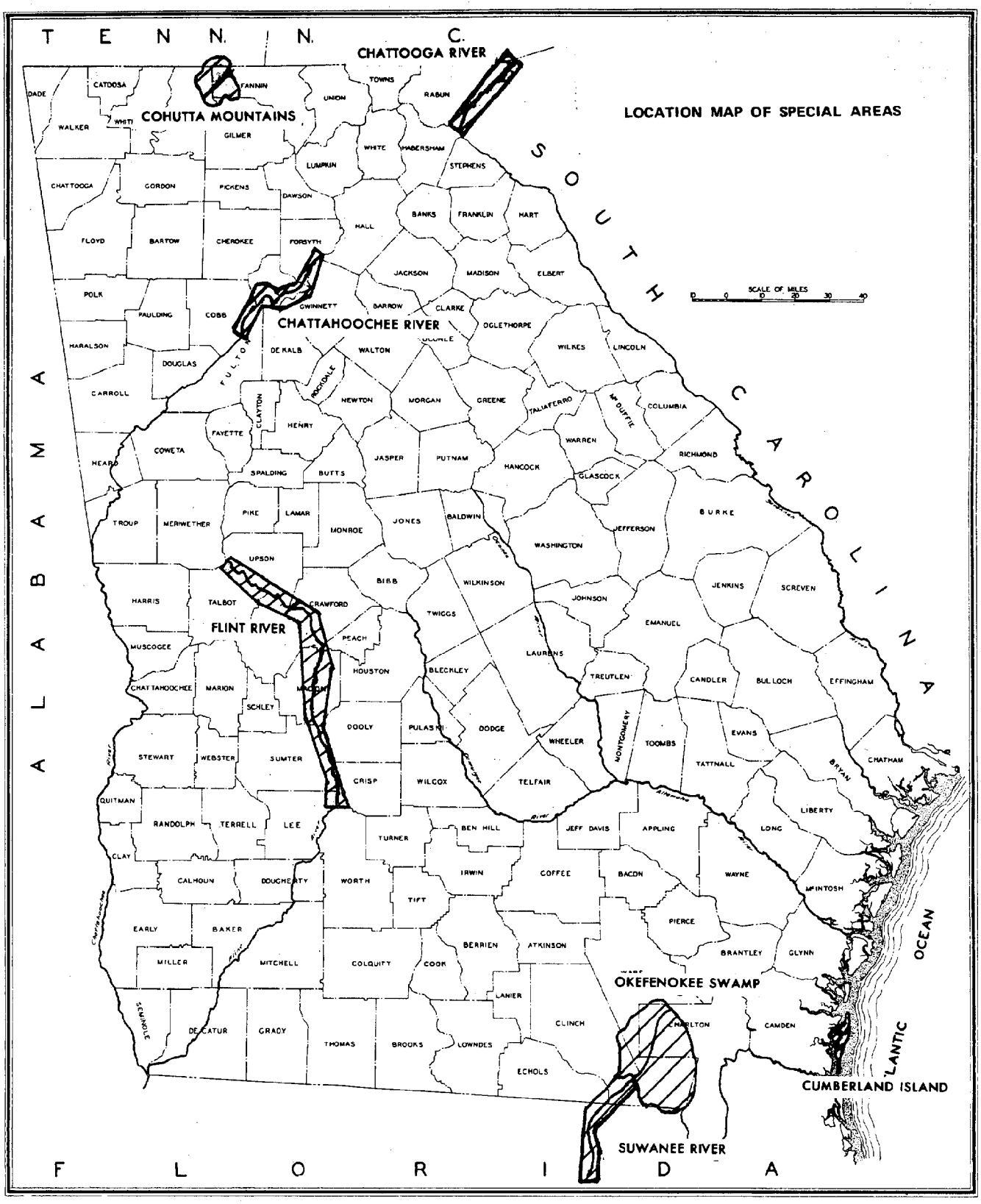
In addition to importance in and of themselves, the seven areas represent diverse types of recreational resources. Among them are a swamp, a mountain area, a coastal island, and four rivers in various parts of the state. Many of the areas are relatively remote, but one of the rivers courses through the state's largest metropolitan area. These areas are representative in other ways. There is not a single case among the seven about which there is total unanimity regarding its highest and best use. Though each area is naturally unique, none is immune to claims that it could be better used in any number of ways: for real estate or resort development, for the production of hydroelectric power, or for flood control. Even when there is general agreement that the area should be used for recreation, a number of options remain: Should the development be public or private? What is the optimal balance between preservation and recreational use?

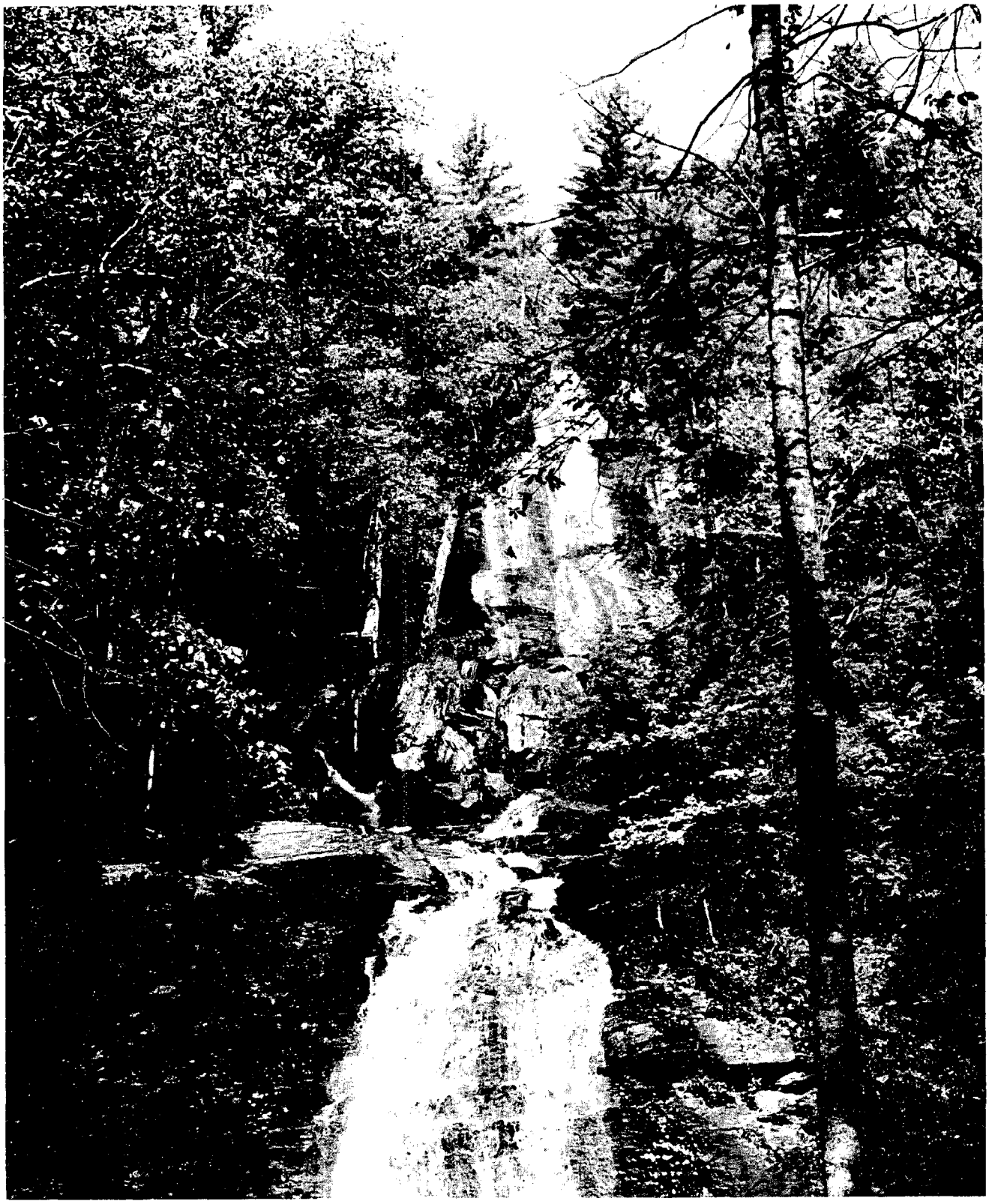
In highlighting these areas, then, the attempt is to point out the natural and recreational significance of each, to present its current status in terms of alternative uses, and to recommend the most appropriate form of recreational development.

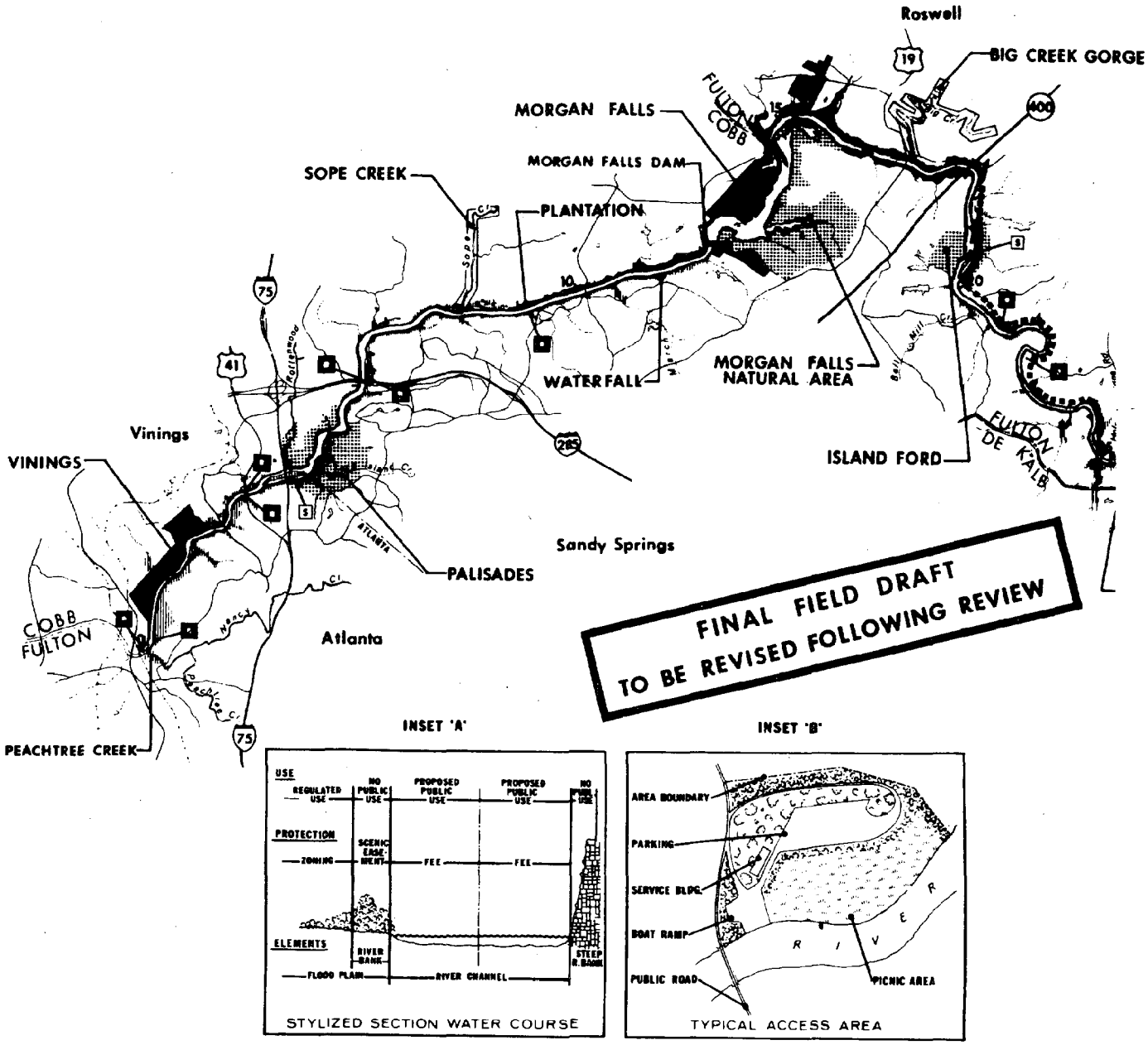
A. CHATTAHOOCHEE RIVER

1. NATURAL AND RECREATIONAL SIGNIFICANCE

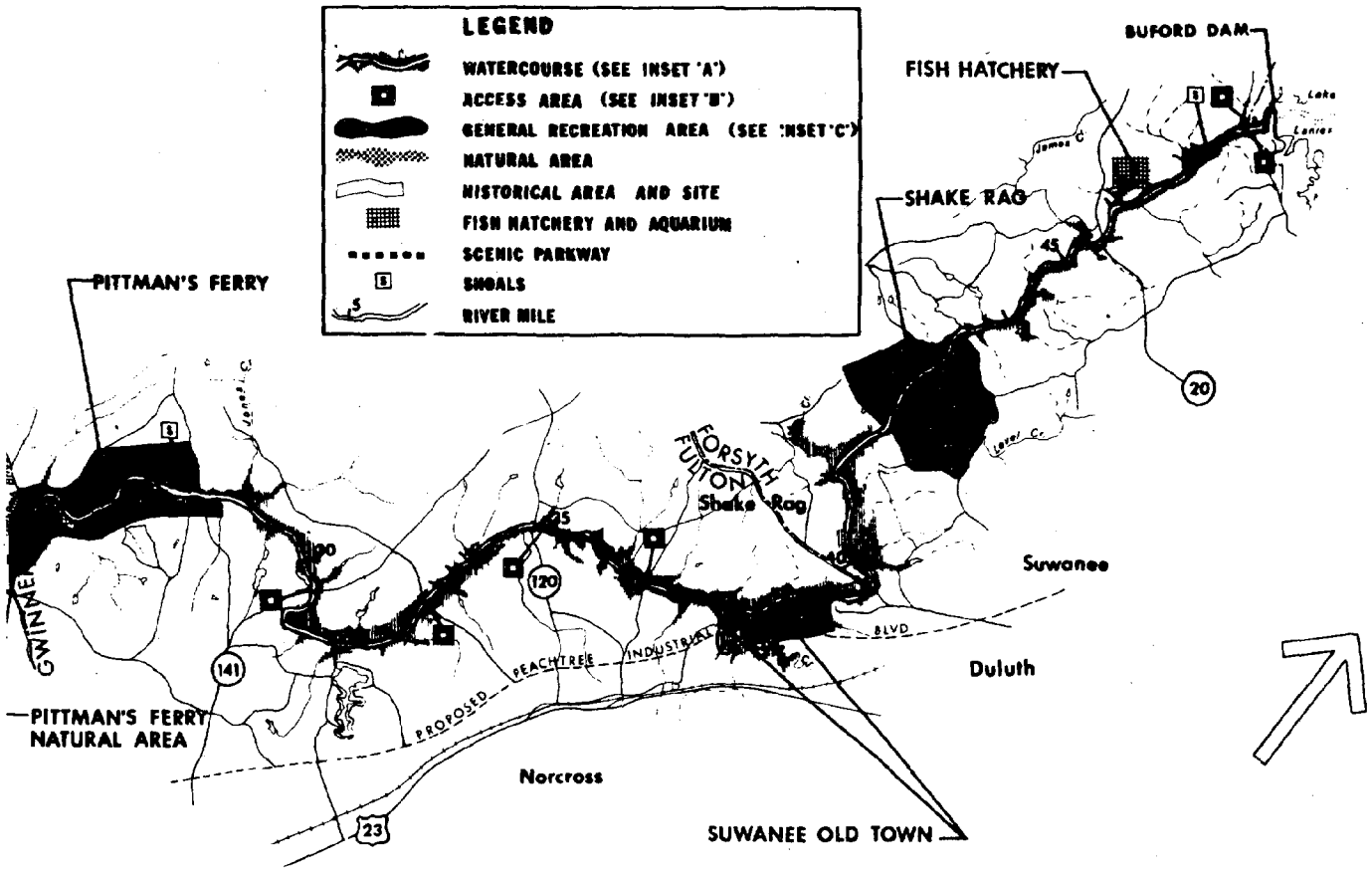
From Buford Dam at Lake Lanier to Peachtree Creek, where Atlanta's sewers empty into it, flows a 48-mile segment of the Chattahoochee River which is remarkably undisturbed considering its proximity to Atlanta. It


LOCATION MAP OF SPECIAL AREAS
T E N N.
N. C.
CHATTOOGA RIVER
COHUTTA MOUNTAINS
CHATTAHOOCHEE RIVER
FLINT RIVER
OKEFENOKEE SWAMP
SUWANEE RIVER
CUMBERLAND ISLAND
SOUTH CAROLINA
ALABAMA
FLORIDA
ATLANTIC OCEAN
SCALE OF MILES
DADE
CATOOSA
WALKER
WHITE
FANNIN
GILMER
UNION
TOWNS
RABUN
CHATTOOGA
GORDON
PICKENS
DAWSON
LUMPKIN
WHITE
HABERSHAM
STEPHENS
FLOYD
BARTOW
CHEROKEE
FORSYTH
HALL
BANKS
FRANKLIN
HART
POLK
PAULDING
COBB
GWINNETT
BARROW
JACKSON
MADISON
ELBERT
CLARKE
OGLETHORPE
HARALSON
DOUGLAS
FULTON
DE KALB
WALTON
WILKES
LINCOLN
CARROLL
ROCKDALE
NEWTON
MORGAN
GREENE
TALIAFERRO
McDUFFIE
COLUMBIA
CLAYTON
HENRY
FAYETTE
COWETA
HEARD
SPALDING
BUTTS
JASPER
PUTNAM
HANCOCK
WARREN
RICHMOND
GLASCOCK
TROUP
MERIWETHER
PIKE
LAMAR
MONROE
JONES
BALDWIN
JEFFERSON
BURKE
UPSON
WASHINGTON
BIBB
WILKINSON
JOHNSON
JENKINS
SCREVEN
HARRIS
TALBOT
CRAWFORD
TWIGGS
EMANUEL
MUSCOGEE
PEACH
HOUSTON
BLECKLEY
LAURENS
TREUTLEN
CANDLER
BULLOCH
EFFINGHAM
CHATTAHOOCHEE
MARION
SCHLEY
MACON
DOOLY
PULASKI
DODGE
WHEELER
MONTGOMERY
TOOMBS
EVANS
STEWART
WEBSTER
SUMTER
CRISP
WILCOX
TELFAIR
TATTNALL
BRYAN
CHATHAM
QUITMAN
RANDOLPH
TERRELL
LEE
TURNER
BEN HILL
JEFF DAVIS
APPLING
LONG
LIBERTY
CLAY
CALHOUN
DOUGHERTY
WORTH
IRWIN
COFFEE
BACON
WAYNE
McINTOSH
TIFT
EARLY
BAKER
BERRIEN
ATKINSON
PIERCE
BRANTLEY
GLYNN
MILLER
MITCHELL
COLQUITT
COOK
LANIER
CLINCH
WARLTON
CAMDEN
SEMINOLE
DE CATUR
GRADY
THOMAS
BROOKS
LOWNDES
ECHOLS

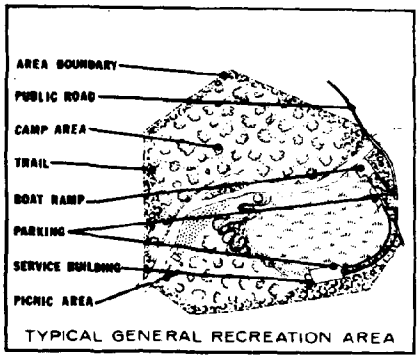




BASE DATA: US GEOLOGICAL SURVEY FLOOD PLAIN DATA: US CORPS OF ENGINEERS



INSET 'C'



TYPICAL GENERAL RECREATION AREA

0 1 2 3 4 5 6 7 8 9 10 miles

AREA SCALE: ACRES

CONCEPT PLAN MAP

CHATTAHOOCHEE RECREATION AREA STUDY

PREPARED BY US DEPARTMENT OF THE INTERIOR, BUREAU OF OUTDOOR RECREATION APRIL, 1972

is perhaps the most unspoiled scenic, historic, and ecologically interesting river remaining in any major metropolitan area of the United States.

The river picks its way variously through islands and shoals interspersed between calm passages. At several points along the river, massive granite palisades rise above the watercourse. The river's water is unusually pure in view of its location and is the source of drinking water for one-third of the state.

The flora and fauna of the corridor are generally more typical of the Appalachian Mountains than of the Atlanta area. The stands of hardwood trees which extend along the banks represent some of the few currently-existing examples of climax ecological communities in the region. An understory of rhododendron, mountain laurel, and flame azalea characterizes the corridor, as do wildflowers, including pink lady slipper orchids, trailing arbutus, and spring beauties. A few very rare species of wildflowers make their home in the river's watershed.

Fauna include beaver, red fox, muskrat, racoons, and even an occasional mink. Crappie, bream, bass, mountain rainbow, and brown trout live in various stretches of this portion of the river.

As an archaeological and historical resource, the Chattahoochee is particularly valuable. Human beings have inhabited the river corridor for almost 10,000 years. On the banks of the river are the marks of primitive hunters of the Archaic period (8000-3000 B.C.), and the more advanced plant gatherers who followed them. Until 1821 the river was the site of numerous Creek and Cherokee Indian villages, trading stations, and campsites. Fifteen archaeological sites occupy a single four-mile segment of one bank. Civil War trenches and relics and the ruins of old mills are also in evidence.

The ultimate recreational value of an area is the product of two variables: the character of the land and water, and the needs of the public. Even if the Chattahoochee were not close to a population center, it would be worth protecting; the fact that most of this stretch of the river--and virtually all of its most scenic areas--is within half an hour's drive of Atlanta, the regional center of the Southeast, makes the resource invaluable.

There are currently about 9,000 acres of public recreation lands in the Atlanta Metropolitan area. Based on a minimum standard of 18 acres per 1,000 people, the region had a shortage of 10,000 acres of developed recreational lands in 1960. By 1970 that deficiency had increased to 16,000 acres and, should acquisition continue to proceed at the same rate, by 2000 the deficit will be 36,000 acres.

It is easy to verify the recreational need of the area. There is only one public access point on the river, and there are no public parks. Yet, on a typical Saturday in midsummer it is not uncommon to find over 1,000 people floating down the river on anything from canoes to inner tubes. Fishermen dot the shores, and hikers explore the banks.

Whatever the criteria one uses--scenic distinction, ecological uniqueness, wilderness character, historical and archaeological significance, educational and scientific interest, fishing quality or canoeing, tubing, and hiking suitability--the river qualifies as an area of unusually great recreational potential.

Of nineteen sites recommended over the years by the Atlanta Regional Commission as nature preserves, the Palisades area of the Chattahoochee is the only one still available that lies within the perimeter highway. The Palisades is the most unusual segment of the 48 miles of river, and its preservation is essential to the shape and quality of the present and future of Metropolitan Atlanta. The Bureau of Outdoor Recreation's Chattahoochee Recreation Area Study noted, "The Chattahoochee River and its banks comprise the one remaining natural resource feature within the urban area which is substantially intact." Its importance to the metropolitan area cannot be overestimated.

But the same location that makes the river an ideal area for a park proves also to be its greatest curse.

2. STATUS

The Chattahoochee River lies within Atlanta's major growth corridor, and the implacable expansion of development threatens to transform it into a southern version of the Charles, the Potomac, or the Hudson. Since 1960, three major highways have crossed the river and six other major crossings have been improved. Sewer lines are beginning to extend into the area, land values are rising, and the pressure of rapid population growth increases. Today, at least 70 percent of the riverfront land on both sides of the river is owned by real estate developers and speculators. The river has been scarred by some inappropriate development, but the bulk of the river remains in its natural state.

With the maturation of the threat has come a realization of the river's value and the need to guide development. For a long time the river was used only by those few who had discovered the fishing, canoeing, swimming, and hiking opportunities it offered. The public controversy over the river dates, in fact, to the day one of these users took his family to his favorite picnic spot, only to discover a rezoning sign. The effort to save Rottenwood Creek (tributary to the Chattahoochee where the user picnicked that day) was abortive; the sewer was soon in place. The public support drummed up in that original fight mushroomed, and soon most local conservation groups had designated protection of the Chattahoochee as their chief priority. A coalition of concerned groups formed Friends of the River in June 1971. The great "Raft Race" drew over 20,000 to the river in 1971, further publicizing the natural resource. In October 1970 the Bureau of Outdoor Recreation initiated a Recreation Area Study of the Chattahoochee as part of the Federal Survey of needed parks in urban areas.

Legislation introduced in the 1971 legislative session aimed at regulating development along the river was referred to committee for

a year's study. Rezoning fights multiplied as the pressure to develop the area grew. Governor Carter and the state of Georgia entered into the fray surrounding controversial rezonings where the perimeter highway crosses the river. A moratorium on rezonings along the river requested by the state Legislature finally went into effect in September 1971, pending action in the 1972 legislative session. No protective legislation succeeded in passing the session; however, the Atlanta Regional Commission, with state support, committed itself to develop a land use plan for the river corridor and got the County Commission to extend the rezoning moratorium pending completion of the plan.

Federal, state, and local authorities have been attempting to establish major parks in the areas of the Palisades and Morgan Falls.

The bureaucratic mechanisms of society are primed to translate public need and natural opportunity into reality, but thus far few concrete results have surfaced.

3. RECOMMENDATIONS

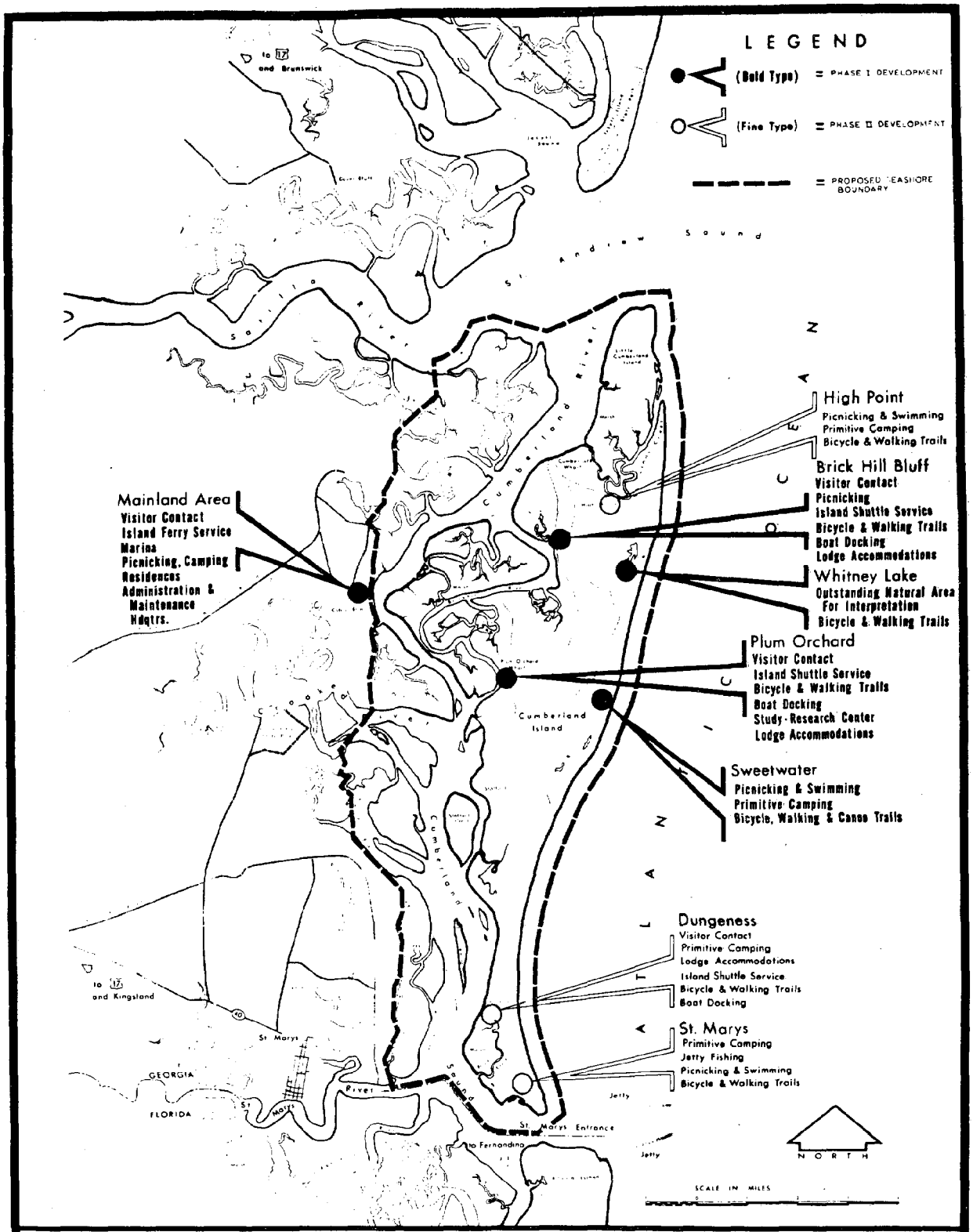
a. A River Park Complex based on the Bureau of Outdoor Recreation's Concept Plan should be established. It should include access areas, general recreation areas, natural areas, historical areas and sites, a fish hatchery, and a scenic parkway. The main natural or scenic areas, such as the Palisades, which are unsuitable for development but are essential open space for environmental quality maintenance should receive special attention. Major recreation areas in such a park complex should occur at Morgan Falls, Island Ford, Holcomb Bridge Road, and Suwannee Old Town. Park areas should be carefully themed according to purpose, and the pressures for use should be managed in such a way that no harm comes to those areas or the natural value of the corridor. Federal, state, and local funding and cooperation will be essential to the realization of such a plan.

b. A watershed land use plan (like that being prepared by the Atlanta Regional Commission) should be adopted to protect the natural integrity of the river corridor and insure wise development where it should occur. Zoning restrictions, building regulations, and scenic easements are tools to be used in concert in the implementation program. Land uses in floodplains, on steep slopes, and within about 150 feet of the river should be carefully regulated to appropriate recreation and open space uses.

B. CUMBERLAND ISLAND

1. NATURAL AND RECREATIONAL SIGNIFICANCE

In a 1955 survey of outstanding natural seashore resources along the Atlantic and Gulf coasts, the National Park Service identified Cumberland Island as being "of national significance and one of the two (along with Cape Cod) most outstanding seashore areas remaining along the Atlantic and Gulf Coasts." It is the last large island on the Atlantic Coast that remains almost completely in its natural state.



PROPOSED **Development Plan** NS-CI-7200-B Oct., 1967

CUMBERLAND ISLAND NATIONAL SEASHORE

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

Cumberland is the southernmost of a string of islands off the Georgia coast known as the Golden Isles. On its east coast are eighteen miles of beach which gradually rise to dunes, some of which surpass fifty feet in height. Behind the dunes are freshwater lakes and marshes, including the largest freshwater lake in such proximity to the sea. The interior of the island is heavily forested with giant live oaks, cedars, and palms, from whose limbs hang Spanish moss, vines, and creepers. The highlands drop to salt marshes which stretch several miles to the mainland. These are large salt marshes south of Chesapeake, filled with their bounty of shrimp and grasses and all manner of life.

Unique to the island is the Cumberland Island Pocket Gopher. Turkey, deer, and smaller animals inhabit the forest, while alligators and loggerhead turtles frequent some of the wetter areas.

Perhaps the most distinctive natural characteristic of the island is not any particular element in itself, but rather the interrelationship of all the parts, the sense of nature acting and interacting. Cumberland Island is still very much a "living" island, where natural change is visible and continues without man-made interruption. Sands gradually erode from the northern end of the island and are deposited on the south. Dunes shift and slowly encroach upon the freshwater Whitney Lake. The impression is one of nature in progress. The National Park Service wrote of the island:

> Forming first under a prehistoric sea, then emerging from the receding ocean, the island continues to be molded and reshaped by changing winds and moving tides...the overall effect is one of pristine beauty not now adequately represented in any unit of the National Park System.

But, if man's touch rests lightly on the island, it is not because he is a recent or insignificant participant. Five thousand years ago--and some estimates place the length of time at twice that--Cumberland was the home of Indians. Their burial mounds, still largely untouched, dot the higher lands. Spanish missionaries followed, and the Scottish with their cotton and indigo plantations replaced them. Today, one can still see the lonely chimneys of slave quarters that are mute testimony to an era and the Civil War that ended it. Because the island was not used for farming after this period, it gradually repaired itself. It was bought by Thomas Carnegie, brother of Andrew, as a winter retreat and has remained in such use ever since.

Resting in private hands and separated from the mainland by wide marshes, the island has remained beyond the reach of all save the owners, their guests, and a few poachers. Legends have grown on the mainland about the mysterious island, and interest has been stimulated.

The National Park Service estimates that if the island were opened as a National Seashore, 11.5 million people would visit it in the first fifteen years.

2. STATUS

Cumberland Island faces a new phase in its long history. Rising land taxes and the dispersion of family ownership are making impossible the retention of the island as a retreat for a single and cohesive family. Cumberland's future has become a matter of public decision.

Not long ago parts of the island began to be sold to people outside of the Carnegie family. About 3,000 acres were sold to Charles Fraser, who planned to promote an exclusive recreation retirement community. After considerable controversy, Fraser gave up the project and sold the land.

These threats have convinced most of the Carnegie family that the island cannot be held as it has in the past; they highlight the need for planning its future. A small subdivision is being developed on Cumberland and bespeaks one possible future for the island.

More recently, the National Park Foundation acquired about 70 percent of the land on Cumberland Island. Legislation that would designate Cumberland Island as a National Seashore has been introduced in Congress, and hearings have been held. (See the map giving the proposed development plan.)

Cumberland Island, lying between the coastal growth centers of Brunswick, Georgia, and Jacksonville, Florida, represents the last opportunity in this region for a true natural island conservation.

There has been some question about the optimal use of the land. Particular concern has surrounded the possibility of building a causeway to the island. Dissension has also centered on whether it should be considered primarily as a recreation resource to provide maximum use, or as a wilderness area with emphasis on preservation.

3. RECOMMENDATIONS

a. At least initially, Cumberland Island should be designated as a National Seashore and acquired accordingly. The island's theme and management should be for natural, primitive, and historic experiences, in addition to beach usage.

b. Once declared a National Seashore, extensive wilderness studies should be made to determine whether some areas of the island could qualify for wilderness designation. The study committee should determine additionally whether the area could be better served as a National Park. In any case, recreation should be allowed only insofar as it is consistent with the preservation of the fragile ecological balance on the island.

c. No causeway should be built, as this would lead to overuse. Motor vehicles would bring with them the attending services, would require paved roads, and would be difficult to control once there--all of which would have an adverse environmental impact. Instead, there should be an access point on the mainland, and a boat shuttle service.

d. Recreational development should concentrate on beach areas available from Dungeness. Other recreation modes could include Brick Hill Bluff, Plum Orchard, Whitney Lake, and Sweetwater. Beyond these areas public use should be regulated carefully and confined largely to group tours, hiking, walking, and bicycle and canoe trails.

e. There should be limited availability for primitive camping.

f. Visitor access should be controlled in order to limit use to the island's capacity.

C. OKEFENOKEE SWAMP

1. NATURAL AND RECREATIONAL SIGNIFICANCE

Okefenokee Swamp, located in Southeast Georgia, is world famous as one of the largest and most primitive swamps in America. Okefenokee National Wildlife Refuge, comprising about 371,444 acres,* is actually a vast peat bog filling a huge saucer-shaped sandy depression that was once part of the ocean floor. The shallow, dark-stained waters of Okefenokee flow slowly but continuously across the swamp toward the outlet--the famed Suwannee River. Swamp forests of cypress, gum, and bay cover about 80 percent of the swamp. The natural Suwannee River trails through the swamp traverse areas of large cypress trees hung with Spanish moss and the broad open prairies with thousands of exotic wildflowers. Picturesque swamp scenery accessible to the public is found on the west and north sides, where moss-draped cypress border the lakes and boat runs. In sharp contrast to the swamp forests, the prairies form vast water expanses.

Some seventy upland islands totaling 25,000 acres are formed in the swamp. A few of these, extensions of adjacent uplands into the swamp, are managed timberlands; however, most of them are deep in the swamp and unmanaged. Dominated by longleaf and slash pines, these islands form an important part of the swamp's varied wildlife habitat. Over sixty lakes dot the swamp forests and prairies of Okefenokee.

Few areas can equal the interesting variety and abundance of animals in Okefenokee. Of more than 225 species of birds observed in the swamp, the egrets, herons, ibis, anhingas, and other water birds are most frequently seen. Several threatened species make their home here. The sandhill crane is a permanent resident in the prairies, and ospreys nest in the tops of cypress trees throughout the swamp.

At least 41 species of mammals have been recorded in the swamp. Okefenokee Swamp is one of the last extensive areas in Georgia where the black bear and otter can still be found in numbers. The mammals most frequently seen by visitors are the racoon, white-tailed deer, fox squirrel, and otter.

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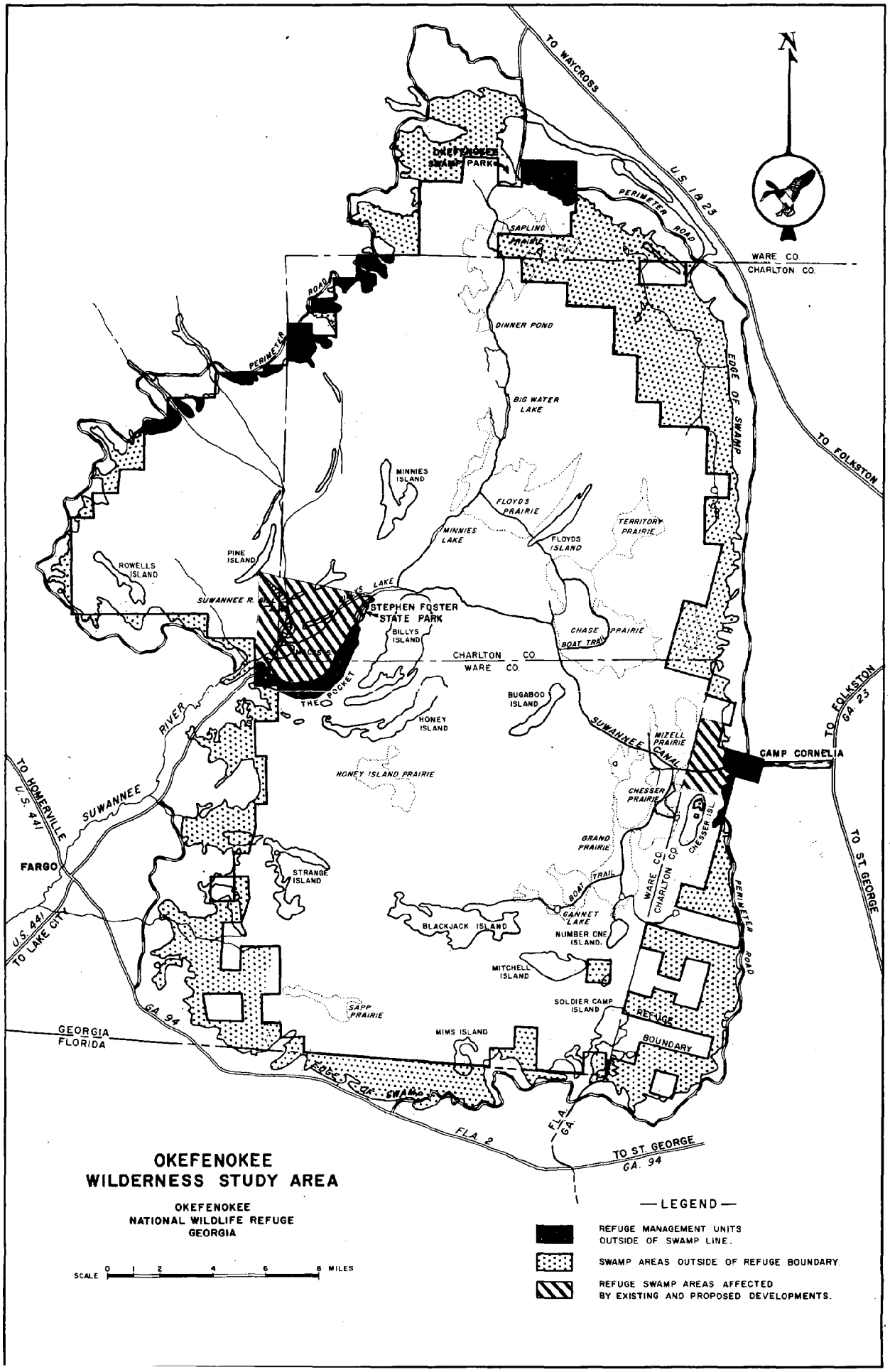
*368,942 acres in Georgia; 2,502 acres in Florida.


N
TO WAYCROSS
U.S. 1 & 23
PERIMETER ROAD
SAPLING PRAIRIE
WARE CO.
CHARLTON CO.
DINNER POND
BIG WATER LAKE
EDGE OF SWAMP
TO FOLKSTON
MINNIES ISLAND
FLOYDS PRAIRIE
TERRITORY PRAIRIE
MINNIES LAKE
FLOYDS ISLAND
PINE ISLAND
ROWELLS ISLAND
SUWANNEE R.
STEPHEN FOSTER STATE PARK
BILLYS ISLAND
CHASE PRAIRIE
BOAT TRAIL
CHARLTON CO.
WARE CO.
THE POCKET
BUGABOO ISLAND
HONEY ISLAND
SUWANNEE CANAL
MIZELL PRAIRIE
CAMP CORNELIA
TO FOLKSTON GA. 23
HONEY ISLAND PRAIRIE
CHESSER PRAIRIE
CHESSER ISL.
GRAND PRAIRIE
TO ST. GEORGE
TO HOMERVILLE U.S. 441
SUWANNEE RIVER
FARGO
STRANGE ISLAND
WARE CO.
CHARLTON CO.
BOAT TRAIL
GANNET LAKE
BLACKJACK ISLAND
NUMBER ONE ISLAND
U.S. 441 TO LAKE CITY
MITCHELL ISLAND
SOLDIER CAMP ISLAND
SAPP PRAIRIE
GA. 94
REFUGE BOUNDARY
GEORGIA
FLORIDA
MIMS ISLAND
EDGE OF GA. SWAMP
FLA. 2
FLA.
GA.
TO ST. GEORGE GA. 94
OKEFENOKEE WILDERNESS STUDY AREA
OKEFENOKEE NATIONAL WILDLIFE REFUGE GEORGIA
SCALE 0 1 2 4 6 8 MILES
—LEGEND—
REFUGE MANAGEMENT UNITS OUTSIDE OF SWAMP LINE.
SWAMP AREAS OUTSIDE OF REFUGE BOUNDARY.
REFUGE SWAMP AREAS AFFECTED BY EXISTING AND PROPOSED DEVELOPMENTS.

Some 54 species of reptiles, 32 species of amphibians, and 37 species of fish have been identified in Okefenokee. The swamp holds one of the largest concentrations of alligators remaining in the country.

2. STATUS

Most of the Okefenokee Swamp is presently being managed as a National Wildlife Refuge and is under consideration for inclusion in the National Wilderness Preservation System.

Recreation facilities adjacent to Okefenokee Swamp have been developed to some degree, and construction is now progressing on further developing tourist facilities in the perimeter areas. The inner regions of the swamp are to be kept in a primitive state, development to proceed only in the outer areas.

The Stephen Foster State Park, a small 80-acre outstanding natural island, is now accessible by a paved road. Existing and planned facilities at this major swamp entrance include rental cottages, tent and trailer camping, a boat basin, picnic grounds, nature museums, and other visitor-use facilities. The coordinate state-federal plan for the Suwannee River proposes extension of this park on an area adjoining the Suwannee, rather than overdeveloping the natural area.

At Okefenokee Swamp Park, the only major entrance outside the refuge, existing facilities include a concession building, boat shelter, a museum, live animal exhibits, a boardwalk, trails, and an observation tower.

At the Camp Cornelia entrance, a number of visitor-use facilities, including a concession building, have been constructed by the Bureau. Additional developments at this entrance include nature trails, various interpretive facilities, an observation tower, essential service facilities, and swamp boardwalks.

Recreation in Okefenokee includes fishing, sightseeing boat tours on perimeter lakes, photography, bird watching, and other forms of nature study. The use of the swamp for scientific study and educational purposes is encouraged. Access to the swamp will continue to be by way of the three main entrances where interpretive facilities, boat tours, guide service, boat rentals, and fishing supplies are available. It is now possible for skilled outdoorsmen to take a canoe trip, by permit, entirely across the Okefenokee.

The upland timber areas within the refuge bordering the swamp are managed to provide optimum habitat for wildlife. These management units, comprising 7,000 acres outside the swamp line, will continue to be managed for wildlife and timber products. The remaining seven units, including Chesser Island and Soldier Camp Island, will be allowed to revert to a natural state.

Okefenokee Swamp is located in a rural area oriented primarily towards forestry. Southeast Georgia is one of the leading pulpwood-producing regions in the country. Seventy-five percent of the acreage of Okefenokee Swamp outside the refuge is owned by twelve to fifteen pulpwood companies and large private landholders. Exploitation of the lands through clear-cutting poses a distinct threat to the wilderness character of the Okefenokee. The clearing of these lands could create adverse drainage problems for the area.

As one of the outstanding tourist attractions in the South, Okefenokee is of great economic value to the surrounding area. The swamp's present and future value is an economic asset. Much of the successful food and lodging operations by the adjoining local communities rests largely in the continual preservation of the swamp as a national wilderness attraction. Most visitors will continue to see only those fringes of the swamp which are easily accessible to day-use trips from the main entrances. But the fact that a unique wilderness lies just beyond will add immeasurably to their visit.

3. RECOMMENDATIONS

a. Establishment as a Wilderness Area

Approximately 93% (343,850 acres) of the Okefenokee National Wildlife Refuge should be managed as a wilderness area and forever protected as a part of the National Wilderness Preservation System. The passage of a good wilderness bill to protect the fragile values of the Okefenokee should be top priority action. This large unique swamp, managed as a wilderness area, will be an environmental recreational resource like a separate world within its ever-increasingly man-made surroundings.

b. Perimeter Recreational Development

A plan of regional design with man-made developments strategically located adjacent to the swamp line is essential to maintain the wilderness values of the swamp and to serve properly the variety of human needs.

Stephen Foster and Laura Walker State Parks, Okefenokee Swamp Park, and Kingfisher are perimeter service-regional development areas, each of which needs a master plan. Each should relate to the larger transportation system and to statewide and national recreational needs. Through their facilities and programs, the perimeter areas should provide for high-quality, natural recreation, educational, and scientific experiences.

At developed perimeter areas, natural recreational, educational, and scientific areas with interpretive facilities should be available. Master plans should provide for limited overnight accommodations, but extensive day-use opportunities within a two-mile radius of their central points of general visitor contact should be provided. The private sector should offer most of the overnight accommodations and food service for the swamp day visitors and tourists. The location of these private service facilities should be in and near Waycross, Folkston, and Fargo.

The visitor initially should be exposed to an ecological overview of the whole Okefenokee, its geology, hydrology, flora and fauna, and its system of natural waterway trails formed by the Suwannee River.

c. Interior Recreational Use

Beyond a two-mile radius from each of the developed perimeter areas, the highest human values are to be realized through experiences which require this nationally-limited wilderness for deep and meaningful expression.

Opportunities should be available for greater depth wilderness experience within the swamp and river for those who want it, and overnight opportunity should be available to wilderness travelers who would meet the wilderness on its own terms and sleep in jungle hammocks hung from trees or in their own small craft.

Hand-powered canoes, pole boats, and row boats should be available for rent at perimeter areas. The present gasoline-powered boats pollute the air with noise and fumes, churn the water, and require more space in scurrying about for convenience's sake. Electric motors should replace gasoline motors as soon as possible.

National State Wilderness Area Use policy should be less concerned for the safety of wilderness users. The dangers inherent in the swamp should be accepted as part of an individual's risk. Trails should be unmarked beyond Billy's Lake, but travelers should be provided with interpretive maps with trails and identifiable points of reference.

Overnight-use capacity for various areas within the swamp should be determined and limits set accordingly. Overnight camping within the swamp is by special permit only, and each group is limited to a maximum of 20 people.

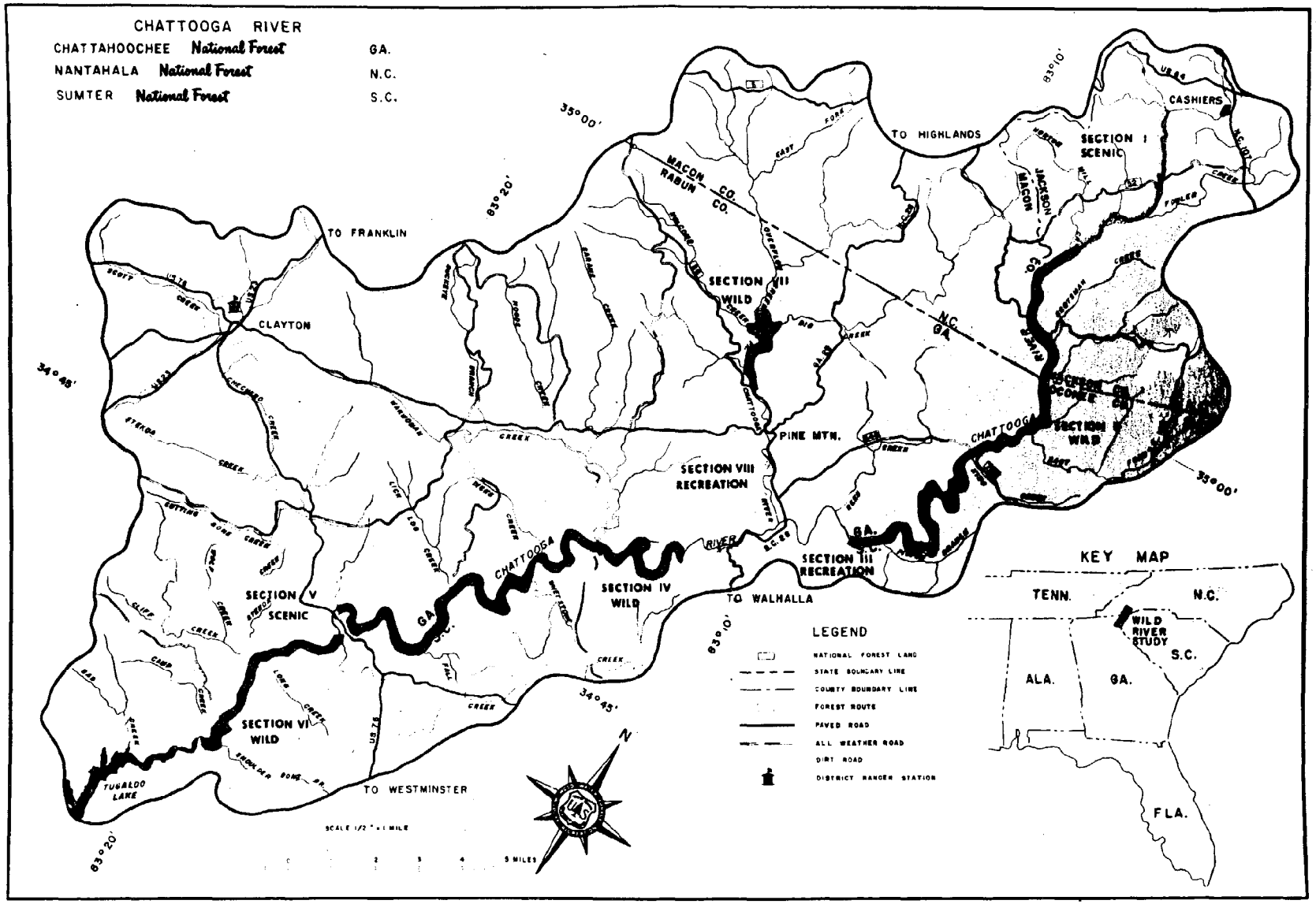
d. Surrounding Areas

Because of the possible adverse effects of clear-cutting by pulpwood producers on land just outside the wildlife refuge, the Bureau of Sport Fisheries and Wildlife should attempt to acquire over the long range all those lands within the swamp line so that the preservation of the swamp will be assured.

D. CHATTOOGA RIVER

1. NATURAL AND RECREATIONAL SIGNIFICANCE

The Chattooga River, a tributary in the Savannah River Basin, is the predominate natural wild-land feature of the eastern section of the Georgia highland. It is one of the largest and longest free-flowing mountain rivers in the eastern United States remaining in a relatively primitive, undeveloped condition. It contains beautiful and challenging white water, floatable year-round through a gorge-like eastern canyon. No other mountain river in the Southeast equals it in combination of natural features to provide a white


CHATTOOGA RIVER
CHATTAHOOCHEE National Forest GA.
NANTAHALA National Forest N.C.
SUMTER National Forest S.C.
TO FRANKLIN
CLAYTON
TO HIGHLANDS
CASHIERS
SECTION I SCENIC
SECTION VII WILD
SECTION VIII RECREATION
SECTION IV WILD
SECTION III RECREATION
SECTION V SCENIC
SECTION VI WILD
PINE MTN.
TO WALHALLA
TO WESTMINSTER
TUGALOO LAKE
MACON CO.
RABUN CO.
JACKSON CO.
MACON CO.
CHATTOOGA RIVER
GA.
S.C.
N.C.
LEGEND
NATIONAL FOREST LAND
STATE BOUNDARY LINE
COUNTY BOUNDARY LINE
FOREST ROUTE
PAVED ROAD
ALL WEATHER ROAD
DIRT ROAD
DISTRICT RANGER STATION
KEY MAP
TENN.
N.C.
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WILD RIVER STUDY
SCALE 1/2" = 1 MILE
5 MILES
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water trout fishery, floatable year-round, in the degree scale of the Chattooga. It flows through an area rich in Indian history and outstanding scenic features.

The massive face of the Blue Ridge Escarpment is marked by a number of deep gorges representing millions of years of carving by waterborne sands. The Chattooga River flows for a major portion of its length through one of these gorges. Elevations along the river range from 4,800 feet on the crest of the Blue Ridge to 891 feet at Tugaloo Lake. In this distance of 50 miles, the waters of the Chattooga descend 2,469 feet, an average drop of 49 feet per mile. Vertical slopes of exposed rock 200-400 feet high are seen along the river.

The cold waters of the upper Chattooga support a sizable trout population. As the water warms in the lower regions, redeye bass replace the trout for sport fishing. Brown trout are dominant in the main stream.

A rich variety of plant life is present in the Chattooga River drainage. Wide differences in elevation and high rainfall combine to create a unique environment, supporting many kinds of plant communities. Dominant among these is the hardwood forest with its wide variety of species. Many stands, especially on north-facing slopes, are dominated by majestic eastern white pine.

Several rare plant species occur along the Chattooga. Mountain camellia appear along Dick's Creek. The rare Shortia plant is found along Reed Creek and just above Burrells Ford. These areas are still rich in botanical varieties, including many species of wild orchid, fern, ground pine, lily, trillium, and violets.

The cultural history of the region extends back beyond the first white settlements in the region. The trail routes of Indians who inhabited the area prior to 1700 can still be traced.

Many scenic features can be seen by river travelers. Ribbon Falls is a small but spectacular waterfall cascading 75 feet down the mountainside on the extreme headwaters. Chattooga Cliffs, a series of prominent granite outcrops exposed 400 to 600 feet above the river, can be easily seen. The Rock Garden is a series of spectacular rock formations where geologic weathering has left large slabs sticking up to 75 feet out of the river at sharp angles. A treacherous area for the canoeist called Bull Sluice has ten-foot high falls dropping over a large rock formation. Another scenic feature is Dick's Creek Falls, a classic waterfall dropping fifty feet over a steep ledge into the river. Below U.S. Highway 76 are the most rugged rapids on the river, to be run only by expert canoeists.

Both the Chattooga River and West Fork contain a scenic array of rapids, cascades, waterfalls, shoals, and other dramatic geologic formations.

Although fishing accounts for the greatest portion of recreation use, the river has many other attractions. The canoeist and floater are showing up in increasing numbers to experience the challenge of the river.

To preserve the wild river, tent and trailer campsites are not developed on the river, but at selected areas nearby. It is to be noted that sites are too small to accommodate any large numbers and should be moved back from the river. River runners on extended float trips can enjoy camping under primitive conditions at many sites along the river, something that is becoming harder to find in our urban world.

A developed trail extends the four miles from Burrells Ford to Elicotts Rock. However, most of the shoreline is accessible to those hikers who would test themselves against the rugged country.

Even with formal inclusion in the National System of Wild and Scenic Rivers, the Chattooga must be viewed in its proper perspective--that of being the most outstanding recreation attraction in a region characterized by rare and exceptional natural features. The Southern Appalachians are one of the nation's most popular vacation destination lands.

Georgia has 4,000 miles of river ways; 700 miles (including tributary streams) exist as cold-water resources in the Georgia Highlands. Viewed in terms of its mountain-environment setting, free-flowing character, its quality as a cold-water trout stream, its year-round floatability, and its virtually undisturbed state, the Chattooga River can be seen as the most significant riverway of its kind in the ten southeastern states, if not the entire United States.

2. STATUS

There are three possible futures for the Chattooga River: First, the river could be developed on a "come what may" basis; second, it could be designated for hydroelectric power; and, third, it could be included in the National Wild and Scenic River System.

Leaving the river to develop in the future much the same as it has in the past would probably result in maximum development of summer homes on the choice private lands and more public camping facilities constructed by the Forest Service and private landowners. Further encroachment on the river's shoreline by jeep roads could be expected, as could increased use by fishermen and boat campers, resulting in litter accumulation and site deterioration. With overall river use increasing, pollution becomes a real and serious threat. The system of timber harvest practiced by both Georgia Power Company and the U.S. Forest Service would be expected to continue.

Since 1935, there have been four separate proposals for hydroelectric development of the river. Two of the proposals were made by the U.S. Corps of Engineers, one by U.S. Study Commission, Southeast River Basins, in 1962 and, more recently, one by the Federal Power Commission in 1969.

Most of the proposals call for a series of dam installations with power plants, each depending on the other for water release required for operation. Any series of dams on the Chattooga River would so seriously impair the free-flowing quality of the river, reduce its length, and regulate flows of the remaining stretches as to practically eliminate the river character as we know it today. It must be seen that, although this river could help meet the power generation needs for the Southeast by the year 2000, many more intangible benefits are to be gained by people needing a wild river that is much the same today as when man first saw it. Colonel John S. Egbert, former District Hydroelectric Engineer for the Savannah Corps of Engineers, said at a Clayton, Georgia, public meeting on March 17, 1972:

> Our studies to date indicate that the environmental implications of this proposal are positive, since the Chattooga in its present state contributes a great deal to the scenic and aesthetic value of the region, generally possesses high water quality and would preserve, under the conditions of the proposal, one of the longest and free-flowing rivers in the Southeast in its relative primitive and undeveloped state, and thus preserve a unique national environmental resource. Therefore, I support the proposal to preserve the Chattooga River as a "wild and scenic river." Management and development as set forth in the proposal would contribute to the overall water resources development and preserve the positive environmental impact of the Chattooga River on the entire Savannah Basin.

The Georgia Power Company owns over 40 percent of the land directly along the Chattooga. The Forest Service has been actively negotiating with the company to exchange lands for inclusion in a Chattooga Wild and Scenic River. Georgia Power has been quite cooperative in discussing possible Wild and Scenic River status for the Chattooga and seems receptive to the wishes of the public and to have a regard for what is best for this region.

3. RECOMMENDATIONS

a. The U.S. Forest Service should administer the river as a unit of the National Wild and Scenic River System. A river management program should be prepared, and the Forest Service must cooperate closely with the respective state and national resource agencies.

b. The river's carrying capacity may be reached in a few years. The desirable daily carrying capacity should be determined and controlled to a large degree by the transportation system and parking spaces in adjacent proximity to the river. This necessitates a well-planned and inspiring interpretive program for those who cannot be accommodated. The program should incite an awe-inspiring feeling of stepping back two or three hundred years, a feeling similar to that one would get if he canoed or hiked down the river.

The secondary themes, such as history and geology, should not be ignored and, in fact, can be made interesting and of value to the visitor if they are presented in a direct relation to man's impact on the river and how the river has fought against man's influence.

c. The main attraction of the river will continue to be the primitive unspoiled sections of spectacular white water and its valley gorge wild lands. Information facilities, however, are needed to designate where these sections are, what they offer, and ways in which they can be visited and enjoyed.

To provide the type of experience in which a feeling of adventure, challenge, and physical achievement is dominant, river access should be primarily by trail, including canoe launch sites. Such a system must be carefully designed to disperse visitors and prevent overuse of the river. In light of this, it is recommended that most of the unpaved roads to the river be gated and used for emergency and administrative purposes only. Three points should have road access: Grimshawes Bridge, Highway 28 Bridge, and Highway 76 Bridge. Development should be minimal and set back from shorelines.

Recreation-use levels should be regulated on the basis of carrying capacity of the land and water to prevent overuse damage to the resources or deterioration of the recreation experiences. Tentative saturation levels have been determined for the area, and they will be modified as use data indicates.

d. When the Chattooga is included in the National Wild and Scenic River System, additional plans should be prepared for the management of fishing and hunting activities in the area.

e. The role and objective of timber management in the proposed boundary should be the production of healthy, vigorous stands of trees of all ages of species common to the area, managed and utilized only to enhance and complement recreation and other resources. Timber management here should be for recreation, watershed, and esthetic and wildlife values, rather than for commercial timber production.

f. The extraction of minerals through surface disturbances is incompatible with wild and scenic river objectives. Federal lands within one-quarter mile of the river should be withdrawn from mineral entry.

g. Water management activities should maintain or improve quality. Recreation management should take all possible steps to minimize the chance of water pollution from recreation activities.

h. A bench-mark system should be established to measure and note changes in the river's environment. Some change is inevitable. The Chattooga is not a static resource that can be preserved for all time. Designation of this river as a National Wild and Scenic River can prevent undesirable developments on the river by man, but it cannot halt the

ageless ecological and geological processes. A bench-mark system is needed to inventory all the river's resources and evaluate their condition and trend. Some methods that might be used are infrared aerial photography to measure species compositions in the overstory canopy, and line transcripts on a plot or strip basis to measure all species in the understory, along with size and rates of growth and camera points to record the nature of the general scenery. The value of the bench-mark system is that it will provide as accurate a record as possible of all ecological and geological changes occurring, both natural and man caused.

i. The Georgia General Assembly, by Resolutions 89 and 289, has stated the values of this river and encouraged Congressional action for its protection as part of the National Wild and Scenic Rivers System.

j. Further field studies by the Chief of Game and other natural resource planners of the State Department of Natural Resources recommend 30,000 to 50,000 acres of wilderness management of the shorelands on the Georgia side. This wilderness management has been concurred in by letter of the Governor to the Secretary of Agriculture. (It is felt that South Carolina should adopt a similar proposal.)

E. COHUTTA MOUNTAINS

1. NATURAL AND RECREATIONAL SIGNIFICANCE

The Cohutta Mountains area of the Chattahoochee National Forest is located northeast of the town of Chatsworth in North Central Georgia. It is the major natural feature of the western boundary of the Georgia Highlands. The area includes the headwaters of the Conasauga River and the entire Jacks River drainage area, a total of 49,500 acres. The wilderness area is within the Blue Ridge mountain chain and is an area of very strong relief, as elevation may vary from 950 feet to 4,149 feet. The area is characterized by predominately steep slopes which drain high-quality waters from over 50 inches of rainfall annually.

The topography of the Cohutta provides it with very distinct variations in both temperature and precipitation.

The area abounds in recreational opportunities, including fishing, hunting, nature study, photography, backcountry camping, and also provides an exceptional experience to the skilled canoeist who would shoot the rapids of the Conasauga River. The Cohutta Mountains have a strong appeal to sportsmen, especially hunters, because of their remoteness and wilderness character. The area can be managed to provide huntable populations of all game species and can also be managed for the benefit of all wildlife, including nongame species. The list of wildlife to be found in the area is a long one and includes deer, turkey, black bear, ruffed grouse, gray squirrel, wild hog, and other species. It is one of the last strongholds for the black bear in the Appalachians.

Both the Jacks River and the Conasauga River are classified as quality native trout streams. The Conasauga River is one of the few

remaining wild trout streams in Georgia. From Rough Creek upstream, conditions for trout are ideal. From this point downstream, Coosa Bass become progressively more numerous, although trout are found over the entire length. The Jacks River is also a productive fishery. Coosa Bass are found in the lower reaches of the stream up to the waterfall near Beech Mountain. Trout can be found throughout the stream.

The Georgia Botanical Society has conducted a survey of plant communities on portions of the area. At least forty rare or uncommon plant species have been found. The two rivers have highly scenic gorge-like sections with a wide variety of hardwood trees. Large stands of beech trees are found. The forest is composed mostly of second-growth stands and is generally of the oak-pine type. All national forest lands except 55 acres are now considered commercial forest lands, with over 50 percent of the area considered as cove hardwood sites. Due to the steep land; thin, highly erodable soils; important water-quality values and fishery; and limited Georgia bear range, commercial forest use should be eliminated in this area.

Of particular scenic beauty are the Jacks and Conasauga Rivers. The Jacks River at Bear Branch Confluence has some of the most rugged stream valley gorges in America. Here the river drops 540 vertical feet in 3.6 miles. From the Bear Branch Confluence, the river becomes increasingly difficult to a point 3,000 feet downstream. The river at this point explodes into a wild torrent of falls and cascades difficult to describe. At approximately each quarter mile, the river runs head-on into the beautiful massive stone outcrop of the opposite ridge and abruptly turns almost 90 degrees in the opposite direction. Along each segment of this serpentine form, the river leaps over falls and cascades over rock ledges and giant boulders.

Following the river from Bear Branch to Gregory's Mill downstream provides a visitor with almost unimaginable beauty. This section of fifteen miles contains white water rapids in a gorge-like setting and further downstream provides scenic pastoral landscape with floodplains up to 300 yards backdropped by the spring mountain.

2. STATUS

The Cohutta Mountains Unit was established as a part of the Cohutta Mountains Game Management area in 1968. The U.S. Forest Service and the states of Georgia and Tennessee cooperate in the management of wildlife under a memorandum of understanding.

There are no developed recreational sites within the unit; however, one main area has served as a congregation point for recreation activities and undeveloped camping. Immediately outside the southwest corner of the area is the Lake Conasauga Recreation area, a development originally constructed by the Civilian Conservation Corps. This facility has sixteen camping units and twenty-eight picnic units. It exists on lands unsuited for facility expansion. It is now overused and, because it will generate damaging pressure through overuse, it should be either managed as a primitive campsite or eliminated.

Nearly 17 percent of the total area is under some type of mineral reservation, most of it with all mineral rights reserved. This amounts to 8,300 acres. These outstanding rights might be a problem in the future management of the Cohutta Mountains Wilderness Area, but no commercial minerals are known to exist here by state geologists.

The rivers in the area are now accessible by a number of foot trails which have been used increasingly by vehicular traffic. This situation poses a threat to the environment, as well as to the drivers. The paths are very hazardous, almost vertical at some points, and would require high maintenance costs to keep them in adequate condition for vehicular traffic.

There is also a threat to the river areas in the way of dam construction, as studies have also been completed to this end.

3. RECOMMENDATIONS

a. It is strongly recommended that the Cohutta Mountains Unit be designated a National Wilderness Area.

b. Long-range acquisition of all private lands within the area should be planned.

c. The construction of new roads within the area should be prohibited, and existing roads should be blocked with the exception of those from Tumbling Creek Road to Dalley Gap, Georgia Highway Number 2 to Three Forks, and Three Forks to Grassy Mountain Fire Tower. All fire roads should be left as they are.

A master plan needs to be drawn up to provide for perimeter access points to take pressure off Lake Conasauga and terminate vehicular traffic into the interior of the area.

d. Provision should be made for primitive camping experience rather than developed campgrounds.

e. Low-density campgrounds could fit well in the periphery and serve as a jumping-off point for backcountry users and other less-vigorously inclined individuals. Overuse here will probably occur by 1980 or 1985. Therefore, larger campground density development nodes should be located elsewhere along the base of the mountain along Cartersville fault east of Route 411.

f. There is a need to increase the supply of other forms of recreation. Hiking, backpacking with tents for camping, quality stream fishing, nature study, and backcountry type hunting can be supplied by these lands. All of these can be supplied with a great degree of solitude.

g. The planning and location of a minimum number of small signs at trail heads and backcountry intersections may be considered necessary.

The placing and size of these signs, however, must not detract from or mar the natural beauty of the mountains area.

h. There is a need for a natural wildlife management program in the Cohutta Wilderness Area to supply the growing demand for wilderness-type hunting and fishing activities and general nature study.

i. Hunting and fishing should be maintained subject to state laws, and fishing of all stream tributaries to Jacks and Conasauga Rivers and Tumbling Creek should be prohibited.

j. Georgia biologists should collaborate with authorities in Tennessee to determine the value of the trout fishing in the gorge sections below Alaculsy Valley. A stream survey is probably needed.

k. Because the Jacks and Conasauga Rivers serve as the major water supply for Dalton, Chatsworth, and Rome, there is a need to maintain the water to the highest quality possible.

l. Ideally, all timber cutting should be prohibited. The area could then be managed for wilderness preservation. The clear-cutting system of harvesting timber should be abandoned on steep slopes, and in its place other methods, such as selective cutting, should be instituted to preserve the area in a near-natural state.

F. SUWANNEE RIVER

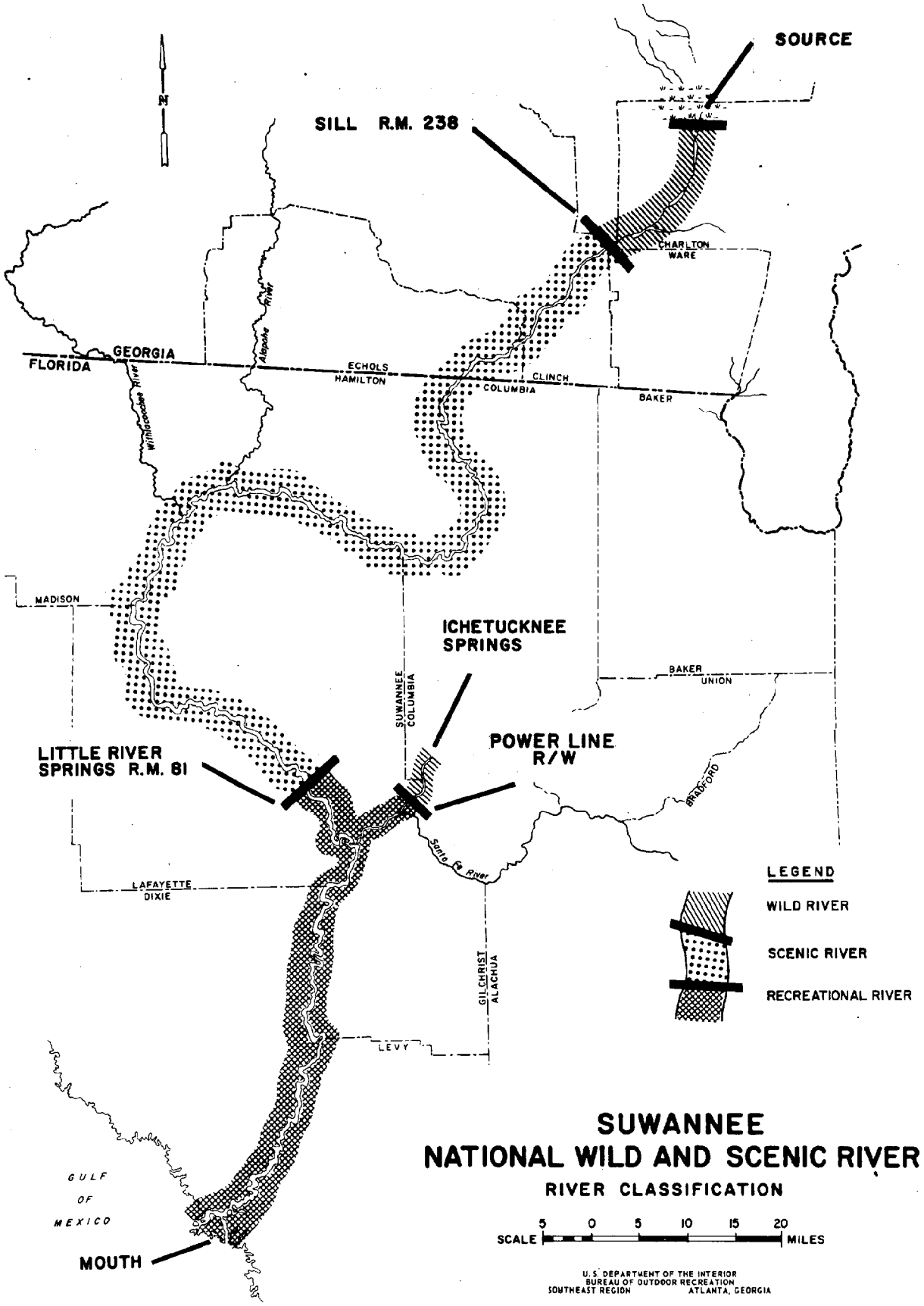
1. NATURAL AND RECREATIONAL SIGNIFICANCE

A report prepared for Congress on the Suwannee River stated:

> Of all the rivers in the southeastern coastal plain, extending down the Atlantic shores and along the Gulf from Virginia to Mississippi, the Suwannee seems to be the only one of major size relatively unspoiled. None of the major rivers of this coastal region have watersheds so sparsely populated, scenery so unusual, and channels so nearly free of dredging and dams.

The Suwannee flows 265.4 miles from its source in the Okefenokee Swamp in South Georgia to its mouth on the Gulf of Mexico in Florida. About sixty miles of this is in Georgia. After leaving the boggy channels of the Okefenokee National Wildlife Refuge, the river snakes through a broad floodplain, which averages 2,600 feet in width. Near the state border, the river begins to pass between rising limestone banks, and the stained water fades as many clear springs feed into it. It flows through densely wooded hammocks, more swampland, and finally through extensive salt marshes before it joins the Gulf.

The river is essentially free of impoundments, and biological and chemical pollutants are virtually absent. Along its course are shoals, grottos, sunken vessels, old missions, and mills.


SOURCE
SILL R.M. 238
CHARLTON
WARE
GEORGIA
FLORIDA
ECHOLS
HAMILTON
CLINCH
COLUMBIA
BAKER
MADISON
ICHETUCKNEE SPRINGS
BAKER
UNION
SUWANNEE
COLUMBIA
POWER LINE R/W
LITTLE RIVER SPRINGS R.M. 81
BRADFORD
Santa Fe River
LAFAYETTE
DIXIE
GILCHRIST
ALACHUA
LEVY
GULF OF MEXICO
MOUTH
LEGEND
WILD RIVER
SCENIC RIVER
RECREATIONAL RIVER
SUWANNEE
NATIONAL WILD AND SCENIC RIVER
RIVER CLASSIFICATION
SCALE 5 0 5 10 15 20 MILES
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF OUTDOOR RECREATION
SOUTHEAST REGION ATLANTA, GEORGIA

The banks along most of the river remain relatively untouched. Though roads cross the river at many points, none travels along the shoreline. Vegetation ranges from the Ogeechee-tupelo forests of the Okefenokee to red cedar at the Gulf. The Georgia section of the river includes notable examples of freshwater marsh, Ogeechee-tupelo forest, and hammock vegetation.

Three-hundred and seventy-six species of animals inhabit the river area, including 54 species of fish. Nine rare and endangered species make their home in the area: Suwannee Bass, American Alligator, Wood Ibis, Southern Bald Eagle, American Osprey, Southern Red-cockaded Woodpecker, Florida Panther, Florida Water Rat, and Florida Manatee.

The Suwannee courses across sediments that were formed during a span of 40 million years. It is not surprising that there are exceptionally valuable paleontological findings in the river basin.

The Suwannee River and its environs have been used for recreation since the Civil War, when horse-drawn buggies traversed the banks and river steamers paddled the river's waters. Today the river is located in the midst of a number of rapidly-growing urban areas. Five major urban areas with a combined population of 4.2 million people are located within a day's drive of the area. However, with a few exceptions, recreational developments along the Suwannee are minimal and poorly maintained. Largely because of this, the Suwannee receives little attention from the millions of tourists who travel to Florida each year.

2. STATUS

That a river as large and as well known as the Suwannee should remain largely undisturbed is something of a miracle. Fortunately for the Suwannee, flood-control projects along its path are unfeasible and the counties it runs through are agricultural; so there has been little demand for hydroelectric power and conversion to urban uses. Little dredging has ever occurred, though the first requests for dredging were entered as early as 1880.

However, if history has treated the Suwannee comparatively well, the future may not. Most of the riverfront land along the river is owned by private individuals and corporations. Almost half of the land fronting the river is managed for its timber. Though a combination of expense and public spirit has prevented clear-cutting along the banks of the river, there is no guarantee that this restraint will continue.

A more immediate threat to the river's integrity is posed by the rich limestone deposits that line fifty-three miles of perhaps the most scenic section of the Suwannee. Mining along the banks of this stretch of the river, unless carefully controlled, not only would violate its scenic character, but would inevitably cause substantial erosion and resulting water pollution. Estimates of the market value of these limestone deposits run as high as $6,240,000.

Increasingly, the river is being recognized as a recreational resource. The 1963 Southeast River Basins Study Committee Report identified the recreational and tourist potential and assessed the economic impact of such development. However, recreational development will not necessarily treat the river better than other commercial uses. The report to Congress on the Suwannee summarizes:

> Existing trends in recreational development tend to fractionate the resource and rob it of its most salient value--continuity of its natural character. Many established enterprises are marginal with respect to both capitalization and facility standards. There is a high incidence of either enterprise failure or project abandonment. Also, much of the existing recreation use occurs without maintenance of facilities.
>
> Unless a coherent and comprehensive master plan for utilizing the resource is implemented, the quality of this nationally significant natural environment will continue to diminish. This condition over time will seriously mar the outstanding scenic beauty of the river.

There is an alternative future for the river. The 1968 National Wild and Scenic Rivers Act designated studies of 27 rivers for inclusion in the Program. The Suwannee was one of these. The study was submitted on October 2, 1970, with the approval of both Georgia and Florida, and awaits Congressional approval. The proposal has not met with universal endorsement, and the Suwannee River Citizens Association has been vocal in its opposition to public ownership and regulation.

3. RECOMMENDATIONS

a. Congress should designate the Suwannee as a National Wild and Scenic River. The recommendations of the study report should be implemented.

b. From its source to river mile 238 (27 miles) the river should be designated as "wild" and should be maintained in its present state. The next 158 miles (to river mile 81) should be designated as "scenic" and should be maintained without impoundments or substantial shoreline alteration. The last 81 miles should be designated "recreational," with provisions for ready access and some development.

c. A buffer zone not to exceed 300 feet on either bank should be established by fee acquisition or easement. The floodplain should be protected through a policy of open space uses.

d. Larger areas along the river should be established for recreation of varying sorts as recommended in the study. The report recommends the establishment and maintenance of 44 recreation areas over the 238 miles -- four of over 400 acres and 12 between 100 and 400 acres. The Georgia contingent of parks should include Stephen Foster in the Okefenokee Swamp, as well as a new major park at Cumbes (R.M. 234) or 350 acres, and four smaller boat access parks of between 15 and 30 acres interspersed along the rest of the Georgia portion of the river.

e. Access to the river should be assured, should provide for the appropriate distribution of recreational opportunities along the entire river, and should be designed to regulate the amount and type of recreational use. The study recommends access points every 10 to 12 miles.

f. The federal government should acquire the 305-acre Cumbes site, the other four smaller boat access parks, and the buffer zone.

g. These parks should be optioned to the Parks and Recreation Division of the State Department of Natural Resources. The counties could operate the smaller river parks within the overall management plan for the river, if they so desire.

G. FLINT RIVER

1. NATURAL AND RECREATIONAL SIGNIFICANCE

In the "Georgia Scenic Rivers Report," the Georgia Natural Areas Council ranked the Flint as the most scenic river in the Piedmont. Considered together with the swamp which lines many of its banks and the land that surrounds them, the Flint around Spewrell Bluff comprises what Ecologist Dr. Charles Wharton has called "the single largest remaining wetlands complex in the Georgia Piedmont." Some of the river's course takes it through quartzite. Dripping Rock Natural Area is a tributary waterfall over pink quartz. The twisted folds of Pine Mountain Environmental Corridor and other dramatic bluffs and palisades distinguish the area. Particularly scenic areas include Flat Shoals, Dripping Rock, Tally Gap, Spewrell Bluff, the bowl and scenic backdrop of Pine Mountain, and Pansley Shoals.

Ecologically, the river is also unique. Where it crosses the Pine Mountain Ridge, the flora and fauna of the northern mountains regions intermingle with those of the southern coastal plain. Along the Flint are the southernmost limits of such northern plants as the New York fern, the Curtis Georgia oak, Vail, mayapple and dwarf rhododendron, as well as the northernmost limits of such southern plants as Spanish moss, bayberry, Pursh Southern cucumber tree, tupelo gum, and Ellis Two-Wing Silverbell. Extremely rare plant species include dwarf adder's tongue and Eaton Bradley's spleenwort.

The river above Lake Blackshear supports one of the rarest fisheries available to Georgians--the Apalachicola redeye bass fishery. While red-eye bass are found in most parts of the Apalachicola network, the Flint provides the only substantial fishery in Georgia for this unique species of bass. Additionally, this section of the river provides a habitat for flathead catfish and striped bass.

The Flint River area also provides one of the few unpolluted habitats for the Osprey. This bird is endangered with extinction through the use of persistent pesticides, and this presently uncontaminated area is one of the few suitable habitats remaining. The area is a prime deer, turkey, squirrel, raccoon, water fowl, and fur-bearer habitat. A survey

of the Lazer Creek region of the Flint conducted by the State Game and Fish Commission concluded that five areas were suitable for intensive game management. The largest deer recorded in the state was shot near Spewrell Bluff.

Georgia's archaeological deposits may be grouped generally into four orders: 1) Paleo-Indian, 2) Archaic, 3) Woodland, and 4) Mississippian. Artifacts gathered around the Flint represent all four of these. Among the artifacts already discovered are fragments of fiber-tempered pottery, believed to be the earliest form of ceramics in the New World. In historic times, the lower portion of the Flint was the home of Creek Indians, but the Flint in its entirety was occupied for thousands of years before that with considerable differences in occupation from one section of the river to the other.

In evaluating the recreational significance of the river, it should be kept in mind that it is near enough to Atlanta, Columbus, Macon, and other population centers to provide easy access for day trips. Canoeing this river requires little skill except for a section below Spewrell Bluff to lower Auchumpkee, where some intermediate canoeing knowledge is needed. The surrounding countryside provides bountiful opportunities for hiking and camping, and the fishing is excellent.

Stipulating a use for the area which would protect its wilderness character has other benefits. The 600 acres of swamp along the river detoxify the untreated wastes from the Atlanta airport. It has been estimated that swamps are worth over $1 million an acre in terms of pollution treatment.

2. STATUS

Three dams are currently proposed by the Army Corps of Engineers for the Flint: at Spewrell Bluff, Lazer Creek, and Lower Auchumpkee Creek. The dam at Spewrell Bluff is in its final planning stages, and $1 million was allocated for its development in fiscal year 1972. Three-hundred fifty thousand dollars has been budgeted for the Lazer Creek Project. These proposals have stirred great controversy. The Flint River Preservation Society has been formed, and numerous conservation groups have taken up the cause. The State Game and Fish Commission has gone on record against the Spewrell Bluff project. The resulting inundation of 42,300 acres would put most of the scenic areas of the river underwater, drown the swamps, cover wildlife habitats, bury many archaeological sites, destroy the redeye-bass fishery, and virtually eliminate the free-flowing character of the river.

As the Corps of Engineers is quick to point out, however, a number of benefits besides hydroelectric power generation and flood control would accrue from the dams. The dams would "dedicate 23,000 acres of agricultural and timber lands and 13,300 acres of water surface areas to the public ownership for the benefit of the public" as well as provide an economic stimulus to the region. "Project lands that are not permanently inundated will be available for multiple-use management to protect

and preserve the natural surroundings." The Corps estimates that sport fishing activities in project waters will approximate 236,000 man-days annually, of which 226,000 would be occupied on the lakes. In the absence of the dams, the comparable figure, according to the Corps, is 6,000. Boating opportunities would also be provided. The Corps claims that the lakes will function as sediment and nutrient traps, thereby reducing bacterial levels and improving water quality.

In deciding between the two alternatives, the estimated greater usage of the lakes cannot be discounted; but, through low-cost management, high-quality river usage could be greatly increased as needed. According to the statistical analysis of recreation needs in this area of Georgia included earlier in this plan, there is a much greater deficit need for river-based recreation than for lake based. This is particularly true on the Piedmont Province of the State. Four major impoundments--Lake Walter F. George, Tobesofkee, West Point Dam and Reservoir, and Goat Rock Lake--are already well within driving distance. The benefit-cost ratio of the dams, the power needs to be served, and the desirability of development in the immediate area have been questioned.

3. RECOMMENDATIONS

a. There should be a full study of the relative benefits and costs of building the dams. Careful consideration should be given to alternative sites for the dams. The study team should include competent ecologists.

b. Until such time as the study is complete, no further commitment of planning or monetary resources should be made to the project.

c. The state should pursue efforts to designate the Flint as a Wild and Scenic River.

d. A joint study effort between the Bureau of Outdoor Recreation and the State Department of Natural Resources with the cooperation of the Corps of Engineers and the Soil Conservation Service should be considered.

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CHAPTER VI

DEMAND FOR OUTDOOR RECREATION

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DEMAND FOR OUTDOOR RECREATION

A. GEORGIA RECREATION SURVEY, 1970

The Bureau of Business and Economic Research, Georgia State University, under contract to the Georgia State Bureau of Planning and Community Affairs, designed a survey to obtain data from which estimates of participation of Georgia's population in various forms of outdoor recreation could be made. The state of Georgia was stratified by the 19 designated recreational regions. Within each of the recreation regions the sample size for the region was distributed to individual counties comprising that region on the basis of the proportion of population within the county to the region as a whole. The samples assigned to individual counties were further subdivided into the census county divisions (for nonmetropolitan counties), and into census tracts for those Standard Metropolitan Statistical Areas that are divided into tracts by the Bureau of the Census. In those cases in which detailed 1970 population data was available, the sample areas within each county were selected with probability proportional to the population size. By the use of random number tables and a random location start, the actual sample units to be surveyed were selected.

The basic unit of the sample was the household, and 2,410 households were surveyed within the state. These households consisted of both family and nonfamily units. The total number of persons included within the sample was 7,156. Of these, 2,094 were adult males, 2,327 were adult females, and 2,626 children. In addition, there were 109 persons for whom data were incomplete as to sex, as to family relationship, or as to whether they were adults or children. Included in the adult group were 68 single men, 213 single women, 2,026 husbands, and 2,114 wives.

The data collected for this study cover a wide variety of information related to recreation activities of the population. The study was directed primarily at collecting the information on participation in 53 specific recreation activities. However, in order to make the study more useful, numerous other basic information items were obtained. Among these were specific socioeconomic characteristics of the households interviewed, including leisure time available to the household and, in contrast, the factors household members felt prevented them from greater recreation participation. Specific information was collected on boating ownership and activities, fishing activities, hunting activities, and vacation-recreation activities. Specific information was obtained on the ownership of vacation homes or the desires of householders relative to the ownership of vacation homes. Data was sought on the dollar value of investment of the household in recreation equipment and in variable expenditures for vacation and recreation. Data was also obtained on the household's plans for recreation in the coming year.

FIGURE VI-1

DISTRIBUTION OF SAMPLE UNITS BY TYPE

HOUSEHOLDS	NUMBER	PERCENT
HUSBAND, WIFE, AND CHILDREN	1,265	53.4
HUSBAND AND WIFE ONLY	594	25.1
HUSBAND AND CHILDREN ONLY	30	1.3
WIFE AND CHILDREN ONLY	115	4.9
HUSBAND, WIFE, AND OTHERS	106	4.5
NONFAMILY, ONE MALE	48	2.0
NONFAMILY, TWO OR MORE MALES	8	0.3
NONFAMILY, ONE FEMALE	154	6.5
NONFAMILY, TWO OR MORE FEMALES	26	1.1
OTHER	24	1.0
TOTALS:	2,370	100.0

Source: *Statistical Summary*, Volume I, State Totals—14, Table 01.

FIGURE VI-2

AVAILABILITY OF LEISURE TIME–REPORTING HUSBANDS

	AVERAGE
VACATION DAYS (1)	12.6
HOLIDAYS (2)	5.7
WEEKEND LEISURE HOURS	25.8
WEEKDAY LEISURE HOURS PER DAY	3.8

Source: *Statistical Summary*, Volume I, State Totals-14, Table 04.

Note: (1) Vacation days are expressed in working days only, including Saturday and Sunday if they were regular working days for the respondent. (2) Holidays include only paid holidays.

The distribution of the sample units by type is shown in Figure VI-1, and the availability of leisure time as indicated by husbands is presented in Figure VI-2. Wives reported approximately the same amount of leisure time as did husbands. Children had more vacation days because of summer vacation and Christmas and Easter holidays. On the average, however, children reported less than the median number of vacation days. This can be attributed to the fact that many children 16 and above take summer jobs. Children also had fewer than average weekend hours of leisure time (two hours less than the median value) because of weekend jobs.

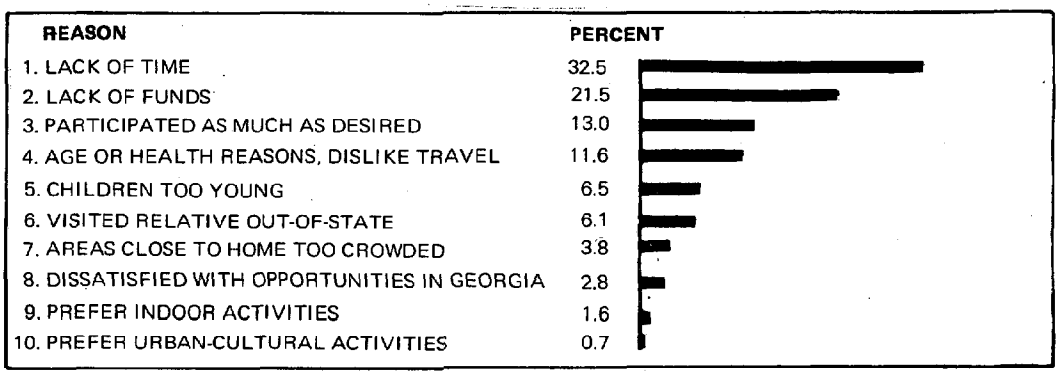
Directly related to the availablity of leisure time are the average hours worked per week. Heads of households reported, on the average, working 45 hours per week, whereas the median number of hours worked per week was 40. This difference can be attributed to a number of reasons, among which is the fact that many work overtime, managers and proprietors often work beyond the 40-hour week, and many persons with regular 40-hour jobs also "moonlight."

Important considerations in determining the demand for recreation facilities are the reasons given for less participation in recreation and vacation activities than is generally desired (see Figure VI-3). For

husbands, wives, and children the principal reason was the lack of time. Single adults, however, cited the fact that they had "participated as much as desired" as the primary reason for not having additional recreation participation. For families, the second most important reason given was lack of funds. In the weighted distribution of answers, single adults cited lack of funds as the major factor preventing further participation.

FIGURE VI-3

FACTORS PREVENTING MORE RECREATION AND VACATION RANKED BY FREQUENCY OF RESPONSE HUSBANDS



Source: *Statistical Summary*, Volume I, State Totals-44, Table 44.

Each factor was weighted according to its ranking as first, second, or third preventive factor (weights of 10,6, and 3, respectively). This weighting in relation to weighted totals resulted in the percent distribution of preventive factors for husbands as given in Figure VI-3.

The percentage distribution of weighted factors for wives and children differed very little from that for the husbands. For children, lack of funds was a more significant factor than for husbands and wives, and age or health reasons were given as a less significant factor.

1. SOCIOECONOMIC CHARACTERISTICS

The major findings relative to the socioeconomic characteristics of the population within the survey are as follows:

a. Length of Residency in Georgia

Nearly 72 percent of the households surveyed indicated that the head

of the household was a native of Georgia; of all respondents, nearly 16 percent had lived in Georgia for at least 11 years. Length of residence in a state is considered to be a determinant of the demand for recreation because the person is presumed to have a greater knowledge of the facilities available. (See Table 54 of the Statistical Summary, Volume III, State Totals-1, for the relationship between recreation activities and length of residence.)

b. Age of Head of Household

The median age of the head of the household for the sample was 44 1/2 years; 56.5 percent of the heads of households were below the age of 50.

c. Education (Years of School Completed by Head of Household)

Of the heads of households, 43.7 percent had less than a full high school education, 17.2 percent either had some college or were college graduates, and the median years of school was 12.

d. Occupation of Head of Household

Of the heads of households, 19.2 percent had professional, technical, and manager-foreman occupations, 9 percent were clerical and sales, 11.8 percent were reported as retired full-time, and 9.3 percent were in unidentified occupations or the occupations were not reported.

e. Income

The largest single group of income recipients in the sample had a range of income from $7,000 to $10,000 per year. However, the median family income was $6,000, the median single-male income was $4,000, and the median single-female income was $2,000. Of the households surveyed, 15 percent would not report their income level.

f. Employment (Head of Household)

Approximately 70 percent of the households surveyed reported that the head of the household worked the full year in 1970. Full-time students and students who worked part time constituted less than 1 percent of the total sample. Those who would not disclose their employment status during the survey year constituted 2.8 percent of the total sample.

g. Employment (Wives)

The majority of wives, representing 65 percent of the family households, were homemakers. On the other hand, 19.9 percent of the households indicated that the wives worked full time for the full year. The balance of the wives reported that they worked full time for part of the year or part time.

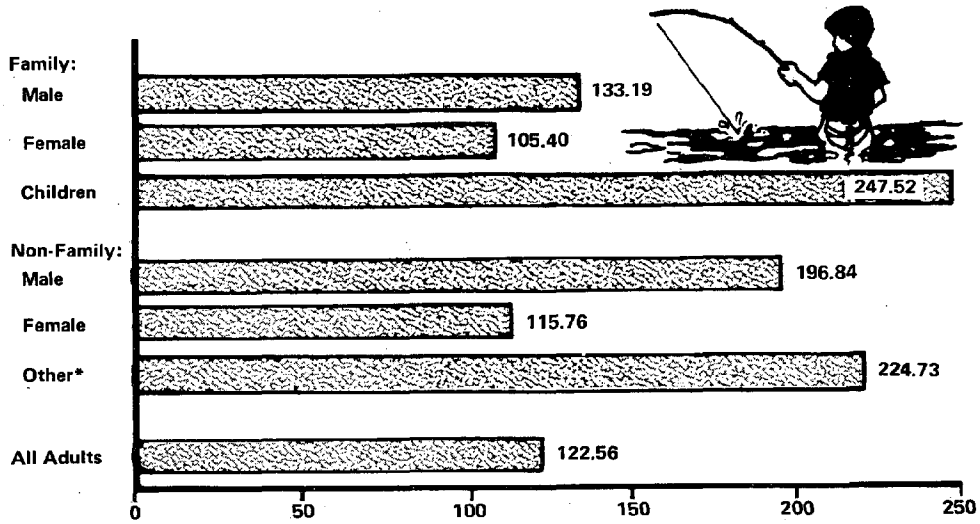
At this writing, data from the 1970 census are not yet available

with respect to socioeconomic characteristics of the entire population of Georgia. When this information is released, comparisons with respect to the distribution of all the above characteristics can be made. The size of the sample for this study should give a very high level of reliability with respect to the distribution of the socioeconomic characteristics of the sample.

2. RECREATION PARTICIPATION

FIGURE VI-4

DISTRIBUTION OF AVERAGE ANNUAL RECREATION ACTIVITY BY SAMPLE TYPES

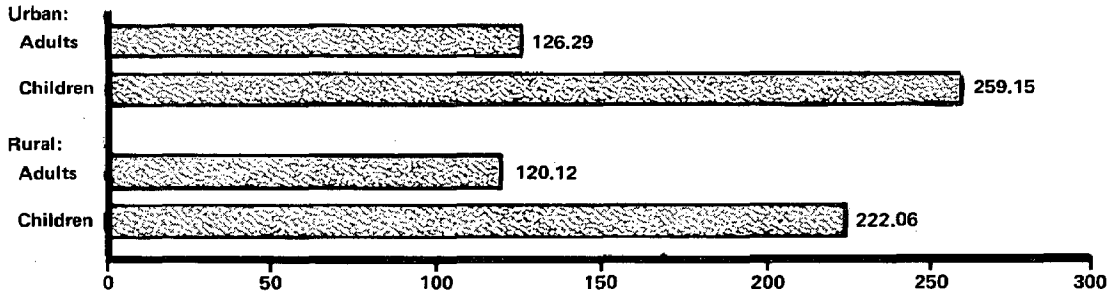


Source: *Statistical Summary*, Volume I, State Totals-18, Table 24.

*Unidentified as to age or sex.

FIGURE VI-5

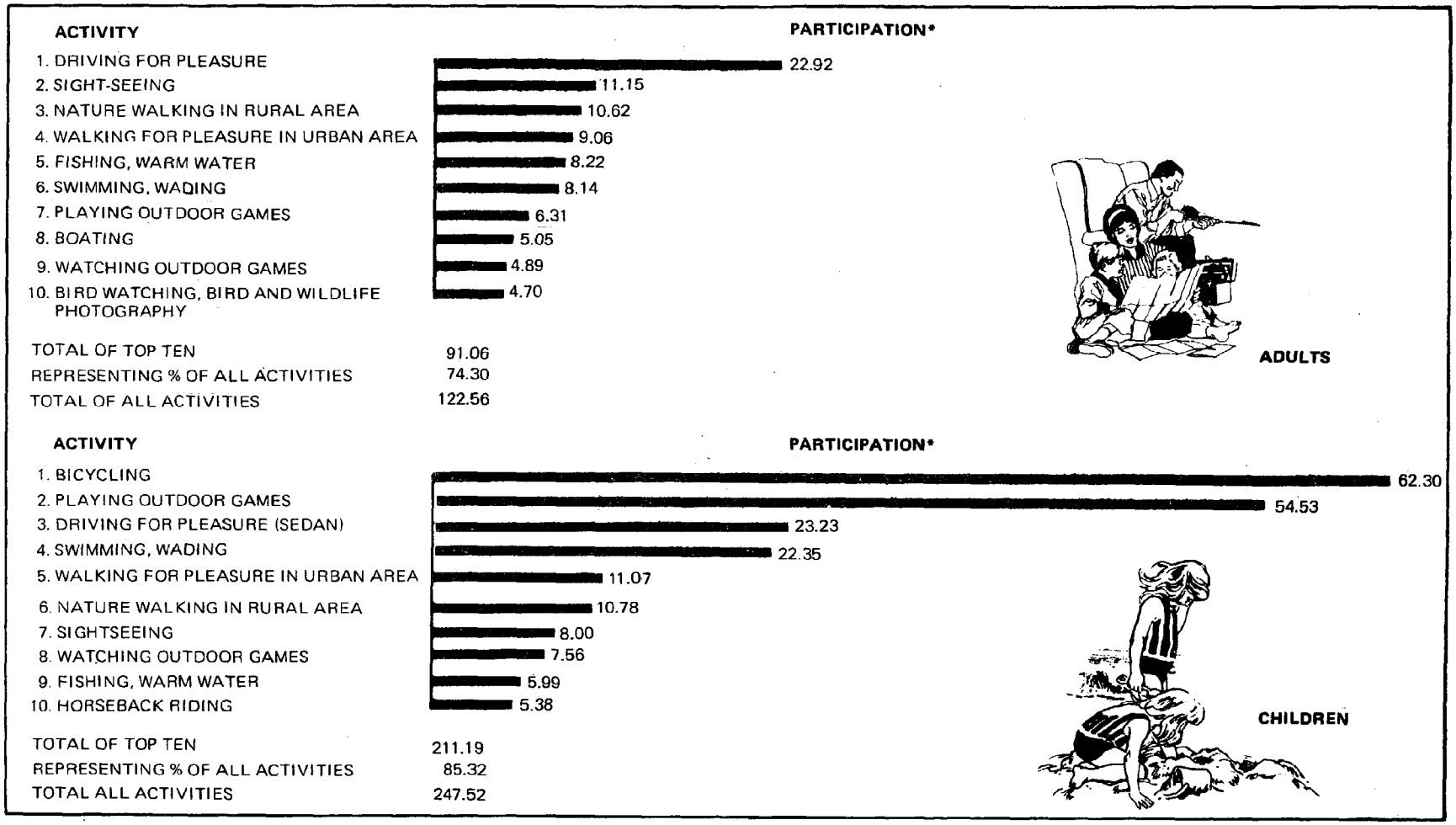
DISTRIBUTION OF AVERAGE ANNUAL ACTIVITY PARTICIPATION BY URBAN–RURAL RESIDENCE



Source: *Statistical Summary*, Volume I, State Totals-35, Table 30.

FIGURE VI-6

PARTICIPATION IN THE TOP TEN ACTIVITIES ADULTS AND CHILDREN



Source: *Statistical Summary*, Volume I, State Totals-18, Table 24.

*Participation is expressed in average annual outdoor recreation activity occasions per adult or child.

The major purpose of the Georgia Recreation Survey, 1970, was to determine the annual average participation of the Georgia population in 53 specific outdoor recreation activities. The participation data include activities both within and outside the state of Georgia. The 53 recreation activities are classified into four major types: water-based, land-based, snow-and-ice-based (winter sports), and air sports and recreation. It was found that the average Georgia adult participates in one or more of these outdoor recreation activities 122.56 times each year; the average Georgia child participates 247.52 times per year. The single male had the second highest participation rate after children--196.84 times per year. The single female has a lower participation rate, 115.76 times per year. Wives reported the lowest participation rate of all, 105.40 times per year. (See Figure VI-4.) The urban-rural breakdown of rates is shown in Figure VI-5.

It is not surprising to find that the activity which has the highest participation rate among children is bicycling. This is followed closely by playing outdoor games. The third most popular activity is swimming and wading. This last activity does not show as much participation as might be expected, due in part to the fact that swimming is a seasonal recreation activity. It is likely that, were more pools available, the participation rate would be far greater. For all persons, driving for pleasure in a sedan shows a high rate of participation.* State Recreation Planners recognize that driving for pleasure is often an activity done incidental to the pursuit of other primary motivated outdoor recreation activities. This includes family, nonfamily, male and female, and children. It is not at all surprising that the highest participation rate in this activity is reported by single males. Nature walking in a rural area also has a relatively high participation rate among all groups. Sightseeing, too, is popular among all age groups and family and nonfamily groups. Warmwater fishing is a relatively popular sport with adult males and to a fairly high extent with single females.

Since many recreation activities are resource-oriented, it is not unusual that saltwater fishing would be higher in those regions which are near the coast. Thus, regions 13,14, 18, and 19 show a higher participation rate in saltwater fishing than do other regions within the state. Hunting activity is fairly evenly spread. Georgia recreation activities are to some extent water-oriented, and it is not unexpected to find that boating among adults is a popular recreation pursuit.

Figure VI-6 gives for all adults and for children the first ten activities ranked by participation rates reported. Among adults, only four outdoor recreation activities would be considered requiring personal physical exertion, whereas among children six of the first ten activities require physical exertion. For children the two most popular

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*State Recreation Planners recognize that driving for pleasure is often an activity done incidental to the pursuit of other primary motivated outdoor recreation activities.

activities require physical exertion, bicycling and playing outdoor games. Among adults, the first two activities requiring exertion are walking in rural areas and walking in urban areas, ranked as third and fourth in order of participation.

Of the ten adult recreation activities with the highest participation rates, three may be classed as primarily water-oriented, one as both water and land-oriented, and the balance as land-oriented. Among the children, two may be classed as primarily water-oriented, one as water and land-oriented, and the balance as land-oriented.

3. INCOME AND RECREATION PARTICIPATION

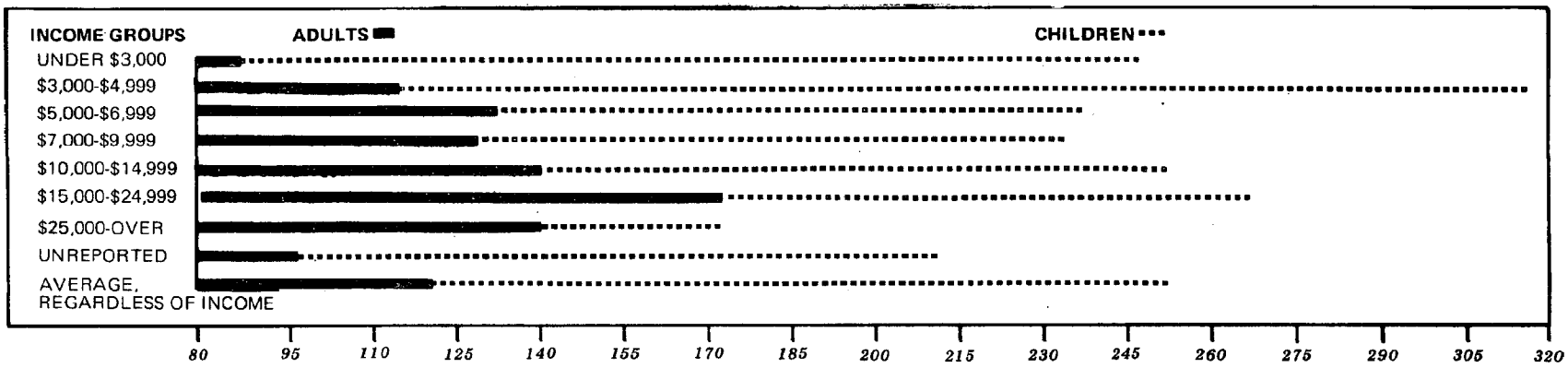
The information in Figure VI-7 compares the participation rates of adults and children by income groups. The data show that in general, as income increases, the participation rates of both adults and children also increase. Paradoxically, this trend does not hold for those households reporting income of $25,000 or more. There is a significant difference between the participation rates for both adults and children when comparing with the next lower income group. However, due to the fact that only 70 households in the sample reported incomes of $25,000 or more and only 46 children were represented, the validity of the reported rates of participation for both adults and children is lessened. This does not negate the value of the data as given, but only suggests that the responses given are not necessarily typical of the activity participation in this income group.

The activity most frequently pursued by adults, driving for pleasure, has about the same level of participation throughout the different income brackets except for the $25,000-and-over group, whose activity rate is 8.89 occasions. The most popular activity for this income group is bird watching and bird and wildlife photography, with sightseeing second, and golf third. The participation rates for those who failed to report their income are low and tend to suggest that a large portion of them are in the low-income groups. This suggestion is further strengthened by a comparison of the participation rates for the various types of activities. Rates for the unreported group are very similar to those of the two income groups under $5,000. While the participation rates in specific activities of adults in the higher income group vary somewhat from those adults in the lower income groups, those of children in all the income groups are very similar. The main exception is that for the children in the $25,000-and-over category, the driving of a motorcycle for pleasure ranks as one of the major activities.

Recreation activities which require either a large capital outlay or a large expenditure tend to show a higher participation rate among those in the higher income groups. Boating, horseback riding, watching outdoor games, playing golf, sightseeing, visiting outdoor exhibits, visiting historical and archeological sites, and flying for pleasure are among those activites which show a specific increase with an increase in the income available. Activities which do not require specific outlays for major items of equipment or major fees and charges for participation tend to show greater participation rates in the lower income groups.

FIGURE VI-7

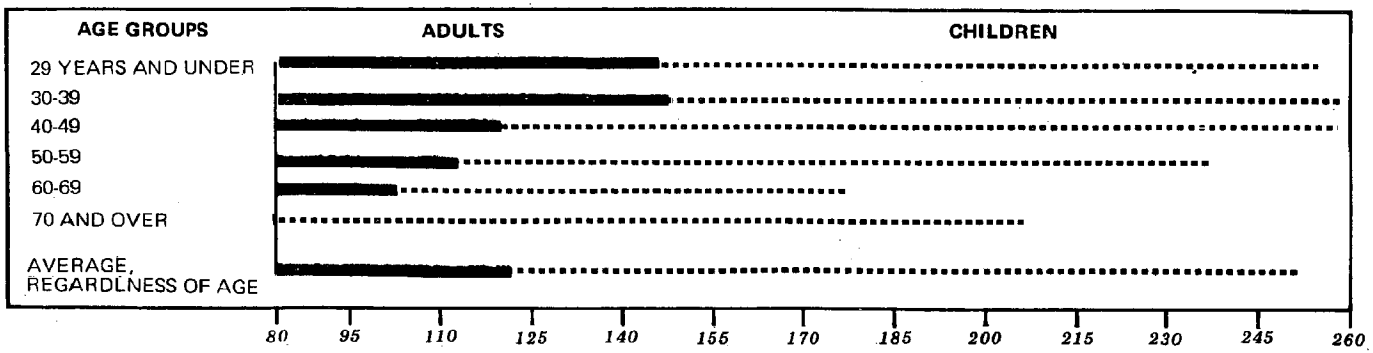
INCOME AND PARTICIPATION RATES OF HOUSEHOLDS



Source: *Statistical Summary*, Volume I, State Totals-19, Table 25.

FIGURE VI-8

AGE AND PARTICIPATION RATES
ADULTS AND CHILDREN



Source: *Statistical Summary*, Volume 1, State Totals-21, Table 26.

4. AGE AND PARTICIPATION RATES

Generally, as the age of the head of a household increases, recreation participation decreases, but there are some exceptions with respect to the participation rates of the children. The information in Figure VI-8 shows the distribution of participation rates by age groups for adults and children.

The clearly indicated decrease in participation rates with the increase in age of the head of the household may be explained by two significant factors. First, as age increases, activities requiring more physical exertion decrease. For example, swimming or wading for adults in the age group 29 years and under averages 13.14 activity occasions per year. As age increases, average activity occasions decrease until at age 70 and over the participation rate is 0.83 activity occasions. Activities such as fishing do not show a significant decrease. Walking in both urban and rural areas increases with age. The second explanation for the decrease in activities with advancing age could well be that retirement implies a somewhat reduced income for most persons. There is a steady trend downward in driving for pleasure at the advanced ages. Playing outdoor games decreases from an activity rate of 10.93 at ages 30 to 39 to 0.27 at age 70 and over. While there is some reduction in watching outdoor games, it is not as dramatic as in some of the other activities.

Activity participation rates of children of the heads of households up through age 59 are essentially equal. Only for the children of the age group 60 to 69 is there a significant drop in activity participation. However, the children reported for heads of households 70 and over show a large increase in activity participation. This average is based, however, on only 23 children in the sample and is thus suspect with respect to its reliability.

In general, it can be demonstrated that participation in those recreation activities that require physical exertion of any extent declines with advancing age. It may also be inferred that those activities which require a large capital outlay or large expenditures for current activities also decline, because of the concurrent decline in income.

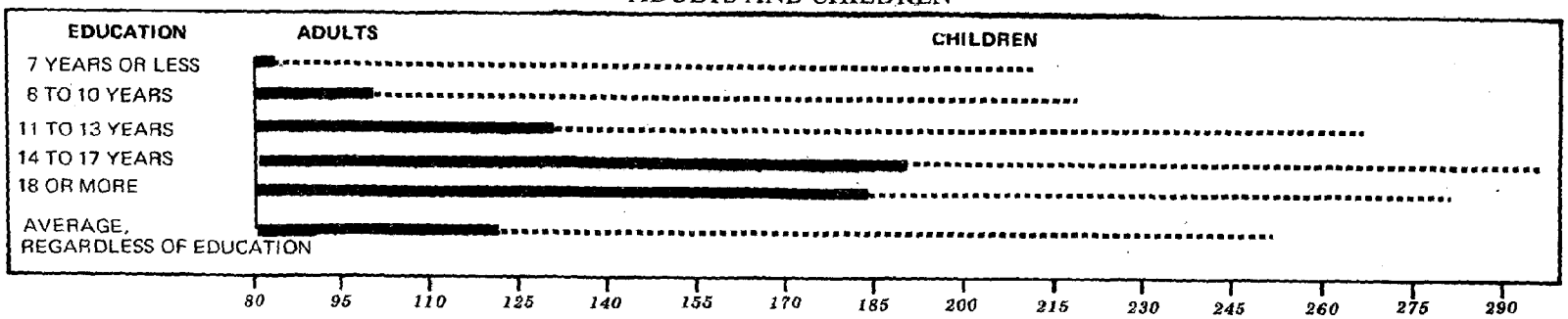
5. EDUCATION AND ACTIVITY PARTICIPATION

The educational level was measured by the school years completed by the head of the household. In the case of both children and adults, participation in outdoor recreation increases as the educational attainment of the head of the household increases, as is shown in Figure VI-9. There is one exception, however, in that participation rates for both adults and children declined slightly for education of 18 or more years. This may be explained in part by a statistical variation due to the relatively small size of the number reported for this group.

Since recreation participation was found to be related to level of

FIGURE VI-9

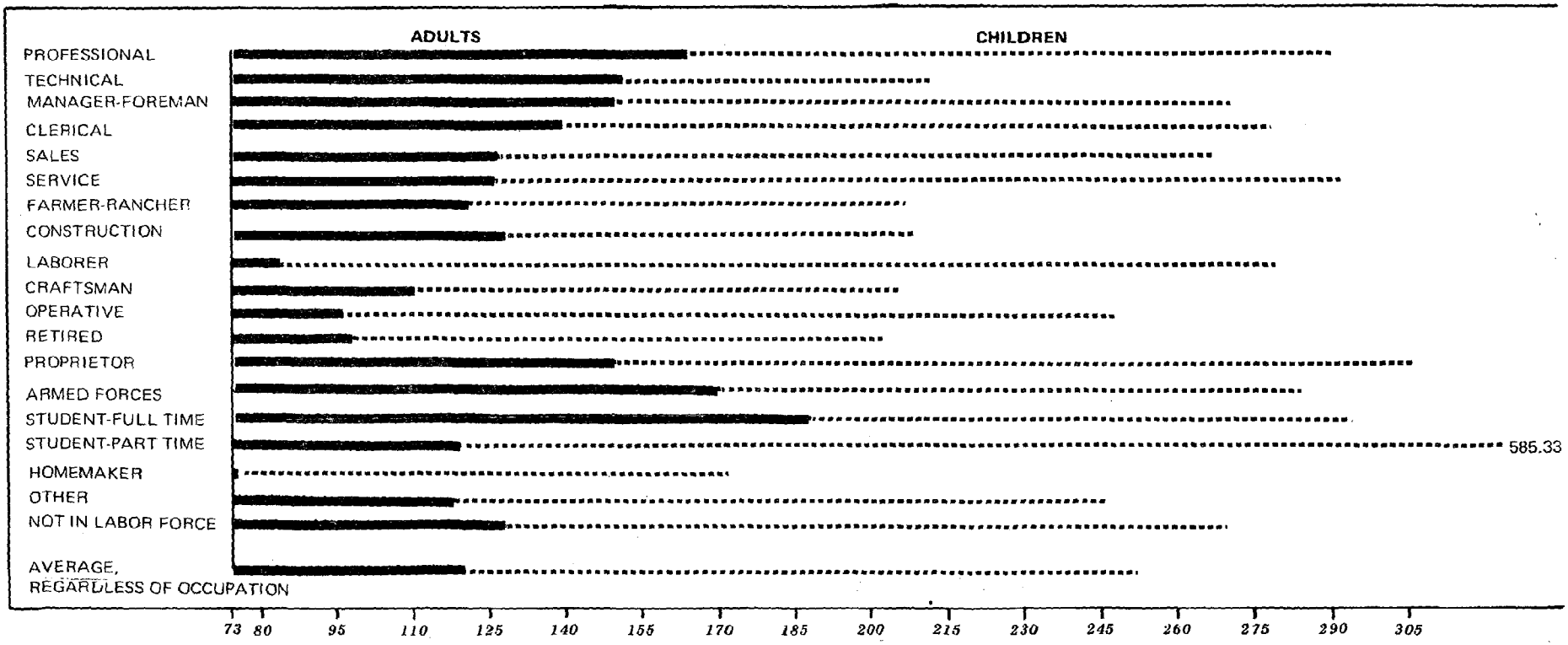
EDUCATION AND PARTICIPATION RATES
ADULTS AND CHILDREN



Source: *Statistical Summary*, Volume I, State Totals-23, Table 27.

FIGURE VI-10

OCCUPATION AND PARTICIPATION RATES
ADULTS AND CHILDREN



Source: *Statistical Summary*, Volume I, State Totals-25, Table 28.

income, and the relationship between education and income is a well-accepted one, the values shown in Figure VI-9 may be said to be directly related to both income and educational attainment of the head of the household.

The data on income and education lead us to expect that as the educational level of future generations increases, the demand for outdoor recreation will show a corresponding increase, with a leveling off at some upper income and educational level.

6. OCCUPATION AND ACTIVITY PARTICIPATION

No clear-cut pattern of relationship between occupation and participation rates emerges from the data displayed in Figure VI-10. Full-time students have the highest participation rate of all adults, followed closely by members of the armed forces on active duty, professional and technical occupations, proprietors, and managers-foremen, in that order. Sales, service, and construction workers and those reported as not being in the labor force are above average for all adults, with the lowest participation rate being those who reported the head of household as a homemaker. The rates of unskilled laborer, operative, and retired persons were above those of the homemaker.

The category of occupation "Other," which includes those who could not be specifically placed elsewhere in the list, shows a participation rate only slightly below the average.

The participation rates of children when categorized by the occupation of the head of the household show even wider variability than that of adults. Children of part-time students show an activity rate of 585, but only 3 children are reported for this category and therefore the value shown has little validity. In general, there seems to be little correlation between the participation rates of heads of households in a given occupation and the rates of their children.

With four exceptions, occupational categories of adults that show above the average participation rate for all adults are the same as the categories for children that show above the average for all children. For both adults and children, 11 of the occupations show participation rates higher than the average. In only three cases does the ranking of the 11 coincide precisely between adults and children. In two cases the difference is one rank. For example, adult students full-time show rank 1, but their children show rank 2.

It can be inferred, tentatively, that the number of activity occasions is related to occupation, but only as the occupation is related to income. For example, professional occupations rank third, technical occupations fourth, proprietors fifth, and manager-foremen sixth. Upsetting this apparent relationship, however, is the fact that the clerical group ranks seventh, "not in the labor force" eighth, construction ninth, and sales tenth. It is thus not possible to make any firm statements relative to the relationship between occupation and participation rates in outdoor recreation.

7. EMPLOYMENT AND ACTIVITY PARTICIPATION

Full-time students showed the highest participation rate for adults, followed closely by those who work part time during the year. Third in order of rates are those who reported working the full year. Rates then trend downward as the reported working period decreases. Those who reported that they worked only one to two months had a higher rate than would be expected from this trend. However, there were only five respondents who reported this working period, and this information is thus not statistically valid. Those who reported that they were unemployed for the full year had the lowest participation rate for adults, whereas the children of those who reported they worked three to five months had the lowest participation rates for children.

Children's activity occasions in outdoor recreation are influenced to some extent by the employment record of the head of household. An employment record that results in reduced income would obviously affect the ability of the children to pay admission fees or make capital expenditure for equipment for certain types of recreation.

While there is considerable variation in the data, the general inference may be drawn that the employment record of the head of the household has a specific influence on the activity participation by children.

Detailed data on employment record and activity participation is contained in Table 29 of the Statistical Summary, Volume I, State Totals-31.

8. VACATION ACTIVITIES 1970 AND PLANNED 1971

Considerable information was obtained from the respondents about their vacation activities during the study period. Among the items of information was the number of vacations taken or the number of overnight trips taken by retired persons. Data were obtained on the type of vacation taken in 1970; the preferences for vacations in 1971; and the number of participants, categorized by family and nonfamily, in various types of outdoor recreation engaged in during vacations. Average daily expenditures by those on vacation as well as methods of travel both by time spent and miles traveled were obtained. Information about the states, countries, or continents visited while on vacation was also acquired.

9. VACATIONS TAKEN AND PLANNED

The respondents reported 2,608 vacations taken during 1970. The majority of the households (961) reported taking only one vacation during the year, 359 reported two vacations, and 128 reported three vacations. Four or more vacations were taken by 99 households, no vacation was taken by 560 households, and no report was made by 18. Retired persons reported taking 389 overnight trips during the year. The majority of these were concentrated in the one or two trip category. No overnight trips were reported by 134, and no report was made by 6.

Planned vacations for 1971 were only a 2 percent increase over current vacations. A large portion of this increase is accounted for by persons who did not take a vacation in 1970 but planned to take at least one in 1971. There was some reduction in the number of vacations planned by households, but more households planned to take vacations in 1971. More retired persons planned to take overnight trips, but the number of overnight trips planned is less. The result is a net reduction in number of overnight trips planned by retired households. Plans for 1971 could not be reported by 56 family households and 15 retired households.

10. TYPE OF FAMILY VACATION TAKEN 1970 AND PREFERENCES 1971

From a list of 16 different kinds of vacations the respondents were asked to indicate the types of vacations taken in 1970. These types were not mutually exclusive; therefore, a respondent could indicate that he engaged in several different types of vacation during 1970. A number of households (464) failed to report the type of vacation they took in 1970. Since many families reported more than one type of vacation, the total reported exceeds the total number of households surveyed. Of the total vacations taken, however, 13.5 percent reported that they stayed at home. Visiting friends or relatives out-of-state accounted for 11.9 percent of the reported types of vacation, and traveling in neighboring states constituted 11.7 percent. Short trips accounted for 10.1 percent of all types of vacations. Vacations in Georgia were 8.7 percent, and traveling in other states 8.1 percent. Of all vacations, 4.4 percent were to visit national parks, and 2.7 percent to visit national or state forests.

The households were asked to express their first, second, and third preference for vacations they intended to take in 1971. These responses were weighted by 10 for the first preference, 6 for the second, and 3 for the third. The total weighted responses showed that 12.9 percent planned to visit relatives or friends out-of-state, and 12.7 percent planned to travel in other states. Traveling in neighboring states constituted 10 percent of the preferences for 1971 vacations. Preferences for short trips represented 9.6 percent, and vacations in Georgia represented 7.6 percent. Only 6.2 percent planned to stay at home during their vacations in 1971. Traveling in states other than neighboring states and visiting friends and relatives out of state showed increases over the 1970 experience. Percentagewise, much fewer planned to remain at home during their 1971 vacation. Preference for a vacation in Georgia decreased from an actual of 8.7 percent in 1970 to 7.6 percent in 1971.

The types of vacations indicated for 1971 were preferences only. Purely on the basis of speculation, one might deduce from the data that, if households had sufficient time and funds, traveling to states throughout the country or traveling in foreign countries would increase. For example, 46 households stated that they visited foreign countries in 1970; but, in preference for 1971, 115 stated as their first choice that they would prefer to travel in foreign countries.

11. RECREATION ACTIVITIES DURING VACATION

The respondents were asked to name the two major recreation activities in which they participated during vacation. This should not be confused with the type of vacation that the person took. For example, a person could have stayed home on his vacation and yet participated in any number of outdoor recreation activities.

The information was collected for family, husband, wife, and children; and for nonfamily, male and female. The data as tabulated indicate the number of persons who reported participating in a given outdoor recreation activity. For families, 1,150 participated in sightseeing, the activity having the greatest number of participants. The second most frequent activity was swimming and wading. For husbands, alone, the second most popular activity was fishing in warm water, but for families as a whole this activity ranked third. For nonfamily, male and female, the most frequent activity was, again, sightseeing, with swimming and wading as the second. The third most popular activity was fishing in warm water.

For all persons reporting, the distribution was the same as for individuals; that is, sightseeing had the greatest number of participants (1,235 reporting), swimming was second with 676 reporting, while fishing in warm water was third with 465 persons reporting having participated in this activity.

While driving for pleasure ranked as the most popular adult activity, as a specific recreation it ranked relatively low in the activities engaged in during vacation. This fact suggests that as far as vacations are concerned, driving a sedan is a means of transportation and not in itself the aim of the vacation trip. Trout and other cold-water fishing was named by 129 persons as an activity in which they engaged on their vacation. All other activities were reported by less than 100 persons as being a major vacation activity.

The specific details of recreation activities are contained in Table 33 of the Statistical Summary, Volume I, State Totals-38.

12. VACATION TRAVEL--LONGEST TRIP TAKEN

Information was obtained on vacation travel relative to the longest trip in miles and the longest trip in terms of time. As a corollary to this information, the percentage of vacation time spent in Georgia was also obtained. Families reported that they spent an average of 66.9 percent of their vacation time within the state of Georgia. Nonfamily respondents spent 73.9 percent of their vacation time in Georgia; for all respondents the average time spent was 67.6 percent.

For families the average number of persons traveling on vacation trips was 3.2 per trip; and for nonfamilies the average was 1.2 persons per trip. For all respondents the average was 3 persons.

The number of days on trips for the longest trip was reported by both family and nonfamily groups. For families the longest trip averaged 7.2 days. while the nonfamily average was 10.2 days. The overall average for all respondents was 7.5 days.

In terms of the farthest distance in miles traveled on the longest vacation trip, the overall average for all persons reporting was 608.1 miles. For families this average was 611.6 miles, and for nonfamilies 577.4 miles.

An important item of information about vacation travel is the average expenditure per day while on vacation. For the families reporting, the average daily expenditure was $30.90; the nonfamily respondents reported an average of $41.61 per day; and, for the total reporting, the average was $31.78.

Of all households, both family and nonfamily, 63.3 percent reported that their vacations were for pleasure and recreation only. A relatively small percentage of all households signified that they conducted some business while on vacation, and an even smaller percent specified that they combined some pleasure with their regular business trips. Of all households, 30.7 percent failed to report on these three items.

Information was obtained about the most common method of travel on vacation, ranked by time and miles traveled. It is not surprising that for all respondents the family car was the most prevalent method of traveling on vacations. This holds for both time spent and miles traveled.

For all family and nonfamily reporting units, the number who reported traveling by family car was 1,252 as the first method in reference to time spent, and 1,142 as the first most common method in reference to miles traveled. The next most common method with respect to time was as a guest in another's auto, and this was reported by only 76 families; 71 respondents reported this method as most common in terms of miles traveled. Only 56 respondents reported commerical planes as the method most commonly used for time spent in traveling, and 88 reported commercial planes as the principal method in terms of miles traveled.

13. STATES, COUNTRIES, OR CONTINENTS VISITED ON VACATION

The information obtained on places visited permitted the respondent to name four places he visited on vacation ranked by the time spent in each. Since a person may have visited only one, or two, or three places while on vacation, the number of responses decreases for the second, third, and fourth places visited.

Information given here will pertain only to the total number of times that a particular state or country was mentioned as having been visited while on vacation. As might be expected, Georgia, with 735 responses, led all other areas as the place most frequently visited on vacation. Florida followed closely with 582 responses. With respect to the ranking by time, Georgia showed 497 and Florida 434. In the total of all rankings, Tennessee was third, with 234 respondents

having visited Tennessee, and North Carolina was fourth with 213. Alabama had 160, while South Carolina had 122. All states within the U.S. with the exception of North and South Dakota were reported as having been visited at least once by persons while on vacation. Western Europe was reported as having been visited by 25 respondents. There were 11 who reported having visited Canada. Australia was the only continent not visited by respondents in this survey.

The inference is clear that, with Georgia and Florida leading, the states for most vacation travel are Georgia, itself, and the states that border on or are close to Georgia. Popularity of visitation appears to be a function of distance and time.

14. INVESTMENT IN RECREATION EQUIPMENT

The respondents were asked to estimate their investment in five major groups of equipment necessary for engaging in certain recreation activities (Table VI-1).

One respondent reported that the investment in recreation land and water was $700,000. This is certainly an atypical case, and this value distorts the averages considerably. If this one case is removed, the reported average becomes $7,930.76 and the total of the averages then becomes $10,490.21. This further reduces the sample average* to $582.47 and the total sample to $1,396.40. These revised figures are cited here only as an illustration of the fact that extreme values for any response can distort the average values in any study of this type.

TABLE VI-1
INVESTMENT IN RECREATION EQUIPMENT

	Dollars		
	Sample Average	Reported Average	Number Reporting
Vehicles, Boats, Horses	577.49	2,046.69	680
Recreation Land and Water	872.92	11,818.79	178
Hunting Equipment	155.38	273.53	1,369
Fishing Equipment	60.57	102.08	1,430
Golf &/or Tennis Equipment	20.49	137.15	360
Total	1,686.85	14,378.25	4,017

Source: *Statistical Summary*, Volume I, State Totals-44, Table 42.

15. BOATING ACTIVITY

Of the total of all respondents, 464 or 19.3 percent reported that they owned a boat, and 3.5 percent indicated that they rent boats at some time or another. Of the total boats owned or rented, 61.7 percent (338)

*The sample average becomes the total investment minus $700,000 divided by (total number of households surveyed minus 1).

were outboard boats. Seventy-six respondents (13.9 percent) said they either owned or rented rowboats, and 65.1 percent kept their boats at home. Boats were kept at a freshwater or salt water marina by 7.4 percent, at their own docks by 9.1 percent, and at other places or "unreported" by the remainder.

The majority (374 respondents) reported that they use their boats exclusively for fishing. Pleasure boating ranked second, and water skiing third.

16. FISHING ACTIVITY

Of the 2,410 households in the sample, 1,592 reported some fishing activity. The reported average number of persons in the household who fished was 2.2, whereas the overall average for the total sample was 1.5. Detailed data on fishing activities per household is displayed in Table VI-2.

TABLE VI-2

FISHING ACTIVITY
AVERAGES PER HOUSEHOLD

	Sample Average	Reported Average	Number Reporting
Number Who Fished	1.5	2.2	1,592
Miles Driven to Fish	205.8	344.9	1,438
Lodging Costs (Dollars)	5.1	73.4	166
Cost of Meals (Dollars)	9.0	46.9	464

Source: *Statistical Summary*, Volume I, State Totals-46, Table 49A.

On plans to obtain a fishing license in 1971, 753 of the 2,410 households surveyed reported that they had no plans to get a license, 55 did not report, and 1,470 said they would obtain some form of fishing license. Of those who reported their most important reason for not fishing next year, the majority (553) stated that they were not interested in fishing. Second in rank among the first reasons given was the lack of leisure time. Of the other reasons given, none represented more than 1 percent of total respondents.

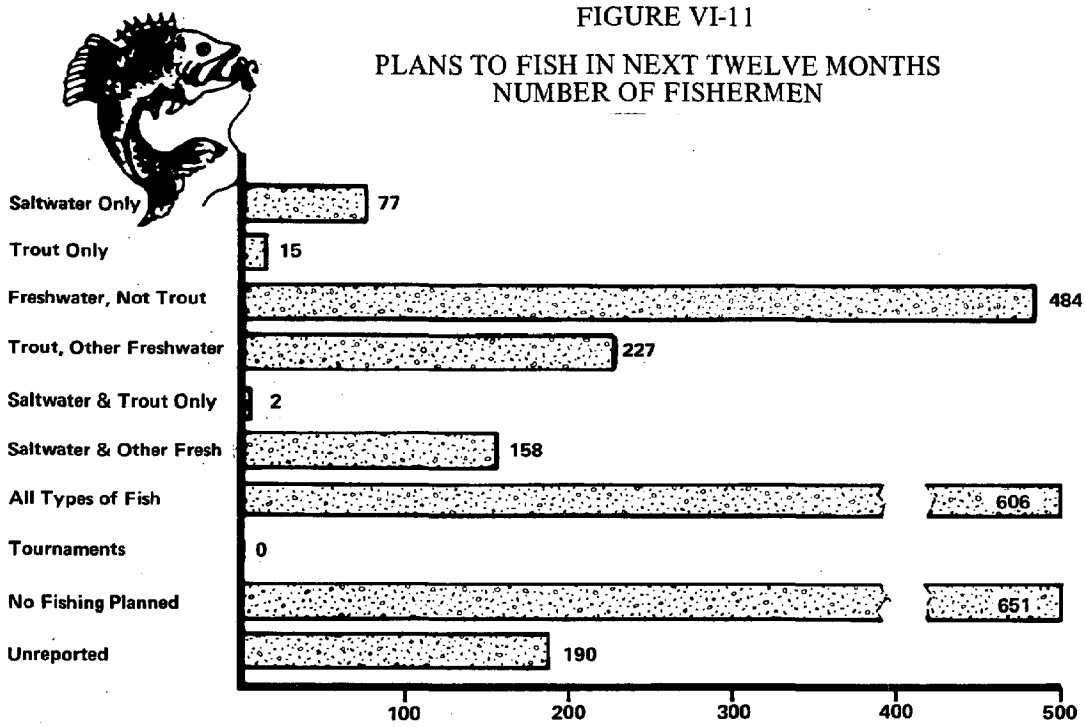
Plans for fishing in the next twelve months are summarized graphically in Figure VI-11.

Of the trout fishermen who reported the areas where they actually fished, the major portion stated that they fished in unmanaged streams. There were 180 who reported that they fished for trout in "catchout" ponds,

while 176 reported that they fished in reservoirs or lakes. Only 99 indicated that they fished in managed areas and streams. For those who reported their preference for trout fishing, wild nonstocked streams led, with 353 reporting; stocked streams were close behind with 321 reporting; and 186 respondents signified that they preferred to fish for trout in catchout ponds.

FIGURE VI-11

PLANS TO FISH IN NEXT TWELVE MONTHS
NUMBER OF FISHERMEN



Source: *Statistical Summary*, Volume I, State Totals-47, Table 49G.

The respondents named those counties in which they did most of their fishing. The county breakdown for trout, warm freshwater, and for saltwater fishing is shown in Table VI-3.

17. DETAILED HUNTING ACTIVITY

The information in Table VI-4 shows the number of persons within households who said that they hunted during the study period, and Figure VI-12 gives the distribution of the hunters by the size of game that they reported hunting. Squirrel hunting was reported by 831 hunters; quail followed with 690 reporting. As might be expected, deer led all of the

TABLE VI-3

COUNTIES MOST POPULAR FOR FISHING
FISHERMEN ONLY

COUNTY	WARM FRESHWATER		TROUT FISHING		SALTWATER		GRAND TOTALS	
	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT
APPLING	10	0.4	5	0.2	0	0.0	15	0.2
ATKINSON	5	0.2	2	0.1	0	0.0	7	0.1
BACON	4	0.2	2	0.1	0	0.0	6	0.1
BAKER	3	0.1	2	0.1	0	0.0	5	0.1
BALDWIN	38	1.6	3	0.1	0	0.0	41	0.6
BANKS	1	0.0	0	0.0	0	0.0	1	0.0
BARROW	7	0.3	0	0.0	0	0.0	7	0.1
BARTOW	10	0.4	2	0.1	0	0.0	12	0.2
BEN HILL	7	0.3	1	0.0	0	0.0	8	0.1
BERRIEN	9	0.4	10	0.4	0	0.0	19	0.3
BIBB	33	1.4	0	0.0	0	0.0	33	0.5
BLECKLEY	5	0.2	3	0.1	0	0.0	8	0.1
BRANTLEY	9	0.4	3	0.1	0	0.0	12	0.2
BROOKS	12	0.5	9	0.4	0	0.0	21	0.3
BRYAN	9	0.4	5	0.2	5	0.2	19	0.3
BULLOCH	11	0.5	1	0.0	0	0.0	12	0.2
BURKE	8	0.3	1	0.0	0	0.0	9	0.1
BUTTS	20	0.8	0	0.0	0	0.0	20	0.3
CALHOUN	0	0.0	0	0.0	0	0.0	0	0.0
CAMDEN	12	0.5	1	0.0	21	0.9	34	0.5
CANDLER	2	0.1	2	0.1	0	0.0	4	0.1
CARROLL	14	0.6	4	0.2	0	0.0	18	0.2
CATOOSA	4	0.2	1	0.0	0	0.0	5	0.1
CHARLTON	3	0.1	1	0.0	0	0.0	4	0.1
CHATHAM	16	0.7	2	0.1	53	2.2	71	1.0
CHATTAHOOCHEE	18	0.7	1	0.0	0	0.0	19	0.3
CHATTOOGA	4	0.2	1	0.0	0	0.0	5	0.1
CHEROKEE	22	0.9	4	0.2	0	0.0	26	0.4
CLARKE	7	0.3	5	0.2	0	0.0	12	0.2
CLAY	14	0.6	1	0.0	0	0.0	15	0.2
CLAYTON	3	0.1	0	0.0	0	0.0	3	0.0
CLINCH	6	0.2	3	0.1	0	0.0	9	0.1
COBB	12	0.5	6	0.2	0	0.0	18	0.2
COFFEE	18	0.7	15	0.6	0	0.0	33	0.5
COLQUITT	7	0.3	0	0.0	0	0.0	7	0.1
COLUMBIA	11	0.5	4	0.2	0	0.0	15	0.2
COOK	8	0.3	6	0.2	0	0.0	14	0.2
COWETA	12	0.5	0	0.0	0	0.0	12	0.2
CRAWFORD	4	0.2	0	0.0	0	0.0	4	0.1
CRISP	21	0.9	2	0.1	0	0.0	23	0.3
DADE	2	0.1	1	0.0	0	0.0	3	0.0

COUNTY	WARM FRESHWATER		TROUT FISHING		SALTWATER		GRAND TOTALS	
	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT
DAWSON	4	0.2	2	0.1	0	0.0	6	0.1
DECATUR	8	0.3	4	0.2	0	0.0	12	0.2
DE KALB	6	0.2	0	0.0	0	0.0	6	0.1
DODGE	18	0.7	5	0.2	0	0.0	23	0.3
DOOLY	5	0.2	2	0.1	0	0.0	7	0.1
DOUGHERTY	6	0.2	1	0.0	0	0.0	7	0.[illegible]
DOUGLAS	1	0.0	0	0.0	0	0.0	1	0.0
EARLY	5	0.2	0	0.0	0	0.0	5	0.1
ECHOLS	4	0.2	4	0.2	0	0.0	8	0.1
EFFINGHAM	12	0.5	1	0.0	0	0.0	13	0.2
ELBERT	6	0.2	0	0.0	0	0.0	6	0.1
EMANUEL	7	0.3	1	0.0	0	0.0	8	0.1
EVANS	6	0.2	2	0.1	0	0.0	8	0.1
FANNIN	11	0.5	7	0.3	0	0.0	18	0.2
FAYETTE	2	0.1	0	0.0	0	0.0	2	0.0
FLOYD	21	0.9	2	0.1	0	0.0	23	0.3
FORSYTH	8	0.3	0	0.0	0	0.0	8	0.1
FRANKLIN	5	0.2	0	0.0	0	0.0	5	0.1
FULTON	7	0.3	0	0.0	0	0.0	7	0.1
GILMER	5	0.2	4	0.2	0	0.0	9	0.1
GLASCOCK	1	0.0	1	0.0	0	0.0	2	0.0
GLYNN	18	0.7	10	0.4	62	2.6	90	1.2
GORDON	1	0.0	1	0.0	0	0.0	2	0.0
GRADY	6	0.2	0	0.0	0	0.0	6	0.1
GREENE	2	0.1	5	0.2	0	0.0	7	0.1
GWINNET	16	0.7	6	0.2	0	0.0	22	0.3
HABERSHAM	2	0.1	11	0.5	0	0.0	13	0.2
HALL	36	1.5	9	0.4	0	0.0	45	0.6
HANCOCK	11	0.5	0	0.0	0	0.0	11	0.2
HARALSON	6	0.2	0	0.0	0	0.0	6	0.1
HARRIS	11	0.5	3	0.1	0	0.0	14	0.2
HART	8	0.3	0	0.0	0	0.0	8	0.1
HEARD	4	0.2	0	0.0	0	0.0	4	0.1
HENRY	12	0.5	0	0.0	0	0.0	12	0.2
HOUSTON	5	0.2	0	0.0	0	0.0	5	0.1
IRWIN	9	0.4	1	0.0	0	0.0	10	0.1
JACKSON	5	0.2	0	0.0	0	0.0	5	0.1
JASPER	10	0.4	3	0.1	0	0.0	13	0.2
JEFF DAVIS	7	0.3	4	0.2	0	0.0	11	0.2
JEFFERSON	8	0.3	1	0.0	0	0.0	9	0.1
JENKINS	2	0.1	0	0.0	0	0.0	2	0.0

TABLE VI-3 (cont.)

COUNTIES MOST POPULAR FOR FISHING
FISHERMEN ONLY

COUNTY	WARM FRESHWATER NO.	WARM FRESHWATER PCT	TROUT FISHING NO.	TROUT FISHING PCT	SALTWATER NO.	SALTWATER PCT	GRAND TOTALS NO.	GRAND TOTALS PCT
JOHNSON	8	0.3	0	0.0	0	0.0	8	0.1
JONES	8	0.3	0	0.0	0	0.0	8	0.1
LAMAR	9	0.4	0	0.0	0	0.0	9	0.1
LANIER	8	0.3	1	0.0	0	0.0	9	0.1
LAURENS	19	0.8	0	0.0	0	0.0	19	0.3
LEE	6	0.2	0	0.0	0	0.0	6	0.1
LIBERTY	9	0.4	4	0.2	7	0.3	20	0.3
LINCOLN	11	0.5	1	0.0	0	0.0	12	0.2
LONG	9	0.4	4	0.2	0	0.0	13	0.2
LOWNDES	24	1.0	6	0.2	0	0.0	30	0.4
LUMPKIN	1	0.0	6	0.2	0	0.0	7	0.1
MC DUFFIE	7	0.3	2	0.1	0	0.0	9	0.1
MC INTOSH	4	0.2	0	0.0	22	0.9	26	0.4
MACON	8	0.3	2	0.1	0	0.0	10	0.1
MADISON	2	0.1	0	0.0	0	0.0	2	0.0
MARION	8	0.3	0	0.0	0	0.0	8	0.1
MERIWETHER	7	0.3	0	0.0	0	0.0	7	0.1
MILLER	1	0.0	0	0.0	0	0.0	1	0.0
MITCHELL	3	0.1	2	0.1	0	0.0	5	0.1
MONROE	4	0.2	2	0.1	0	0.0	6	0.1
MONTGOMERY	8	0.3	0	0.0	0	0.0	8	0.1
MORGAN	4	0.2	0	0.0	0	0.0	4	0.1
MURRAY	5	0.2	5	0.2	0	0.0	10	0.1
MUSCOGEE	36	1.5	2	0.1	0	0.0	38	0.5
NEWTON	9	0.4	0	0.0	0	0.0	9	0.1
OCONEE	2	0.1	3	0.1	0	0.0	5	0.1
OGLETHORPE	4	0.2	0	0.0	0	0.0	4	0.1
PAULDING	6	0.2	0	0.0	0	0.0	6	0.1
PEACH	4	0.2	0	0.0	0	0.0	4	0.1
PICKENS	4	0.2	0	0.0	0	0.0	4	0.1
PIERCE	14	0.6	7	0.3	0	0.0	21	0.3
PIKE	5	0.2	0	0.0	0	0.0	5	0.1
POLK	6	0.2	1	0.0	0	0.0	7	0.1
PULASKI	3	0.1	1	0.0	0	0.0	4	0.1
PUTNAM	24	1.0	3	0.1	0	0.0	27	0.4
QUITMAN	5	0.2	1	0.0	0	0.0	6	0.1
RABUN	1	0.0	14	0.6	0	0.0	15	0.2
RANDOLPH	5	0.2	0	0.0	0	0.0	5	0.1
RICHMOND	20	0.8	0	0.0	0	0.0	20	0.3
ROCKDALE	3	0.1	1	0.0	0	0.0	4	0.1
SCHLEY	1	0.0	0	0.0	0	0.0	1	0.0
SCREVEN	10	0.4	5	0.2	0	0.0	15	0.2
SEMINOLE	8	0.3	4	0.2	0	0.0	12	0.2
SPALDING	17	0.7	2	0.1	0	0.0	19	0.3
STEPHENS	8	0.3	1	0.0	0	0.0	9	0.1
STEWART	10	0.4	1	0.0	0	0.0	11	0.2
SUMPTER	22	0.9	0	0.0	0	0.0	22	0.3
TALBOT	1	0.0	0	0.0	0	0.0	1	0.0
TALIAFERRO	0	0.0	1	0.0	0	0.0	1	0.0
TATTNALL	22	0.9	5	0.2	0	0.0	27	0.4
TAYLOR	8	0.3	0	0.0	0	0.0	8	0.1
TELFAIR	11	0.5	9	0.4	0	0.0	20	0.3
TERRELL	0	0.0	0	0.0	0	0.0	0	0.0
THOMAS	10	0.4	0	0.0	0	0.0	10	0.1
TIFT	16	0.7	3	0.1	0	0.0	19	0.3
TOOMBS	12	0.5	0	0.0	0	0.0	12	0.2
TOWNS	2	0.1	3	0.1	0	0.0	5	0.1
TREUTLEN	6	0.2	0	0.0	0	0.0	6	0.1
TROUP	15	0.6	1	0.0	0	0.0	16	0.2
TURNER	7	0.3	0	0.0	0	0.0	7	0.1
TWIGGS	1	0.0	0	0.0	0	0.0	1	0.0
UNION	2	0.1	9	0.4	0	0.0	11	0.2
UPSON	14	0.6	0	0.0	0	0.0	14	0.2
WALKER	7	0.3	0	0.0	0	0.0	7	0.1
WALTON	5	0.2	1	0.0	0	0.0	6	0.1
WARE	17	0.7	4	0.2	0	0.0	21	0.3
WARREN	2	0.1	0	0.0	0	0.0	2	0.0
WASHINGTON	9	0.4	3	0.1	0	0.0	12	0.2
WAYNE	23	1.0	3	0.1	0	0.0	26	0.4
WEBSTER	3	0.1	0	0.0	0	0.0	3	0.0
WHEELER	9	0.4	5	0.2	0	0.0	14	0.2
WHITE	3	0.1	10	0.4	0	0.0	13	0.2
WHITFIELD	24	1.0	3	0.1	0	0.0	27	0.4
WILCOX	7	0.3	7	0.3	0	0.0	14	0.2
WILKES	6	0.2	2	0.1	0	0.0	8	0.1
WILKINSON	9	0.4	0	0.0	0	0.0	9	0.1
WORTH	6	0.2	0	0.0	0	0.0	6	0.1
UNREPORTED	1005	41.7	2060	85.5	2240	92.9	5305	73.4
TOTALS	2410	100.0	2409	100.0	2410	100.0	7229	100.0

Source: *Statistical Summary*, Volume I, State Totals-48, Table 49I.

big game in the number of hunters reporting. Among the small game, dove were reported as third and rabbit hunting as fourth in number of hunters.

TABLE VI-4

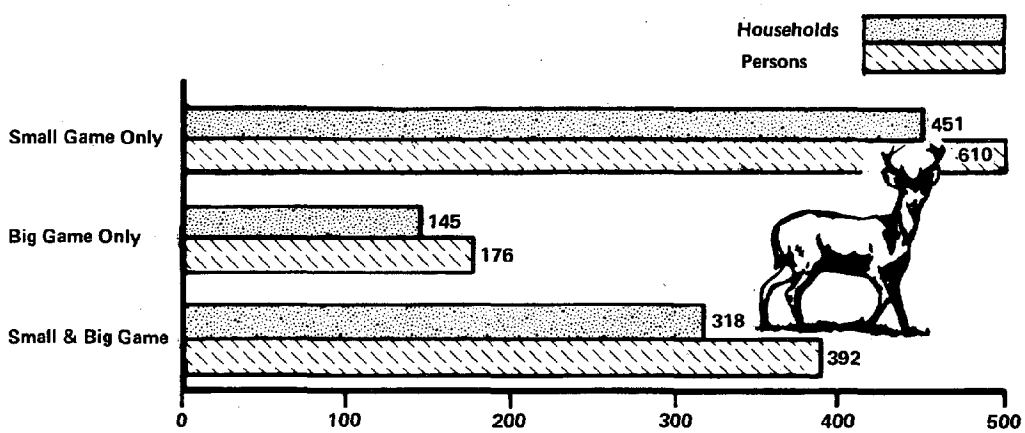
HUNTING ACTIVITY
AVERAGES PER HOUSEHOLD

	Sample Average	Reported Average	Number Reporting
Number Who Hunted	0.60	1.42	1,027
Miles Driven to Hunt	77.83	212.43	883
Lodging Cost (Dollars)	.55	38.97	34
Cost of Meals (Dollars)	2.62	27.56	229

Source: *Statistical Summary*, Volume I, State Totals-52, Table 51A.

FIGURE VI-12

HUNTERS BY SIZE OF GAME
HOUSEHOLDS AND PERSONS 1970



Source: *Statistical Summary*, Volume I, State Totals-52, Table 51F.

Deer hunters reported killing 148 deer, giving an average of 1.38 per household and of 0.24 for all reporting deer hunters.

Tables showing the counties which were most often hunted for various small and big game are too large to reproduce in this report; con-

sequently, the reader is referred to Table 51H of the Statistical Summary, Volume I, State Totals-53.

18. RECREATION PLANS FOR THE COMING YEAR

The respondents were asked to estimate their activity in 24 different recreation categories for the year 1971. Tabulation of these responses is in Table 52 of the Statistical Summary, Volume I, State Totals-61. For each of the designated 24 activities the major number of respondents indicated that they planned no significant increase in activity. However, a significant number reported that they planned to increase their fishing activity, swimming activity, picnicking, boating, and hunting activity. Relatively few people in the overall picture indicated that they planned any decrease in these 24 outdoor recreation activities. The implications of the data contained in this table are significant with respect to the planning effort for future facilities.

19. WILLINGNESS TO TRAVEL FOR RECREATION

Detailed information obtained from the respondents relative to their willingness to travel in order to engage in 48 specific recreation activities is significant. This information is contained in Table 53 of the Statistical Summary, Volume I, State Totals-62, and is much too comprehensive to reproduce in this summary report. Definite patterns of the willingness of persons to travel to participate in various activities are apparent from the table. For example, the majority of the persons reporting their willingness to travel to visit a zoo state that they are willing to travel up to 100 miles. The majority of those who said they would travel for sightseeing were willing to travel more than 100 miles. Those reporting travel for saltwater fishing and boating are willing to travel more than 250 miles. Most persons interested in model plane flying would go only to an area within walking distance of their homes. The same is true of biking. Very few people are willing to travel more than 51 miles for archery or target shooting or trap and skeet. On the other hand, most people seem desirous of traveling a great distance for camping.

20. STATISTICAL ANALYSIS

The information in Table VI-5 shows the degree of relationship between annual activity occasions and socioeconomic variables.

B. STATEWIDE ANALYSIS OF SELECTED FACTORS

The population of Georgia was sampled for data on outdoor recreational experiences, participation, socioeconomic characteristics (such as income, age, education, mobility), vacation, travel, expenditures, and many other factors. From this sample are attained the actions, desires, opinions, spending patterns, etc., of the total state population in the year 1970.

TABLE VI-5

STATISTICAL ANALYSIS OF TOTAL ANNUAL ACTIVITY PARTICIPATION FOR HEAD OF SAMPLE UNIT AS A FUNCTION OF CERTAIN OTHER VARIABLES

Independent Variables	Coefficient of Correlation (1)	Coefficient of Determination (2)	Degrees of Freedom (3)	Computed t Value	Level of Significance (4)
1. Length of Residence	-.1364	.0186	2,373	-6.7060	.99
2. Length of Vacation	.1523	.0232	2,407	7.5600	.99
3. Income	.1433	.0205	2,040	6.5385	.99
4. Age	-.1243	.0155	2,387	-6.1184	.99
5. Education	.2174	.0473	2,349	10.7949	.99
6. Hours Worked per Week	-.0365	.0013	1,851	-1.5717	.90
7. Holidays	.0501	.0025	1,612	2.0147	.95
8. Average Hours per Weekend	.1622	.0263	1,909	7.1842	.99
9. Average Hours per Weekday	.0255	.0007	1,822	1.0889	.70
10. Equipment Expenditure	.0632	.0040	2,407	3.1077	.99
11. Vacation Expenditure	.1776	.0315	2,407	8.8518	.99
12. Vacation Daily Expenditure	.1216	.0148	2,407	6.0082	.99
13. Number of Types of Activities	.5679	.3225	2,407	33.8483	.99

Source: *Statistical Summary*, Volume III, State Totals-1, Table 54.

Notes: (1) The coefficient of correlation is the measure of covariability (degree of association) between the two variables. (2) Hypothesis: That the independent variables explain the participation in all outdoor recreation of the respondents. (3) Degrees of freedom = N — 2, where N = the number of valid cases. (4) Indicates the probability that the coefficient of correlation shown did *not* come from a population whose coefficient of correlation is zero. For example, for the independent variable, "length of residence," with a coefficient of correlation of —0.1364 and a "t" value of —6.7060 and 2,373 degrees of freedom, the probability is *almost certainty* that there is some degree of association between "length of residence" and annual activity participation.

These data are highly significant when applied to the whole population on a state level, and they are acceptable on a regional level. Statewide data are given in detail in Volume I of the Statistical Summary. The most important factors are presented here, and some of the information summarized in section A of this chapter is discussed more fully in this section, with specifics based on the total reporting on the particular category.

21. WORKING HOURS

Hours Worked

Georgians work an average of 45 hours a week. The range from region to region is 42.4 to 46.9 hours. The median (the number above which and below which there was an equal number of responses) and the mode (the answer given most frequently) for the state and for most of the regions is 40 hours per week. The difference between these two measures and the average is accounted for by the fact that many people work long hours (including moonlighting) and/or overtime.

Hours Considered Reasonable

Respondents consider a 42.4 hour work week reasonable. Again, the median and the mode in the state and most regions are 40 hours.

22. LEISURE TIME

a. Vacations

The average number of vacation (working) days received, as reported by husbands, is 12.6, with regional variation ranging from 8.8 in Region 6 to 17.1 days in Region 14.* The number of days most frequently given is 10 in the state and most of the regions. The median for the state and regions is also 10 days except for Region 6 (7 days) and Region 15 (12.5 days).

Georgians' desires differ somewhat from their vacation experience. They prefer (on average) 14 days vacation, ranging from 11.1 in Region 5 to 17.8 in Region 15, though the largest number of respondents specify 10 (working) days. The median and the mode in the regions vary from 5 to 15 days.

b. Holidays

For the state and most regions the median number of holidays is 5.0 (two regions reported 4 days and two reported 6 days). Five holidays is the most frequently given number for the state and all regions except

*Regional data in this volume refer to the regional boundaries existing before the reorganization effective July 1, 1972.

one (4 days). Statewide, the average number of holidays is 5.7, and regions vary from 4.6 to 7.5.

c. Weekends

The average number of weekend leisure hours available is 25.8 hours, ranging in the regions from 17.5 to 28.9. The most frequently given answer is 32 hours. This was true for all regions except Region 2 (North Georgia)--16 hours. The median for most regions and the state is 32.

d. Weekdays

During the week (Monday through Thursday) the average number of leisure hours available per day is 3.8 for the state, and from 3.4 to 4 hours for the regions. The mode and median are 4 for the state and all regions.

23. VACATION HOMES

One hundred and eighty-six vacation homes are owned by respondents. The largest number of owners (43) are in the $10,000-14,999 income bracket, but there were 82 owners with incomes less than $10,000.

a. Environment

Environmental location is designated for 150 of the vacation homes: 29 percent (43) are at the seashore, 26 percent (39) in the mountains, and 45 percent (68) in the flatlands. Respondents' preferences differ somewhat from their experience: 40 percent prefer the seashore, 38 percent the mountains, and 22 percent flatlands. With a few exceptions in the regions (Region 11 has 50 preferences for flatland vacation homes out of 118 reporting), the flatlands are the least preferred area.

b. Type Structure

Of the 153 vacation homes for which type of structure is known, 97 are permanent structures built on the site; 20 are movable mobile homes; and 15 are mobile homes on foundations.

As to the type structure considered suitable, 958 (or 57 percent) of the 1,669 reporting feel a permanent home built on the site is more suitable, 290 prefer a movable mobile home, 166 a camper or tent trailer, and 107 a mobile home on a foundation.

c. Value

The value of home and land is available for 146 of the vacation homes. More than half (86) are valued at less than $10,000 (48 are less than $5,000). Nearly one-fourth (23 percent) are in the $15,000 and over class. Residents of the Atlanta Metropolitan Region have the most expensive vacation homes, and the regions with sizable urban centers are generally willing to pay more for vacation homes.

d. Location

Data on location is given for 140 of the homes. Ninety-eight, or 70 percent, of them are in Georgia; and 22, or 16 percent, are in Florida; 8 are in Alabama. There is some tendency for residents of regions bordering other states to have their vacation homes in those states: e.g., residents in the Coastal Plain (Region 17) own homes in Florida and the Lower Chattahoochee (Region 15) in Alabama. The most varied answers come from the Atlanta Metropolitan Region (with one or more homes in Florida, North Carolina, Alabama, Georgia, and "other" areas) and from the Lower Chattahoochee Region (homes in Georgia, Florida, Alabama, Rocky Mountains, and "other").

e. Recreation Development

Of the 150 specific answers in this category, 90 (60 percent) state their vacation homes are in an area developed for recreation. Definite preferences are given by 1,636 responding units: 1,034 (or 63 percent) prefer a developed area. A larger portion of the residents of Metropolitan Atlanta (Region 4) and of the Lower Chattahoochee (Region 15) than of other regions prefer vacation homes in undeveloped areas.

f. Facilities Available and Desired

Respondents rated the recreation facilities available at or near their vacation homes. A weighted tabulation shows freshwater (warmwater) fishing as the most highly rated, followed by swimming facilities (salt or fresh), boat ramps or docks, and less closely by other facilities.

The facilities desired followed the same order for first and second place, but scenic views were rated third.

When existing facilities and desired ones are combined (and weighted), a similar order of preference emerges:

1. freshwater (warmwater) fishing
2. swimming facilities (salt or fresh)
3. scenic views
4. saltwater fishing
5. freshwater (trout stream) fishing
6. small game hunting areas
7. boat ramps or docks

Fishing, swimming, and scenic views lead in preference in most of the regions. Small game hunting is especially popular in the Heart of Georgia Region (12).

24. ANNUAL ACTIVITY OCCASION PARTICIPATION

a. Types of Activity

Driving for pleasure is the most popular outdoor recreation activity

for Georgia adults. They participate in this activity an average of 22.92 occasions (one half hour or more equals an "occasion") a year. The next ten most often engaged in are: sightseeing (11.15 activity occasions); nature walking in rural areas (10.62); walking for pleasure in urban areas (9.06); fishing--warmwater, fresh or salt (8.22); swimming and wading (8.14); playing outdoor games (6.31); boating (5.05); watching outdoor games (4.89); and bird watching, bird and wildlife photography (4.70). (See Figure VI-6.)

Facilities for these activities generally are available and in most cases are relatively inexpensive. The southern climate is also conducive to these types of recreation.

There are some variations by regions. Residents in the Atlanta and Columbus regions walk for pleasure (in the urban area) more often than any other outdoor recreation activity. Driving ranks second, and playing outdoor games third. Sightseeing is the preferred activity in the Heart of Georgia Region, followed closely by pleasure driving (a closely related venture). In the Georgia Mountain region, nature walking is first.

Both men and women participate in pleasure driving more than any other type of outdoor recreation, but second place goes to fishing (warmwater, fresh or salt) with men and sightseeing with women. In third place for men is sightseeing and for women is nature walking in rural areas.

Bicycling is the favorite with children, playing outdoor games is second, and pleasure driving third.

b. Types by Income

For adults swimming is more popular in the $10 to $25 thousand income level than in lower or higher levels. Bird watching and bird and wildlife photography and golf increase as incomes grow larger. Sightseeing is popular with all income levels, but pleasure driving tends to drop off as income gets to the $25,000 level.

c. Types by Age of Head of Household (Adults)

Swimming appeals to the younger adults, walking (rural or urban) is popular for all age groups, and sightseeing declines at age 70, as does driving for pleasure, though the latter still leads as the primary recreation activity for age 70 and over.

d. Types by Education (Head of Household)

Fishing activity increases as number of years of education increase; bird watching and wildlife photography and golf are particularly associated with longer educational training; sightseeing also tends to increase with more years of education. Amount of education appears to have little influence on pleasure driving.

e. Types by Occupation (Head of Household)

All occupations enjoy warmwater fishing. Sightseeing and pleasure driving are also popular with all occupational categories. Professional people joined farmers and others living in rural areas in citing nature walking in rural areas as significant (in urban areas, also, for professional people).

25. VACATIONS

a. Number (Taken and Planned)

Nearly half (45 percent) of the heads of households who reported had 1 vacation during 1970, 17 percent had two vacations, and 26 percent had no vacation. More people planned to take one and two vacations during 1971.

b. Types

The most common family vacation in the state during 1970 was staying home. (The "vacation" at home applies especially to the Coastal Plains.) Other types, in order of occurrence, were visiting friends/relatives out of state, traveling in neighbor states, taking short trips, vacationing in Georgia, and traveling in other states.

Except for the fact that fewer people preferred to stay at home in 1971, the same types of family vacations were desired for 1971, though not quite in the same order of the 1970 experience.

Top preferences for 1971 were, first, meeting out-of-state friends and relatives and, second, traveling in other states. Most Georgians showed no preference for visiting exotic, faraway places.

c. Recreation Activities

Georgians spent more vacation time, by far, in 1970 sightseeing than any other recreation activity. Swimming ranked second, and fishing (warmwater) was third.

d. Longest Trip

The number of days spent on their longest vacation trip was given by 1,541 respondents. Just over half had trips of from 1 to 5 days; 31 percent spent 6 to 10 days on their longest trip.

The 1970 vacationing Georgia family, as reported, traveled an average of 608.1 miles on its longest trip, though more people reported the 251 to 500 mile range than any other. The majority of the vacations were from 51 to 1,000 miles long.

e. Expenditures per Day

Georgia families (and nonfamily units) spent an average of $31.78

per day on their 1970 vacation (based on those reporting). Family units spent $30.90 and nonfamily units $41.64 (an average of $10.74 more per day).

A larger number reported spending $10 or less than any other expenditure range. As the range of daily expenditures increases, the number of families so reporting decreases.

f. Purpose

The primary purpose of vacation was pleasure and recreation. A small minority combined some business, sometimes attending conventions.

g. Place Visited

More Georgians took vacations within their own state than any other, but Georgia was followed closely by Florida and less closely by Tennessee, North Carolina, Alabama, and South Carolina, in that order.

h. Prevention and/or Satisfaction Factors

The biggest complaint that husband, wives, and children have about their vacations is that there isn't enough time. Single adults find lack of funds to be their main hindrance (23.2 percent). The percentages of people satisfied with their vacations are 12.8 percent of the wives; 13 percent, husbands; 15.5 percent, children; and 19.4 percent, single adults. The least important factor for all is "prefer urban culture," with percentages from .5 to .9 percent.

The highest percent of satisfaction of husbands (23.7 percent) is in the same region (Heart of Georgia) as the highest percent of dissatisfaction (6.3 percent). The two main factors of dissatisfaction in each region are lack of time and lack of money. Others are: age or health, range of 6.8 to 15.2 percent; visited relatives, 2.5 to 12.3 percent; children too young, 3.1 to 10.7 percent; areas too crowded, 0.4 to 9.1 percent; prefer indoors, 0.0 to 4.2 percent; and prefer urban culture, 0.0 to 2.6 percent. No regional pattern emerges: satisfaction or dissatisfaction appears to be an individual thing.

26. RECREATION EXPENDITURES

a. Investment in Equipment

Georgians have invested an average of $14,378.25 in recreation equipment, nearly $12,000 of this privately (for use on land and water). The largest number of persons (1,430) reported some investment in fishing equipment, the average amount being $102.08; and the next largest, 1,369 persons, in hunting equipment, averaging $273.53.

b. Variable Expenses

Commercial transportation expenses (air, bus, taxis, rentals, etc.)

are the highest of "variable" expenses connected with vacations (use of private vehicles not included), averaging $297.23 for those reporting. Lodging costs are second, $120.30, and food-refreshments third, $109.63. More people reported expenses for food-refreshment (1,217) and hunting, fishing, and boat licensing (1,068) than for other categories--probably because use of private vehicles is by far the major mode of transportation for vacation. The average reported for all "variable" expenses (as defined above) is $636.08.

c. Additional Funds

Respondents indicated their choices of means of providing additional funds for outdoor recreation largely as follows: 28.6 percent favor user fees; 25.2 percent, state park permits; 20.5 percent, Federal Golden Eagle passports; and 13.9 percent, state tax revenues. When asked whether they would be willing to pay additional license fees, 69.3 percent of those responding said "no" for fishing, 71.6 percent for hunting, and 81.3 percent for additional bow and arrow license fees.

27. BOATING

a. Ownership

Three-fourths of those reporting said they do not boat, about one-fifth own a boat, and other boat users rent them. The majority of boats owned have motors of 10 or more horsepower, they are not cabin boats, and they usually have outboard motors.

In the regions, the Heart of Georgia has the highest percentage of boat owners. The three areas with little boating and few owned boats are the McIntosh Trail, Chattahoochee-Flint, and North Georgia regions.

b. Use

Boatowners use their boats an average of 30 times a year and require 107 gallons of fuel (usually purchased at auto service stations). The boats are usually kept at home and are used primarily for fishing in fresh water and secondarily for pleasure.

c. Use of Marine Fuel Tax

The largest number of those reporting (1,778 out of 8.970) feel the marine fuel tax should be used for boating safety programs rather than other programs; next in preference is building boat ramps and docks, followed by improving wildlife habitats and the building of highways and bridges.

28. HUNTING AND FISHING

a. Information

Information on hunting and fishing regulations is disseminated

primarily by word-of-mouth, next by newspaper, then by television. Other media are Game and Fish Commission publications, sports publications, and radio.

Use of hunting and fishing license fees for TV programs is preferred by those reporting. Use for Game and Fish publications and exhibits (fairs, sports shows) is next in preference. Nine out of ten hunters and fishermen are not members of a sportsmen's group.

b. Improvements

Suggestions for improvements needed in hunting and fishing conditions include primarily (in order given): more public areas, improvement in law enforcement, improved facilities--increased stocking, and improved habitat.

c. Fishing

The average fishing household has 2.2 members who fish, they drive 344.9 miles to fish, their lodging costs $73.40, and their meals cost $46.90. Nearly one-third planned to buy a fishing license next season. The main reasons for planning no fishing next year are, first, lack of interest and, second, lack of leisure time.

The 1970 and the preferred experience is fishing in small lakes (6-49 acres). Easy driving distance is the principal attraction of a fishing area, but "size and numbers" and "good access to water" are almost as important.

Bass fishing is the preference for freshwater and snapper for saltwater.

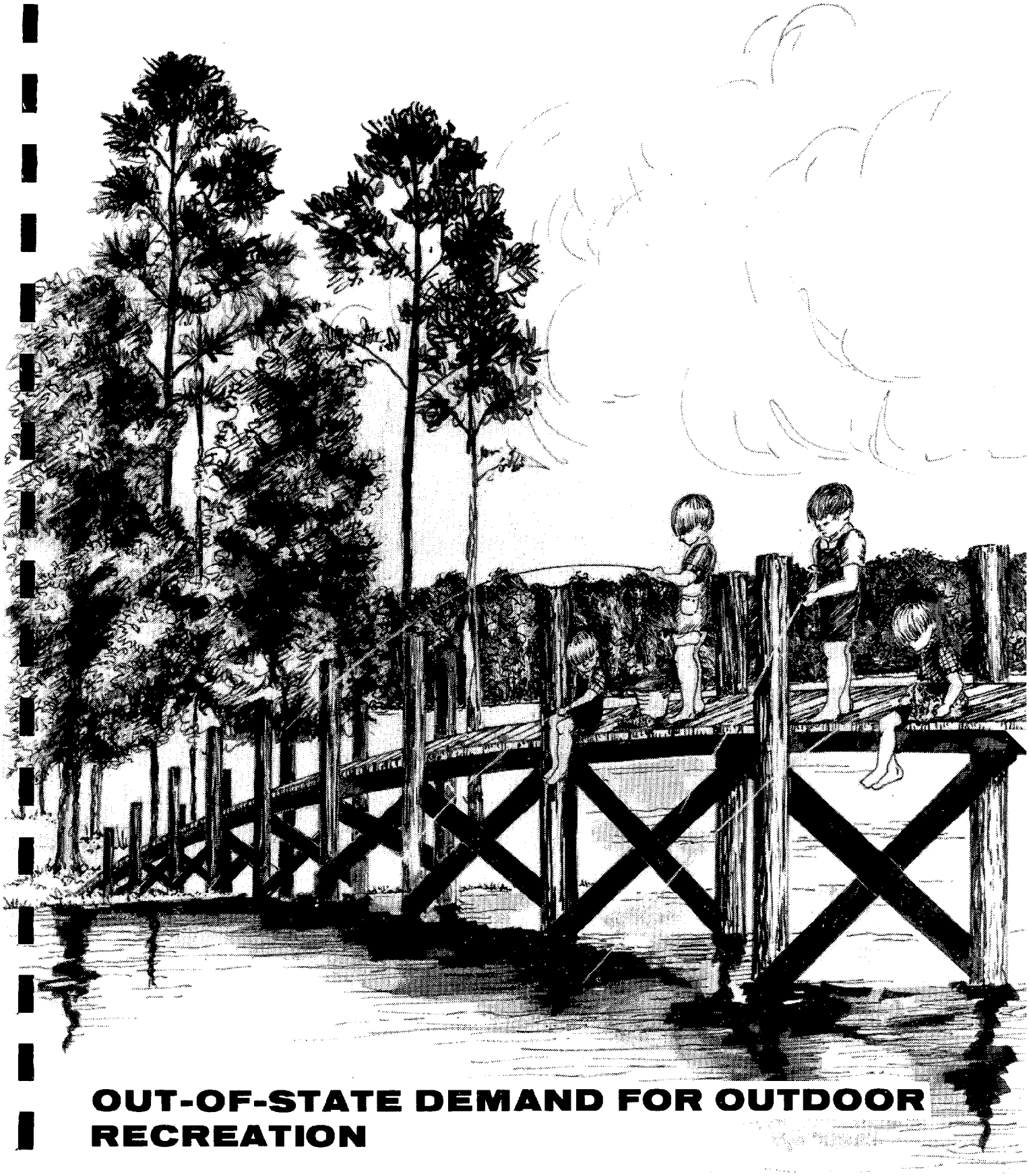
d. Hunting

The average hunter household has 1.42 members who hunt, drives 212 miles, pays $39 for lodging and $28 for meals.

Four out of five Georgia hunters go out for small game: primarily squirrel, quail, doves, and rabbit, in that order; and more than four out of five of the big game hunters are deer hunters. The average kill per household is 1.38 (per hunter is 0.24).

Crisp, Coffee, Dodge, and Sumter counties are particularly popular hunting grounds for doves; Berrien, Coffee, Crisp, and Dodge for quail; Cherokee, Coffee, Crisp, Dodge, Glynn, Liberty, and Lowndes for squirrels; and Coffee County for ducks. The principal deer counties are Baldwin, Brooks, Camden, Chattahoochee, Echols, Jasper, Jones, Liberty, McIntosh, and Monroe. Some rabbits are hunted in most of Georgia's counties.

For all hunting, the leading counties are Coffee and Crisp.



OUT-OF-STATE DEMAND FOR OUTDOOR RECREATION

CHAPTER VII

CHAPTER VII

OUT-OF-STATE DEMAND FOR OUTDOOR RECREATION

A. INTRODUCTION

As an industrial society becomes more prosperous, its population becomes increasingly mobile. Rising incomes, longer leisure time, and higher educational levels make possible increases in entertainment, recreation, and travel activity.

In recent years, primarily because of its geographical location, Georgia has become known to travelers as a "pass-through" or "bridge" state. This was not always true, as Georgia was once well-known for its winter and summer resort areas. But with the increased use of the private automobile, vacation/recreation patterns changed, and the resort hotels which were once so popular in the area began losing much of their appeal; and, although at present the number of travelers on Georgia highways has increased tremendously, most are merely passing through the state on the way to other destinations, particularly Florida.

Along with this shift in vacation/recreation patterns came a corresponding and discouraging shift in attitude by Georgians towards highway travelers. Fortunately, this situation has eased somewhat in the past decade, even as the total number of highway users continues to climb. Statewide road resurfacing and widening programs, educational and courtesy campaigns, and the establishment of a series of Welcome Centers on major highways have resulted in dramatic improvements in resident-traveler relations.

While these developments assisted the state in reclaiming its traditional reputation for hospitable treatment of visitors, the construction of the interstate highway system in Georgia added new dimensions to the basic problem of a pass-through state. The interstate system tends to isolate travelers even further from the areas through which they are passing. To cope with this new problem and to expand its share of the travel market, Georgia has set about pursuing two major objectives: (1) the creation and development of travel attractions to serve the needs of those travelers who are, in fact, only passing through the state, and (2) the establishment of new attractive destination areas in Georgia. Attainment of these two objectives is imperative if the state is to take full advantage of the increasing amount of vacation/recreation travel on its highways and alter its image as a pass-through state. Added attractions are needed so that even those travelers having an ultimate objective outside of the state can experience something meaningful while in Georgia, and additional final destination areas are necessary to capture a larger share of vacationers.

B. HOW TRAVEL ESTIMATES ARE COMPUTED

For a number of reasons the original raw data collected in 1960-1961, when the Tourist Division of the Georgia Department of Industry and Trade and the Georgia Highway Department underwrote the first survey of tourism, could not be assumed to constitute a representative sample of total annual traffic in the state. In the conduct of that survey, interview stations were selected to collect the data by means of a combination of state-line screens, cordons around major metropolitan areas, and internal screen lines. Yet, even if these stations could have been assumed to be located so that traffic passing through them constituted a representative sample of total traffic, practical problems involving bad weather and scheduling difficulties prevented individual stations from being operated continually at the most desirable times. The data obtained were in terms of individual recreation trips. Obviously, some means of relating these trips to a significant measure of total traffic in the state during the period under study had to be devised. The measure finally chosen was vehicle miles and, since total vehicle miles of travel in Georgia had been estimated with considerable accuracy by the State Highway Department, the problem became one of determining the portion of those vehicle miles to be attributed to recreational travel.

The roads chosen for the interview stations in the original survey had been classified into three distinct categories, and these classifications were used in attempting to overcome the problem of nonrepresentativeness of the sample: (1) roads used primarily by pass-through traffic to Florida; (2) principal east-west routes which carried the majority of Florida interstate traffic; (3) roads which were primarily intrastate traffic routes. Working with traffic flow maps furnished by the Georgia State Highway Department, detailed estimates of seasonal and annual total vehicle miles were made for each of these road categories. At the same time, the characteristics of the traffic using each category of road were determined through an analysis of data obtained from the stations located on that type of road and in each case were assigned to the vehicle miles represented in the category. Through detailed origin and destination analysis, the average length in miles of the vehicle trips was determined separately for nonrecreation trips and for recreation trips of four major types. Finally, it was possible to make an allocation of total vehicle miles in each category of roads among the various types of trips known to have been taken on that category of roads.

Since the original survey, subsequent estimates have been made of the volume and economic importance of vacation/recreation travel in Georgia and, while the basic format of the original survey is still used, the scope of the study has been expanded. Additionally, as other data became available and improved techniques of measurement were devised, figures for earlier years were revised to assure their comparability with the more current estimates. By the use of these procedures, and following the 1960-1961 methodology, yearly estimates of travel volume were made for 1962-1964. However, tabulations of Welcome Center data for 1965 confirmed changes in both length of time and expenditures while in Georgia, and the

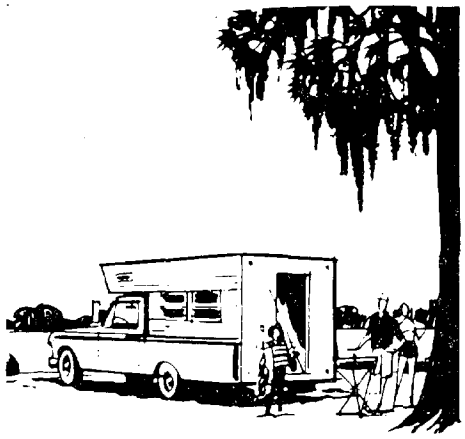
1965 estimates were based on these new characteristics. As larger sections of the interstate opened, traffic patterns also changed in the state. Trips for 1965-1966 were thus later adjusted according to the new methods applied to 1967-1968 estimates, and, again, data prior to 1965 were revised. Findings from permanent highway counters maintained by the State Highway Department were analyzed in 1969 for significant changes in data from 1960 through 1968.*

Vacation/recreation travel in Georgia almost doubled between 1960-1968. In 1968, thirteen million automobile trips, involving thirty-nine million travelers, were taken by private automobiles on Georgia highways--approximately 82 percent above the 1960-1961 estimate (Table VII-1).

In 1968, out-of-state visitors accounted for 47.5 percent of all vacation/recreation trips on Georgia highways and 54 percent of the travel expenditures. Georgia residents accounted for the remaining 52.5 percent of the trips, but their expenditures were less.

Since 1962, almost 8 million travelers have visited Georgia Welcome Centers (to be discussed later), with 2.6 million visits recorded in 1969. Residents of other southeastern states account for the greatest number of visits at most centers. However, the primary motivation for using the state's highways is the necessity of passing through Georgia to reach an ultimate destination in another state. Of those who remain in Georgia, a typical Welcome Center visitor stays two days, with visits to historical or scenic places in the state the primary travel activity. The Atlanta area is the most popular specific place, followed by coastal Georgia.

Destinations of the travelers, however, differed. Georgia residents spent most of their vacation/recreation time in the state. See Table VII-2. Only 13 percent of the trips by Georgians were for an out-of-state destination. This further confirms the fact that Georgia remains essentially a pass-through area for nonresidents.



*Except for Foreign Travel (Section H), information in this chapter is from The Georgia Travel Industry 1960-1968 and Georgia Welcome Center Research Report, Division of Research, College of Business Administration, University of Georgia.

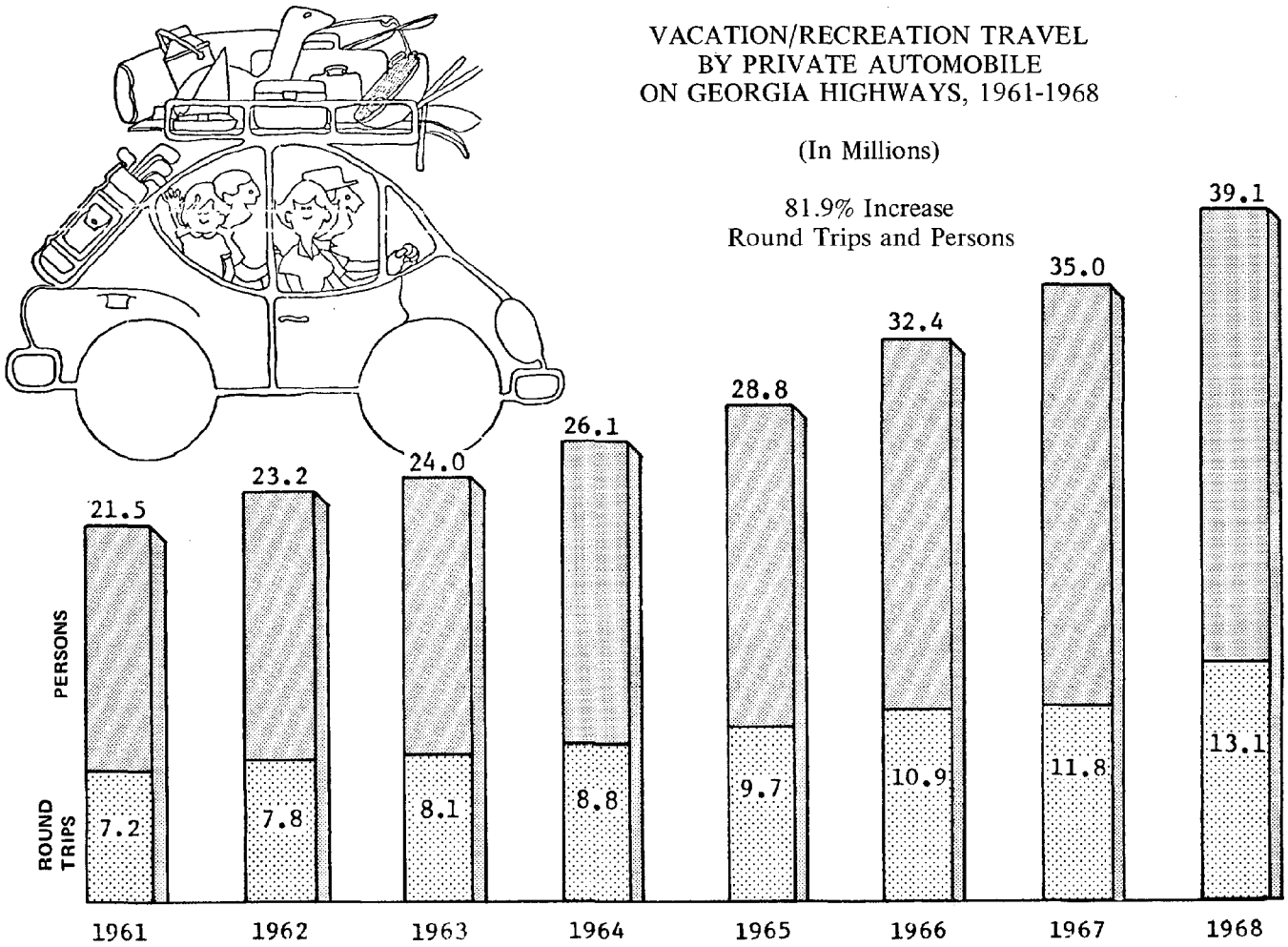
FIGURE VII-1

VACATION/RECREATION TRAVEL BY PRIVATE AUTOMOBILE
ON GEORGIA HIGHWAYS, 1961-1968

(In Millions)

	1961	1962	1963	1964	1965	1966	1967	1968	% Increase 1961-68
Round trips	7.2	7.8	8.1	8.8	9.7	10.9	11.8	13.1	81.9
Persons	21.5	23.2	24.0	26.1	28.8	32.4	35.0	39.1	81.9

Source: *The Georgia Travel Industry 1960-1968*, Travel Research Study, Number 11, 1969, Division of Research, College of Business Administration, University of Georgia.



C. CHARACTERISTICS OF VACATION/RECREATION TRAVELERS ON GEORGIA HIGHWAYS

The general home regions of all vacation/recreation travelers in Georgia are given in Tables VII-2 and VII-3. (Also, see Figure VII-2.) Because of its importance, Florida is presented separately, both as an origin and as a destination.

Regardless of destination, the most important states in Georgia's highway travel are Florida, New York, Ohio, Illinois, Tennessee, Pennsylvania, Michigan, and New Jersey. Furthermore, the states producing the most travelers with Georgia destinations are Florida, Alabama, Tennessee, South Carolina, North Carolina, Ohio, and Illinois.

D. GROWTH OF THE TRAVEL INDUSTRY IN GEORGIA

For data-gathering purposes, the Georgia travel industry was defined as consisting of "the types of business that serve the traveling public either principally or with great frequency and thereby receive the greater part of the traveler's dollar." Three kinds of business were grouped as the travel industry:

--firms providing lodging, eating and drinking, and entertainment services to the traveling public (hotels, motels, tourist courts, trailer parks, camp grounds, and all other lodging establishments except those with permanent residents; restaurants, cafeterias, cafes, lunch counters, night clubs, bars and other eating and drinking establishments; and amusement and recreation firms except motion picture).

--firms providing automotive services to the traveling public (automobile service stations; repair shops; garages; parking lots; and tire, battery and accessory dealers).

--firms providing transportation services to that part of the public which travels other than by private automobile (train, bus, airline, and steamship companies; limousine and taxi companies; travel bureaus; and automotive rental agencies).

Beginning with the 1960-61 travel survey, economic estimates have been made annually for the lodging, eating and drinking, entertainment, and automotive services sectors of the Georgia travel industry. Estimates for common carriers and related firms have not been developed. To that extent the economic importance of the travel industry in Georgia is understated in the tables that follow (VII-4 through VII-7). By any measure, the travel industry is of tremendous and growing importance to the economy of Georgia.

Travel-servicing businesses (Table VII-4) showed the addition of 4,000 firms since the initial travel survey of 1960-61, an increase of 25 percent

TABLE VII-1

ORIGIN AND DESTINATION OF VACATION/RECREATION TRAVELERS ON GEORGIA HIGHWAYS
Trips and Persons by Major Origin and Destination 1961-1967

	Georgia Residents With Destinations		Georgia Residents With Destinations		All Travelers
	In Georgia	Out-of-State	In Georgia	Out-of-State	
TRIPS:					
1961	3,328,300	506,700	336,900	3,031,200	7,203,100
1962	3,574,800	546,300	362,600	3,319,400	7,803,100
1963	3,678,000	562,400	373,200	3,455,800	8,069,400
1964	3,944,100	601,500	398,400	3,841,600	8,785,600
1965	4,311,500	657,000	439,000	4,296,500	9,704,000
1966	5,195,300	725,500	453,500	4,557,300	10,933,600
1967	5,407,700	755,700	524,400	5,141,800	11,829,600
1968	6,019,700	879,600	720,300	5,521,900	13,141,500
PERSONS:					
1961	10,441,400	1,588,400	1,032,600	8,444,000	21,506,400
1962	11,215,200	1,713,700	1,110,300	9,161,400	23,200,600
1963	11,529,100	1,762,500	1,141,400	9,523,300	23,956,300
1964	12,389,000	1,887,000	1,219,900	10,580,100	26,076,000
1965	13,538,100	2,063,000	1,343,300	11,368,300	28,802,700
1966	16,261,300	2,269,800	1,378,600	12,487,000	32,396,700
1967	16,926,100	2,357,800	1,594,200	14,088,500	34,966,600

Source: *The Georgia Travel Industry 1960-1968*, Travel Research Study, Number 11, 1969, Division of Research, College of Business Administration, University of Georgia.

TABLE VII-2

ORIGIN AND DESTINATION OF VACATION/RECREATION TRAVELERS ON GEORGIA HIGHWAYS
Percentage Distribution of Destinations of Travelers
from Selected States and Regions, 1961

Home of Traveler	Destination of Travelers			
	Georgia	Florida	Other States	All Destinations
Georgia	86.8%	6.8%	6.4%	100.0%
Florida	14.8		85.2	100.0
Other Southeast	22.4	62.9	14.7	100.0
Mid-East	3.5	93.5	3.0	100.0
New England	2.0	94.7	3.3	100.0
Great Lakes	6.2	92.8	1.0	100.0
Plains	9.5	82.4	8.1	100.0
Southwest	22.4	25.3	52.3	100.0
Rocky Mountains	24.4	61.4	14.2	100.0
Far West	24.6	38.6	36.8	100.0
Canada and Other Foreign Countries	2.3	96.6	1.1	100.0
Total	53.4	34.1	12.5	100.0

Source: *The Georgia Travel Industry 1960-1968*, Travel Research Study, Number 11, 1969, Division of Research, College of Business Administration, University of Georgia.

TABLE VII-3

ORIGIN AND DESTINATION OF VACATION/RECREATION TRAVELERS ON GEORGIA HIGHWAYS
Percentage Distribution of Origins of Travelers
from Selected States and Regions Classified by Major Destination, 1961

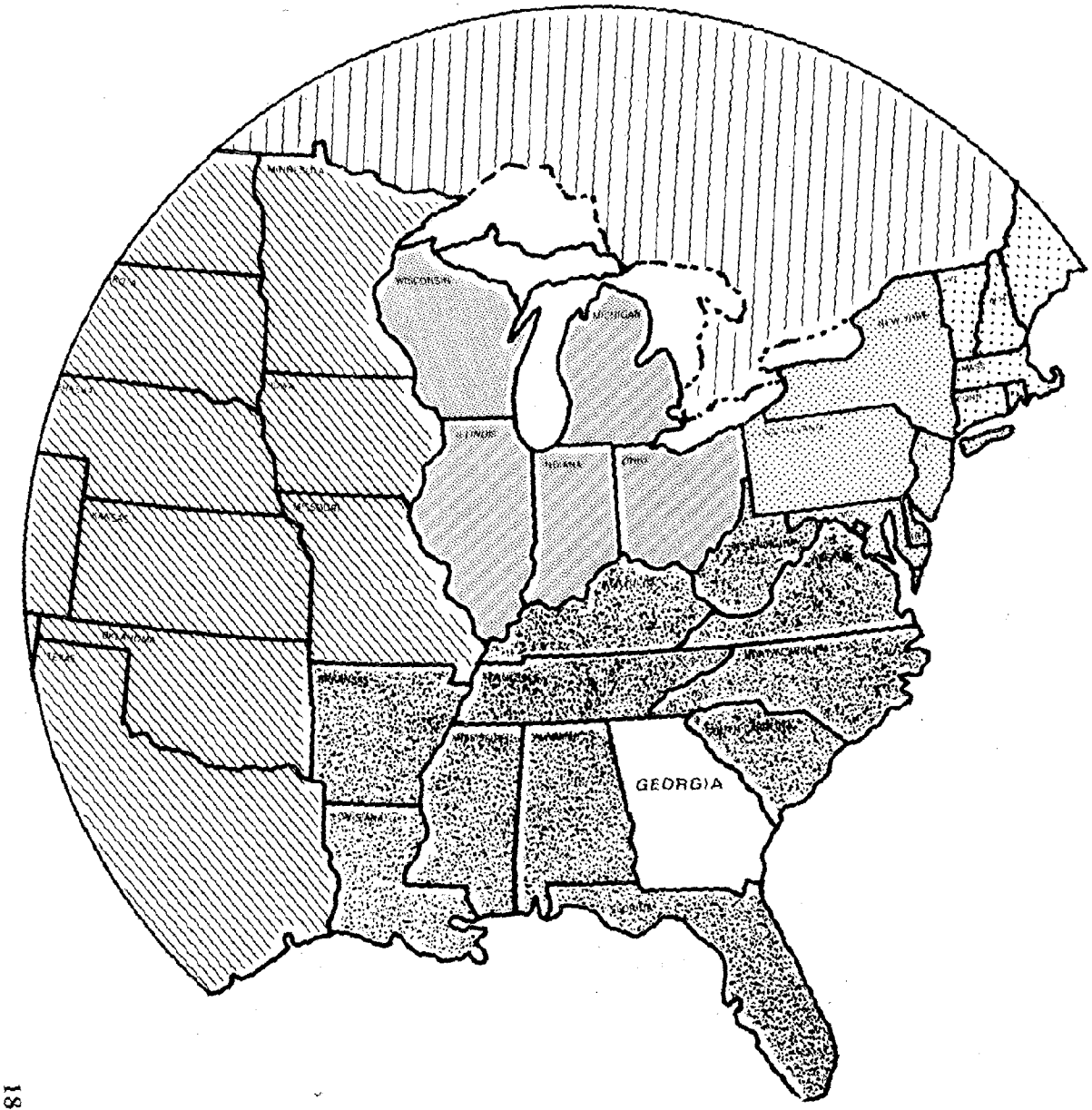
Home	Destination of Travelers			
	Georgia	Florida	Other States	All Destinations
Georgia	91.0	11.2	28.5	55.9
Florida	2.1		51.5	7.6
Other Southeast	4.2	18.6	11.7	10.1
Mid-East	.7	28.3	2.4	10.3
New England	.1	6.3	.6	2.3
Great Lakes	1.3	29.7	.9	10.9
Plains	.2	2.2	.6	.9
Southwest	.3	.5	2.8	.7
Rocky Mountains	*	.2	.1	.1
Far West	.1	.3	.8	.3
Canada, Other Foreign Countries	*	2.7	.1	.9
Total	100.0%	100.0%	100.0%	100.0%

Source: *The Georgia Travel Industry 1960-1968*, Travel Research Study, Number 11, 1969, Division of Research, College of Business Administration, University of Georgia.

*Less than one tenth of one percent.

FIGURE VII-2

ORIGIN AND DESTINATION OF VACATION/RECREATION TRAVELERS ON GEORGIA HIGHWAYS
1967



KEY TO REGIONS

- SOUTHEAST
- MID-EAST
- NEW ENGLAND
- GREAT LAKES
- OTHER STATES
- CANADA, OTHER FOREIGN COUNTRIES

ORIGIN

HOME OF TRAVELER—DESTINATION GEORGIA

GEORGIA	16,926,100
SOUTHEAST	1,119,600
GREAT LAKES	223,100
MID-EAST	120,800
NEW ENGLAND	15,200
OTHER STATES	108,400
CANADA, OTHER FOREIGN COUNTRIES	7,100
TOTAL	18,520,300

DESTINATION

DESTINATION OF TRAVELER

GEORGIA	18,520,300
FLORIDA	12,086,000
OTHER STATES	4,360,300
ALL DESTINATIONS	34,966,600

TABLE VII-4

NUMBER OF TRAVEL-SERVING FIRMS

	1961	1962	1963	1964	1965	1966	1967	1968	Increase 1961-68 (%)
Lodging	1300	1360	1390	1400	1420	1490	1550	1550	19.2
Eating and drinking	5050	5270	5400	6090	6190	6420	6610	6790	34.4
Recreation	950	920	1000	1000	1040	1110	1130	1140	20.0
Gasoline service stations	6700	7260	7290	7480	7530	7650	7600	7740	15.2
Tire, battery, accessory	460	490	530	530	560	560	600	610	32.6
Auto repair service	2570	2640	2850	2900	3160	3270	3310	3370	31.1
Total	17030	17940	18460	19400	19900	20500	20800	21200	24.5
Annual increase (%)		5.3	2.9	5.1	2.6	3.0	1.5	1.9	

Source: "Georgia's Travel Industry 1960-1968," *Georgia Business*, Vol. 29, No. 7, January 1970, Division of Research, College of Business Administration, University of Georgia.

TABLE VII-5

TRAVEL-SERVING FIRMS
SALES AND RECEIPTS
(millions of dollars)

	1961	1962	1963	1964	1965	1966	1967	1968	Increase 1961-68 (%)
Lodging	61.9	70.0	78.1	87.1	94.5	108.5	123.5	143.3	131.5
Eating and drinking	185.1	203.6	219.0	246.2	277.5	308.9	345.2	394.0	112.9
Recreation	27.3	30.6	32.8	36.4	41.6	49.4	56.6	64.4	135.9
Gasoline service stations	372.0	402.1	427.4	458.6	492.3	536.9	594.7	662.1	78.0
Tire, battery, accessory	55.3	64.7	70.3	79.9	84.6	90.7	97.7	113.2	104.7
Auto repair service	93.5	102.1	108.8	117.7	126.1	137.2	151.3	169.5	81.3
Total	795.1	873.1	936.4	1025.9	1116.6	1231.6	1369.0	1546.5	94.5
Annual increase (%)		9.8	7.3	9.6	8.8	10.3	11.2	13.0	

Source: "Georgia's Travel Industry 1960-1968," *Georgia Business*, Vol. 29, No. 7, January 1970, Division of Research, College of Business Administration, University of Georgia.

TABLE VII-6

TRAVEL-SERVING FIRMS
NUMBER OF EMPLOYEES

	1961	1962	1963	1964	1965	1966	1967	1968	Increase 1961-68 (%)
Lodging	9,500	9,700	10,010	10,940	11,400	12,540	14,370	15,560	63.8
Eating and drinking	22,600	25,590	27,390	29,740	31,600	32,580	34,240	36,470	61.4
Recreation	3,700	3,940	4,090	4,100	4,800	6,350	6,900	7,140	93.0
Gasoline service stations	13,100	13,800	14,650	15,600	16,000	16,200	16,700	18,220	39.1
Tire, battery, accessory	2,020	2,080	2,210	2,870	3,050	3,080	3,230	3,550	75.7
Auto repair service	5,800	6,490	6,980	7,370	7,390	7,770	7,940	7,940	36.9
Total	56,720	61,600	65,330	70,620	74,240	78,520	83,380	88,880	56.7
Annual increase (%)		8.6	6.1	8.1	5.1	5.8	6.2	6.6	

Source: "Georgia's Travel Industry 1960-1968," *Georgia Business*, Vol. 29, No. 7, January 1970, Division of Research, College of Business Administration, University of Georgia.

TABLE VII-7

TRAVEL-SERVING FIRMS
WAGES PAID
(millions of dollars)

	1961	1962	1963	1964	1965	1966	1967	1968	Increase 1961-68 (%)
Lodging	16.3	17.3	19.3	21.6	24.0	29.9	38.3	45.0	176.1
Eating and drinking	39.1	43.8	48.8	55.7	63.6	75.4	87.1	98.2	151.2
Recreation	10.9	11.9	12.7	12.9	14.4	18.6	25.3	27.9	156.0
Gasoline service stations	28.3	30.9	35.5	39.7	40.3	43.1	48.4	53.5	89.0
Tire, battery, accessory	7.4	8.2	9.5	12.3	13.3	14.5	16.2	19.1	158.1
Auto repair service	18.7	21.3	23.4	26.2	30.6	32.7	36.1	38.5	105.9
Total	120.7	133.4	149.2	168.4	186.2	214.2	251.4	282.2	133.8
Annual increase (%)		10.5	11.8	12.9	10.6	15.0	17.4	12.3	

Source: "Georgia's Travel Industry 1960-1968," *Georgia Business*, Vol. 29, No. 7, January 1970, Division of Research, College of Business Administration, University of Georgia.

by 1968, and an annual growth rate of 3.2 percent.* Even more impressive gains were made in sales, with total sales receipts in 1968 totaling $751.4 million in excess of 1961 figures, an increase of 94.5 percent--more than three times the rate of increase in number of establishments for the period (Table VII-4). Sales and receipts of travel-serving businesses for 1968 are estimated as 20 percent of sales and receipts of all retail and service groups in the state. Increased spending by travelers is evidenced further by the fact that the rate of increase in vacation/recreation expenditures was found to be greater than the rate of increase in the number of vacation/recreation trips.

There is a continuing trend toward higher average receipts per establishment as travel-serving firms tend to become larger and, presumably, of higher quality and better managed. Lodging and recreation categories increased in number approximately 20 percent during the 1960-1968 period, but their sales increased more than 130 percent. This expansion results primarily from the opening of many large metropolitan accommodations, such as the development and expansion of recreation facilities (e.g., Six Flags Over Georgia and Stone Mountain) and the introduction of major league sports.

Healthy economic growth in the travel industry is also found in the employment record of travel-servicing firms, in increase in number of employees (Table VII-6) and even more so in increase in average wages (Table VII-7). The latter is primarily a reflection of the increased productivity of the firms.

Although healthy, the Georgia travel industry must find ways to adjust to changes brought about by the interstate system of highways in the state. As daily expenditures by travelers with a Georgia destination are significantly higher than those of pass-through travelers, additional final destination areas such as Jekyll Island, Callaway Gardens, and Stone Mountain Park must be developed and promoted in the state. The travel industry must continually strive to improve its standards because as travel mobility continues to increase, the traveler has more to choose from and consequently becomes more selective and quality conscious.

E. WELCOME CENTERS

Since the initiation of data on annual tourism, estimates have been published by the Division of Research, College of Business Administration, University of Georgia, along with additional data relating to the travel industry. Further, under the sponsorship of the Georgia Department of Industry and Trade, a series of quarterly "Travel Barometers" has been developed by the Division of Research and published quarterly in January, April, July, and October issues of Georgia Business, its monthly publication.

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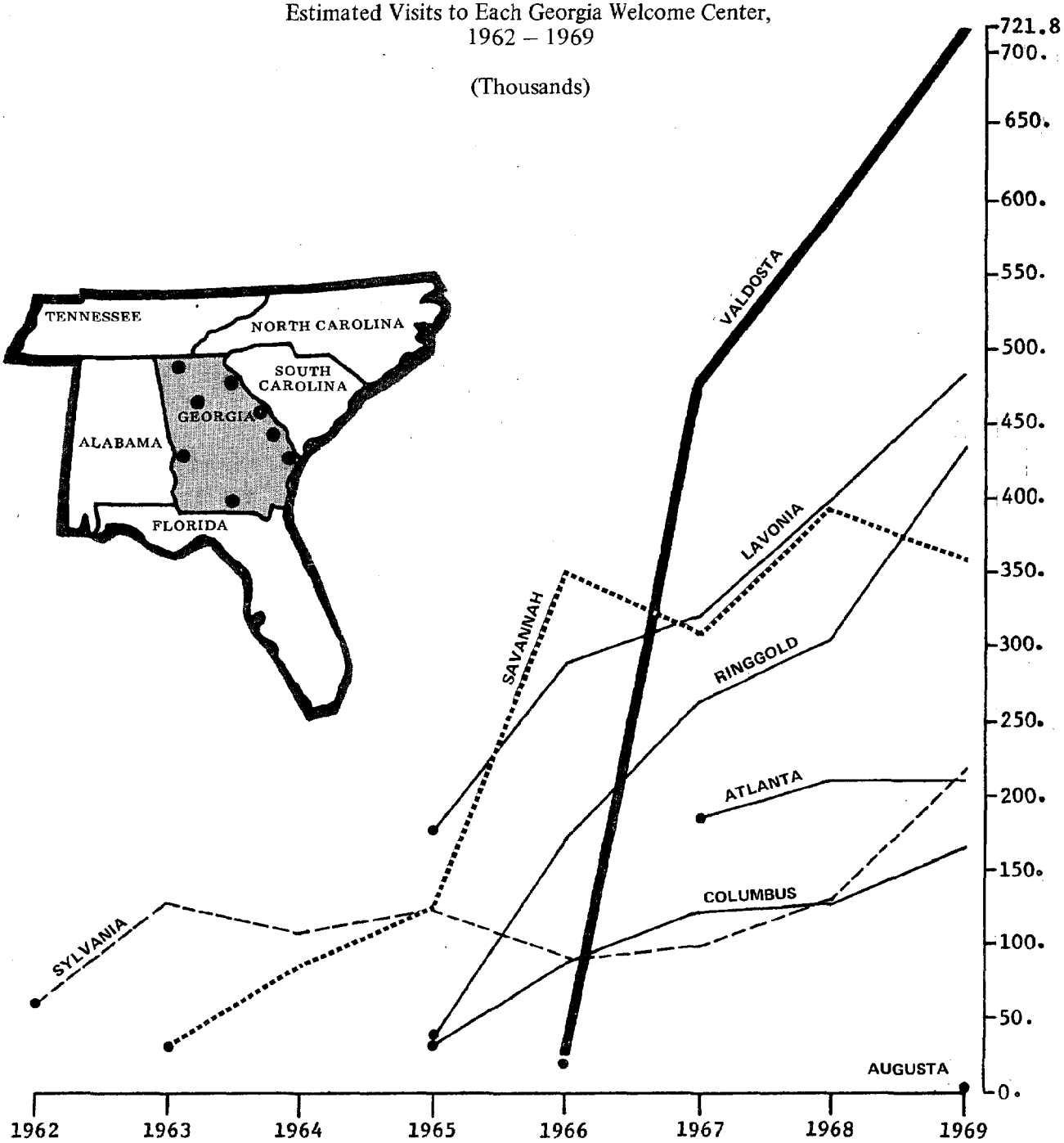
*Estimates in Table VII-4 represent slight revisions from those published earlier as a result of the availability of additional data and the development of improved measurement techniques.

FIGURE VII-3

ALL VISITS TO GEORGIA WELCOME CENTERS
Estimated Visits to Each Georgia Welcome Center,
1962 – 1969

(Thousands)



Lastly, the Division of Research processes the information obtained at the state's Welcome Centers, makes monthly estimates of attendance at the centers, and does special studies on the characteristics of out-of-state visitors.

The Tourist Division of the Georgia Department of Industry and Trade presently operates eight Welcome Centers located at Columbus, Lavonia, Ringgold, Savannah, Sylvania, Valdosta, Augusta, and the Atlanta Airport. Thus, the research activity at the Welcome Centers serves the dual purpose of providing both an analysis of specific highway traffic and traveler characteristics. Since the information continually obtained from the registers and questionnaires used at the centers is similar to that obtained in the initial 1960-1961 survey, the use of these centers as sources of data supplants extensive highway surveys.

The Welcome Center program was initiated in January 1962 with the opening of the first center near Sylvania on U. S. 301 close to the South Carolina border on Georgia's most heavily traveled tourist route, one predominantly servicing Florida-bound vacation/recreation travelers. Six other centers are located on major highway entrances into the state. The eighth is in operation at the Atlanta airport. Future plans include the operation of additional centers on interstate routes.

Upon visiting a center, each party is requested to sign a visitors' register and to furnish certain basic information concerning the nature of the trip. As a supplementary check, automatic traffic counters maintained by the Georgia Highway Department provide information on the volume of traffic at each center. These traffic counts and the number of persons per party obtained from visitor registers at the centers are then used in estimating the total number of visitors. Final estimates are adjusted for multi-axle vehicles, vehicles driving through the parking lot, and other appropriate factors. Atlanta airport estimates are prepared by the Tourist Division, Georgia Department of Industry and Trade.

Every month the Division of Research at the University of Georgia prepares a summary report of these estimates for the Tourist Division. During the first two years of a center's operation, a more detailed report is made, giving volume of registration, general characteristics, detailed origins and destinations, and daily average attendance. Annual reports are then constructed summarizing this information.

F. CHARACTERISTICS OF OUT-OF-STATE VACATION/RECREATION VISITORS TO GEORGIA WELCOME CENTERS

Information obtained about the visitors at each Welcome Center, such as home region, number in the party, income level, purpose and factors influencing the trip, and the activities engaged in while on the trip in Georgia, is summarized in Tables VII-8--VII-11.

Figure VII-3 contains data from visitor registers and automatic counters for estimated visits from 1962 through 1969. Characteristics of visitors (Tables VII-8 through VII-11) are based on cards distributed in 1964 at Sylvania, in 1965 at Savannah, in 1966 at Lavonia and Ringgold, and in 1967 at Valdosta.* The data contained in each of these tables relate only to the centers as specified; and, while the detailed data are expecially useful, these reports cannot be considered representative of total traffic in the state.

There are two major reasons why welcome center reports are important even though nonrepresentative. First, the information is representative of traffic moving on the specific highway served by that center. Thus, persons interested in promoting or developing a travel-serving business on a specific highway should find the data extremely useful. Second, the information in these reports will indicate changing trends in the travel industry. Separate treatment for the centers makes possible a comparison of the characteristics of travelers moving on different highways.**

The location of a center largely governs the regional origin of the vacation traveler (Table VII-8). As a whole, however, visitors from surrounding southeastern states constituted major travel in all the centers.

Vacation/recreation trips and visits to friends and relatives were the primary motivation of most out-of-state travelers who visited Georgia welcome centers. Other categories listed comprised an insignificant number of visitors (Table VII-9).

The high percentage of pass-through vacation/recreation traffic in Georgia is evident from Table VII-10.

Activities engaged in by out-of-state vacation/recreation visitors are summarized in Table VII-11. Visiting historical or scenic places was the primary activity engaged in by visitors, with visits to friends and relatives ranking an important second.

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*Data gathered at the Columbus Center are not included in this report. The Columbus Center is located between Columbus and Fort Benning on U.S. 27 and 280. It receives a tremendous amount of Fort Benning-oriented travel, but misses the important east-west U. S. 80 traffic. Because of the peculiar nature of this center's location, it is felt that information gathered there should be treated separately.

**The reader is again cautioned that data do not represent all travel in the state and that only vacation/recreation visitors are included in the tabulations. Therefore, data for Savannah and Sylvania vary slightly from the results published in the initial study.

TABLE VII-8

HOME REGION
OUT-OF-STATE VACATION/RECREATION TRAVELERS

Percentage Distribution of Home Regions of Parties Surveyed
in the 1960-61 Highway Survey and at Georgia Welcome Centers for Selected Years

Home Region	Highway Survey 60-61	All Welcome Centers	Sylvania 1964	Savannah 1965	Lavonia 1966	Ringgold 1966	Valdosta 1967
Southeast	40.1	40.3	30.8	41.9	61.7	34.8	34.9
Mid-East	23.5	18.5	43.1	27.7	19.6	2.8	6.6
New England	5.2	4.3	8.6	7.3	4.8	0.6	1.4
Great Lakes	24.8	26.3	11.4	10.3	3.5	50.3	46.3
Plains	2.0	3.8	0.7	2.5	1.3	7.6	5.8
Southwest	1.5	1.8		2.8	4.1	9.3	1.1
Rocky Mountains	0.2	0.4	0.1	0.7	0.4	0.1	0.4
Far West	0.6	2.3	1.3	4.0	3.6	1.2	1.4
Canada, other foreign countries	2.1	2.3	3.8	2.7	0.8	2.2	2.1
No response		0.1	0.2	0.1	0.3	0.1	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: *Georgia Welcome Center Research Report*, Number Two, Division of Research, College of Business Administration, University of Georgia, August 1970.

TABLE VII-9

PURPOSE OF TRIP
OUT-OF-STATE VACATION/RECREATION TRAVELERS
Percentage Distribution of Purpose of Trip of Parties Surveyed
at Georgia Welcome Centers for Selected Years

Trip Purpose	All Welcome Centers	Sylvania 1964	Savannah 1965	Lavonia 1966	Ringgold 1966	Valdosta 1967
Vacation/recreation	82.1	83.5	84.9	73.5	83.0	83.7
Visit friends and relatives	54.8	58.1	39.9	65.0	55.5	58.4
Business*	11.0	9.5	11.7	17.2	12.9	8.6
Personal	8.2	7.2	8.2	12.0	9.6	6.6
No response	0.7	1.6	1.4	0.3	0.5	0.1
Number of parties responding	6,333	915	1,492	1,034	659	2,233

Source: *Georgia Welcome Center Research Report*, Number Two, Division of Research, College of Business Administration, University of Georgia, August 1970.

*When combined with vacation/recreation.

TABLE VII-10
FACTORS INFLUENCING THE TRIP
OUT-OF-STATE VACATION/RECREATION TRAVELERS
Percentage Distribution of Factors Influencing the Decision to Come to Georgia
Parties Surveyed at Georgia Welcome Centers for Selected Years

Factors	All Welcome Centers	Sylvania 1964	Savannah 1965	Lavonia 1966	Ringgold 1966	Valdosta 1967
Passing through	67.6	83.4	54.4	47.9	61.2	79.7
Previous visit	28.6	25.3	22.3	26.6	31.3	33.7
Recommendation of friends/relatives	13.4	8.9	14.2	8.8	14.9	16.1
Information received by mail	4.9	3.5	6.2	6.1	6.0	3.9
Advertising-magazines	4.3	2.8	6.5	4.1	5.2	3.4
Advertising-newspapers	2.2	1.5	3.5	2.3	2.9	1.5
Other:						
Routing	3.8	3.0	2.9	4.7	5.7	3.6
Business	1.3	0.2	2.3	2.7	1.4	0.5
Friends/relatives	4.8	0.4	1.6	16.6	11.8	1.3
Highways	1.2	0.4		0.4	2.0	2.3
Natural or historical attractions	1.2	0.9	2.7	1.8	0.6	0.3
Welcome center	0.1	0.4	0.1		0.3	
Unfavorable reply			0.1			
Commercial facilities	1.3	0.2	0.7	5.3	2.0	0.3
Curiosity	1.8	0.2	4.5	3.5	1.7	0.2
No response	3.6	2.4	10.1	5.3	2.6	
Number responding	463	691	511	348	1,190	3,203

Source: *Georgia Welcome Center Research Report*, Number Two, Division of Research, College of Business Administration, University of Georgia, August 1970.

TABLE VII-11

ACTIVITIES ENGAGED IN
OUT-OF-STATE VACATION/RECREATION TRAVELERS
Percentage Distribution of Activities Engaged in by Parties Surveyed
at Georgia Welcome Centers for Selected Years

Activities	All Welcome Centers	Sylvania 1964	Savannah 1965	Lavonia 1966	Ringgold 1966	Valdosta 1967
Visit historical/ scenic places	41.7	27.6	59.3	44.4	43.9	32.3
Visit friends/relatives	25.9	14.2	23.1	43.5	26.1	24.1
Pass through only	22.3	23.2	7.6	10.5	11.3	42.5
Camping	12.6	14.2	6.6	15.3	17.1	13.7
Beaches/swimming	10.9	8.8	15.5	10.9	12.6	7.7
Business	7.4	3.3	8.9	10.9	8.7	5.8
Sports	6.5	1.8	5.5	14.1	11.6	4.0
Hunting/fishing	2.9	3.3	3.2	3.6	2.9	2.0
Boating	2.3	1.1	2.7	3.1	2.9	1.8
Convention	1.5	1.5	1.2	1.9	2.2	1.2
Other	3.3	1.5	2.1	6.7	6.1	2.3
No response	12.3	33.8	12.1	13.2	21.3	0.0
Number of parties responding	3,129	452	801	523	310	1,043

Source: *Georgia Welcome Center Research Report*, Number Two, Division of Research, College of Business Administration, University of Georgia, August 1970.

G. IMPLICATIONS

In limited natural recreation resource regions, there is a need for consideration of alternative regional plans. Demands for all activities are growing in degrees proportionate to the population increase, more leisure, greater mobility, and increased incomes.

Limited regional recreation resources such as the coastal estuarine zone and islands and the Georgia Highlands have a daily seasonal and annual visitor-space capacity--much the same as an individual park or an auditorium. When this capacity is saturated and exceeded, the quality of the recreational experiences of its visitors is adversely effected.

By considering regional land use and design alternatives on the regional landscape, the best combinations of land uses to compatibly relate recreation user groups, separate conflicts of interest, serve more people, plan with nature, maintain open space environmental values, and realize optimum economic benefits can be approached. The Georgia Highlands Plan may be considered an example.

The Appalachian Regional Commission Study of Demand for Mountain-Oriented outdoor recreation in the eastern United States showed large quantities of demand, much of which might be served in the Appalachians. Most of it should not be served in Georgia.

Georgia's Mountain environment is relatively small, its core area being only about 2 percent of the state's land mass. Yet, it serves most of the Georgia residents and much of the mountain recreation demands for Florida, South Carolina, and Alabama.

The Southern Highlands Study should consider the limits of the overall resource use. It should consider regional design alternatives for conservation, development, and transportation systems to protect both the natural resource values and the opportunity for quality mountain-oriented recreation experiences.

H. FOREIGN TRAVEL*

Even though the 1960's were characterized by universal turmoil and upheaval, world travel broke all records. In 1969, about 786 million of the world's 3.5 billion people traveled somewhere. This travel was valued at nearly $77 1/2 billion, made up as follows:

$20.511 billion for international travel
$29.687 billion for domestic U. S. travel
$27.197 billion for domestic tourism in Western Europe, Great Britain, Canada, and the rest of the continents.

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*Information from William D. Patterson, Travel: The Big Picture 1969-1970.

Americans, with Europe their chief foreign destination, are on the go more than any other peoples. U. S. citizens traveling abroad in 1969 accounted for 22,661,000 of the world's total travelers, and they spent $5.366 billion. And, although the U. S. in that year experienced earnings of $2.363 billion from foreign visitors (the highest ever recorded), the U. S. travel gap increased $216 million, reaching $2.093 billion.

Predictions that travel volume of the 60s will continue and even accelerate during the 70s are based on a number of social and technical developments: the four-day work week, holidays added to weekends, longer vacations, increasing incomes with increasing discretionary purchasing power, education, and the giant strides made in transportation which, combined with instant communications, make distance, in fact, no longer a restraining factor between countries. The Boeing 747 and the SST are prime examples.

Along with these elements of travel growth has come the surge in supporting industries to serve the global and domestic traveler, such as lodging, food, car rentals, ground transit, and innovations for attracting the visitor to man-made as well as natural tourist interests, local cultures, and recreation facilities. And, though Europe continues to be the most popular continent for alien visitors, and the formidable U. S. deficit in the international travel balance continues (all countries have a travel surplus relative to the U. S.), visitation to the U. S. from other countries is increasing. In 1969 foreign visitors to the U. S. totaled nearly 12 1/2 million (13 percent, or nearly 1 1/2 million, over 1968). They spent $2.058 billion in the U. S. in addition to $305 million for transportation on U. S. flag carriers.

Also in 1969, 144.2 million U. S. business and pleasure travelers to other places in the U. S. spent $29.687 billion -- an increase over 1968 of 5.25 percent in people and 11 percent in spending. (Even so, 58 million Americans took no holiday trip.)

Travel is the third largest industry in the U. S. More labor than capital intensive (though this imbalance is changing), it employs about 12 million persons and up to this point is composed largely of small businesses. Automation and new management concepts are gradually changing the ratio of labor to capital in travel-oriented operations.

The potential impact of foreign visitors to the U. S. is significant to Georgia. Georgia's relative share (based on its share of U. S. population -- 2.259 percent) of annual foreign visitation to the U. S. would mean 281,000 foreign visitors a year in Georgia spending about $46 1/2 million. If Georgia's share is based on relative share of U. S. area (1.64 percent), foreign visitors should number about 204,000 and spend $33.751 million in Georgia a year.

In addition, if Georgia had its relative share (based on population) of U. S. travelers (business and pleasure) in the U. S., travelers would number 3.257 million and spend $670.6 million in the state. Based on relative area, these figures would be 2.365 million travelers spending $486.9 million.

OUTDOOR RECREATION SUPPLY, PRESENT AND PROGRAMMED

CHAPTER VIII

CHAPTER VIII

OUTDOOR RECREATION SUPPLY PRESENT AND PROGRAMMED

A. PRESENT

1. DISTRIBUTION OF AREAS

In the 1971 survey of developed outdoor recreation areas in Georgia, 2,348 recreation areas and 1,003 small combined ones, for a total of 3,351, were found. The average number of areas for each of the 19 Area Planning and Development Regions was 124, but the number per region varied from a low of 41 to a high of 257.* Table VIII-1 gives the number of areas, the percent of the state total number of recreation areas, and the percent of the state population in each region.

2. OWNERSHIP AND ADMINISTRATION

Ownership and/or administration of outdoor recreation areas in the state is given in Table VIII-2. The contribution of private business in developing recreation resources of the state is clearly evident. Despite the number of governmental agencies and the personnel and money involved, the private business firm still accounts for 50 percent of the number of recreation areas.

3. SIZE OF RECREATION AREAS

Of the 3,527,583 acres devoted to developed outdoor recreation areas in Georgia, 91.1 percent are located in the 87 largest areas. Figure VIII-1 shows the distribution of the number of areas, land acreage, and water acreage for the various size groups of recreation areas. There are 2,988,457 land acres and 539,126 water acres in the 2,348 recreation areas. Of those with water frontage, there was an average 8.2 miles of frontage per area.

4. POTENTIAL DEVELOPMENT AND EXPANSION

According to the 1970 supply inventory, there were 58 recreation areas with positive plans for expansion. The total expansion of these areas will involve 218,269 additional acres. Entirely new potential development of recreational areas totaled 95 areas with 207,118 acres. The Regional Analysis (Volume II) for 1972 now shows additional areas by region. Running inventory summaries of state parks, game, fish,

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*Statistical data are based on 19 regions as existed before July 1, 1972. See Statistical Summary, Volumes I, II, and III.

TABLE VIII-1

DISTRIBUTION OF RECREATION AREAS AND POPULATION

Outdoor Recreation Region	Number of Recreation Areas in Region	Region's Percent of Total Areas	Region's Percent of State Population
1. Coosa Valley	134 (50)*	5.7	6.59
2. North Georgia	63 (85)	2.7	2.86
3. Georgia Mountains	257 (12)	10.9	4.20
4. Atlanta Metropolitan	207 (488)	8.8	31.31
5. Northeast Georgia	135 (76)	5.7	4.78
6. Chattahoochee-Flint	146 (14)	6.2	4.27
7. McIntosh Trail	110 (28)	4.7	2.09
8. Oconee	107 (60)	4.6	2.00
9. Central Savannah River	231 (11)	9.8	6.58
10. Middle Georgia	132 (12)	5.6	5.65
11. Middle Flint	65 (8)	2.8	1.89
12. Heart of Georgia	80 (28)	3.4	2.21
13. Altamaha	41 (7)	1.7	1.65
14. Georgia Southern	120 (11)	5.1	5.37
15. Lower Chattahoochee	106 (62)	4.5	4.94
16. Southwest Georgia	117 (6)	5.0	5.94
17. Coastal Plain	50 (4)	2.1	3.13
18. Slash Pine	128 (14)	5.5	2.42
19. Coastal	119 (27)	5.1	2.12
State Total	2,348(1,003)	100.00	100.00

*Numbers in parentheses represent additional small recreation locations, such as school playgrounds, neighborhood parks, etc. They were included in the summaries of recreation areas listed by region. See *Statistical Summary*, Volume I, State Totals, for further details.

TABLE VIII-2

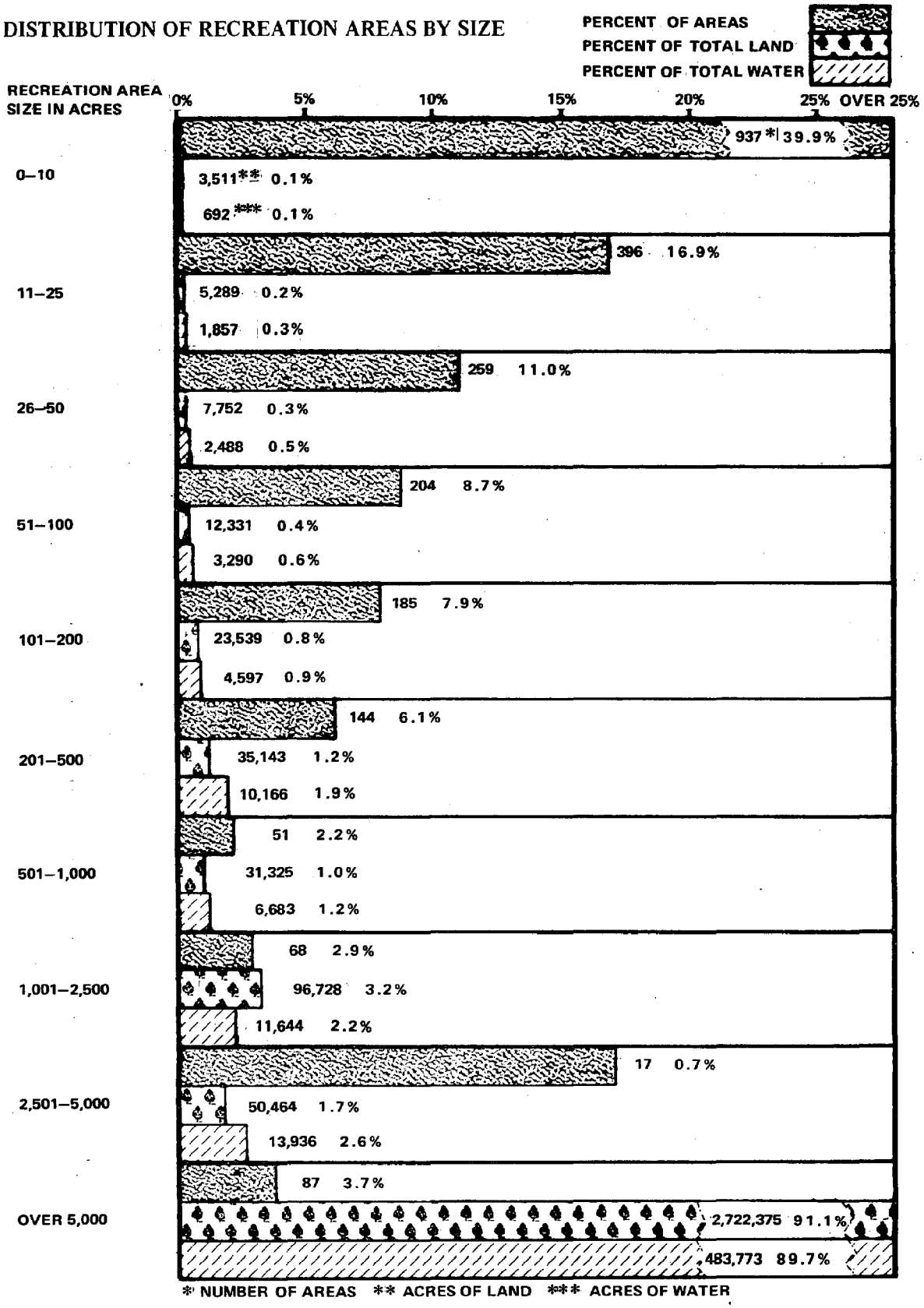
RECREATION AREA OWNERSHIP AND ADMINISTRATION

Area Administered By	Areas Number	Areas Percent	Acres* Number	Acres* Percent
Federal Government	125	5.3	1,729,878	49.8
State Government	337	14.4	854,499	24.6
County Government	176	7.5	15,614	0.4
City Government	287	12.2	12,432	0.4
Other Local Government	21	0.9	2,612	0.1
Quasi-Public Organizations (Boy Scouts, Civic Clubs, etc.)	89	3.8	21,703	0.6
School Boards	93	4.0	14,055	0.4
Churches	36	1.5	4,071	0.1
Private Business	1,184	50.4	816,333	23.5
Total	2,348	100.0	3,471,197*	100.0
Area Owned By				
Federal Agencies	203	8.6	2,085,812	60.1
State Agencies	295	12.6	267,914	7.7
County Agencies	186	7.9	16,997	0.5
City Agencies	274	11.7	11,774	0.3
Other Local Government Agencies	18	0.8	1,067	0.0
Quasi-Public Organizations	67	2.9	35,435	1.0
School Boards	73	3.1	12,726	0.4
Churches	31	1.3	3,900	0.1
Private Business	1,201	51.1	1,035,572	29.8
Total	2,348	100.0	3,471.197*	100.0

*In reporting ownership and administration, not all acreage was accounted for.

FIGURE VIII-1

DISTRIBUTION OF RECREATION AREAS BY SIZE



boating, and historic areas are included at the end of this supply section.

5. PRIMARY AREA ATTRACTION

Recreation areas that were centered primarily around land-based activities represented 50.6 percent of the total areas, and water-based areas accounted for 39.1 percent. The remainder of the areas were of historical, archaeological, and architectural significance and roadside parks.

6. LENGTH OF SEASON

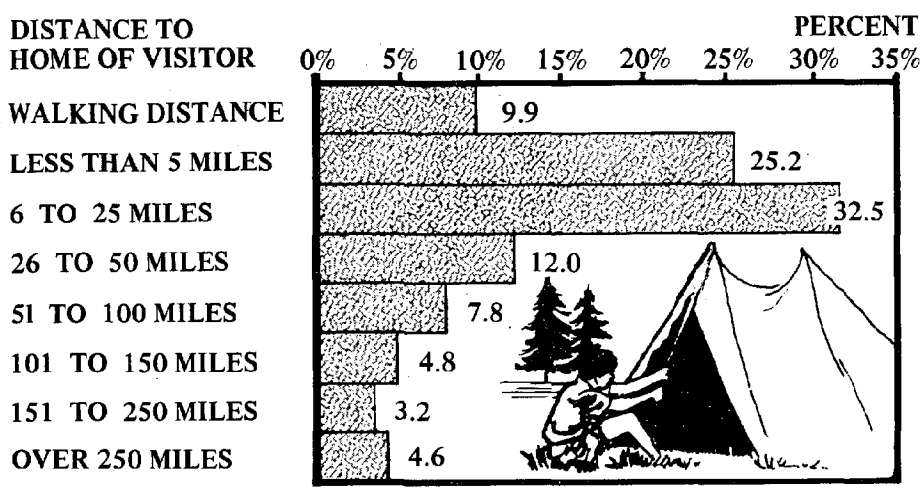
Recreation areas were primarily year-round operations, with 82.4 percent of the areas in operation for ten to twelve months of the year.

7. ORIGIN OF VISITORS TO AREAS

The origin of visitors to Georgia's recreation areas is presented in Figure VIII-2. The average visitor came from a relatively nearby area; 79.6 percent came only 50 miles or less.

FIGURE VIII-2

ORIGIN OF VISITORS TO RECREATION AREAS



8. FREQUENCY OF VISITS

The frequency of annual visits to recreation areas is shown in

Table VIII-3. Only 7.3 percent of the areas drew 79.4 percent of the visitors. Overnight visits totaled 20,999,103 and represented 16.8 percent of the total annual visits. Water-based recreation areas accounted for 85 percent of overnight visits and represented 41.1 percent of total visits. Land-based recreation areas drew 53.2 percent of total visits and 13 percent of overnight visits.

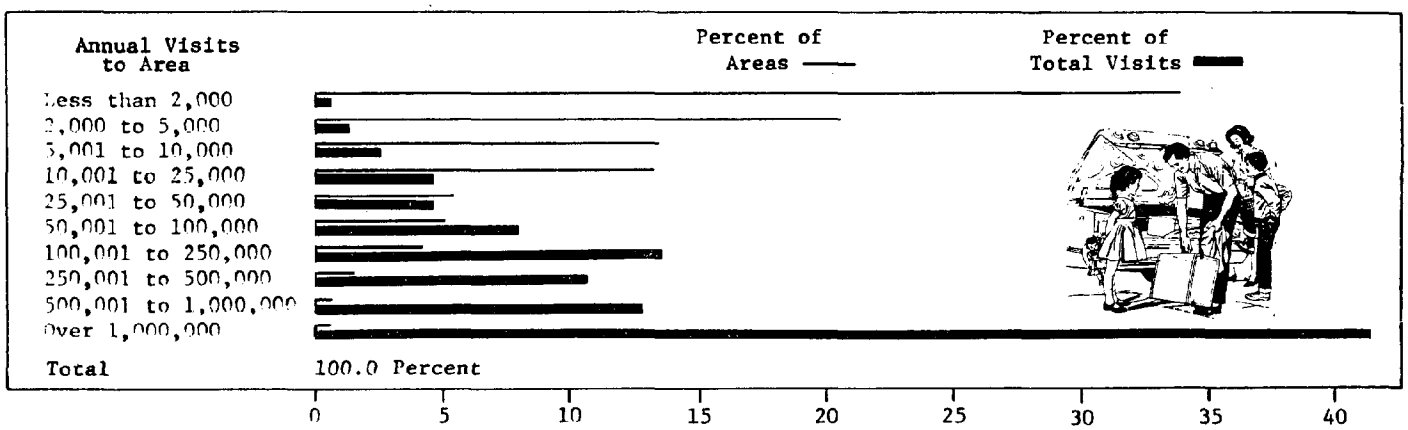
TABLE VIII-3

ANNUAL VISITS TO RECREATION AREAS

Annual Visits to Area	Areas		Visits	
	Number	Percent	Number	Percent of Total Visits
Less than 2,000	807	34.4	592,973	0.5
2,000 to 5,000	488	20.8	1,628,373	1.3
5,001 to 10,000	318	13.5	2,624,418	2.1
10,001 to 25,000	308	13.1	5,496,503	4.4
25,001 to 50,000	138	5.9	5,569,152	4.5
50,001 to 100,000	118	5.0	9,851,751	7.9
100,001 to 250,000	95	4.0	16,779,111	13.4
250,001 to 500,000	35	1.5	13,139,285	10.5
500,001 to 1,000,000	21	0.9	15,952,700	12.8
Over 1,000,000	20	0.9	53,416,353	42.7
Total	2,348	100.0	125,050,619	100.0

FIGURE VIII-3

ANNUAL VISITS TO RECREATION AREAS



9. WATER-BASED AREAS AND WATER QUALITY

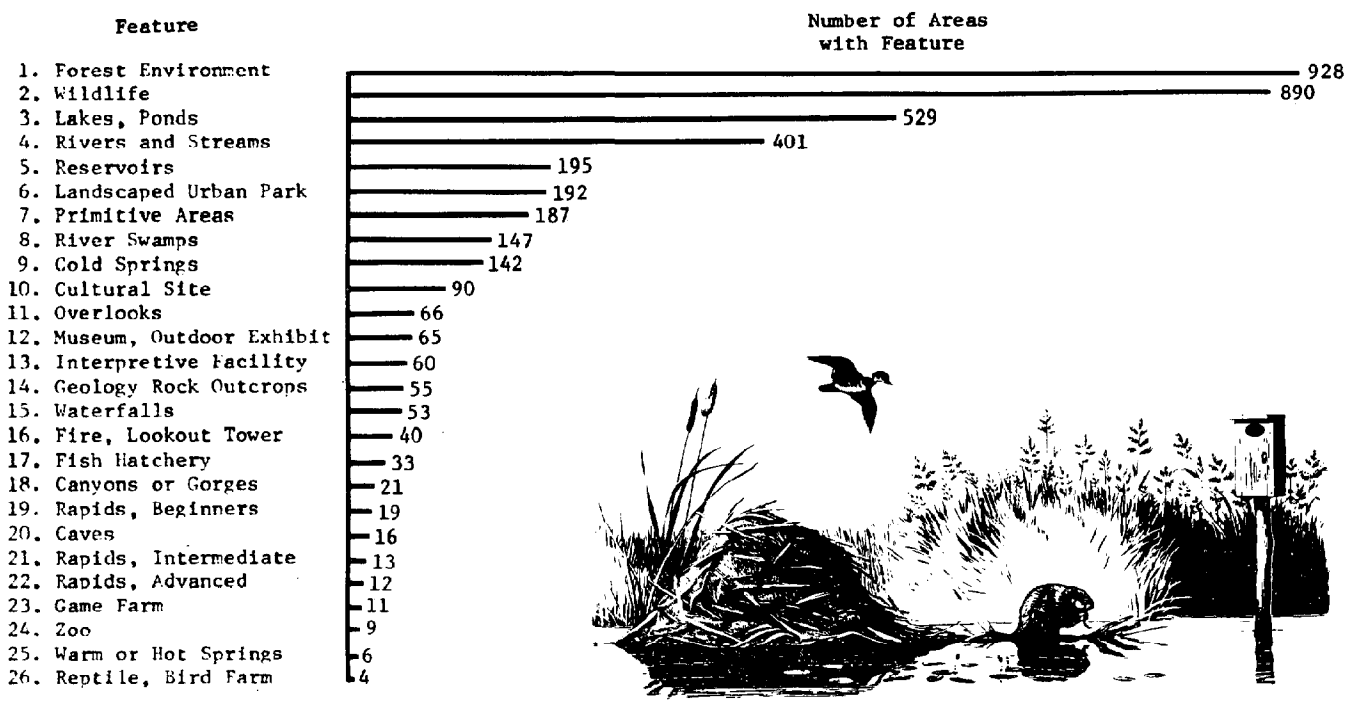
There were 1,399 recreation areas (59.6 percent of the total areas) reported as having some type of water activity associated with the area. Of the area with water, 66 percent reported that the quality of the water helped recreation, 31.1 percent reported it had no effect, and 2.9 percent reported that the quality of the water limited recreation in the area.

10. SPECIAL FEATURES

A number of special features were reported as being available within some recreation areas. Figure VIII-4 shows the number of areas that contained one or more of these primarily natural features.

FIGURE VIII-4

SPECIAL FEATURES OF RECREATION AREAS



11. AVAILABILITY OF RECREATION FACILITIES TO CITIES

Certain facilities used primarily for outdoor recreation and lo-

TABLE VIII-4

AMOUNT OF FACILITIES WITHIN 5 MILES OF INDICATED CITIES

FACILITY	ATLANTA	AUGUSTA	COLUMBUS	SAVANNAH	MACON	ALBANY	WAYCROSS	GAINESVILLE	ROME	SWAINSBORO
HOTEL, MOTEL UNITS (RESORT ONLY)	0	42	0	0	0	0	0	0	10	0
ORGANIZED CAMPING BEDS	0	165	0	0	0	0	0	0	20	0
TRAILER AND TENT SITES	0	0	0	250	251	0	212	25	0	0
MARINA BOAT DOCKING SPACES	0	29	90	215	10	4	0	225	0	26
BOAT LAUNCHING RAMPS	0	2	4	7	21	2	2	5	0	4
PLAYFIELD ACRES	602	48	12	159	237	68	10	46	187	34
HANDBALL COURTS	0	0	0	0	0	0	0	0	0	0
BASEBALL DIAMONDS	38	15	44	17	21	9	13	3	19	2
SOFTBALL DIAMONDS	37	31	40	34	49	26	1	11	22	2
FOOTBALL FIELDS	24	4	2	0	51	8	3	2	11	8
GOLF COURSE HOLES	45	81	54	63	36	45	9	19	36	9
GOLF DRIVING RANGE TEES	0	8	20	20	10	23	0	15	0	0
MINIATURE GOLF HOLES	0	18	18	0	54	0	18	18	0	9
SKI SLOPE ACRES	0	0	0	0	0	0	0	0	0	0
FISHING PIER SPACES	0	0	0	250	112	0	0	0	0	95
PICNIC TABLES	288	103	274	180	218	115	12	174	98	84
BARBECUE PITS	76	46	166	60	132	38	53	59	40	27
SWIMMING POOLS	23	12	5	5	3	4	3	4	8	3
50 METER SWIMMING POOLS	4	0	0	2	2	1	2	1	1	0
BEACH WATER ACRES	0	0	0	1	41	0	0	1	0	11
BEACH LAND ACRES	0	0	0	0	42	0	0	3	0	0
BEACH SHORE MILES	0	0	0	1	1	0	0	2	0	1
HORSE BRIDLE PATHS MILES	0	0	0	0	5	0	0	0	20	0
BIG GAME HABITAT ACRES	0	15	0	0	300	26,000	0	0	2,500	0
SMALL GAME HABITAT ACRES	0	205	25	0	600	27,020	100	0	2,690	0
WATER FOWL HABITAT ACRES	0	520	0	12	314	200	106	0	0	0
TROUT FISHING STREAMS MILES	0	0	0	0	0	0	0	0	10	0
WARM FISHING STREAMS MILES	0	0	0	11	50	5	0	0	0	0
FISHING LAKES ACRES	145	1,375	91	60	1,834	1,400	110	70	8	166
WATER FRONTAGE MILES	1	2	4	34	41	37	4	6	11	9
RECREATION AREA EMPLOYEES	529	329	200	146	177	126	96	131	64	23
FIELD AND TRACK ACRES	6	3	4	3	0	9	0	0	22	0
WATER SKIING AREA ACRES	0	0	76	130	1,200	0	80	0	0	0
TENNIS COURTS	114	44	35	15	15	10	12	12	16	6
NATURE FOOTTRAILS MILES	0	5	0	3	3	0	0	0	2	0
AREAS WITH ZOO	0	0	0	1	1	1	0	0	0	0
HISTORICAL AREAS	0	0	1	2	1	0	0	0	0	0
ARCHEOLOGICAL AREAS	0	0	0	0	1	0	0	0	0	0
ARCHITECTURAL AREAS	0	0	0	0	0	0	0	0	0	0
SMALL DEEP SEA FISHING BOATS	0	0	0	22	0	0	0	0	0	0
LARGE DEEP SEA FISHING BOATS	0	0	0	16	0	0	0	0	0	0
AREAS WITH PRIMITIVE SETTING	0	0	2	0	3	0	0	0	1	0
BICYCLE TRAILS MILES	0	2	0	0	1	0	0	1	0	0
AREAS WITH RAPIDS	0	0	0	1	0	0	0	0	0	0

Note: The above data pertain only to those facilities devoted primarily to the pursuit of outdoor recreation and available to the public.

TABLE VIII-5

AMOUNT OF FACILITIES WITHIN 50 MILES OF INDICATED CITIES

FACILITY	ATLANTA	AUGUSTA	COLUMBUS	SAVANNAH	MACON	ALBANY	WAYCROSS	GAINESVILLE	ROME	SWAINSBORO
HOTEL, MOTEL UNITS (RESORT ONLY)	1,183	218	669	646	90	119	275	2,275	54	306
ORGANIZED CAMPING BEDS	4,388	1,224	1,627	1,682	561	1,016	716	6,839	616	843
TRAILER AND TENT SITES	2,963	1,855	1,805	2,274	2,150	892	1,364	5,087	801	1,179
MARINA BOAT DOCKING SPACES	2,366	860	1,468	1,501	796	322	480	2,485	307	736
BOAT LAUNCHING RAMPS	53	86	70	106	78	34	60	60	21	51
PLAYFIELD ACRES	2,158	284	337	323	991	320	215	1,980	608	362
HANDBALL COURTS	8	7	3	1	3	2	6	15	1	12
BASEBALL DIAMONDS	264	45	92	37	121	47	44	232	128	53
SOFTBALL DIAMONDS	283	59	73	71	145	76	26	245	123	68
FOOTBALL FIELDS	183	34	13	18	94	37	25	150	75	44
GOLF COURSE HOLES	955	234	270	90	279	154	54	730	378	223
GOLF DRIVING RANGE TEES	486	56	119	30	82	38	11	483	107	73
MINIATURE GOLF HOLES	293	102	108	51	188	72	72	348	126	135
SKI SLOPE ACRES	0	0	0	0	0	0	0	0	0	0
FISHING PIER SPACES	1,004	894	1,037	1,234	680	338	70	958	767	908
PICNIC TABLES	2,570	1,439	1,335	810	1,773	889	778	3,324	1,296	1,218
BARBECUE PITS	555	577	647	144	496	345	207	1,237	186	343
SWIMMING POOLS	142	43	34	18	55	35	18	131	52	51
50 METER SWIMMING POOLS	23	3	4	4	9	6	4	21	5	3
BEACH WATER ACRES	102	28	66	229	171	5	13	109	32	27
BEACH LAND ACRES	36	25	41	58	104	10	8	46	22	8
BEACH SHORE MILES	5	6	11	13	59	2	2	10	2	4
HORSE BRIDLE PATHS MILES	78	104	47	15	25	7	5	113	39	35
BIG GAME HABITAT ACRES	57,483	160,556	45,296	433,014	458,701	41,502	311,491	255,922	154,258	158,783
SMALL GAME HABITAT ACRES	61,119	161,134	49,395	425,574	426,437	49,035	312,775	234,916	155,888	162,726
WATER FOWL HABITAT ACRES	8,356	37,296	42,164	23,659	17,176	893	80,581	9,622	3,074	8,080
TROUT FISHING STREAMS MILES	0	20	12	50	1	47	0	300	41	20
WARM FISHING STREAMS MILES	13	75	197	806	258	42	308	24	22	622
FISHING LAKES ACRES	49,185	128,356	97,710	32,390	26,545	17,405	16,520	121,156	2,997	32,561
WATER FRONTAGE MILES	860	1,217	3,016	668	1,178	237	407	1,401	200	716
RECREATION AREA EMPLOYEES	6,575	1,123	1,804	711	1,280	1,032	566	4,294	2,357	807
FIELD AND TRACK ACRES	223	22	147	19	54	22	15	195	72	50
WATER SKIING AREA ACRES	17,431	10,099	25,187	4,724	3,970	9,430	770	14,320	999	1,022
TENNIS COURTS	425	84	111	47	136	75	39	424	103	97
NATURE FOOTTRAILS MILES	147	34	118	13	59	24	19	406	116	28
AREAS WITH ZOO	1	1	1	1	1	1	2	2	0	0
HISTORICAL AREAS	4	2	5	12	3	6	2	8	5	2
ARCHEOLOGICAL AREAS	1	0	1	0	1	0	0	0	1	0
ARCHITECTURAL AREAS	0	0	0	0	0	0	0	0	0	0
SMALL DEEP SEA FISHING BOATS	0	0	0	29	0	0	0	0	0	0
LARGE DEEP SEA FISHING BOATS	0	0	0	22	0	0	0	0	0	0
AREAS WITH PRIMITIVE SETTING	15	11	6	10	18	1	13	51	5	13
BICYCLE TRAILS MILES	41	8	35	0	43	20	3	151	11	11
AREAS WITH RAPIDS	2	1	3	1	9	1	0	9	1	1

Note: The above data pertain only to these facilities devoted primarily to the pursuit of outdoor recreation and available to the public.

TABLE VIII-6

AMOUNT OF FACILITIES WITHIN 250 MILES OF INDICATED CITIES

FACILITY	ATLANTA	AUGUSTA	COLUMBUS	SAVANNAH	MACON	ALBANY	WAYCROSS	GAINESVILLE	ROME	SWAINSBORO
HOTEL, MOTEL UNITS (RESORT)	6,096	6,228	5,722	5,935	6,254	6,078	5,056	5,642	4,245	6,199
ORGANIZED CAMPING BEDS	19,903	20,129	19,213	18,345	20,262	19,928	12,930	18,919	17,112	20,127
TRAILER AND TENT SITES	19,751	19,079	19,858	18,055	20,163	19,867	16,073	18,163	15,990	19,968
MARINA BOAT DOCKING SPACES	8,851	9,060	8,789	8,285	9,134	9,039	7,985	7,995	7,097	9,124
BOAT LAUNCHING RAMPS	675	708	694	664	722	708	644	632	561	717
PLAYFIELD ACRES	5,537	5,575	5,565	4,954	5,452	5,451	4,829	5,511	4,932	5,490
HANDBALL COURTS	55	55	55	53	55	52	42	54	46	52
BASEBALL DIAMONDS	785	807	797	649	800	774	656	782	691	790
SOFTBALL DIAMONDS	942	945	942	781	935	918	785	932	829	934
FOOTBALL FIELDS	488	494	493	425	489	483	419	482	443	486
GOLF COURSE HOLES	2,488	2,515	2,506	2,209	2,488	2,488	2,209	2,452	2,317	2,515
GOLF DRIVING RANGE TEES	984	990	990	943	991	991	891	983	958	991
MINIATURE GOLF HOLES	1,218	1,193	1,203	1,022	1,218	1,191	1,055	1,160	1,052	1,218
SKI SLOPE ACRES	20	20	20	20	20	20	0	20	20	20
FISHING PIER SPACES	11,151	11,278	10,980	10,498	11,310	10,918	8,822	10,401	6,857	11,098
PICNIC TABLES	14,407	14,054	14,267	12,034	14,490	14,078	11,520	13,570	12,287	14,302
BARBECUE PITS	5,121	4,981	5,113	4,198	5,118	5,010	3,841	4,762	4,360	5,099
SWIMMING POOLS	440	447	442	392	448	444	382	433	393	449
50 METER SWIMMING POOLS	54	57	56	52	57	55	48	55	47	56
BEACH WATER ACRES	1,070	1,071	971	1,037	1,074	1,061	1,003	963	520	1,072
BEACH LAND ACRES	668	666	617	638	667	657	618	610	287	663
BEACH SHORE MILES	146	146	143	143	146	142	130	141	115	145
HORSE BRIDLE PATHS MILES	462	462	462	384	439	418	300	462	437	452
BIG GAME HABITAT ACRES	2,055,784	2,071,889	1,791,889	1,769,196	2,069,389	1,936,382	1,614,745	1,689,990	1,341,608	2,070,264
SMALL GAME HABITAT ACRES	2,033,616	2,045,477	1,766,202	1,740,201	2,043,458	1,909,969	1,609,262	1,658,027	1,314,805	2,043,877
WATER FOWL HABITAT ACRES	234,407	243,527	233,530	236,938	243,542	243,292	230,900	182,113	118,643	243,542
TROUT FISHING STREAMS MILES	605	630	580	384	620	499	162	555	554	628
WARM FISHING STREAMS MILES	2,150	2,263	1,943	2,328	2,355	2,349	2,319	1,726	1,156	2,354
FISHING LAKES ACRES	500,543	500,742	500,668	408,039	500,873	495,598	402,863	499,845	476,807	500,818
WATER FRONTAGE MILES	9,642	9,695	9,682	8,864	9,695	9,262	8,511	9,424	8,856	9,700
RECREATION AREA EMPLOYEES	16,900	17,124	16,877	14,586	17,152	16,819	13,801	16,363	15,070	17,107
FIELD AND TRACK ACRES	608	607	609	537	594	579	520	606	571	584
WATER SKIING AREA ACRES	103,856	103,816	102,437	98,462	103,856	103,856	93,761	100,907	97,541	103,856
TENNIS COURTS	1,043	1,070	1,053	954	1,067	1,045	940	1,045	957	1,054
NATURE FOOTTRAILS MILES	1,071	1,067	1,073	753	1,074	881	522	1,061	1,031	1,059
AREAS WITH ZOO	9	9	9	9	9	9	8	8	7	9
HISTORICAL AREAS	46	44	44	39	47	44	39	40	34	46
ARCHEOLOGICAL AREAS	3	3	3	2	3	3	2	3	2	3
ARCHITECTURAL AREAS	0	0	0	.	0	0	0	0	0	0
SMALL DEEP SEA FISHING BOATS	37	39	32	39	39	39	39	32	20	39
LARGE DEEP SEA FISHING BOATS	28	31	23	31	31	31	31	23	8	31
AREAS WITH PRIMITIVE SETTING	184	185	189	162	186	176	121	164	148	183
BICYCLE TRAILS MILES	330	332	333	219	333	234	217	329	287	333
AREAS WITH RAPIDS	44	44	44	32	44	34	16	44	42	40

Note: The above data pertain only to those facilities devoted primarily to the pursuit of outdoor recreation and available to the public.

cated within 5, 50, and 250 miles, respectively, of ten key cities throughout Georgia are indicated in Tables VIII-4, 5, and 6.* Even a quick review of the tables will bring out the fact that considerable emphasis is needed on the development of recreation facilities in urban areas. The relative scarcity of such facilities within five miles of some of our major cities (Table VIII-4) is, by itself, a signal that emphasis on recreation area location is possibly being directed toward the suburban areas at the sacrifice of core city facilities. Only a detailed analysis of each urban area will prove or disprove such an assumption.

Table VIII-5 represents facilties available within an hour or so's drive from the urban areas named. Certainly the magnitude of the quantities shown is a considerable improvement over the five-mile picture; but the population involved has also grown, particularly in areas like Atlanta where suburban growth has been so rapid.

Table VIII-6 represents facilities within a day's drive, which comprise, in many instances, almost the total state inventory of such facilities. Tables VIII-5 and VIII-6 are valuable for the quantitative picture they present of available recreation facilities within given areas and will be of added value when used in conjunction with the demand and needs analysis presented in both this publication and the full report of the state recreation plan.

B. PROGRAMMED RECREATION AREAS

The population growth and the expected increase in leisure time for all individuals will result in more pressure on the existing recreation facilities in addition to the requirement for entirely new recreation areas. Some realization of these aspects was reflected in the plans for new and expanded facilities reported during the statewide inventory.

A total of 58 existing recreation area operators had made specific plans for the expansion of their facilities. Plans included not only the development of additional facilities but also the acquisition of an additional 218,269 acres of land or water.

Specific plans were also reported for the development of 95 new recreation areas with a total of 207,118 acres.

Tentative plans for expansion were reported by an additional 124 area operators, and 592 other area operators had given consideration to expanding but had reached no definite conclusion.

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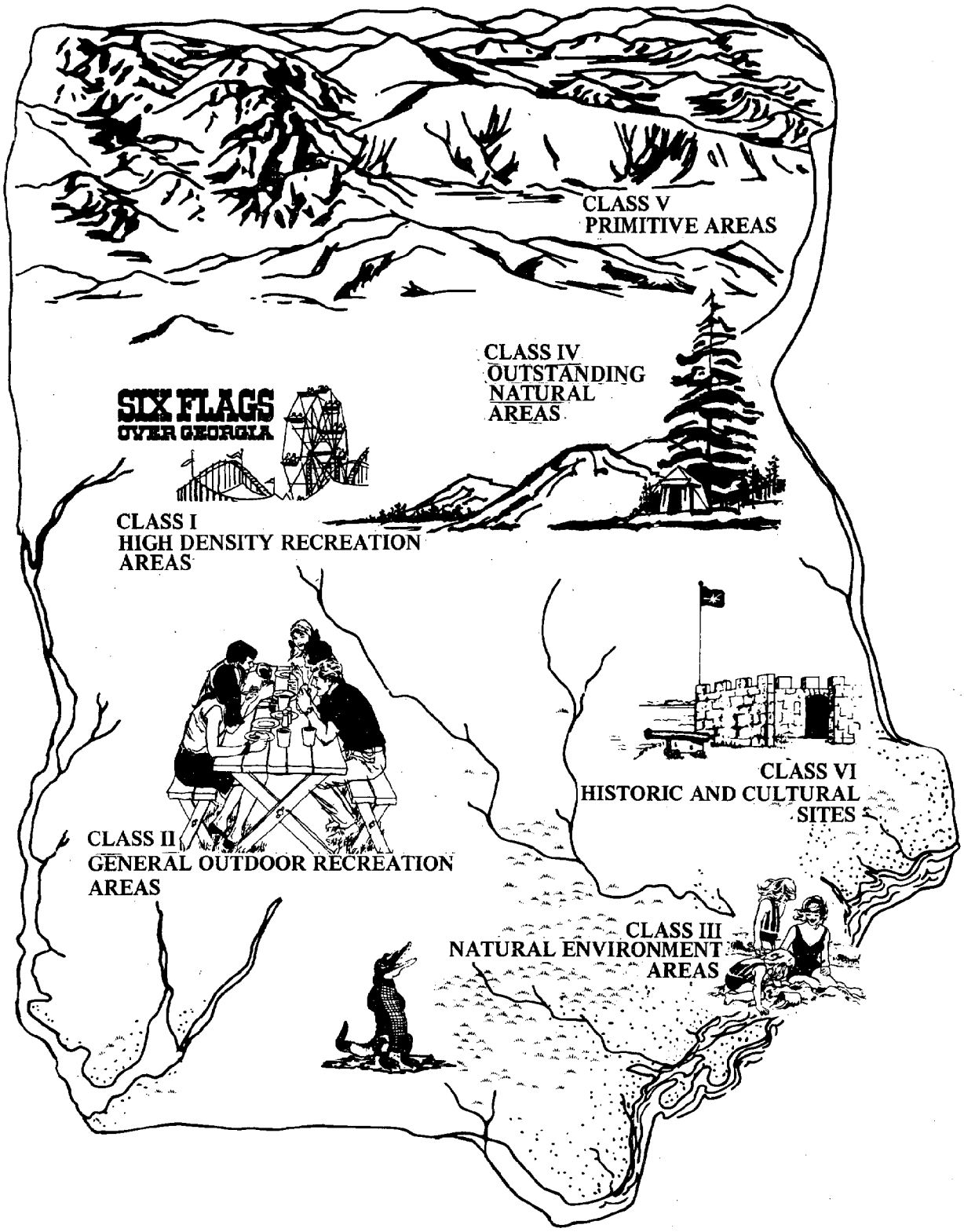
*Note that information in the tables is for facilities devoted primarily to outdoor recreation (e.g., "hotels, motel units" refers to primarily resort-type facilities.)

GEORGIA RECREATION AREAS

FIGURE VIII-5



A new consideration that confronts the recreation area operator is the increasing number of physically handicapped people and senior citizens who are potential visitors to recreation centers. Special provisions for the physically handicapped were being planned for 28 areas, while 46 recreation centers were making plans for the special needs of senior citizens.

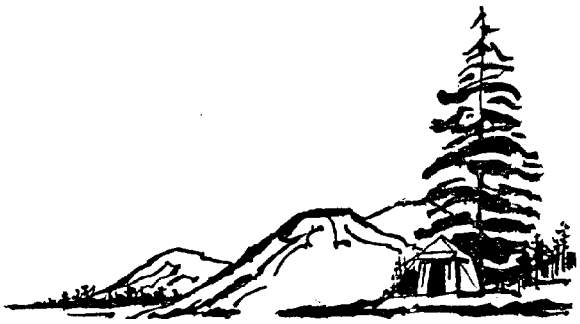
C. GEORGIA RECREATION AREAS ACCORDING TO BOR CLASSIFICATION BY REGION

The Department of the Interior has established the basic requirements for a system of Outdoor Recreation Classification. This system divides outdoor recreation areas into six major classifications, each possessing a definite set of characteristics. The categories are determined by the use of various criteria, including the nature of the area setting, the activities available at the locale, and the degree and extent of development and financial investment.

CLASS I includes those defined as High Density Recreation Areas. The physiographic features of these areas make them adaptable to special types of intensive recreation and development. Although natural settings are desirable, man-made settings are acceptable, with no specific size criteria indicated. Although these areas usually exist within or near major urban population centers, they may occur within natural parks or forests more remote from densely populated areas. The major development at the sites includes a wide range of intensive day and weekend activities capable of accommodating large numbers of people. In addition, these areas generally have a high degree of facility development which quite often requires heavy financial investment. Finally, the sites are usually managed exclusively for recreation purposes. Such areas are most commonly held under municipal, county, regional, or state ownership. In a recreation resource based oriented region, small towns or service villages may be considered high density recreation areas. Helen, Georgia, is an example.

CLASS II defines General Outdoor Recreation Areas. These sites have varied topography within attractive man-made or natural settings which are capable of providing a wide range of outdoor recreational opportunities. These areas, like those in Class I, range widely in size, but are usually more remote than the Class I High Density Recreation Areas. Recreation activities available include extensive day, weekend, and vacation use, although the overall development is generally somewhat less extensive than that in Class I. These areas are commonly held by federal, state, or local governments, including regional park and recreation authorities, and private clubs and other forms of private ownership assisted by public agencies on problems of access and development of basic facilities.

CLASS III includes those sites defined as Natural Environment Areas. Public lands of this category often adjoin outstanding natural Class IV and primitive Class V areas in national and state parks and forests. They are characterized by varied and interesting land forms within attractive natural settings and are usually more remote from population centers than either High Density Recreation Areas or General Outdoor Recreation Areas. However, this class does comprise, on an acreage basis, the largest defined category. The primary activities enjoyed at these areas include extensive weekend and vacation recreation undertakings which are dependent on the quality of the natural environment. The primary objective of these areas is to make available traditional recreation experiences on an "as-is" basis in the out-of-doors, often in conjunction with other resource uses. The sites are commonly held by federal, state, or local governments, including regional park and recreation authorities, as well as private ownership.

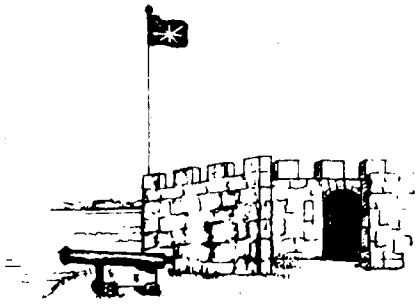


CLASS IV categorizes Outstanding Natural Areas. The sites or features in this recreational area classification are limited in number and are irreplaceable if destroyed. The physical characteristics consist of some outstanding natural feature associated with an outdoor environment that, because of its uniqueness, merits special care to insure preservation in its natural condition. In some instances, one or more such areas may be part of a larger administrative unit such as a national park or forest, but the use of the site, because of its very nature, is limited to the enjoyment and study of natural attractions. Development of the area is limited to the minimal requirements for public enjoyment, health, safety, and protection of the feature. Other than trails and sanitary facilities, access roads and facilities should not be constructed within the immediate vicinity. Federal, state, and local public agencies, as well as private landowners with assistance from public agencies, assume responsibility for the protection and management of these significant natural areas.

CLASS V defines Primitive Areas and consists of two types. Those classified as V-A include only those areas designated under the provisions of P.L. 88-577, the Wilderness Act (78 stat. 890; 16 U.S.C. 1131). The second type, designated as V-B, includes all other areas having the same or similar characteristics of this class. Both types are characterized by extensive natural, wild and undeveloped areas and settings which are essentially removed from the effects of civilization. The areas are primarily characterized by these facts:

1. The natural environment has either not been disturbed by commercial utilization or natural restoration has occurred over a period of several years. The marks of man are essentially unnoticeable and the area is suited for wilderness management.
2. The areas either do not now provide mechanized transportation or existing roadways will be closed for motorized vehicle use by the public.

However, the site must be large enough and so located as to provide persons utilizing the area the feeling of enjoying a "wilderness" experience. The area may vary in size in different parts of the country, although it is usually remote from population centers. The development of V-A areas is prescribed in the Wilderness Act. In those areas categorized as V-B, there is usually no development of public roads (except trails), permanent habitations, or high density recreation facilities. No mechanized equipment is allowed except that needed to control fire, insects, and disease. Any commercial use existing at the time of categorization should be discontinued as soon as practical. Federal responsibility exists for the management of V-A areas. Responsibility for V-B areas is usually federal, but may also rest on state agencies or private landowners.



CLASS VI, the final classification, includes those areas defined as Historic and Cultural Sites. Such areas are associated with the history, tradition, or cultural heritage of national, state, or local interest sufficiently significant to merit preservation or restoration. The location of the feature establishes the site, and the use of the area is limited to sightseeing, enjoyment and study of historic or cultural features. Management of the areas should be limited to those activities that effect whatever preservation and restoration is necessary to protect the features from deterioration and to interpret their significance to the public. On-site development should be limited so as to prevent overuse and not detract from the historic or cultural values of the site. Responsibility for the areas is vested in federal, state, or local public agencies as well as private landowners who identify, set aside, and manage historic and cultural areas.

All of the recreation areas in Georgia have been inventoried and the results analyzed both by county and by region. However, to categorize many recreation areas in the state within the given BOR classification is, at best, difficult, as many of the areas for which information is available do not appear easily distributed within any of these six aforementioned classifications established by the Department of the Interior. Therefore, to accomplish this task, some arbitrary determinations were made for major groupings of recreation areas, and these were assigned a classification of 1 to 6 based on that single classification for which each grouping exhibited at least some of the delineated characteristics. Caution should be exercised in studying these groupings due to the fact that while all areas in the state have been classified in this manner, it is doubtful that many of these would be envisioned

by the Department of the Interior as coming within the purview of any of the delineated classifications. Major areas may be reclassified as comprehensive regional and individual master plans are developed.

Generally, in addition to large recreation areas such as Six Flags over Georgia, the following areas are classified as Class I (High Density Recreation Areas): Public school playgrounds and city and/or county recreation areas. Those classified as Class II (General Outdoor Recreation Areas) constitute a large number of various kinds of activity areas. Included are: American Legion recreation areas, state roadside parks, some smaller camps (most being classified as III), golf clubs, driving ranges, country clubs, drag strips, ball parks, church recreation areas, parks, military reservations, YMCA, tennis courts, swimming pools, festivals, playhouses, colleges, shooting ranges, church areas, amusement parks, and boys' club recreation areas. Naturally, in many cases it was difficult to determine whether a specific group of recreation areas was more characteristic of Class II or Class III. Still, as previously stated, an ultimate determination was made based not so much on an individual area, but on the group of areas as a whole. Classification III (Natural Environment Areas) is, perhaps, the largest and most varied category in number and type of activity. Included in this grouping are: campgrounds, saddle clubs, landing fields, fish farms, dock basins, marinas, game management areas, river parks, watersheds, lakes and ponds, dams and reservoirs, hunting areas, fishing camps, fish hatcheries, sportsmen clubs, lodges, trailer parks, trails, nurseries, and ranches. Generally, those activities more associated with the natural environment or in which the natural outdoor facilities are integral to the activity are classified in this category.

Class IV areas (Outstanding Natural Areas) are so designated because of their outstanding and spectacular natural beauty. Included in this grouping are such scenic Georgia attractions as Glassy Mountain, Look Off Tennessee Rock, Wellborn's Rockhound Mines, Tallulah Gorge, Old Block Diamond Railroad Cave, Chestatee Overlook, and Stone Mountain Park.

Class V (Primitive Areas) consists of V-A areas now designated under the provisions of P.L. 88-577, the Wilderness Act, and V-B areas having the same or similar characteristics. Several areas in Georgia, if not already so designated, should be classified V-B. These would include the Cohutta Mountains Area, sections of the Blue Ridge Crest, the Chattooga River, the Okefenokee Swamp, and some of the Georgia Islands.

Class VI, the final classification, defines those areas categorized as Historic and Cultural Sites. A number of areas in Georgia of local, state, regional, or national importance could be so classified. These would include Kennesaw Mountain National Battlefield, Skull Shoals Historic Area, Uncle Remus Museum, Etowah Indian Mounds, Little White House, Resaca Confederate Cemetery, and various forts and other edifices of historical or cultural interest and importance.

Of the total 2,348 classified recreational areas reported in

TABLE VIII-7

DISTRIBUTION OF RECREATION AREAS BY BOR CLASSIFICATION (BY REGION, AREAS, AREAS WITH WATER AND TOTAL ACREAGES)

1971

Total Georgia areas: 2,348
Areas with water: 910
Total acreage: 3,471,197

BOR CLASS	I			II			III			IV			V			VI		
	Number of Areas			Number of Areas			Number of Areas			Number of Areas			Number of Areas			Number of Areas		
Region	Areas	W/Water	Total Acres	Areas	W/Water	Total Acres	Areas	W/Water	Total Acres	Areas	W/Water	Total Acres	Areas	W/Water	Total Acres	Areas	W/Water	Total Acres
1.	27	2	1282	69	8	6861	34	25	64815	0	0	0	0	0	0	4	0	5850
2.	14	4	78	24	22	88	24	22	255784	0	0	0	0	0	0	1	0	8
3.	34	3	4408	88	31	13007	118	55	571929	11	1	3432	0	0	0	6	1	1082
4.	36	4	15889	127	36	9953	42	25	6240	1	1	5407	0	0	0	1	0	2883
5.	21	1	1094	67	14	10485	44	26	155694	0	0	0	1	0	254	2	0	16
6.	12	2	2883	44	12	9534	88	74	101564	0	0	0	0	0	0	2	1	290
7.	4	0	564	27	5	1765	79	73	8200	0	0	0	0	0	0	0	0	0
8.	9	0	236	40	6	11374	56	35	155073	0	0	0	1	1	75244	1	0	2
9.	21	1	1494	107	20	55704	97	68	232592	0	0	0	0	0	0	6	1	15414
10.	18	1	956	38	12	6345	74	60	79256	0	0	0	0	0	0	2	0	783
11.	10	0	631	30	2	2390	24	14	17529	0	0	0	0	0	0	1	0	5
12.	16	0	442	36	6	2300	28	16	14604	0	0	0	0	0	0	0	0	0
13.	8	0	189	15	5	662	18	13	29261	0	0	0	0	0	0	0	0	0
14.	16	1	323	38	5	5143	65	38	66217	0	0	0	0	0	0	1	0	5500
15.	11	1	557	40	10	3223	54	24	223817	1	1	1300	0	0	0	0	0	0
16.	13	0	531	44	0	669	59	30	57820	0	0	0	0	0	0	1	0	5000
17.	1	0	63	31	1	215	18	9	24705	0	0	0	0	0	0	0	0	0
18.	12	0	475	52	8	3041	62	36	402995	0	0	0	2	2	229158	0	0	0
19.	7	2	250	49	12	328601	60	21	146900	0	0	0	0	0	0	3	0	249
Total	290	22	32965	966	215	471360	1044	664	2614995	13	3	10139	4	3	304656	31	3	37082

	State Totals	Group Totals					
Percent of Areas	100.0 %	12.35	41.14	44.46	.55	.17	1.32
Percent of Water Areas	100.0 %	2.42	23.63	72.97	.33	.33	.33
Percent of Acreage	100.0 %	.95	13.58	75.33	.29	8.78	1.07

Note: Out of the total (2,348) recreation areas 910 or 38.8% have water acreages. However, 1,182 areas or 50.3% of the total have water frontages within or adjacent to 919 areas, representing 39.1% of the total, and are primarily water based outdoor recreation areas in the State of Georgia.

Georgia, some 910 consist in whole or in part of water acreage. The total area, both land and water, for all 2,348 areas amounts to 3,527,583 acres. As might be expected, the largest total acreage fell into category III (Natural Environment Areas) with 75.33 percent of the total acreage, a result of the fact that Class III contains most of the lakes, hunting areas, trailer parks, camps, etc. Conversely, categories IV, V, and VI constitute a very small percentage of total areas and total acreage (land and water). Category II, containing most of the parks, swimming pools, country clubs, church recreation areas, etc., accounted for some 13.58 percent of the total number of areas. Thus, although some of the category determinations were made on the basis of somewhat nebulous distinctions, the end results would tend to fall into an expected pattern. Consequently, this cursory examination and classification of all recreation areas in Georgia may be of value in the overall state planning process.

The distribution of Georgia recreation areas by BOR classification is shown in Table VIII-7.

D. MAJOR PUBLIC RECREATION SUPPLY

Shown in the following pages are the GEMS Inventory tables for State Parks, Game and Fish, and Historical areas. These serve as a ready summary reference and a continuous annual inventory updating system for state managed areas. Project name, map code number, grid location, county and region identification, size, BOR land class, and ownership are shown. Federal areas will be summarized and added to this running inventory of major public recreation areas in Georgia.

As a management tool, this provides basic statewide summary data for continuous coordination of planning efforts, statewide and by region, with federal, regional, local, and major private sector interests. Used with the GEMS, this simple system has been quite helpful in working with the area commissions in developing more detailed comprehensive regional and local plans.

INVENTORY INDEX OF STATE PARKS
EXISTING, PROGRAMMED, PROPOSED

Map Unit	Project	Code County/No.	APDC NAME	Acres	BOR Land Class	Ownership	Location Grid Coord.	Env.Mgt. Zone
1.	A. H. Stephens	265	Central Savannah	1,161	II & VI	Fee Simple	33° 34' lat. 82° 54' long.	
2	Amicalola Falls	085	Ga. Mt.	263	II	Fee Simple	34° 34' 84° 15'	
4	Black Rock Mt.	241	Ga. Mt.	1,182	I & III	Fee Simple	34° 55' 83° 25'	
5	Bobby Brown	105	Northeast Ga.	664	II	License (25 U.S.C.E. yr.)	33° 59' 82° 35'	
6	Chehaw	177/095	Southwest Ga.	586	II	Fee Simple	31° 37' 84° 08'	
8	Crooked River	039	Coastal Plain	500	II	Fee Simple	30° 51' 81° 34'	
9	Elijah Clark	181	Central Savannah	447	II & VI	License U.S.C.E.	33° 51' 82° 24'	
11	Fort Mountain	213	North Ga.	1,897	II & VI	Fee Simple	34° 46' 84° 42'	
12	Fort Yargo	013	Northeast Ga.	1,680	II	Fee Simple	33° 58' 83° 43'	
13	F. D. Roosevelt	145	Lower Chattahoochee	4,980	II & VI	Fee Simple	32° 51' 84° 48'	
15	Ga. Vets. Mem.	081	Flint - Middle	1,037	II	Fee Simple	31° 57' 83° 54'	
16	Gordonia Alatamaha	267	Ga. Southern	209	II	Fee Simple	32° 05' 82° 08'	
17	Hard Labor Creek	211/297	Northeast Ga.	5,804	II	Fee Simple	33° 40' 83° 36'	
45	Hart	147	Ga. Mt.	147	II	License (25 U.S.C.E. yr.)	34° 23' 82° 55'	
42	High Falls	207	Middle Ga.	970	II	Fee Simple	33° 11' 84° 01'	
19	Indian Springs	035	McIntosh Trail	510	II & VI	Fee Simple	33° 15' 83° 56'	
21	Keg Creek	073	Central Savannah	867	II	License (50 U.S.C.E. yr.)	33° 39' 82° 17'	
22	Kolomoki Mounds	099	Southwest Ga.	1,293	II & VI	Fee Simple	31° 28' 84° 56'	
24	Laura S. Walker	299	Slash Pine	306	II	Use Agreement Ga. Forestry Com.	31° 08' 82° 13'	
26	Little Ocmulgee	309/271	Heart of Ga.	1,397	II	Fee Simple	32° 06' 82° 54'	
27	Magnolia Springs	165	Central Savannah	1,162	II	Fee Simple	32° 53' 81° 57'	

INVENTORY INDEX OF STATE PARKS (cont.)

Map Unit	Peoject	Code County/No.	APDC ~~XXX~~ NAME	Acres	BOR Land Class	Ownership	Location Grid Coord.	Env.Mgt Zone
28	Mistletoe	073	Central Savannah	1,920	II	License (25 U.S.C.E. yr.)	33°39' lat. 82°23' long.	
30	Red Top Mountain	015	Coosa Valley	1,246	II	License (50 U.S.C.E. yr.)	34°09' 84°43'	
31	Reed Bingham	075/071	Southwest Ga.	1,605	II	Fee Simple	31°11' 83°32'	
33	Seminole	253	Southwest Ga.	343	II	License (25 U.S.C.E. yr.)	30°48' 84°53'	
36	Tugaloo	119	Ga. Mt.	393	II	License (50 U.S.C.E. yr.)	34°30' 83°04'	
38	Victoria Bryant	119	Ga. Mt.	381	II	Fee Simple	34°18' 83°10'	
39	Vogel	291	Ga. Mt.	221	II	Fee Simple	34°46' 83°56'	
52	Tanner's Beach	045	Chattahoochee Trail	136	II	Fee Simple	33°36' 85°09'	
14	George W. Carver	015/057	Coosa Valley North Ga.	307	II	License (50 U.S.C.E. yr.)	34°08' 84°40'	
46	Hamburg	303	Oconee	740	III	Fee Simple	33°12' 82°47'	
25	Lincoln	165	Central Savannah	53	II	Fee Simple	33°48' 81°57'	
43	Moccasin Creek	241	Ga. Mt.	31	I	Fee Simple	34°51' 83°35'	
3	Bainbridge	087	Southwest Ga.	7	I	Fee Simple	30°55' 84°35'	
10	Fairchild	253	Southwest Ga.	255	III	License (25 U.S.C.E. yr.)	30°49' 84°55'	
18	Hawkinsville	235	Heart of Ga.	19	IV	Fee Simple	32°15' 83°29'	
23	Lake Chatuge	281	Ga. Mt.	14	III	Fee Simple	34°58' 83°49'	
40	Yam Grandy	107	Central Savannah	11	I	Fee Simple	32°36' 82°20'	
48	Whitewater Creek	193	Middle Flint	504	II	Fee Simple	32°21' 84°04'	
34	Watson Mill Bridge	221	Northeast Ga.	143	VI	Fee Simple	34°02' 83°05'	
49	General Coffee	069	Slash Pine	1,480	III	Fee Simple	31°31' 82°46'	
47	Richmond Hill	029	Coastal	190	II	Fee Simple	31°53' 81°11'	

INVENTORY INDEX OF STATE PARKS (cont.)

p it	Peoject	Code County/No.	APDC ~~Xxx~~ NAME	Acres	BOR Land Class	Ownership	Location Grid Coord.	Env.Mgt. Zone
57	East Bank	087	Southwest Ga.	176	III	License (25 yr.) U.S.C.E.	30°43' lat. 84°51'long.	
56	Four Mile Creek	087	Southwest Ga.	389	III	License (25 yr.) U.S.C.E.	30°51' 84°37'	
55	Spring Creek	087	Southwest Ga.	560	III	License (25 yr.) U.S.C.E.	30°51' 84°45'	
54	Skidaway	051	Coastal	480	III	Fee Simple	31°58' 81°03'	
53	Panola Mountain	247	Atl. Metro.	471	IV	Fee Simple	33°37' 84°10'	
50	Providence Canyon	259	Lower Chattahoochee	1,061	IV	Fee Simple	32°04' 84°55'	
58	Zahnd	295	Coosa Valley	163	IV	Fee Simple	34°39' 85°28'	
	Baldwin Area	009	Oconee	600	III		33°05' 83°18'	
	Dixie Creek	285	Chattahoochee Flint	688	III		33°05' 85°04'	
	Maple Creek	285	Chattahoochee Flint	899	III		32°56' 85°10'	
	Paynes Creek	147	Ga. Mt.	400	III		34°28' 82°58'	
	Murray Creek	181	Central Savannah	625	III		33°54' 82°29'	
	Lloyd Shoals	035/159	Oconee	400	III		33°27' 83°50'	
	Blythe Island	127	Coastal	976	III		31°10' 81°33'	
	Tired Creek	131	Southwest Ga.	3,457	III		30°56' 84°16'	
	Richland Creek	133	Oconee	800	III		33°23' 83°10'	
	Sugar Creek	237/211	Oconee	500	III		33°28' 83°18'	
	Altamaha River Site	001	Ga. Southern	500	III		31°56' 82°17'	
	Wilkes County Site	317	Central Savannah	500	III		33°40' 82°30'	

INVENTORY INDEX OF STATE PARKS (cont.)

Map Unit	Project	Code County/No.	APDC ~~XXX~~ NAME	Acres	BOR Land Class	Ownership	Location Grid Coord.	Env.Mgt. Zone
41.	Reynoldsville	253	Southwest Ga.	100	III	License (25 U.S.C.E. yr.)	30°51' lat. 84°46'long.	
44	Blackburn	187	Ga. Mt.	231	VI	Fee Simple	34°27' 84°02'	
7	Cloudland Canyon	083	Coosa Valley	1,699	IV	Fee Simple	34°50' 85°29'	
35	Stephen C. Foster	049	Slash Pine	80	IV	License-U.S. Dept. of Int. (25 yr.)	30°49' 82°22'	
20	Jeff. Davis Mem.	155	Coastal Plain	12	VI	Fee Simple	31°40' 83°23'	
29	Nancy Hart	105	Northeast Ga.	4.86	VI	Fee Simple	34°00' 82°45'	
32	Santa Maria	039	Coastal	65	VI	Fee Simple	30°47' 81°35'	
	Stone Mountain				IV-IV-I		33°48' 84°09'	
	Jekyll Island				I-II-III		31°05' 81°29'	
	Lake Lanier				II		34°10' 84°04'	
	Unicoi NRES				II			
	Sweetwater Creek	097	Atl. Metro	1,400	VI		33 44' 84 38'	

INVENTORY INDEX OF STATE WILDLIFE MANAGEMENT AREAS

EXISTING, PROGRAMMED, PROPOSED

Map Unit	Project	County	APDC	Acres	BOR Land Class	Ownership	Location Grid Coord.	Env. Mg Zone
1	Pigeon Mountain	Walker	Coosa Valley	17,000	III, VB	Southern Timber-land and individu-als	34°41' 85°23'	
2	John's Mountain	Floyd, Gordon, Walker, Whitfield	Coosa Valley & N. Georgia	20,000	III	Public--USFS, Several private individuals	34°35' 85°04'	
3	Berry College	Floyd	Coosa Valley	30,000	III	Berry Schools, Inc.	34°18' 85°14'	
4	Cohutta	Murray, Gilmer, Fannin	N. Georgia	90,000	III, VB	Public (USFS)	34°53' 84°37'	
5	Coosawatee	Gilmer, Murray	N. Georgia	30,000	III, VB	Ga. Power Co., U.S. Army C of E, individuals	34°39' 84°24' 34°38' 84°36'	
6	Allatoona	Bartow, Cherokee	Coosa Valley, N. Georgia	28,000	III	U.S. Army C of E, Ga. Kraft Co.	34°10' 84°38'	
7	Blue Ridge	Lumpkin, Fan-nin, Dawson, Union	Ga. Mtns., N. Georgia	40,000	III, VB	Public (USFS).	34°38' 84°10'	
8	Chestatee	Lumpkin, Union, White	Ga. Mtns.	25,000	III, VB	Public (USFS)	34°41' 83°53'	
9	Chattahoochee	White, Union, Towns	Ga. Mtns.	20,000	III, VB	Public (USFS)	34°45' 83°47'	
0	Swallow Creek	Towns	Ga. Mtns.	9,000	III	Public (USFS)	34°52' 83°40'	
11	Lake Burton	Rabun	Ga. Mtns.	15,000	III	Public (USFS)	34°52' 83°37'	

*programmed p - proposed

INVENTORY INDEX OF STATE WILDLIFE MANAGEMENT AREAS (cont.)

Map Unit	Project	County	APDC	Acres	BOR Land Class	Ownership	Location Grid Coord.	Env. Mgt. Zone
12	Coleman River	Rabun	Ga. Mtns.	13,000	VB	Public (USFS)	34°57' 83°30'	
13	Warwoman	Rabun	Ga. Mtns.	14,000	III	Public (USFS)	34°56' 83°16'	
14	Lake Russell	Habersham, Stephens, Banks	Ga. Mtns.	17,000	III	Public (USFS), individuals	34°32' 83°23'	
15	Whites Burg	Carroll, Douglas	Chattahoochee, Flint, ARC	28,000	III	Ga. Kraft Co.	33°33' 84°53'	
16	B. F. Grant (Piedmont Exp. Station)	Putnam	Oconee	14,985	III	Univ. of Georgia	33°24' 83°28'	
17	Clark Hill	McDuffie, Wilkes	Central Savannah River	10,000	III	U.S. Army C of E	33°38' 82°31'	
18	Cedar Creek	Jones, Jasper, Putnam	Oconee, Middle Ga.	40,000	III	Public (USFS)	33°11' 83°30'	
19	Baldwin State Forest	Baldwin	Oconee	5,000	III	Ga. Forestry Commission	33°02' 83°13'	
20	Oaky Woods	Houston, Pulaski	Middle Ga., Heart of Ga.	37,000	III	Ga. Kraft Co., Continental Can Company	32°28' 83°33	
21	Ocmulgee	Twiggs, Bleckley	Middle Ga.	28,000	III, VB	Continental Can Company	32°29' 83°28'	
22	Albany Nursery	Dougherty	S. W. Ga.	325	III	Game and Fish	31°35' 84°16'	

*programmed p - proposed

INVENTORY INDEX OF STATE WILDLIFE MANAGEMENT AREAS (cont.)

Map Unit	Project	County	APDC	Acres	BOR Land Class	Ownership	Location Grid Coord.	Env. Mg Zone
3	Chickasaw Hatchery	Baker, Calhoun, Dougherty	S. W. Ga.	26,000	III, VB	Saint Joe Paper Co.	31°28' 84°25'	
4	Lake Seminole	Decatur, Seminole	S. W. Ga.	3,700	III	U.S. Army C of E	30°46' 84°48'	
5	Alapaha	Atkinson, Berrien	Coastal Plains	20,000	III	Private--several individuals	31°22' 83°07'	
6	Arabia Bay	Clinch	Slash Pine	45,000	III	Private, Internt'l. Paper Company	31°09' 82°52'	
7	Grand Bay	Lowndes, Lanier	Coastal Plains	5,866	III	Public (USFS)	30°58' 83°09'	
8	Suwanoochee	Clinch, Echols, Lanier	Slash Pine, Coastal Plains	70,000	III	Langdale Co., S. Rosin Chemical Company	30°53' 82°56'	
9	Bullard Creek	Addling, Jeff Davis	Altamaha	18,000	III	Continental Can Company	31°56' 82°29'	
0	Waycross State Forest	Ware	Slash Pine	37,500	III, VB	Ga. Forestry Commission	31°07' 82°14'	
1	Brunswick Pulp and Paper Co.	Glynn, Camden, Wayne	Coastal, Altamaha, Slash Pine	40,500	III	Brunswick Pulp and Paper Co.	31°26' 81°41' 31°02' 81°36'	
2	Altamaha	Brantley, Glynn, McIntosh	Coastal	18,000	III, V	Game and Fish	31°17' 81°44' 31°20' 81°26'	
3	Sapelo Island	McIntosh	Coastal	12,250	III, V	Game and Fish	31°27' 81°15'	

*programmed p - proposed

INVENTORY INDEX OF STATE WILDLIFE MANAGEMENT AREAS (cont.)

Map Unit	Project	County	APDC	Acres	BOR Land Class	Ownership	Location Grid Coord.	Env. Mgt. Zone
34	Rich Mountain	Gilmer	N. Georgia	25,000	III	Public (USFS), individuals	34°42' 84°20'	
35	Cooper's Creek	Union	Ga. Mtns.	28,000	III	Public (USFS)	34°46' 84°02'	
36	Brasstown Bald	Union, Town, White	Ga. Mtns.	p		Public (USFS)	34°50' 83°50'	
38	Chechero (Chattooga River WMA)	Rabun, Habersham	Ga. Mtns.	p			34°48' 83°18'	
39	West Point WMA	Troup, Heard	Chattahoochee, Flint	15,000 *		Public (C of E)	33°12' 85°12'	
40	Ogeechee	Warren, Hancock	Oconee	24,000	III	Continental Can Company	33°22' 82°49' 33°17' 82°48'	
41	Stewart Webster	Stewart	Lower Chattahoochee	p			32°11' 84°53'	
42	Little Satilla	Pierce, Wayne	Altamaha	16,000	III	Union Camp Co.	31°22' 82°04'	
43	Rock Creek	Gilmer, Murray	N. Georgia	p			34°44' 84°37'	
44	Pine Log Mt.	Cherokee, Bartow, Pickens, Gordon	N. Georgia, Coosa Valley	p			34°18' 84°37'	
45	Talking Rock	Dickens, Gordon, Gilmer	N. Georgia, Coosa Valley	p			34°31' 84°37'	

*programmed p - proposed

INVENTORY INDEX OF STATE WILDLIFE MANAGEMENT AREAS (cont.)

Map Unit	Project	County	APDC	Acres	BOR Land Class	Ownership	Location Grid Coord.	Env. M Zone
6	Lake Blue Ridge (Ext.)	Fannin, Gilmer	N. Georgia			Public (USFS)	34°48' 84°15'	
7	Polk County WMA	Polk, Floyd	Coosa Valley	p			34°01' 85°21'	
8	Haralson County	Haralson, Polk	Coosa Valley	p			33°50' 85°17'	
9	Paulding County WMA	Paulding, Carroll, Douglas	Coosa Valley, N. Georgia				34°02' 84°53' 33°49' 84°57'	
0	Hart County WMA	Hart, Elbert	Ga. Mtns., N.E. Ga.	p			34°16' 82°50'	
1	Trotters Shoals	Elbert	N.E. Ga.	p			34°08' 82°46'	
2	Brier Creek	Screven, Burke	Central Savannah Region	p			32°58' 81°38'	
3	Bryan Creek	Bryan, Liberty	Coastal Region	p			31°51' 81°18'	
4	Clay County	Clay, Randolph	Lower Chattahoo-chee	p			31°44' 84°56'	
5	Webster County A & B	Webster	Middle Flint	p			32°06' 84°29' 32°02' 84°28'	
6	Etowah WMA	Dawson, Forsyth	Ga. Mtns.	p			34°21' 84°10'	

*programmed p - proposed

INVENTORY INDEX OF STATE WILDLIFE MANAGEMENT AREAS (cont.)

Map Unit	Project	County	APDC	Acres	BOR Land Class	Ownership	Location Grid Coord.	Env. Mgt. Zone
57	Lake Lanier	Hall, Banks, Habersham	Ga. Mtns.	p			34°25' 83°40'	
58	Black Mt. WMA	Stephens, Habersham	Ga. Mtns.	p			34°39' 83°22'	
59	Blue Ridge Extension	Pickens, Dawson, Gilmer	Coosa Valley, N. Georgia	p			34°31' 84°20'	
60	Lewis Island	McIntosh	Coastal	5,000 *	III, V		31°25' 81°35'	

*programmed p - proposed

INVENTORY INDEX OF GEORGIA HISTORICAL COMMISSION
EXISTING, PROGRAMMED, PROPOSED

Map Unit	Project	County No.	APDC No.	Acres	BOR Land Class	Ownership	Location Grid Coord.	Env. Mgt. Zone
3	Etowah Mounds Archeological Area	15-1	1	62.34	VI	State	84°47'50" - 34°07'10"	
11	Waynesboro Historical Museum	33-0	9	0.356	VI	State	82°50'05" -33°05'15"	
17	Ft Jackson Maritime Museum	51-38	14	7.8	VI	State	81°02'07"-32°05'63"	
20	Fort McAllister	29-12	19	30.1	VI	State	81°11'31"-31°53'37"	
2	New Echota	129-2	1	200.0	VI	State	84°54'35"-34°32'33"	
7	C.W.Long Medical Muse.	157-0	5	0.03	VI	State	83°34'40"-34°07'10"	
15	Chehaw Indian Monument	177-0	16	0.75	VI	State	84°11'30"-31°46'00"	
18	Midway Museum	179-0	19	6.77	VI	State	81°25'45"-31°49'07"	
19	Fort Morris	179-16	19	7.42	VI	State	81°17'04"-31°45'53"	
5	Dahlonega Courthouse Gold Museum	187-0	3	0.264	VI	State	83°58'53"-34°31'50"	
21	Fort King George	191-3	19	12.0	VI	State	81°25'03"-31°22'00"	
14	Confederate Naval Museum	215-31	15	1.0	VI	State	84°59'24"-32°27'16"	
8	Eagle Tavern	219-8	5	1.0	VI	State	83°24'23"-33°51'50"	
4	New Hope Church Monu.	223-10	1	0.85	VI	State	84°47'15"-33°56'50"	
10	Mackay House	245-0	9	1.0	VI	State	82°00'12"-33°04'05"	
6	Historic Traveler's Rest	257-14	3	2.995	VI	State	83°13'15"-34°36'15"	
13	Troup Tomb	283-6	12	0.985	VI	State	82°42'20"-32°20'10"	
16	Lapham Patterson House	275-0	16	1.001	VI	State	83°58'59"-30°50'46"	
1	Vann House	313-0	2	7.93	VI	State	84°50'35"-34°45'50"	
9	Washington Wilkes Hist Museum	317-0	9	1.0	VI	State	82°44'03"-33°44'07"	
12	Jarrell Plantation	169-0	10	7.0	VI	Proposed	83°43'30"-33°02'20"	

STATISTICAL NEEDS AND PRIORITIES

CHAPTER IX

CHAPTER IX

NEEDS AND PRIORITIES

Needs and priorities exist statewide and by region in three broad categories when related to land planning. These are: (1) urban, (2) rural, and (3) resource based.

A. NEEDS

There are two major needs indicators in the Georgia SCORP:

1. Need for conservation of limited natural recreation resources
2. Statistically-measured Demand less Supply=Needs.

The first is inherent in the physical-biological makeup of the environment. Conservation of such areas is essential for environmental quality maintenance, the setting of most recreation facilities, and to natural resource and historic-oriented leisure-time activities in particular.

The second measures, to a degree, more specifically what most people do for recreation now against the supply of existing opportunities. It projects population growth and an assumed recreation demand and need for more of the same activities and facilities in 1975, 1980, and 1985.

1. NEED FOR CONSERVATION OF LIMITED NATURAL RECREATION RESOURCES

Resource analysis is used to identify the irreplaceable BOR Class IV, V, and VI types of areas and those physical-biological systems, or critical areas of concern, which must be protected for environmental quality maintenance. These types of areas are identified as physiographic units and corridors on the surface landscape.* Public policies are developed and public investments made as is feasible to protect them. Many of these areas serve primary recreation land use purposes. Many serve other purposes, and recreation is a secondary use of the open space.

The need for conservation of natural recreation resources is further identified in the GEMS chapter and in each region's analysis for the SCORP as developed by the Area Planning Commissions. Additional policies should be developed, as defined in the goals section, in order

*They are commonly referred to as special areas, natural areas, or areas of critical concern. Georgia uses a more inclusive term to refer to these areas--generally as protective environments.

to protect the irreplaceable natural recreation area needs and environmental values.

In developing sound statewide, regional, and urban plans, both needs should be used jointly. Unique areas should be preserved, and a river must have a right-of-way for its floodwaters to flow through. Both have naturally shaped the regional landscape and urban settings, and both are parts of the living environment.

Parks and many other important man-made recreation areas and facilities should be used to help shape the urban growth patterns and to provide other quality recreation opportunities to meet the activity preferences indicated by the people. The statistically-measured needs are most useful in helping to show current popular demands and needs which exist over the present available supply. The planner must still guide the proper location at the proper time.

Planners of Georgia's Area Planning and Development Commissions are using both indicators in developing and refining the plans for their regions in cooperation with their local governments.

The major objective of a state comprehensive outdoor recreation plan is to identify in depth the needs by resource and facility, on both the state and regional levels. The compared statistical needs for 1970, 1975, 1980 and 1985 are summarized in Tables IX-3--IX-6 at the end of this chapter. Numbers with a - (minus) sign prefix denote need. Those without a prefix mean idle capacity, or excessive supply. The same tabulations were completed for each of the 19 outdoor recreation regions within the state.

2. STATISTICALLY MEASURED NEEDS

Statistical need is defined as excess of demand over supply. In order to make valid comparisons of supply and demand, and thus ascertain statistical needs, a common unit of measurement was used: annual activity occasion. This is defined as one person six years or older pursuing or participating in any recreation activity in a day for a half hour or more. This common denominator can be applied to any recreation resource or facility.

An excess of demand, or a statistical need or unmet demand, was found at the state level for 25 of the 35 recreation resources and facilities investigated. Potential new development and expansion for the year 1975 will care for some of the current deficiency. But since statistical needs are increasing, even the developments anticipated for 1975 will not fill the demand at that time.

Statistical needs on the state level, measured in annual activity occasions, are ranked in Table IX-1. For the four years specified, the first three needs (numerically) account for about 42 percent of the total need. They are: trail systems for biking, walking in urban areas, and rural trail systems. For those terminal years, 26 of the 35 outdoor

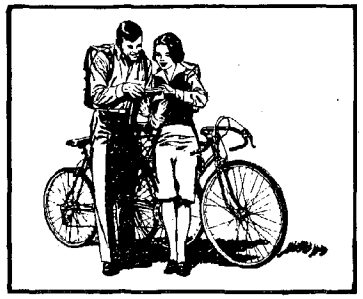
TABLE IX-1

RANKING OF THE NEEDS BY RECREATION RESOURCE OR FACILITY
STATE OF GEORGIA
(IN 1,000 ACTIVITY OCCASIONS)

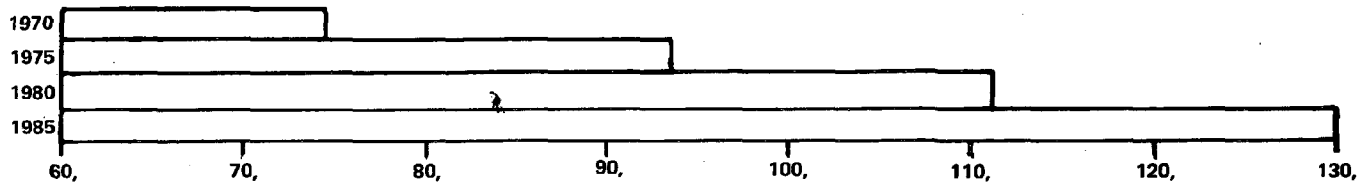
OUTDOOR RECREATION RESOURCE OR FACILITY NEEDED	1970		1975		1980		1985	
	Need	Percent	Need	Percent	Need	Percent	Need	Percent
Bike Trail	74,262	21.37	93,840	21.32	111,593	20.84	130,000	20.45
Urban Trail	42,691	12.29	53,901	12.24	65,377	12.20	77,352	12.17
Rural Trail	31,585	9.09	39,365	8.94	46,991	8.77	54,124	8.52
W.W. Fishing Stream	23,492	6.76	29,637	6.73	35,145	6.56	40,850	6.42
Baseball Courts	20,675	5.95	26,215	5.95	31,461	5.87	36,710	5.77
Docking-Boating	15,216	4.38	19,091	4.34	23,051	4.30	27,110	4.26
Fishing Lake	15,092	4.34	18,573	4.22	24,081	4.50	29,786	4.68
Handball	14,323	4.12	18,061	4.10	21,559	4.02	25,058	3.94
Picnic Sites	13,865	3.99	17,551	3.99	21,315	3.98	25,160	3.96
Softball Fields	13,037	3.75	16,656	3.78	20,154	3.76	23,653	3.72
Swimming Pool	11,999	3.45	16,692	3.79	22,636	4.23	28,698	4.51
Soccer and Football	10,058	2.89	12,798	2.91	15,421	2.88	18,046	2.84
Horse Trails	8,504	2.45	10,645	2.42	12,639	2.36	14,542	2.29
Motorized Bike Trail	8,434	2.43	10,572	2.40	12,753	2.38	14,710	2.31
Trout Stream	8,254	2.38	10,507	2.39	12,513	2.34	14,530	2.28
Boating & W. Skiing	8,046	2.32	9,776	2.22	13,736	2.56	17,794	2.80
Multipurpose Courts	6,090	1.75	7,709	1.75	9,458	1.77	11,208	1.76
Trout Lake	5,925	1.71	8,175	1.86	10,180	1.90	12,198	1.92
Croquet Courts	3,580	1.03	4,512	1.02	5,386	1.01	6,261	0.98
All-Terrain Vehicle	3,468	1.00	4,376	0.99	5,281	0.99	6,180	0.97
Golf Course	3,337	0.96	4,563	1.04	6,087	1.14	7,689	1.21
Tennis Court	2,123	0.61	2,764	0.63	3,549	0.66	4,327	0.68
Tent Camping	1,674	0.48	2,057	0.47	2,595	0.48	3,133	0.49
Wilderness Trail	847	0.24	1,072	0.24	1,280	0.24	1,489	0.23
Primitive Camping	639	0.18	797	0.18	968	0.18	1,111	0.17
Canoe Trail	282	0.08	358	0.08	436	0.08	508	0.08
Water Skiing Acres	0	0	0	0	13	0.00	1,957	0.31
Small Game Habitat	0	0	0	0	0	0	983	0.15
Trailer Camp Sites	0	0	0	0	0	0	842	0.13
TOTAL	347,498	100.00	440,263	100.00	535,658	100.00	636,009	100.00

Source: *Statistical Summary*, Volume I, Page S-64.
Note: The need is expressed in thousands of outdoor recreation activity occasions for the population of the state of Georgia for a year. These figures denote the unmet demand by year. The 1975, 1980, and 1985 figures include not only the present carrying capacity but also the potential capacities reported. Of 35 resources or facilities, 26 resulted in need by the year 1970, 26 by 1975, 27 by 1980, and 29 by 1985.

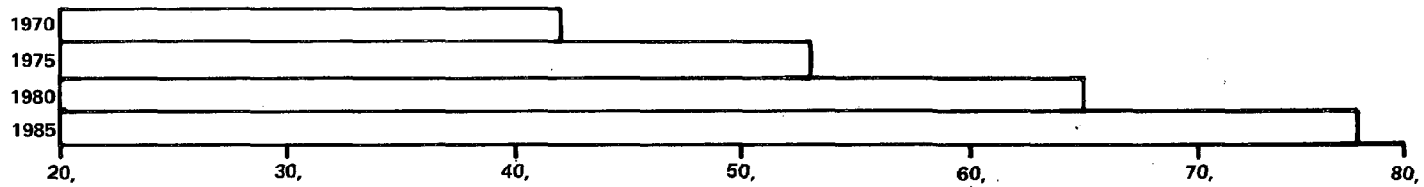
EIGHT 1970 TOP-RANKING GEORGIA RECREATION NEEDS FOR SELECTED YEARS
(in 1,000 activity occasions)



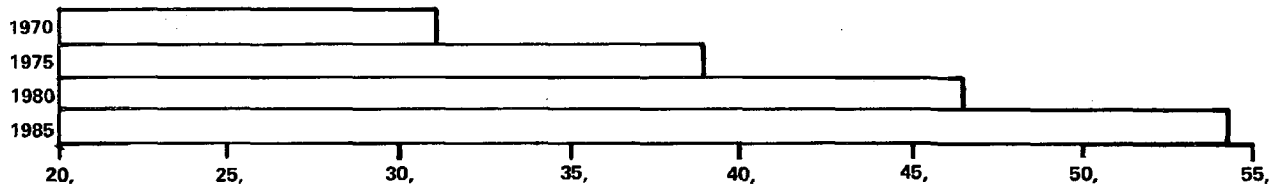
BIKE TRAIL



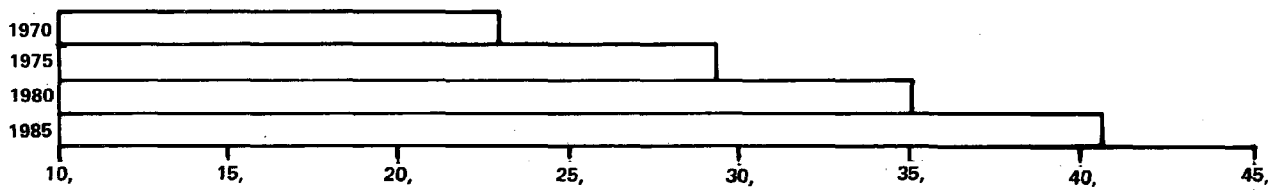
URBAN TRAIL

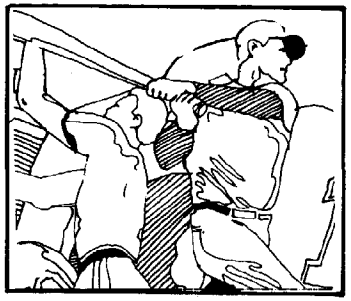


RURAL TRAIL

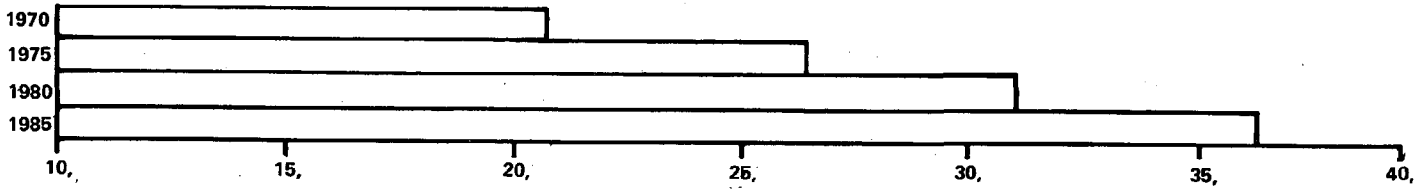


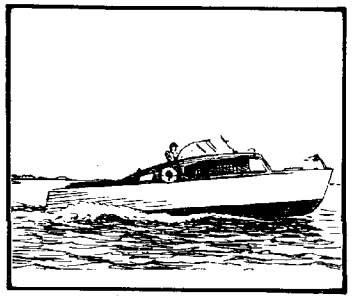
WARM WATER FISHING STREAM



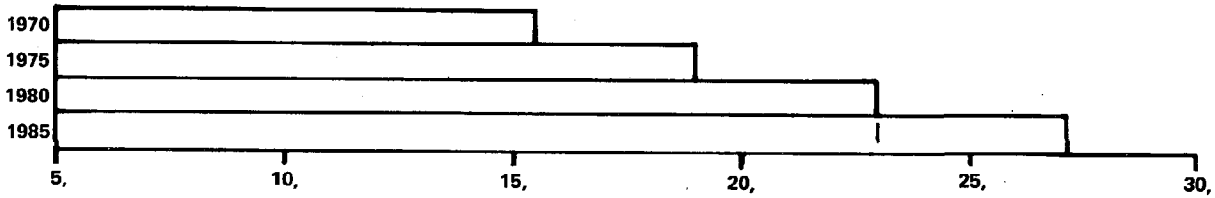


BASEBALL COURTS

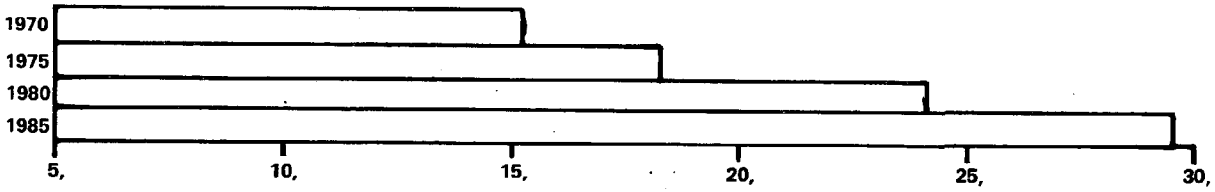


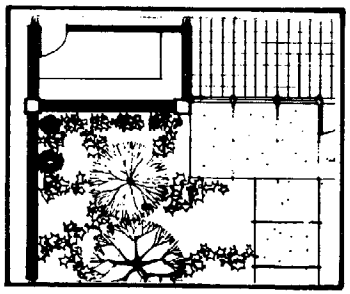


DOCKING–BOATING

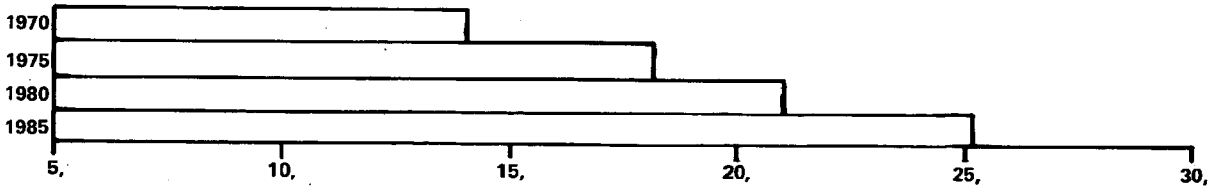


FISHING LAKE





HANDBALL



recreation resources and facilities in 1970, 26 in 1975, 27 in 1980, and 29 in 1985 were predicted to be in need of additional development. The highest ten needs account for about 75 percent of the total need. Though for the year 1975 potential development was added to current available facilities to obtain the 1975 supply, the need for the highest ten, calculated as a percent of the annual total, dropped almost none or remained the same.

Current needs total 347.5 million outdoor recreation activity occasions. They increase to 440.3 million in 1975, 535.7 million in 1980, and to 636.0 million in 1985. The relative distribution of the needs for those years can be seen in Table IX-1. These needs represent quality outdoor recreation experiences--experiences for which are now being substituted recreation in undeveloped areas, in other states or countries, in home backyards, or in crowded facilities. In some cases activities are not pursued, even when wanted, because of lack of facilities or crowded conditions. The selection of the most urgent need(s) for the most people is the major problem of outdoor recreation planning.

Figures in Table IX-2 reflect the current problems of outdoor recreation in the state of Georgia and those in the next fifteen years. The total demand generated by Georgia's population increases faster than the demand satisfied by the available and potential supply. The need, however, increases even faster--an alarming situation if no action is taken. Presently over 56 percent of the total demand is not met by the available supply. This results in overcrowding, depletion of the resource or maintenance of the facility, or Georgia people go outside the state and out-of-staters continue to use Georgia as a pass-through state. The extent to which demand is satisfied will continue to decrease over the next fifteen years. Joint efforts by the public and private sectors in outdoor recreation development and land and water acreage acquisition are badly needed.

B. PRIORITIES

Statewide, regional, and local priorities should be considered in three broad categories to relate with proper land and water planning. These are: (1) urban, (2) rural, and (3) resource-based needs and priorities.

Needs and priorities vary by region and urban areas therein. The major factors influencing these differences are each region's natural resource base differences in recreation preferences and needs as expressed by the people, and variations in the investments for recreation areas and facilities which have already been made. One community may need land, another may need development.

The state provides a guideline and criteria for priority setting. The federal, state, and local government roles defined in Chapter I are part of these guidelines.

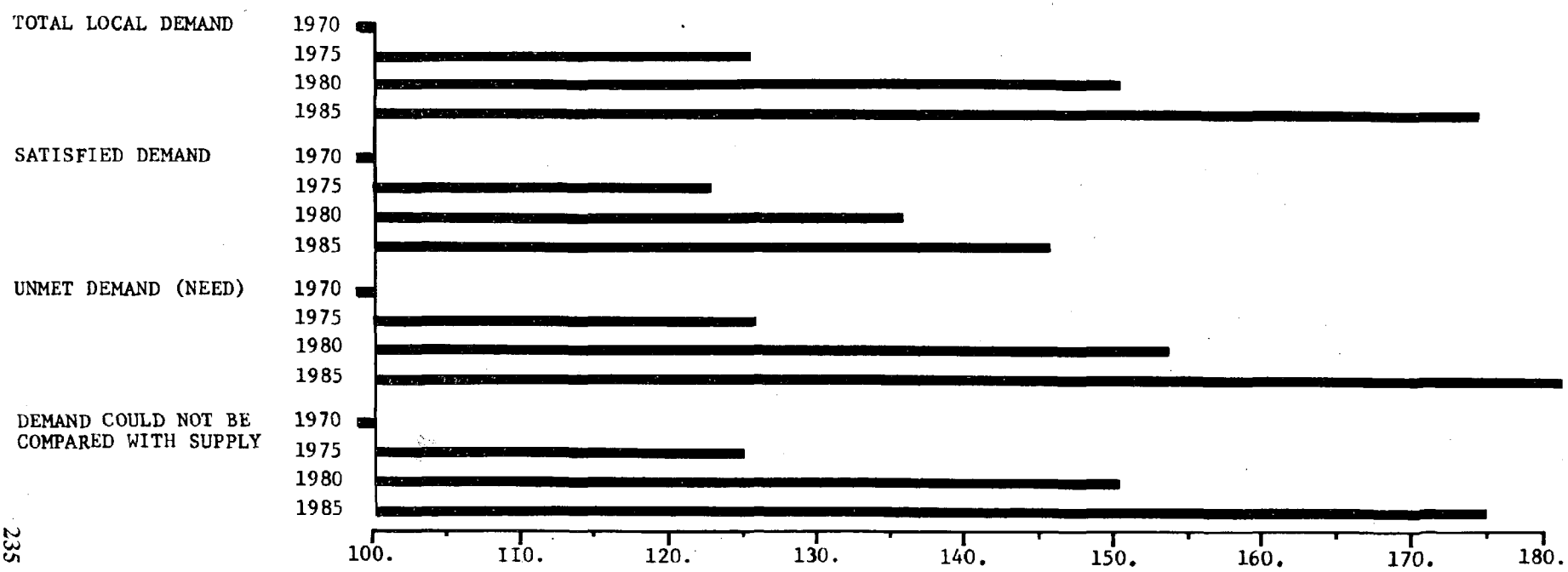
In addition, criteria to guide state and local land acquisition

TABLE IX-2

TRENDS IN TYPES OF DEMAND AT STATE LEVEL BY YEAR (IN MILLIONS OF ACTIVITY OCCASIONS)

Type of Demand	1970		1975		1980		1985	
	Activity Occasions	Percent	Activity Occasion	Percent	Activity Occasions	Percent	Activity Occasions	Percent
TOTAL LOCAL DEMAND	611.9	100.0	770.9	100.0	921.3	100.0	1,075.1	100.0
Satisfied demand	87.9	14.4	108.3	14.0	119.8	13.0	128.9	12.0
Unmet demand (need)	347.5	56.8	440.3	57.1	535.7	58.1	636.0	59.1
Demand could not be compared with supply	176.5	28.8	222.3	28.8	265.8	28.9	310.2	28.9

Increase in Types of Demand: 1970 = 100



Source: *Statistical Summary*, Volume I, State Totals-64, 65, and 66.

EXHIBIT IX-1

PRIORITIES

(Criteria for Project Priorities: for Kinds of Recreation Areas & Facilities by Regional & Urban Locations & Mgt. Resp.)

ACTION PROGRAM--PRIORITIES

STATE

A. ACQUISITION

Classes IV, V, VI

B. ACQUISITION

Classes I, II, III

C. DEVELOPMENT

Outdoor Recreation Facilities

D. DEVELOPMENT

Support Facilities to Outdoor Recreation

*LOCAL

A. ACQUISITION

Classes I, II, III

B. ACQUISITION

Classes IV, V, VI

C. DEVELOPMENT

[1]Basic Local Outdoor Recreation Facilities

D. DEVELOPMENT

[2]Secondary Local Outdoor Recreation Facilities and Maintenance Facilities

*THE ABOVE-STATED PRIORITIES SHOULD BE APPLIED TO EACH LOCAL SITUATION INDIVIDUALLY BY THE PROFESSIONAL RECREATION PLANNER.

1. Basic Local Outdoor Recreation Facilities: Playground, Playfield, Community District or Municipal Park, County or Regional Park, and County Camp.

2. Secondary Local Outdoor Recreation Facilities: In general all other local recreation facilities and maintenance facilities necessary to the use of outdoor recreation facilities.

PART 640.1.2 HAS BEEN TAKEN INTO CONSIDERATION IN THE PREPARATION OF THE ABOVE PRIORITIES.

and development priorities for balanced regional and local plans are provided in Exhibit IX-1. This is based on the BOR land classifications and the state and local government roles. Comprehensive state systems plans, together with the regional and local plans, define the priority projects within this framework.

The state sets priorities for state areas based largely on the significant natural value of an area. Other factors considered include whether the area is threatened by destruction; lack of similar recreation resource opportunities in the state or region; an area's size, significance, and its capacity to serve people; and the questions of timing purchases ahead of speculation.

APDCs have been requested to take both regional natural recreation resources and community facility needs into consideration in developing their regional plans and priorities. A guideline entitled "Planning for Better Recreation Opportunities in Georgia" was developed and distributed to help local governments analyze and set local priorities within the regional and statewide frameworks.

Should further priority setting be required, the state will more precisely define the problem and require more specific priority setting at the statewide, regional, and local level.

In the establishment of the priority system, the urban, rural, and resource based recreation needs have been carefully considered with regard to the overall goal of a balanced statewide recreation plan and living environment for Georgia.

The Land and Water Conservation Fund Act and the Open Space Program of the Housing and Urban Development in particular have been considered in the overall policy framework and tools of implementation, together with the Army Corps of Engineers, Agriculture's U.S. Forest Service and Soil Conservation Service, Interior's Historic Preservation, Fish and Wildlife Conservation Acts, and the Federal Power Commission's regulatory act.

C. COMPARISONS AT STATE LEVEL

The needs and priorities for regional development are given in Volume II, Regional Analysis. The base of the priority selection is the need analysis derived from a statistical comparison of supply and demand on the regional level; and the state level comparison is a composite figure of all the 19 regional analyses. Due to limited space, only the state comparisons are published here (Tables IX-3--IX-6).

TABLE IX-3. This table gives present and potential selected outdoor recreation resources, facilities, and features for every 1,000 persons, by adults (20 years and older) and children (6 to 19 years old, inclusive). The facilities,

resources, and features inventoried were only those that are strictly outdoor recreation oriented. For example, motel and hotel units were inventoried only if they served a nearby state park, private beaches, or themselves were resort hotels. Total present facilities are reflected in 1970-1971 figures. Potential and present includes currently available facilities and those which are under construction or are planned and will be available within three to five years. Figures reflect units per 1,000 persons.

TABLE IX-4. Demand for and supply of each of 35 selected outdoor recreation resources or facilities are given in Table IX-4. The demand figure is the product of the average annual outdoor recreation participation rate per adult and per child times the number of adults and children within each of the nineteen regions, added for the state total. The supply is the total carrying capacity of all the inventoried outdoor recreation areas, by facilities and resources providing opportunities. Need means that demand is greater than supply. The minus sign denotes need. All figures are expressed in a common denominator: activity occasions.

TABLE IX-5. Statistical need or idle capacity in terms of actual units of a recreation resource or facility, using standards, is shown in Table IX-5. The 1975, 1980, and 1985 figures in both Table IX-4 and Table IX-5 include the potentially available supply calculated into carrying capacities.

TABLE IX-6. Certain outdoor recreation activities do not lend themselves to comparison with supply under known techniques. Therefore, these activities are calculated only as demand for selected outdoor recreation opportunities (Table IX-6). The demand is calculated as in Table IX-4.

TABLE IX-3

COMPARISON OF SUPPLY AND DEMAND FOR OUTDOOR RECREATION GEORGIA

FACILITY	TOTAL UNITS AVAILABLE PRESENT	PRESENT + POTENTIAL	NUMBER OF UNITS PER 1,000 POPULATION 1970 ADULTS	1970 CHILDREN	1975 ADULTS	1975 CHILDREN	1980 ADULTS	1980 CHILDREN	1985 ADULTS	1985 CHILDREN
HOTEL, MOTEL UNITS	4,849	6,264	1.828	3.791	2.056	4.266	1.864	3.827	1.715	3.571
ORGANIZED CAMPING BEDS	18,169	20,282	6.848	14.205	6.658	13.812	6.035	12.392	5.553	11.563
TRAILER AND TENT SITES	15,507	20,213	5.845	12.124	6.636	13.765	6.015	12.350	5.534	11.524
MARINA BOAT DOCKING SPACES	7,302	9,134	2.752	5.709	2.999	6.220	2.718	5.581	2.501	5.207
BOAT LAUNCHING RAMPS	569	722	0.214	0.445	0.237	0.492	0.215	0.441	0.198	0.412
PLAYFIELD ACRES	5,093	5,584	1.920	3.982	1.833	3.803	1.662	3.412	1.529	3.184
HANDBALL COURTS	46	55	0.017	0.036	0.018	0.037	0.016	0.034	0.015	0.031
BASEBALL DIAMONDS	735	809	0.277	0.575	0.266	0.551	0.241	0.494	0.222	0.461
SOFTBALL DIAMONDS	856	948	0.323	0.669	0.311	0.646	0.282	0.579	0.260	0.540
FOOTBALL FIELDS	452	497	0.170	0.353	0.163	0.338	0.148	0.304	0.136	0.283
GOLF COURSE HOLES	2,326	2,524	0.877	1.819	0.829	1.719	0.751	1.542	0.691	1.439
GOLF DRIVING RANGE TEES	841	991	0.317	0.658	0.325	0.675	0.295	0.606	0.271	0.565
MINIATURE GOLF HOLES	1,054	1,218	0.397	0.824	0.400	0.829	0.362	0.744	0.333	0.694
SKI SLOPE ACRES	20	20	0.008	0.016	0.007	0.014	0.006	0.012	0.005	0.011
FISHING PIER SPACES	8,924	11,310	3.363	6.977	3.713	7.702	3.366	6.910	3.097	6.448
PICNIC TABLES	12,290	14,545	4.632	9.609	4.775	9.905	4.328	8.887	3.983	8.292
BARBEQUE PITS	3,936	5,149	1.483	3.077	1.690	3.506	1.532	3.146	1.410	2.936
SWIMMING POOLS	405	451	0.153	0.317	0.148	0.307	0.134	0.276	0.123	0.257
50 METER SWIMMING POOLS	48	57	0.018	0.038	0.019	0.039	0.017	0.035	0.016	0.032
BEACH WATER ACRES	940	1,075	0.354	0.735	0.353	0.732	0.320	0.657	0.294	0.613
BEACH LAND ACRES	606	670	0.228	0.474	0.220	0.456	0.199	0.409	0.183	0.382
BEACH SHORE MILES	127	149	0.048	0.099	0.049	0.101	0.044	0.091	0.041	0.085
HORSE BRIDLE PATHS MILES	387	462	0.146	0.303	0.152	0.315	0.137	0.282	0.126	0.263
BIG GAME HABITAT ACRES	2,002,497	2,071,889	754.731	1565.640	680.158	1410.908	616.551	1265.929	567.302	1181.226
SMALL GAME HABITAT ACRES	1,976,518	2,046,516	744.940	1545.328	671.829	1393.630	609.000	1250.426	560.354	1166.761
WATER FOWL HABITAT ACRES	194,718	243,542	73.388	152.239	79.950	165.846	72.473	148.805	66.684	138.848
TROUT FISHING STREAMS MILES	629	630	0.237	0.492	0.207	0.429	0.187	0.385	0.172	0.359
WARM FISHING STREAMS MILES	2,195	2,355	0.827	1.716	0.773	1.604	0.701	1.439	0.645	1.343
FISHING LAKES ACRES	409,703	500,873	154.415	320.324	164.426	341.083	149.049	306.035	137.143	285.558
WATER FRONTAGE MILES	6,415	9,706	2.418	5.016	3.186	6.610	2.888	5.930	2.658	5.534
RECREATION AREA EMPLOYEES	15,782	17,196	5.948	12.339	5.645	11.710	5.117	10.507	4.708	9.804
FIELD AND TRACK ACRES	523	611	0.197	0.409	0.201	0.416	0.182	0.373	0.167	0.348
WATER SKIING AREA ACRES	79,718	103,856	30.045	62.327	34.094	70.724	30.905	63.456	28.437	59.210
TENNIS COURTS	893	1,070	0.337	0.698	0.351	0.729	0.318	0.654	0.293	0.610
NATURE FOOTTRAILS MILES	801	1,074	0.302	0.626	0.353	0.731	0.320	0.656	0.294	0.612
AREAS WITH ZOO	8	9	0.003	0.006	0.003	0.006	0.003	0.005	0.002	0.005
HISTORICAL AREAS	40	47	0.015	0.031	0.015	0.032	0.014	0.029	0.013	0.027
ARCHEOLOGICAL AREAS	2	3	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002
ARCHITECTURAL AREAS	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SMALL DEEP SEA FISHING BOATS	37	39	0.014	0.029	0.013	0.027	0.012	0.024	0.011	0.022
LARGE DEEP SEA FISHING BOATS	31	31	0.012	0.024	0.010	0.021	0.009	0.019	0.008	0.018
AREAS WITH PRIMITIVE SETTING	167	187	0.063	0.131	0.061	0.127	0.056	0.114	0.051	0.107
BICYCLE TRAILS MILES	233	333	0.088	0.182	0.109	0.227	0.099	0.203	0.091	0.190
AREAS WITH RAPIDS	35	44	0.013	0.027	0.014	0.030	0.013	0.027	0.012	0.025

Source: *Statistical Summary*, Volume I, State Totals-63, Table 1.

TABLE IX-4

COMPARISON OF SUPPLY AND DEMAND FOR OUTDOOR RECREATION GEORGIA

POPULATION	1970	1975	1980	1985
6 TO 19 GROUP	1,279,028	1,468,479	1,636,655	1,754,015
20 AND ABOVE	2,653,259	3,046,186	3,360,451	3,652,182

CALCULATION OF DEMAND, SUPPLY, NEED/IDLE CAPACITY EXPRESSED IN TOTAL ANNUAL ACTIVITY OCCASIONS

DEMAND = PARTICIPATION FOR 1970, PREFERENCE FOR 75, 80, 85

RECREATION FACILITIES	1970			1975			1980			1985		
	DEMAND	SUPPLY	NEED/IDLE	DEMAND	SUPPLY	NEED/IDLE	DEMAND	SUPPLY	NEED/IDLE	DEMAND	SUPPLY	NEED/IDLE
SW. POOL	23509807	11510846	-11998961	29644094	12952216	-16691878	35588011	12952216	-22635795	41650309	12952216	-28698093
SW. BEACH	23509807	284172372	260662565	29644094	310325796	280681702	35588011	310325796	274737785	41650309	310325796	268675487
HANDBALL	14361080	38450	-14322630	18108613	47100	-18061513	21606093	47100	-21558993	25105633	47100	-25058533
CROQUET	3590262	10400	-3579862	4527145	15200	-4511945	5401518	15200	-5386318	6276401	15200	-6261201
BASEBALL	21541627	866150	-20675477	27162927	948150	-26214777	32409141	948150	-31460991	37658454	948150	-36710304
SOFTBALL	14361080	1324300	-13036780	18108613	1452200	-16656413	21606093	1452200	-20153893	25105633	1452200	-23653433
SOCCER	10770807	713100	-10057707	13581458	783300	-12798158	16204567	783300	-15421267	18829224	783300	-18045924
COURTS	7180535	1090500	-6090035	9054301	1345000	-7709301	10803041	1345000	-9458041	12552813	1345000	-11207813
TRAILER C	3393645	3887010	493365	4269256	5153510	884254	5122358	5153510	31152	5995448	5153510	-841938
TENT C.	2064427	389965	-1674462	2578980	521560	-2057420	3116240	521560	-2594680	3654409	521560	-3132849
PRIMIT. C	656138	17100	-639038	814719	17300	-797419	985740	17300	-968440	1128200	17300	-1110900
ORG.GR. C	687326	1284710	597384	879155	1422770	543615	1086866	1422770	335904	1273612	1422770	149158
GOLF	6111854	2775100	-3336754	7551373	2988400	-4562973	9075520	2988400	-6087120	10677331	2988400	-7688931
TENNIS	3143954	1020600	-2123354	3975105	1211200	-2763905	4760532	1211200	-3549332	5538619	1211200	-4327419
PICNICING	15214525	1349260	-13865265	19161103	1610320	-17550783	22925603	1610320	-21315283	26770798	1610320	-25160478
WATER-SKI	6948148	8188750	1240602	8779664	10616550	1836886	10630028	10616550	-13478	12573678	10616550	-1957128
CANOE TR.	297100	15480	-281620	373154	17380	-355774	453400	17380	-436020	525342	17380	-507962
DOCKING	16234354	1018650	-15215704	20392318	1300920	-19091398	24352075	1300920	-23051155	28410755	1300920	-27109835
BOAT-SKI.	16234354	8188750	-8045604	20392318	10616550	-9775768	24352075	10616550	-13735525	28410755	10616550	-17794205
SAILING	528688	19965900	19437212	685959	34130700	33444741	909187	34130700	33221513	988878	34130700	33141822
URBAN TR.	43399321	708360	-42690961	54748394	847120	-53901274	66224266	847120	-65377146	78199261	847120	-77352141
RURAL TR.	31786636	201300	-31585336	39653311	288140	-39365171	47279237	288140	-46991097	54412393	288140	-54124253
WILD. TR.	868961	21820	-847141	1097519	25270	-1072249	1305461	25270	-1280191	1514112	25270	-1488842
BIKE TR.	74390266	128000	-74262266	94033514	193400	-93840114	111786003	193400	-111592603	130648596	193400	-130455196
MOTORB.TR	8524776	90800	-8433976	10679714	107800	-10571914	12860734	107800	-12752934	14818014	107800	-14710214
ATV TRAIL	3523818	55500	-3468318	4436376	60300	-4376076	5341615	60300	-5281315	6240835	60300	-6180535
HORSE TR.	8821959	318000	-8503959	11019066	374000	-10645066	13013363	374000	-12639363	14915993	374000	-14541993
TROUT STR	8260699	6741	-8253958	10514237	6759	-10507478	12519308	6759	-12512549	14537077	6759	-14530318
TROUT LAK	8260699	2335845	-5924854	10514237	2338910	-8175327	12519308	2338910	-10180398	14537077	2338910	-12198167
FISH STR.	23529111	37380	-23491731	29676935	40055	-29636880	35185038	40055	-35144983	40890261	40055	-40850206
FISH LAKE	23529111	8437545	-15091566	29676935	11104040	-18572895	35185038	11104040	-24080998	40890261	11104040	-29786221
WFOWL HUN	376795	510998	134203	484187	657344	173157	566956	657344	90388	652229	657344	5115
SMALL GAM	7415962	11395291	3979329	9322807	11812574	2489767	11063092	11812574	749482	12795397	11812574	-982823
BIG GAME	2189970	9262388	7072418	2740560	9540720	6800160	3259334	9540720	6281386	3801399	9540720	5739321
BOW HUNT.	254938	9262388	9007450	320588	9540720	9220132	384274	9540720	9156446	451740	9540720	9088980

Source: *Statistical Summary*, Volume I, State Totals-64, Table 2.

TABLE IX-5

COMPARISON OF SUPPLY AND DEMAND FOR OUTDOOR RECREATION GEORGIA

CONVERSION OF NEED/IDLE CAPACITY EXPRESSED IN ACTIVITY OCCASIONS INTO ACTUAL UNIT OF FACILITIES AND RESOURCES.,

RECREATION FACILITY AND/OR RESOURCE	UNIT OF MEASURE	1970	1975	1980	1985
01 SWIMMING POOL	WATER SURFACE, SQ. FEET	-1,488,694	-2,145,482	-2,901,962	-3,679,716
02 SWIMMING BEACH	WATER SURFACE, SQ. FEET	43,190,918	47,701,008	46,207,445	44,679,646
03 HANDBALL COURTS	NUMBER OF COURTS	-11,641	-15,778	-18,777	-21,881
04 CROQUET COURTS	NUMBER OF COURTS	-3,682	-6,373	-7,633	-8,957
05 BASEBALL DIAMONDS	NUMBER OF DIAMONDS	-18,862	-24,111	-28,825	-33,634
06 SOFTBALL DIAMONDS	NUMBER OF DIAMONDS	-8,921	-11,516	-13,922	-16,326
07 SOCCER AND FOOTBALL FIELDS	NUMBER OF FIELDS	-7,106	-9,001	-10,816	-12,673
08 COURTS - MULTIPURPOSE	NUMBER OF COURTS	-4,498	-5,882	-7,202	-8,533
09 TRAILER CAMPING	NUMBER OF TRAILER SITES	1,569	2,580	668	-1,290
10 TENT CAMPING	NUMBER OF TENT SITES	-12,979	-16,051	-20,273	-24,526
11 PRIMITIVE CAMPING	NUMBER OF TENT SITES	-6,034	-6,669	-8,116	-9,253
12 ORGANIZED GROUP CAMPING	NUMBER OF BEDS	9,555	9,326	6,691	4,336
13 GOLF COURSE	NUMBER OF HOLES	-3,078	-4,158	-5,513	-6,940
14 TENNIS COURTS	NUMBER OF COURTS	-1,801	-2,369	-3,046	-3,716
15 PICNICING	NUMBER OF TABLES	-125,470	-157,759	-190,835	-224,837
16 WATER SKIING	WATER SKIING AREA IN ACRES	26,093	36,110	22,626	8,620
17 CANOE TRAILS	MILES OF CANOE TRAILS	-2,140	-3,222	-3,944	-4,526
18 DOCKING	MARINA, SLIPS, MOORINGS	-83,109	-117,435	-140,209	-163,479
19 BOATING	ACRES AVAILABLE FOR WSKIING	-58,974	-70,842	-103,573	-136,780
20 SAILING	WATER SURFACE ACRES	194,945	335,451	333,759	333,538
21 URBAN NATURE TRAIL	MILES OF TRAIL IN CITIES	-10,472	-13,230	-16,055	-19,000
22 RURAL NATURE TRAIL	MILES OF TRAIL IN RURAL	-78,635	-98,128	-117,183	-135,070
23 WILDERNESS TRAIL	MILES OF TRAIL IN WILDERNES	-4,000	-5,089	-6,079	-7,066
24 BICYCLE TRAIL	MILES OF BIKE TRAIL	-88,571	-119,510	-141,859	-165,897
25 MOTORBICYCLE TRAIL	MILES OF MOTORIZED BIKE TR.	-13,798	-18,953	-22,797	-26,018
26 ALL TERRAIN VEHICLE TRAIL	MILES OF ATV TRAIL.	-3,954	-5,553	-6,757	-7,976
27 HORSEBACK RIDING TRAIL	MILES OF HORSE TRAIL	-7,308	-10,313	-12,225	-14,084
28 TROUT FISHING STREAM	MILES OF COLDWATER STREAM	-28,541	-34,064	-40,323	-48,032
29 TROUT FISHING LAKE + RES.	ACRES OF TROUT-LAKE/RESERV.	127,608	122,672	116,698	109,406
30 FISHING STREAM	MILES OF FISHING STREAM	-1,508,913	-1,921,590	-2,276,704	-2,649,479
31 FISHING LAKE + RESERVOIR	ACRES OF FISHING LAKE/RES.	-603,935	-743,440	-977,090	-1,220,560
32 WATERFOWL HUNTING	ACREAGE OF HABITAT	58,941	65,174	30,310	-6,127
33 SMALL GAME HUNTING	ACREAGE OF HABITAT	632,060	350,926	28,889	-294,628
34 BIG GAME HUNTING	ACREAGE OF HABITAT	1,499,875	1,414,022	1,261,579	1,100,266
35 BOW + ARROW BIG GAME HUNT.	ACREAGE OF HABITAT	2,032,757	2,084,765	2,064,717	2,043,284

Source: *Statistical Summary*, Volume I, State Totals-65, Table 3.

TABLE IX-6

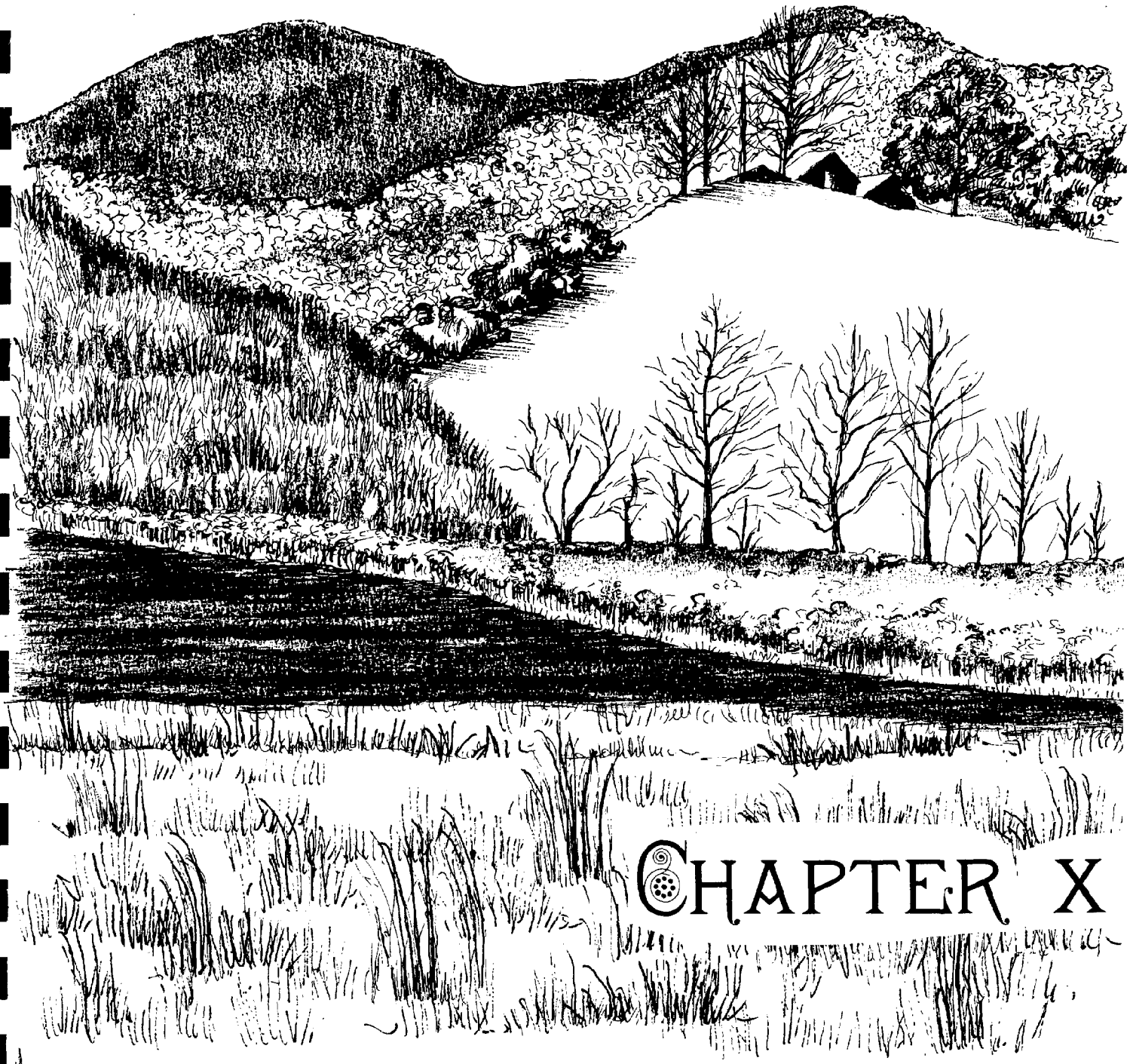
COMPARISON OF SUPPLY AND DEMAND FOR OUTDOOR RECREATION GEORGIA

DEMAND FOR RECREATION - ACTIVITIES NOT LENDING THEMSELVES TO COMPARISON WITH SUPPLY - EXPRESSED IN ACTIVITY OCCASIONS

	RECREATION ACTIVITIES	1970	1975	1980	1985
1	SCUBA + SKIN DIVING	925,747	1,178,887	1,478,079	1,794,533
2	OTHER WATERBASED ACTIVITIES	620,565	824,717	983,093	1,145,301
3	TRACK AND FIELD	2,824,595	3,602,157	4,417,771	5,242,843
4	MOUNTAIN CLIMBING WITH GEAR	151,622	188,515	223,478	261,165
5	BIRD WATCHING + PHOTO	11,927,407	14,823,765	17,607,065	20,580,012
6	CAVE EXPLORING	155,436	194,124	226,726	258,919
7	WATCHING OUTDOOR GAMES	21,000,308	26,564,203	31,940,115	37,379,441
8	SIGHTSEEING	32,898,640	41,254,677	48,897,492	56,741,057
9	VISITING HISTORICAL/ARCH.SITES	2,912,219	3,663,462	4,461,034	5,321,664
10	DRIVING FOR PLEASURE (SEDAN)	74,529,552	93,803,458	111,894,761	130,178,378
11	TRAP + SKEET SHOOTING	303,443	379,142	451,046	518,995
12	TARGET SHOOTING	3,444,201	4,273,358	5,113,037	5,981,686
13	ARCHERY	2,033,860	2,638,869	3,189,497	3,699,049
14	TRAPPING GAME	168,388	203,839	240,980	274,780
15	VISITING A ZOO	2,557,294	3,270,241	3,942,068	4,612,747
16	VISITING OUTDOOR EXHIBITS	3,070,907	3,896,991	4,732,145	5,496,109
17	ATTENDING OUTDOOR PLAYS	1,000,506	1,295,045	1,549,975	1,828,577
18	VISITING A FARM	8,806,951	11,143,145	13,368,826	15,657,120
19	VISITING AN ARBORETUM	433,009	553,788	670,555	788,703
20	OTHER LANDBASED ACTIVITY	2,764,260	3,509,779	4,359,391	5,292,571
21	SNOW SKIING + SHOEING	123,704	158,397	197,834	240,463
22	SLEDDING + TOBOGGANING	257,798	321,774	396,673	477,661
23	ICE SKATING	173,138	223,570	278,340	338,054
24	SNOWMOBILE DRIVING, RIDING	18,487	23,666	29,823	36,485
25	ICE FISHING	262,208	328,879	383,045	437,833
26	OTHER WINTER SPORTS + ACT.	93,182	117,984	137,496	157,648
27	FLYING FOR PLEASURE	930,975	1,184,079	1,431,233	1,682,185
28	SAILPLANE GLIDING	24,359	31,310	36,357	41,695
29	MODEL PLANE + KITE FLYING	1,789,287	2,284,157	2,754,236	3,216,639
30	SKY DIVING	65,060	83,341	98,183	113,137
31	OTHER AIRBASED	201,245	257,846	306,105	357,083

Source: *Statistical Summary*, Volume I, State Totals-66, Table 4.

ACQUISITION AND DEVELOPMENT PROGRAM



CHAPTER X

CHAPTER X

ACQUISITION AND DEVELOPMENT PROGRAM

This section on the Acquisition and Development program is presented primarily to acquaint the user of this plan with the data available on the acquisition and development program of outdoor recreation resources and facilities throughout Georgia. A full A&D program was published in a separate document, as part of the Georgia State Comprehensive Plan, 1971.

This revision incorporates the A&D Summary by State Management Systems. Succeeding years will include related functional federal functions such as National Parks along with State Parks.

The report on the Acquisition and Development Programs of federal, state, and local government agencies will make it possible to compare the established needs for outdoor recreation facilities of the nineteen planning regions in the state and the planning and action that is being taken to meet those needs.

Preparation of the data in the report was made possible only by the cooperation of the many governmental agencies which have a responsibility for providing adequate outdoor recreation facilities for the citizens of Georgia. In many instances, the preparation of the necessary reports required considerable effort and time on the part of the agency. The efforts and cooperation of the following agencies are greatly appreciated:

U.S. Corps of Engineers (Savannah District)
U.S. Corps of Engineers (Mobile District)
U.S. Forestry Service
National Park Service
U.S. Bureau of Sport Fisheries and Wildlife
Tennessee Valley Authority
Soil Conservation Service
Georgia Game and Fish Commission
State Highway Department of Georgia
Lafayette Recreation and Parks Department
Hall County Parks and Recreation Department
North Georgia Mountains Authority
Marietta Parks and Recreation Department
Stone Mountain Memorial Association
DeKalb County Parks and Recreation Department
Northeast Georgia Area Planning and Development Commission
Troup County Parks and Recreation Commission
Carrollton Recreation Department
Upson County Board of Commissioners
Heard County

City of Thomaston
City of Greenville
Carroll County Development Corporation
Griffin Recreation Department
Eatonton-Putnam County Recreation Department
Glascock County Planning Commission
Wrens City Council
Millen-Jenkins County Recreation Commission
Louisville City Council
Emanuel County Commissioners
Wadley City Council
Richmond County Parks and Recreation Department
Sylvania-Screven County Recreation Commission
Washington City Council
Waynesboro-Burke County Recreation Commission
Midville City Council
Grovetown City Council
Harlem City Council
Swainsboro-Emanuel County Recreation Commission
Lincolnton-Lincoln County Planning Commission
Thomson-McDuffie County Recreation Commission
Warrenton Recreation Commission
Middle Georgia Area Planning Commission
Warner Robins Recreation Department
Macon Recreation Department
Middle Flint Planning and Development Commission
Kinchafoonee Lake Authority
City of Glennville
Appling County
Jesup-Wayne County Recreation Department
City of Lyons
City of Vidalia
City of Reidsville
City of Hazlehurst
Savannah Recreation Commission
Chatham County Recreation Department
Columbus Department of Parks and Recreation
Albany Recreation Department

A. 1971 REPORT

The Acquisition and Development Programs of the cooperating agencies were combined and presented in the Acquisition and Development Plan, 1971, as part of the Georgia SCORP 1971. Within each regional report, the data were presented in considerable detail.

The various types of recreation areas have been grouped generally in accordance with the designations suggested by the Bureau of Outdoor Recreation, U.S. Department of the Interior. The major recreation facilities that are planned for the area were listed under each grouping. The intent was to give as clear a picture as possible of the scope of the efforts

TABLE X-1

ACQUISITION AND DEVELOPMENT PROJECTS FISCAL YEARS 1971-1977

FY	Number of Projects	Acreage Acquisition Land	Acreage Acquisition Water	Acreage Acquisition Total	Cost of Acquisition	Cost of Development	Source of Funds (in Thousands) General Appropri.	Bonds	State	L+WCF*	Other Federal	Private Donations
71	Acq. 15	18	1,641	1,659	$ 913,530		$ 219.5		$ 27.0	$ 397.0	$ 105.9	$164.0
	Dev. 41					$1,550,400	392.0		107.4	357.5	677.5	16.0
72	Acq. 57	485	14,445	14,930	7,988,500		2,852.0	1,375.0	200.7	588.0	2,972.7	
	Dev. 74					8,541,920	1,290.2	788.0	1,226.3	1,846.5	3,133.0	258.0
73	Acq. 40	3,918	11,838	15,756	9,803,500		574.0	2,013.0	858.5	1,618.7	4,739.2	
	Dev. 89					22,454,000	1,314.0	1,034.0	1,394.5	2,896.0	15,707.0	108.5
74	Acq. 37	1,078	40,350	41,428	5,681,500		203.2	952.0	664.5	2,039.0	1,822.7	
	Dev. 79					13,851,500	660.0	908.0	483.5	1,466.0	10,124.0	210.0
75	Acq. 42	251	7,801	8,052	4,182,500		386.0	695.0	360.2	81.2	2,660.0	
	Dev. 70					12,510,000	476.0	2,374.0	663.0	1,617.0	7,270.0	110.0
76	Acq. 30		37,517	37,517	9,418,000		63.7	563.0	276.7	7,383.5	1,131.0	
	Dev. 39					7,038,500	158.0	772.0	449.0	902.5	4,757.0	
77	Acq. 30		4,290	4,290	2,573,500			1,080.0	56.7	86.7	1,350.0	
	Dev. 43					9,239,000	55.0	505.0	436.5	757.5	7,485.0	
Total	Acq. 251	5,750	117,882	123,632	$40,561,030		$4,298.5	$6,678.0	$2,444.4	$12,194.5	$14,781.6	$164.0
	Dev. 435					$75,185,320	$4,345.2	$6,381.0	$4,760.1	$ 9,843.0	$49,153.5	$702.5

Source: *Acquisition and Development Plan*, 1971-1977.
*Land and Water Conservation Fund.

being made to meet the demands of the public for outdoor recreation facilities as detailed in Volumes I, II, and III of the Statistical Summary. (A comparison of the needs and the scheduled acquisitions and developments was presented in Chapter VI of the Narrative Plan, 1971.)

In the Acquisition and Development Plan, 1971 the detailed A&D programs were presented first, followed by a summary report of the state as a whole, which reflects total expenditures by fiscal year periods. These expenditures include both land and water acreage acquisition and recreation facility development.

Consolidation of the A&D activities for the fiscal years, 1966-1970 was included for such comparison as the recipients of the report might find useful. The report for the FY 1971 is required by the U.S. Bureau of Outdoor Recreation as well as the reports for the five-year period of FY 1972-76. The report for FY 1977 is included, as planning in Georgia is for two-year periods, making a total of 6 instead of 5 years.

For quick reference a summary, included here as Table X-1, was given for acquisitions and developments that were accomplished in FY 1971 and those that were scheduled for FY 1972 through 1977, including a breakdown of the source of funds for the projects reported.

B. 1972 REPORT

Scheduled acquisitions and developments are newly presented in Volume II, Regional Analysis, 1972.

1. ACQUISITION AND DEVELOPMENT PROGRAM MATRIX TABLE SUMMARY OF STATE RECREATION MANAGEMENT SYSTEMS

The following matrix tables summarize the A&D Programs of State Parks, Game, Fish, and Boat Access Sites, and the Historical Commission Areas. They are coded to their respective GEMS Map, and they coincide with the running supply inventory tables of the state areas. A summary of the estimated state acquisition and development costs for existing and new areas is shown by fiscal year for each respective area as now programmed. In addition to its GEMS map location by number, county, and region, each project reflects its river basin location for convenient reference.

These A&D matrices, together with the more detailed A&D forms, the supply inventory, and the GEMS Maps, will be updated on an annual basis.

a. STATE A&D SUMMARY - PROGRAMMED FY-1972-78
(as proposed 5/1/72 by Division shown)

Each Management Program element is subject to revision and update annually.

PARKS AND RECREATION DIVISION FY's 1972-78

	State Funds	Matched By Federal Funds	Total
Acquisition	$ 4,113,467.00	$ 3,586,750.00	$ 7,700,217.00
Development	$ 20,489,238.00	$ 670,993.00	$ 21,160,231.00

GAME AND FISH DIVISION FY 1972-78

Fish Management Areas, Hatcheries and Boat Access

1 New Hatchery - 70 Boat Access Sites - Proposed 50% LWC Funds.
Total Program incomplete -- to be revised FY 1974.

	State Funds	Federal Funds	Total
A&D	$ 769,327.50	$ 769,327.50	$ 1,538,655.00

Wildlife Management Areas

A&D	$ 26,362,300.00	$ 35,188,250.00	$ 61,550,550.00

GEORGIA HISTORICAL COMMISSION AREAS

Total Acquisitions and Developments as submitted:

FY-1973	FY-1974	Total FY's 73-76
$414,000.00	$292,000.00	$ 1,219,500.00*

Total State	State Funds	Federal Funds	Grand Total
A&D Projects	$ 52,344,082.50	$ 40,825,070.50	$ 93,169,153.00
Total Local A&D Projects	$ 39,772,998.00	$ 39,772,998.00	$ 79,545,996.00
GRAND TOTAL	$ 92,117,080.50	$ 80,598,068.50	$172,715,149.00

*50% from federal sources.

A&D PROGRAM MATRIX: STATE PARKS

EXISTING PROGRAMMED PROPOSED

Priority No.	Map No.	Co. No.	APDC No.	Basin -- River	Project Name	Programmed Total Estimated Cost Federal		State		FY's of Funding
	1	265	9	Little River	A. H. Stephens	A- D-	-0- -0-	A- D-	-0- 147,000.00	1973-1978
	2	085	3	Chattahoochee	Amicalola Falls	A- D-	20,000.00 -0-	A- D-	20,000.00 307,700.00	1973-1978
	3	087	16	Flint River	Bainbridge	A- D-	-0- 3,500.00	A- D-	-0- 284,100.00	1974-1978
	4	241	3	Little Tenn. and Chattooga	Black Rock Mountain	A- D-	35,000.00 -0-	A- D-	70,000.00 601,000.00	1973-1978
	5	105	5	Savannah	Bobby Brown	A- D-	-0- -0-	A- D-	-0- 375,700.00	1972-1978
	6	177 195	16	Flint	Chehaw	A- D-	-0- -0-	A- D-	-0- 393,548.00	1972-1978
	7	083	1	Tennessee River	Cloudland Canyon	A- D-	-0- -0-	A- D-	-0- 439,000.00	1973-1978
	8	039	19	Crooked River	Crooked River	A- D-	-0- -0-	A- D-	-0- 224,995.00	1973-1978
	9	181	9	Savannah	Elijah Clark	A- D-	-0- -0-	A- D-	-0- 445,500.00	1972-1978
	10	253	16	Chattahoochee	Fairchild		--- ---		--- ---	--- ---
	11	213	2	Conasauga	Fort Mountain	A- D-	-0- -0-	A- D-	-0- 800,356.00	1972-1978
	12	013	5	Appalachee	Fort Yargo	A- D-	-0- 37,338.00	A- D-	-0- 421,988.00	1972-1978
	13	145	6	Chattahoochee	F. D. Roosevelt	A- D-	-0- -0-	A- D-	-0- 730,400.00	1972-1978
	14	015 057	1	Etowah	George W. Carver	A- D-	-0- -0-	A- D-	-0- 188,600.00	1972-1978
	15	081	11	Flint	Ga. Vets. Memorial	A- D-	-0- -0-	A- D-	-0- 410,600.00	1973-1978
	16	267	13	Altamaha	Gordonia Alatamaha	A- D-	-0- -0-	A- D-	-0- 61,600.00	1972-1978
	17	211 297	5	Appalachee	Hard Labor Creek	A- D-	-0- -0-	A- D-	-0- 1,368,950.00	1972-1978
	18	235	12	Ocmulgee	Hawkinsville		--- ---		--- ---	--- ---

Source: Totals for State are based on summary sheets for the APDCs. Final totals from Division of Parks and Recreation.

A&D PROGRAM MATRIX, STATE PARKS (cont.)

Priority No.	Map No.	Co. No.	APDC No.	Basin -- River	Project Name	Programmed Total Estimated Cost Federal		State		FY's of Funding
	19	035	7	Ocmulgee	Indian Springs	A- D-	-0- -0-	A- D-	50,000.00 369,204.00	1972-1978
	20	155	17	Alapaha	Jeff Davis Memorial	A- D-	-0- -0-	A- D-	25,000.00 45,000.00	1974-1975
	21	073	9	Savannah	Keg Creek	A- D-	-0- -0-	A- D-	-0- 494,000.00	1973-1978
	22	099	15	Chattahoochee	Kolomoki Mounds	A- D-	-0- -0-	A- D-	-0- 425,502.00	1972-1978
	23	281	3	Oostanaula	Lake Chatuge		--- ---		--- ---	--- ---
	24	299	18	Satilla River	Laura S. Walker	A- D-	-0- -0-	A- D-	-0- 693,500.00	1974-1978
	25	165	9	Ogeechee	Lincoln	A- D-	-0- -0-	A- D-	-0- 84,900.00	1973-1976
	26	309 271	12	Little Ocmulgee	Little Ocmulgee	A- D-	-0- -0-	A- D-	-0- 445,500.00	1972-1978
	27	165	9	Ogeechee	Magnolia Springs	A- D-	-0- -0-	A- D-	-0- 198,800.00	1972-1975
	28	073	9	Little River	Mistletoe	A- D-	-0- -0-	A- D-	-0- 301,200.00	1971-1978
	29	105	5	Broad River	Nancy Hart	A- D-	-0- -0-	A- D-	2,000.00 4,500.00	1974-1977
	30	015	1	Etowah	Red Top Mountain	A- D-	-0- -0-	A- D-	-0- 856,000.00	1973-1978
	31	075 071	16	Little River	Reed Bingham	A- D-	-0- -0-	A- D-	-0- 456,700.00	1973-1978
	32	039	19	Crooked River	Santa Maria		--- ---		--- ---	--- ---
	33	253	16	Flint	Seminole	A- D-	-0- -0-	A- D-	-0- 386,225.00	1972-1978
	34	221	5	Broad River	Watson Mill Bridge	A- D-	-0- -0-	A- D-	-0- 292,000.00	1972-1978
	35	049	18	Suwannee	Stephen C. Foster	A- D-	-0- -0-	A- D-	-0- 68,200.00	1972-1977
	36	119	3	Tugaloo	Tugaloo	A- D-	-0- -0-	A- D-	-0- 447,700.00	1972-1978

A&D PROGRAM MATRIX, STATE PARKS (cont.)

Priority No.	Map No.	Co. No.	APDC No.	Basin -- River	Project Name	Programmed Total Estimated Cost Federal		State		FY's of Funding
	38	119	3	Broad River	Victoria Bryant	A- D-	-0- -0-	A- D-	-0- 572,869.00	1972-1978
	39	291	3	Hiawassee	Vogel	A- D-	25,000.00 -0-	A- D-	25,000.00 539,418.00	1972-1978
	40	107	9	Canoochee	Yam Grandy	A- D-	-0- -0-	A- D-	-0- 40,700.00	1974-1976
	41	253	16	Flint	Reynoldsville	A- D-	-0- 196,000.00	A- D-	-0- 40,400.00	1972-1976
	42	207	10	Towaliga	High Falls	A- D-	-0- -0-	A- D-	-0- 218,000.00	1972-1978
	43	241	3	Tallulah	Moccasin Creek	A- D-	-0- -0-	A- D-	-0- 88,500.00	1973-1975
	44	187	3	Etowah	Blackburn	A- D-	50,000.00 -0-	A- D-	50,000.00 158,000.00	1972-1978
	45	147	3	Tugaloo	Hart	A- D-	-0- -0-	A- D-	-0- 387,000.00	1972-1978
	46	303	8	Ogeechee	Hamburg	A- D-	-0- -0-	A- D-	75,000.00 368,000.00	1972-1978
	47	029	19	Ogeechee	Richmond Hill	A- D-	-0- -0-	A- D-	-0- 32,000.00	1973-1975
	48	193	11	Flint	Whitewater Creek	A- D-	-0- -0-	A- D-	-0- 325,800.00	1972-1978
	49	069	18	Satilla	General Coffee	A- D-	-0- -0-	A- D-	-0- 469,400.00	1972-1978
	50	259	15	Chattahoochee	Providence Canyon	A- D-	-0- 22,100.00	A- D-	-0- 338,300.00	1972-1978
	52	045	6	Little Tallapoosa	John Tanner	A- D-	-0- -0-	A- D-	415,717.00 574,000.00	1972-1978
	53	247	4	South River	Panola Mountain	A- D-	-0- 44,455.00	A- D-	-0- 351,183.00	1973-1977
	54	051	14	Savannah	Skidaway	A- D-	-0- 277,000.00	A- D-	-0- 277,000.00	1973-1978
	55	087	16	Flint	Spring Creek	A- D-	--- ---	A- D-	--- ---	---
	56	087	16	Flint	Four Mile Creek	A- D-	--- ---	A- D-	--- ---	--- ---

A&D PROGRAM MATRIX, STATE PARKS (cont.)

Priority No.	Map No.	Co. No.	APDC No.	Basin -- River	Project Name	Programmed Total Estimated Cost Federal		State		FY's of Funding
	57	087	16	Flint	East Bank	A- D-	--- ---	A- D-	--- ---	---
	58	295	1	Tennessee River	Zahnd	A- D-	--- ---	A- D-	--- ---	---
		009	8	Oconee	Baldwin	A- D-	-0- -0-	A- D-	-0- 502,000.00	1973-1978
		285	6	Chattahoochee	Dixie Creek	A- D-	-0- -0-	A- D-	-0- 412,000.00	1974-1978
		285	6	Chattahoochee	Maple Creek	A- D-	-0- -0-	A- D-	-0- 468,500.00	1974-1978
		147	3	Tugaloo	Paynes Creek	A- D-	-0- -0-	A- D-	-0- 234,500.00	1974-1976
		181	9	Savannah	Murray Creek	A- D-	-0- -0-	A- D-	-0- 162,000.00	1975-1978
		035 159	5	Alcovy	Lloyd Shoals	A- D-	-0- -0-	A- D-	-0- 304,000.00	1974-1978
		127	19	Turtle	Blythe Island	A- D-	--- ---	A- D-	--- ---	---
		131	16	Ochlockonee	Tired Creek	A- D-	-0- -0-	A- D-	-0- 41,300.00	1976
		133	8	Apalachee	Richland Creek	A- D-	--- ---	A- D-	--- ---	---
		237 211	8	Apalachee	Sugar Creek	A- D-	--- ---	A- D-	--- ---	---
		001	14	Altamaha	Altamaha River Site	A- D-	--- ---	A- D-	--- ---	---
		317	14	Little	Wilkes County Site	A- D-	--- ---	A- D-	--- ---	---
		097	4	Chattahoochee	Sweetwater Creek	A- D-	1,400,000.00 -0-	A- D-	1,400,000.00 74,200.00	1975-1976
			4		Cochran Mill	A- D-	-0- -0-	A- D-	-0- 278,000.00	1974-1976
			15		Pataula Creek	A- D-	-0- -0-	A- D-	-0- 371,500.00	1973-1978
			16		Bainbridge	A- D-	-0- -0-	A- D-	-0- -0-	---

A&D PROGRAM MATRIX, STATE PARKS (cont.)

Priority No.	Map No.	Co. No.	APDC No.	Basin -- River	Project Name	Programmed Total Estimated Cost Federal	Programmed Total Estimated Cost State	FY's of Funding
			19		McIntosh/Glynn	A- 125,000.00 D- -0-	A- 125,000.00 D- -0-	1976
			4	Chattahoochee	Chattahoochee State Park	A-$1,856,750.00 D- 90,600.00	A-$1,856,750.00 D- 90,500.00	1973-1975
					TOTALS	A-$3,586,750.00 D- 670,993.00	A-$4,113,467.00 D-20,489,038.00	1973-1978

Source: Totals for State are based on summary sheets for the APDCs. Final totals from Division of Parks and Recreation.

A&D PROGRAM MATRIX: WILDLIFE AREAS

EXISTING PROGRAMMED PROPOSED

P	MAP #	CO.	APDC	RIVER BASIN	PROJECT NAME	PROP.	AUTH.	ADV. PLAN	ACQ	COMP.	TOTAL ESTIMATED COST FEDERAL	TOTAL ESTIMATED COST STATE	FY'S OF FUNDING
	1			Tennessee	Purchase 7,000 Acre Pigeon Mountain WMA	1974	*			D A	PR 30,000 400,000	D 7,500 A 400,000	1971
	2			Coosa	USFS Johns Mountain WMA					1957			
	3			Coosa	Berry College WMA		1970						
	4			Coosa	Cohutta WMA					1968			
	5			Coosa	Coosawattee WMA		1970						
	6			Coosa	Allatoona PHA					1961			
	7			Chattahoochee	Blue Ridge WMA					1930			
	8			Chattahoochee	Chestatee WMA					1938			
	9			Chattahoochee	Chattahoochee WMA					1939			
	10			Tennessee	Swallow Creek WMA					1962			
	11			Savannah	Lake Burton WMA					1939			
	12			Savannah	Coleman River WMA					1960			
	13			Savannah	War Woman WMA					1955			
	14			Savannah	Lake Russell WMA					1954			
	15			Chattahoochee	Whitesburg PHA					1965			
	16			Oconee	Piedmont Exp. Sta.WMA					1965			
	17			Savannah	Clark Hill WMA					1954			

A&D PROGRAM MATRIX: WILDLIFE AREAS (cont.)

P	MAP #	CO	APDC	RIVER BASIN	PROJECT NAME	PROP.	AUTH.	ADV. PLAN	ACQ	COMP.	TOTAL ESTIMATED COST FEDERAL	TOTAL ESTIMATED COST STATE	FY'S OF FUNDING
	18			Oconee	Cedar Creek WMA					1950			
	19			Oconee	Baldwin St. For. PHA					1970			
	20			Ocmulgee	Oaky Woods WMA					1967			
	21			Ocmulgee	Ocmulgee WMA					1970			
	22			Flint	Albany Nursery PHA					1940			
	23			Flint	Chickasawhatchee WMA					1956			
	24			Chattahoochee	Lake Seminole WMA					1958			
	25			Suwannee	Alapaha WMA					1956			
	26			Suwannee	Arabia Bay WMA					1959			
	27			Suwannee	Grand Bay PHA					1963			
	28			Suwanoochee	Suwannee WMA					1959			
	29			Altamaha	Bullard Creek WMA					1958			
	30			Suwannee	Waycross St. Forest					1957			
	31			Altamaha	Brunswick Pulp WMA					1960			
	32			Altamaha	Altamaha WMA Extension Lewis Is.	1973	*			1973 1953	400,000 22,650	400,000 7,550	LWCF 14
	33			Altamaha	Sapelo Island WMA					1969	24,300		
	34			Coosa	Rich Mountain WMA		1971				Federal Owned	Lease	

A&D PROGRAM MATRIX: WILDLIFE AREAS (cont.)

P	MAP #	CO.	APDC	RIVER BASIN	PROJECT NAME	PROP.	AUTH.	ADV. PLAN	ACQ	COMP.	TOTAL ESTIMATED COST FEDERAL	TOTAL ESTIMATED COST STATE	FY'S OF FUNDING
	35			Tennessee	Cooper Creek WMA		1971				Federal Owned Lease		
	36			Tennessee	Brasstown Bald		1972				Federal Owned Lease		
	37			Tennessee	(Addition) Swallow Creek WMA		1971				Federal Owned Lease		
	38			(Chattooga) Savannah	(Chattooga River Wild) Chechero WMA		1972				Federal Owned Lease		
	39			Chattahoochee	West Point WMA		1972				Federal Owned Lease		
	40			Ogeechee	Ogeechee WMA		1971				Private Owned Lease		
	41			Chattahoochee	Stewart-Webster WMA		1972				Private Owned Lease		
	42			Satilla	Little Satilla WMA		1971				Private Owned Lease		
	43			Coosa	Rock Creek WMA		1971				Private Owned Lease		
	44			Coosa	Pine Log Mountain WMA	1974					Private Owned Lease		
	45			Coosa	Talking Rock WMA	1973					Private Owned Lease		
	46			Tennessee	Lake Blue Ridge WMA	1973					Private Owned Lease		
	47			Coosa	Polk County WMA	1975	TBL						
	48			Coosa	Haralson County WMA	1976	TBL						
	49			Coosa	Paulding County WMA	1975	TBL						
	50			Savannah	Hart County WMA	1972	TBL						
	51			Savannah	Trotter Shoal WMA	1974	TBL						

A&D PROGRAM MATRIX: WILDLIFE AREAS (cont.)

P	MAP #	CO.	APDC	RIVER BASIN	PROJECT NAME	PROP.	AUTH.	ADV. PLAN	ACQ	COMP.	TOTAL ESTIMATED COST FEDERAL	TOTAL ESTIMATED COST STATE	FY'S OF FUNDING
	52			Savannah	Brier Creek WMA	1975	TBL						
	53			Canoochee	Bryan Creek WMA	1976	TBL						
	54			Chattahoochee	Clay County WMA	1974	TBL						
	55	A B		Flint	Webster County	1974	TBL						
	56			Etowah WMA	Davison	1974							
	57			Lake Lanier PHA	Hall-(White & Haber)	1974							
	58			Black MT WMA	Habersham (Stephen)	1974	TBL						
	59			USFS Blue Ridge Extension	Pickens Gilmer Davison	1973							
	61			Oconee	Oconee WMA Baldwin-Hancock Co.	1977					A) 3,000,000 D) 15,000	1,000,000 5,000	1977 1978
				Oconee	Acquire Lawrens Co. 50,000 A	1974					A) 2,500,000 D) 33,750	2,500,000 11,250	1974
				Broad	Broad R. WMA Elbert,Oglethorpe,Wilkes	1973					A) 3,000,000 D) 37,000	1,000,000 13,000	1973 1973
				Ogeechee	Ogeechee WMA Glascock,Jefferson,Wash.	1976					A) 4,200,000 D) 56,250	1,400,000 18,750	1976 1976
				Ogeechee	Bullock, Screven Chatham,Bryan,Effingham	1973					A) 2,500,000	2,500,000	1973-78
				Savannah	Savannah WMA Burke	1975					A) 2,887,500 D) 33,750	962,500 11,250	1975 1975
				Altamaha	Altamaha WMA Ext. Altamaha River Floodpln	1973					A) 1,400,000	A) 1,400,000	LWCF 1973-77
				Altamaha	Altamaha WMA Ext. Generals Island	1974 74-77					A) 115,000	115,000	LWCF 1974-77
				Altamaha	Altamaha River Wetlands McIntosh,Long,Tattnall								

A&D PROGRAM MATRIX: WILDLIFE AREAS (cont.)

P	MAP #	CO.	APDC	RIVER BASIN	PROJECT NAME	PROP.	AUTH.	ADV. PLAN	ACQ	COMP.	TOTAL ESTIMATED COST FEDERAL	TOTAL ESTIMATED COST STATE	FY'S OF FUNDING
				Alapaha	Alapaha WMA Ext.	1974					2,439,500	2,439,500	1973-78
				Estuarine Zone	McIntosh,Carrs Is.WMA							D) 80,000	
				Satilla	Satilla WMA Wayne Camden,Charlton,Brant.	1973					1,776,000	1,776,000	LWCF 1974
				Chattahoochee	Harris Co. WMA	1975					1,250,000	1,250,000	1975
				Ocmulgee	Ocmulgee River WMA Monroe, Laman Co.	1974					A) 3,525,000 D) 10,000	3,525,000 10,000	1974
				Ocmulgee	Houston Co.	1974					A) 1,000,000 D) 17,000	1,000,000 17,000	1974
				Ocmulgee	Telfair 20,000 Acres	1973					A) 1,500,000 D) 26,750	1,500,000 8,750	----1973 1973-78
				Ocmulgee	15,000 Acres Coffee, Jeff Davis	1973					D) 26,750	8,800	1973
				Altamaha	Townsend Pasture WMA McIntosh,Long,50,000 Ac	1973					A) to be leased D) 9,000	3,000	
				Flint	WMA Upson	1973					A) 3,000,000	A) 3,000,000	1973-77
Above estimates are incomplete...					TOTALS:		Acquisitions			A)	34,893,000 +	26,168,000 =	61,061,000
							Improvements			D)	295,250 +	194,300 =	489,550
											35,188,250 +	26,362,300 =	61,550,550
					GRAND TOTAL ESTIMATE FY 73-78								61,550,500
*Lewis Island and Pigeon Mt. Acquisitions are FY 1973 and FY 1974 Priorities. TBL = To Be Leased.													
				+Alcovy	Alcovy WMA Newton, Walton	1973					A- 60,000	A- 60,000	1973-77
+Not shown in totals as received late.													

A&D PROGRAM MATRIX: FISH AREAS, HATCHERIES, BOAT ACCESS

...ion ...y	Map No.	Co. No.	APDC	Basin - River	Project Name	EXISTING Prop	PROGRAMMED Auth	PROPOSED Adv Plan	Const	Comp	Total Estimated Cost Federal	State	FY's of Funding
	1	55	1	Coosa - Coosa	Summerville Fish Hat.					X		$150,000	
	2	55	1	Coosa - Coosa	Chattooga Lakes & Rec.				X		250,000	250,000	'70-'72
	3	115	1	Coosa-Oostanaula	Arrowhead Lakes					X	38,000	52,000	
	4	241		Savannah-Tallulah	Lake Burton Fish Hat.					X		300,000	
	5	297		Altamaha-Oconee	Walton Fish Hatchery					X		100,000	
	6	9		Altamaha-Oconee	3 Fishing Lakes Baldwin State Forest					X	25,000	25,000	FY-74
	7	9		Savannah-Savannah	McDuffie Public Fishing Area					X		110,000	'62
	8	81		Chattahoochee-Flint	Cordele Fish Hatchery					X		200,000	'61
	9	273		Chattahoochee-Flint	Steve Cocke Fish Hat.					X		100,000	
	10	17		Altamaha-Ockmulgee	Bowen Mill Fish Hat.					X	150,000	150,000	FY75-76
	11	29		Ogeechee-Ogeechee	Richmond Hill Fish Hatchery					X		100,000	
	12	191		Altamaha-Altamaha	Champney Island Fishing Area					X		25,000	
	13			Chatt. - Chatt.	New Trout Hatchery				X		500,000	500,000	FY73&74
	14	163		Ogeechee-Ogeechee	88 L.R.					X			FY-67
	15	163		Ogeechee-Ogeechee	1 to 17 L.R.					X			FY-67
	16	163		Ogeechee-Ogeechee	US-1 L.R.					X			FY-67
	17	163		Ogeechee-Ogeechee	78 L.R.					X			FY-67
	18	133		Altamaha-Oconee	U.S.278 L.R.					X			FY-67
	19	009		Altamaha-Oconee	Milledgeville St. LR					X			FY-67
	20	279		Altamaha-Altamaha	Grays L.R.					X			FY-67
	21	281		Tennessee-Chatuge	76 L.R.					X			FY-67
	22	057		(Etowah)	5 L.R.					X			FY-67
	23	129		(Oostanaula)	156 L.R.					X			FY-67

A&D PROGRAM MATRIX–FISH AREAS, HATCHERIES, BOAT ACCESS (cont.)

ion y	Map No.	Co. No.	APDC	Basin - River	Project Name	Prop	Auth	Adv Plan	Const	Comp	Total Estimated Cost Federal	State	FY's of Funding
	24	129		(Oostanaula)	Calhoun L.R.					X			FY-67
	25	291		Tennessee-Nottely	Nottely Dam L.R.					X			FY-67
	26	261		Apalachicola-Chattahoochee-Flint-Flint	Reeves L.R.					X			FY-67
	27	257		Savannah-Tugaloo	Yowal 184 - L.R.					X			FY-67
	28	119		Savannah-Savannah	Little Gumby Lake LR					X			FY-67
	29	237		Altamaha-Oconee	Murder Creek L.R.					X			FY-67
	30	029		Ogeechee-Demeries Ck	Demeries Creek L.R.					X			FY-67
	31	193		Apalachicola-Chattahoochee-Flint-Flint	49 - L.R.					X			FY-68
	32	309		Altamaha-Oconee	280 - L.R.					X			FY-68
	33	283		Altamaha-Oconee	Pete Davis L.R.					X			FY-68
	34	153		Altamaha-Ocmulgee	96 - L.R.					X			FY-68
	35	175		Altamaha-Oconee	20 Mile N. Dublin Bickeys L.R.					X			FY-68
	36	315		Altamaha-Ocmulgee	Abbeville L.R.					X			FY-68
	37	023		Altamaha-Ocmulgee	Cochran L.R.					X			FY-68
	38	305		Altamaha-Altamaha	Jesup L.R.					X			FY-68
	39	319		Altamaha-Oconee	Ball's Ferry L.R.					X			FY-68
	40	107		Ogeechee-Ogeechee	56 Mill Creek L.R.					X			FY-68
	41	103		Savannah-Savannah	Abercorn Creek L.R.					X			FY-68
	42	281		Tennessee-Chatuge	Upward Chatuge L.R.					X	1,673.82	1,843.47	FY-68
	43	269		Apalachicola-Chattahoochee-Flint-Flint	128 L.R.					X	2,498.24	2,667.89	FY-68
	44	235		Altamaha-Ocmulgee	230 Sandy Springs LR					X	1,706.71	1,876.36	FY-68
	45	229		Satilla-St. Marys Satilla	121 Blackshear L.R.					X	997.51	1,167.17	FY-68
	46	229		Altamaha-Altamaha	Blackshear Odum Bluff L.R.					X	1,293.21	1,462.86	FY-68

A&D PROGRAM MATRIX—FISH AREAS, HATCHERIES, BOAT ACCESS (cont.)

ion y	Map No.	Co. No.	APDC	Basin - River	Project Name	Prop	Auth	Adv Plan	Const	Comp	Total Estimated Cost Federal	State	FY's of Funding
	47	245		Savannah-Savannah	Bush Field Launching Ramp					X	3,247.37	3,417.03	FY-68
	48	081		Apalachicola-Chattahoochee-Flint-Flint	Veteran State Park L.R.					X	1,566.04	1,735.69	FY-68
	49	175		Altamaha-Oconee	Blackshear Ferry L.R.					X	1,974.86	2,144.52	FY-68
	50	175		Altamaha-Oconee	Steve Fuller L.R.					X	2,155.05	2,324.70	FY-68
	51	161		Altamaha-Altamaha	Town Bluff Ferry L.R.					X	2,763.52	2,933.17	FY-68
	52	271		Altamaha-Ocmulgee	Dodge Lake L.R.					X	1,476.95	1,646.60	FY-68
	53	025		Satilla - St. Marys Satilla	Herring Lake L.R.					X	1,288.94	2,347.29	FY-68
	54	001		Altamaha-Altamaha	Carter Bike L.R.					X	3,143.79	3,313.44	FY-69
	55	001		Altamaha-Altamaha	No Name - L.R.					X	1,786.68	1,956.33	FY-69
	56	271		Altamaha-Ocmulgee	West Jacksonville L.R.					X	1,510.80	1,680.45	FY-69
	57	209		Altamaha-Oconee	Bell's Ferry L.R.					X	1,932.45	2,102.11	FY-69
	58	279		Altamaha-Altamaha	McNatt Falls L.R.					X	2,090.45	2,260.10	FY-69
	59	267		Altamaha-Altamaha	County Landing L.R.					X	1,994.98	2,164.64	FY-69
	60	069		Altamaha-Ocmulgee	Flat tub L.R.					X	1,555.78	1,725.43	FY-69
	61	069		Altamaha-Ocmulgee	Red Bluff L.R.					X	1,452.81	2,664.43	FY-69
	62	321		Apalachicola-Chattahoochee-Flint-Flint	Blackshear Dam L.R.					X	3,207.77	3,377.42	FY-69
	63	003		Satilla - St. Marys Satilla	64 Bridge L.R.					X	1,172.23	1,341.89	FY-69
	64	289		Altamaha-Ocmulgee	Bullard L.R.					X	1,797.36	2,001.21	FY-69
	65	291		Tennessee-Nottely	Nottely Creek L.R.					X	1,710.98	1,880.64	FY-69
	66	039		Satilla - St. Marys Crooked River	Crooked River State Park L.R.					X	1,987.38	2,331.15	FY-69
	67	049		Satilla - St. Marys Satilla	Burnt Fork L.R.					X	764.94	2,559.67	FY-69
	68	099		Apalachicola-Chattahoochee-Flint-Chatt	Columbia Lock & Dam LR					X	1,228.13	4,146.78	FY-69
	69	167		Altamaha-Oconee	Deepcreek - L.R.					X			FY-70

A&D PROGRAM MATRIX—FISH AREAS, HATCHERIES, BOAT ACCESS (cont.)

on	Map No.	Co. No.	APDC	Basin - River	Project Name	Prop	Auth	Adv Plan	Const	Comp	Total Estimated Cost Federal	State	Year of Funding
	70	039		Satilla-St.Marys Crooked River	Crooked River State Park L.R.					X	5,728.92	5,728.92	FY-70
	71	073		Savannah-Savannah	Mistletoe State Pk.LR					X	2,473.45	2,473.45	FY-70
	72	073		Savannah-Savannah	Mistletoe State Pk.LR					X	2,522.37	2,522.38	FY-70
	73	141		Altamaha-Oconee	16 Sinclair L.R.					X	2,826.11	2,826.10	FY-70
	74	181		Savannah-Savannah	Elijah Clark State Park L.R.					X	2,857.53	2,857.53	FY-70
	75	081		Apalachicola-Chattahooche-Flint-Flint R	Veterans Memorial State Park L.R.					X	3,025.78	3,025.79	FY-70
	76	115		Coosa-Coosa R.	Rome City L.R.					X	2,545.29	2,545.29	FY-71
	77	029		Ogeechee-Ogeechee R.	Richmond Hill State Park L.R.					X	4,149.90	4,149.89	FY-71
	78	029		Ogeechee-Redbird Crk. (Estuarine)	Richmond Hill State Park L.R.					X	2,949.56	2,949.57	FY-71
	79	037		Coosa-Conasauga R.	Georgia Historical Comm.-Calhoun L.R.					X	4,877.37	4,877.37	FY-71
	80	049		St. Marys-St Marys River	Camp Pinkney L.R.					X	2,427.52	2,427.51	FY-71
	81	055		Coosa-Chatooga	Chatooga County Public Lake L.R.					X	1,997.72	1,997.73	FY-72
	82	087		Apalachicola-Chattahoochee-Flint-Flint	Flint above Jim Woodruff Dec.Co.					X	2,958.64	2,958.65	FY-72
	83	205		Apalachicola-Chattahoochee-Flint-Flint	Mitchell County State Hwy 37		X						FY-72
	84	179		(Estuarine) Ogeechee-Medway R	Medway River Sportsman Landing			X					FY-73
	85	115		Coosa-Coosa R.	Weiss Lake-Brushy Branch					X			FY-66
	86	235		Altamaha-Ocmulgee R.	Hawkinsville State Pk.-Pulaski Co.					X	3,146.27	3,146.27	FY-72
	87	303		Ogeechee-Ogeechee R.	Hamberg State Park Washington County					X			FY-72
	88	191		Altamaha-Champney R.	Champney L.-McIntosh County					X			FY-72
	89	191		Altamaha-Champney R.	Champney R.-McIntosh County					X			FY-72
	90	147		Savannah-Savannah R.	Lake Hartwell-Hart State Park-Hart Co.					X			FY-72

A&D PROGRAM MATRIX–FISH AREAS, HATCHERIES, BOAT ACCESS (cont.)

on Map No.	Co. No.	APDC	Basin - River	Project Name	Prop	Auth	Adv Plan	Const	Comp	Total Estimated Cost Federal	State	Funding
91	039		Crooked River (Estuarine)	Crooked River-N1/2L.6 Harriets BL-Camden Co.		X						FY-73
92	105		Savannah-Broad R.	Clark Hill-Bobby Brown St.Pk.-Elbert Co.			X					FY-72
93	075		Apalachicola-Chattahoochee-Flint-Flint R	Flint R.-City of Albany Marine B.-Dougherty Co.		X						FY-73
94	267		Altamaha-Ohoopee R.	Ohoopee R.-Joy Bluff Tattnall County		X						FY-72
95	267		Altamaha-Ohoopee R.	Ohoopee R.-4mi.W.of Reidsville-Tattnall Co.		X						FY-72
96	193		Apalachicola-Chattahoochee-Flint-Flint R	Whitewater L.-Whitewater St.Pk.- Macon County		X						FY-73
97	185		Withlacoochee-Withlacoochee R	Withlacoochee R.-City of Valdosta-Lowndes Co.	X							FY-73
98	027		Withlacoochee - Withlacoochee R	Withlacoochee R-Hwy 84 Brooks County	X							FY-73
99	121		Apalachicola-Chattahoochee-Flint Chatt R	Chattahoochee R.-Morgan Falls-Fulton Co.	X							FY-73
100	145		Apalachicola-Chattahoochee-Flint-Chatt R.	Chattahoochee R.-Goat Rock - Harris Co.	X							FY-73
101	145		Apalachicola-Chattahoochee-Flint-Chatt R.	Chattahoochee R-Burtletts Ferry-Harris Co.	X							FY-73
102	035		Altamaha-Jackson L.	Jackson Lake-Hwy 36 Butts County	X							FY-73
103	217		Altamaha-Alcovy R.	Jackson Lake-Conleys Ditch Ste-Newton Co.	X							FY-73
104	141		Altamaha-Sinclair L.	Sinclair Lake - Hancock Co.	X							FY-73
105	241		Savannah - Seed L.	Seed Lake - Rabun County	X							FY-73
106	095		Apalachicola-Chattahoochee-Flint-Flint R	Flint River - Dougherty County	X							FY-73

SUMMARY: 5-year A&D Summary Statement for Boat Access Sites

70 Sites are proposed for FY 73 thru FY 77	$269,327.50	$269,327.50	FY 73-77
14 per year at an average cost of $6,266.50 each 50% from L&WCF			
Chattahoochee Fish Hatchery	500,000.00	500,000.00	FY 73-74
Baldwin State Forest Fishing Lakes 3	25,000.00	25,000.00	FY 74
Ben Hill Public Fishing Lake	150,000.00	150,000.00	FY 75-76
Total This System $1,888,655.00	944,327.50	944,327.50	

A&D PROGRAM MATRIX: GEORGIA HISTORICAL COMMISSION

Map No.	Co. No.	APDC	Basin - River	Project Name	EXISTING Prop	PROGRAMMED Auth	Adv Plan	PROPOSED Const	Comp	Total Estimated Cost FY 1973	FY 1974	FY's of Funding 1973-1976
3	15	1	Etowah River	Etowah Mounds Arch. Area				X		$30,000	$10,000	$140,000
11	33	9	Savannah River	Waynesboro Historical Museum				X				
17	51	14	Savannah River	Ft. Jackson Maritime Museum				X		15,000	17,500	45,000
20	29	19	Ogeechee River	Fort McAllister				X		9,000	15,000	29,000
2	129	1	Oostanaula River	New Echota				X		85,000	22,500	117,500
7	157	5	Oconee River	C. W. Long Medical Museum				X		25,000	22,000	60,000
15	177	16	Flint River	Chehaw Indian Monument				X				
18	179	19	Midway River	Midway Museum				X		3,000	5,000	15,000
19	179	19	Canoochee River	Fort Morris				X		40,000	37,500	167,500
5	187	3	Etowah River	Dahlonega Courthouse Gold Museum				X		5,000		35,000
21	191	19	Altamaha River	Fort King George				X		12,500	30,000	65,000
14	215	15	Chattahoochee River	Confederate Naval Museum				X			17,500	22,500
8	219	5	Oconee River	Eagle Tavern				X		25,000	5,000	46,000
4	223	1	Etowah River	New Hope Church Monument				X				
10	245	9	Savannah River	Mackay House				X		35,000	7,500	60,500
6	257	3	Tugaloo River	Historic Traveler's Rest				X		12,500	30,000	135,500
13	283	12	Oconee River	Troup Tomb				X				
16	275	16	Ochlockonee River	Lapham-Patterson House				X		80,000	30,000	110,000

(continued)

A&D PROGRAM MATRIX, GEORGIA HISTORICAL COMMISSION (cont.)

Map No.	Co. No.	APDC	Basin - River	Project Name	Prop	Auth	Adv Plan	Const	Comp	Total Estimated Cost FY 1973	FY 1974	FY's of Funding 1973-1976
1	313	2	Oostanaula River	Vann House				X		$ 7,000	$27,500	$108,000
9	317	9	Little River	Washington-Wilkes Historical Museum				X		30,000	15,000	63,000
12	169	10	Ocmulgee River	Jarrell Plantation	1973		To be deeded to state			Federal funds possible and private funding		
			TOTALS (It is assumed 50% will be from federal assistance-- P.L. 89-665 and other sources)							414,000	292,000	1,219,500

2. FINANCING

a. Definition of the Problem

One of the most critically acute problems is financing top-priority state and local outdoor recreation projects. This problem has been seriously considered by recreation and conservation leadership in Georgia over the past year. Leaders in the field have recommended that a State Recreation/Conservation Trust Fund be created to finance top-priority projects which are identified and are meeting criteria in the state plan. This recommendation is supported in the regional analysis and plans of most of the Area Planning and Development Commissions. The need for financial assistance is particularly acute at the local level.

b. Discussion of the Problem and Need

Past: The 1968 Statewide Recreation Plan recognized the problem, and in the 5-year projected financial needs the Plan recommended an expenditure of $63 million for the acquisition and development of needed state and local public outdoor recreation lands and developments.

Thirty-three million dollars was proposed for acquisition and $30 million for development. One-half of the total amount was proposed for local projects. During the 5-year period, less than half of the $63 million projected need was expended. Additional HUD federal funds which might have been expended in Georgia were used in other states. Local governments were unable to raise adequate funds to meet their recreation needs. The charts which follow show how the Land and Water Fund expenditures have been made in the past six years.

The state passed Act 620 authorizing 25 percent state-matching fund assistance to those local projects which qualify in the State Plan and are approved for 50 percent Federal Land and Water Conservation Fund assistance. With this assistance, the local financing requirement would be only 25 percent of the total cost, but state funds to assist local governments have not yet been budgeted by the legislature.

Present: A study committee of the Georgia Recreation and Park Society the past year reviewed the Recreation and Conservation Funding needs with the Georgia Conservancy and other associated Georgia conservation organizations. Their conclusion was that a public expenditure of $20 million annually for recreation and conservation is needed in Georgia if the state and its local governments are to acquire and conserve top-priority regional and urban recreation areas before they are lost to other purposes.

A state fund will be essential for implementation of programmed projects. This is critical if Georgia is to preserve the irreplaceable areas of its regional landscapes; to timely shape the urban environments; and to avoid the mistakes but profit from the experience of many other states.

The cost of land for the protection of the Chattahoochee River Scenic Shorelands and for the Natural and Recreation area acquisitions so vitally needed on this river was estimated at $63 million in 1971. This river conservation cost was not programmed in the 1968 plan. While it illustrates the critical need in urban areas, it is ironic that the 1971 total estimated costs for the Chattahoochee River Conservation equals the total cost of all projects projected for the 5-year period in 1968. This further points up the critical need to establish a source of funds to program and acquire irreplaceable recreation and conservation areas before costs become prohibitive.

c. Future Programmed Acquisition and Development Needs

It is evident that most of the Protective Environment lands of critical concern for maintenance in open space for a quality and healthy environment must be protected and maintained through the stewardship of the private sector. Urban shaping parks; major state parks, both unique natural and active; and major fish and wildlife and historic examples must be conserved as a public purpose to meet the recreational needs and to preserve examples of the heritage of present and future generations of Georgians. The future is now, for decisions must be made now if the areas of irreplaceable value for the present and future are to have any real assurance of being in existence ten or twenty years hence. It has been roughly estimated that even though a State Conservation Recreation Fund is established, it is feasible to protect through public acquisition only 20 percent of the areas which should be preserved in Georgia.

Additional public policies such as conservation easements and public use easements, with appropriate tax breaks, should be provided for the private landowner as an incentive to preserve the irreplaceable natural recreation resources. Lease-purchase agreements taken by public agencies over a period of several years is another workable device. Beyond the creation of new Georgia Laws to provide needed protective environment policy, constitutional protection of the irreplaceable natural recreation resources should be considered.

The current 5-year acquisition and development program for state and local projects is projected at $172,715,149. This is a conservative estimate, considerably less than the real need. It has been impossible to identify all key areas which should be conserved to meet top-priority needs. At the same time land acquisition and development costs are increasing.

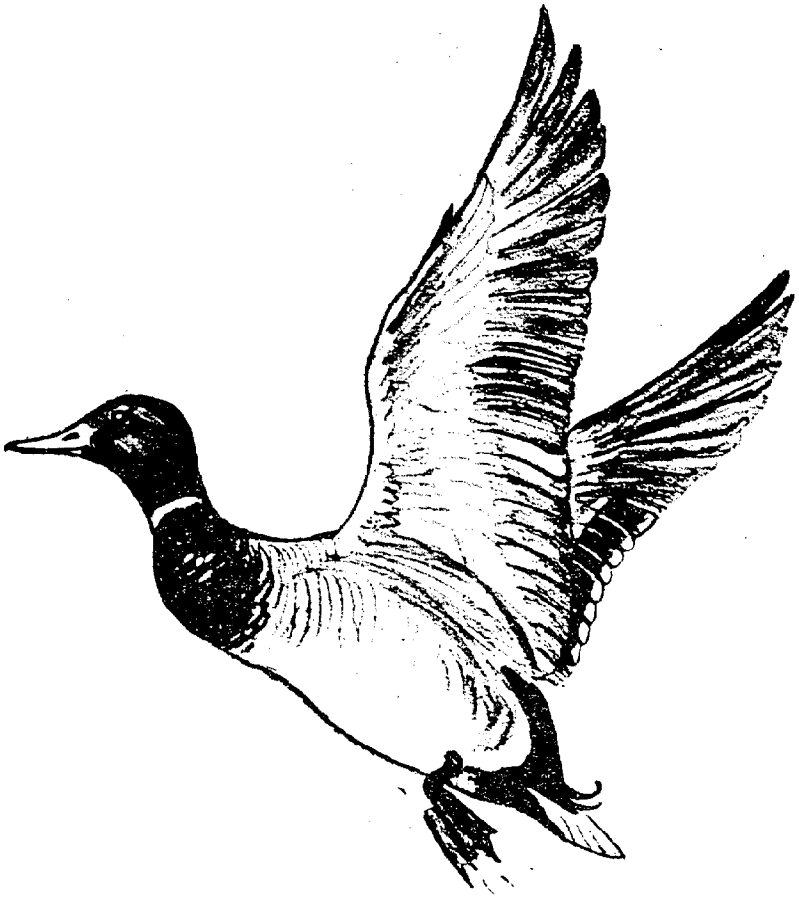
State Park, Game and Fish, and Historic areas costs are estimated at $93,169,153 for the next 5 years. Local project needs as programmed and estimated within each APDC Region total $79,545,996 for the same period.

A State Recreation Conservation Fund in the minimum amount of $10 million annually should be established to meet state and local

policies for public recreation and conservation investments in Georgia. State and local funds would be matched with federal funds on most of the priority projects.

A special state fund could be established, as was proposed in the last legislative session, by resolution for constitutional amendment; or authority could be established to issue state bonds in an amount equal to $10 million annually for this purpose. State bonding authority seems to be the preferred solution. In either event, a constitutional amendment through public referendum is required to establish the needed authority. Passage of Resolution 245 in November 1972 would allow the state to incur bonded indebtedness.

The APDC Regional Acquisition and Development Program of federal, state, and local project priorities found in Volume II will simplify the executive and legislative review process for making annual appropriations from a State Recreation/Conservation Fund.



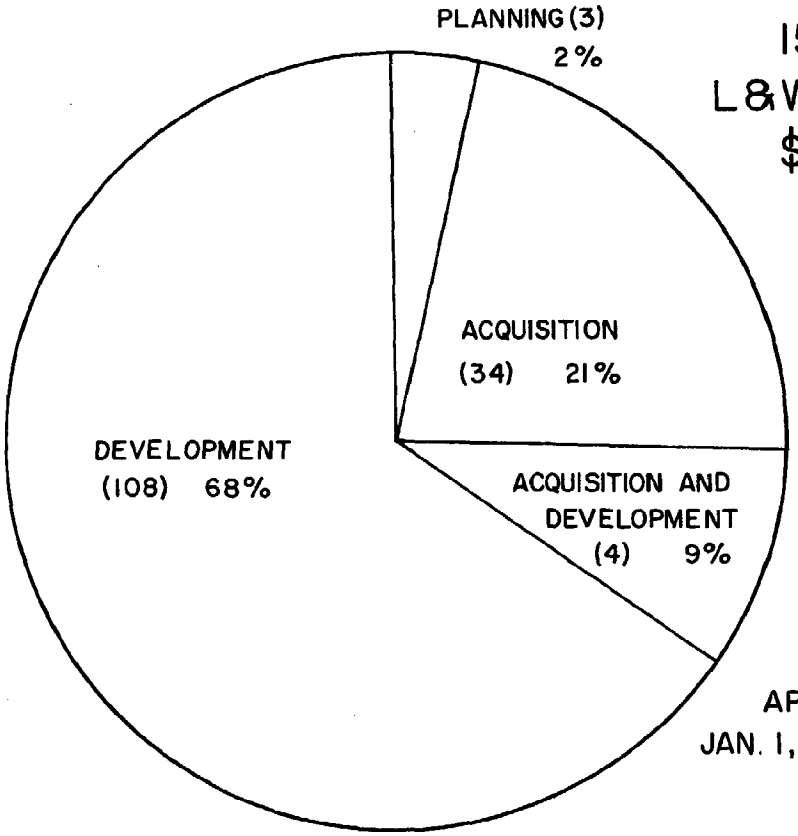
STATE LAND AND WATER UNIT
LAND AND WATER CONSERVATION FUND

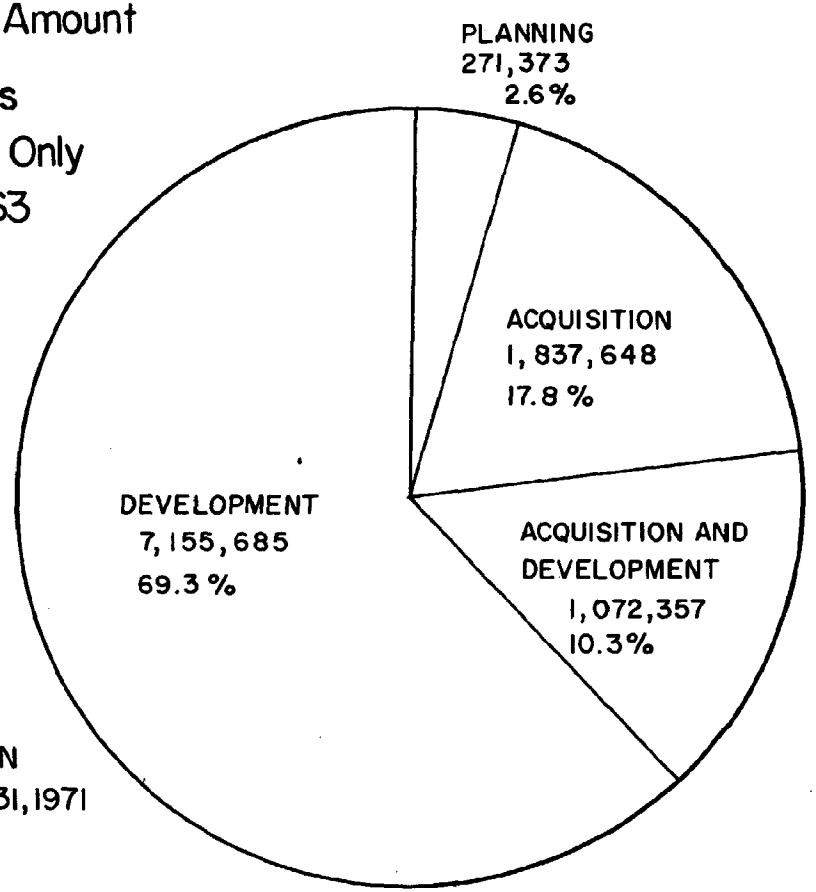
NUMBER

STATE & LOCAL PROJECTS
By Number And Amount

159 Projects
L&WCF Share Only
$10,337,063

AMOUNT





APPROPRIATION
JAN. 1, 1966 – DEC. 31, 1971

1. AMENDMENTS TO PROJECTS NOT INCLUDED
2. DOES NOT INCLUDE INELIGIBLE OR WITHDRAWN PROJECTS

STATE LAND AND WATER UNIT
LAND AND WATER CONSERVATION FUND

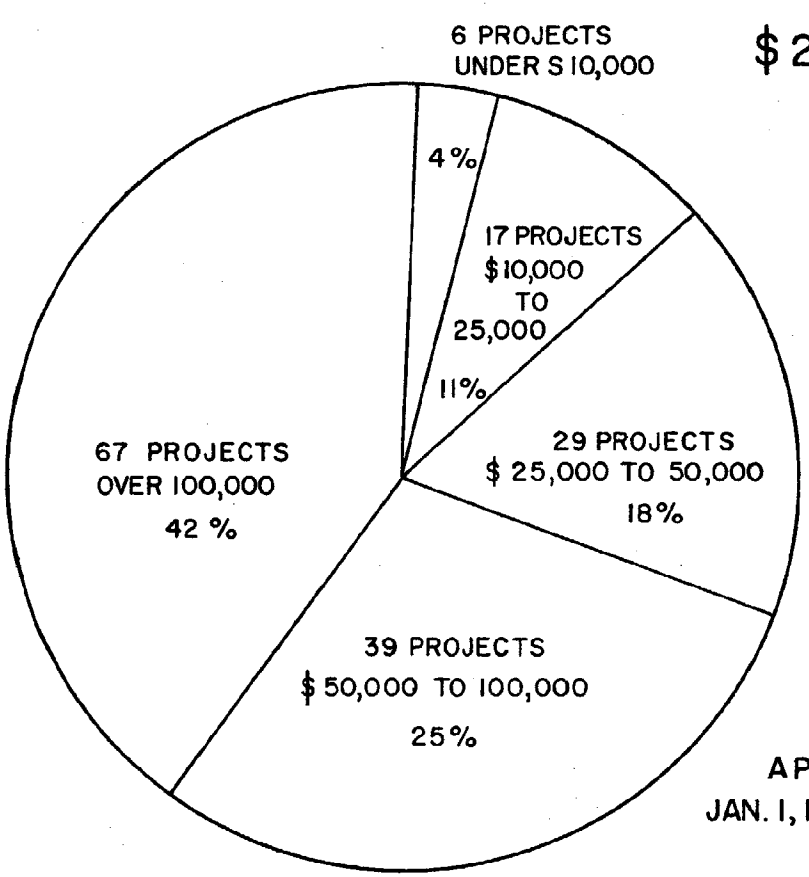
SIZE OF STATE & LOCAL PROJECTS

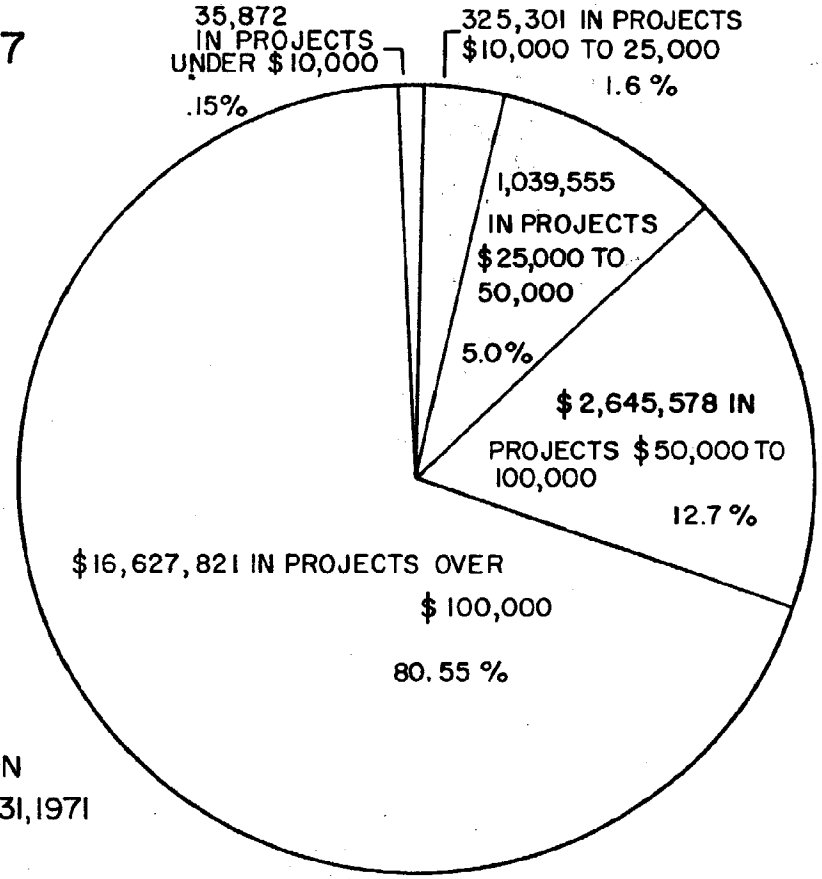
TOTAL 159 PROJECTS

Total Project Cost

NUMBER (L & WCF & State, County or Local Funds) AMOUNT

$ 20,674,127





APPROPRIATION
JAN. 1, 1966 – DEC. 31, 1971

STATE LAND AND WATER UNIT
LAND AND WATER CONSERVATION FUND

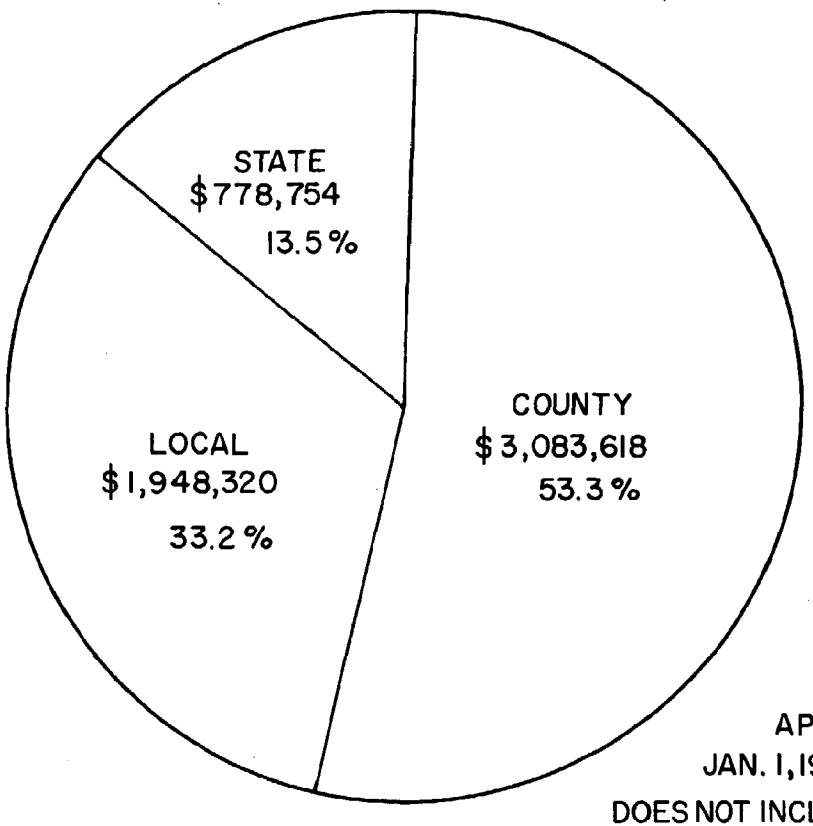
STATE & LOCAL PROJECTS
BY LEVEL OF GOVERNMENT

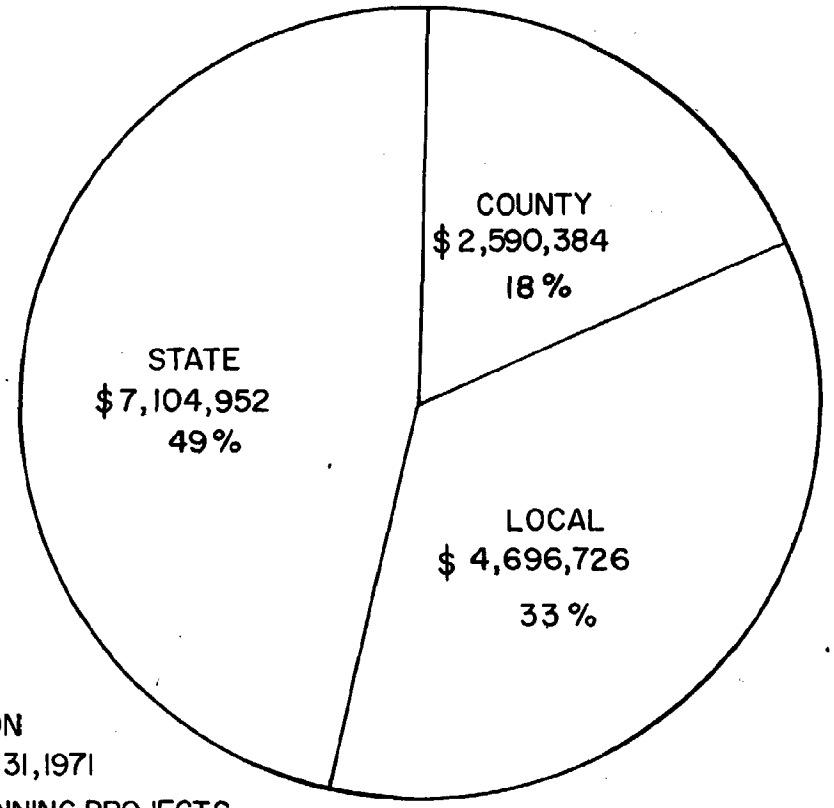
AMOUNT OF PROJECTS

ACQUISITION + COMBINATION
ACQUISITION & DEVELOPMENT
$ 5,810,692

TOTAL
$ 20,402,754
(L&WCF & State, County or Local Funds)

DEVELOPMENT
$ 14,592,062





APPROPRIATION
JAN. 1, 1966 — DEC. 31, 1971
DOES NOT INCLUDE 3 PLANNING PROJECTS
$ 271,373

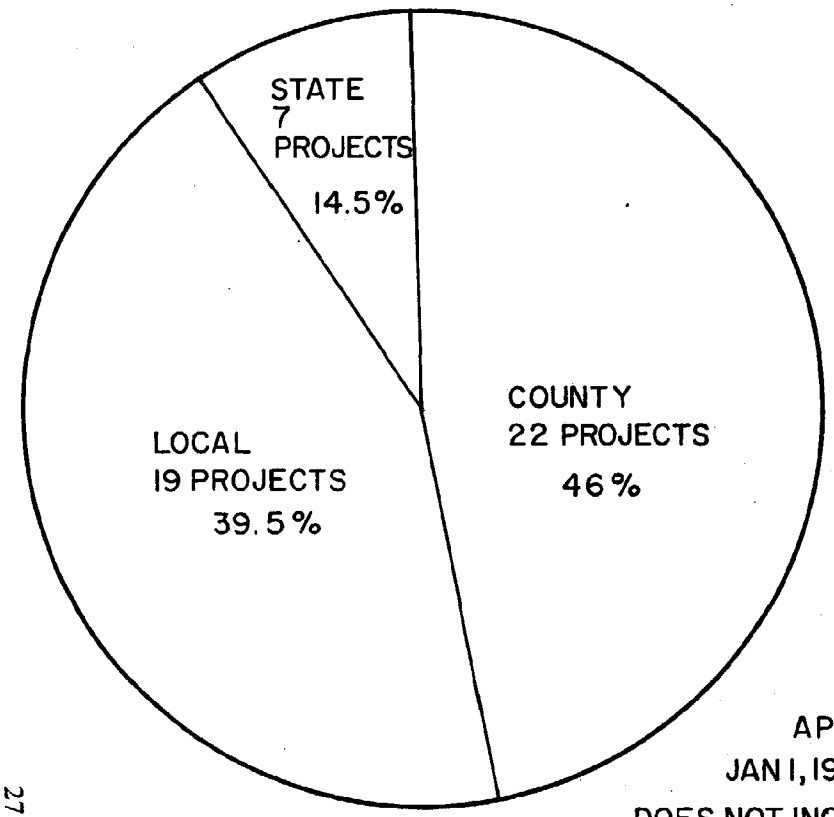
STATE LAND AND WATER UNIT
LAND AND WATER CONSERVATION FUND

STATE & LOCAL PROJECTS
BY LEVEL OF GOVERNMENT

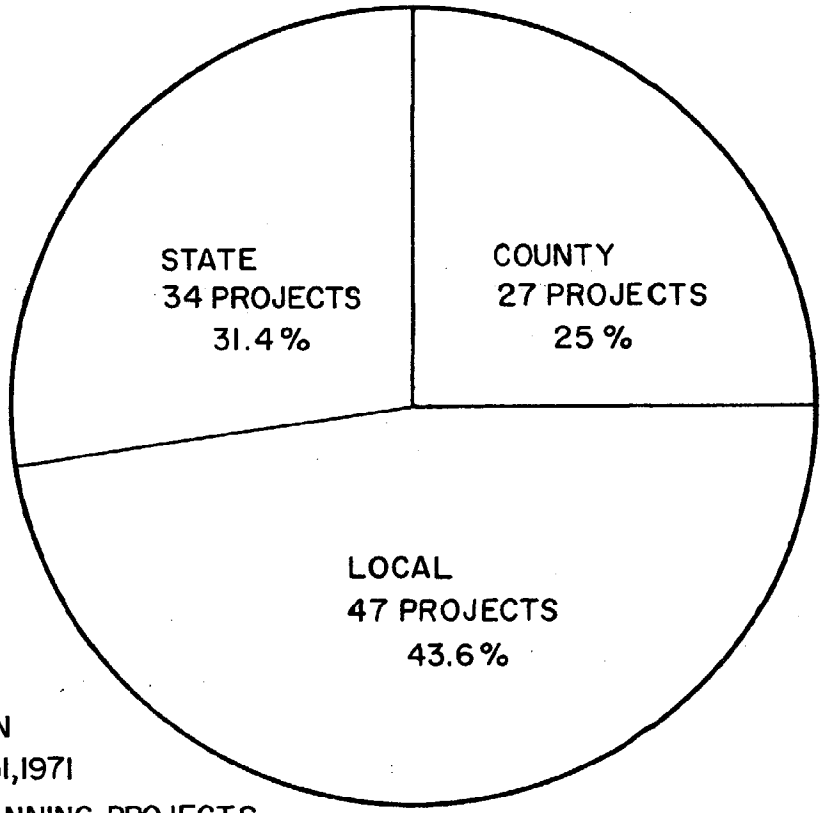
NUMBER OF PROJECTS

TOTAL
159 Projects

ACQUISITION AND
ACQUISITION & DEVELOPMENT
48 PROJECTS 30%



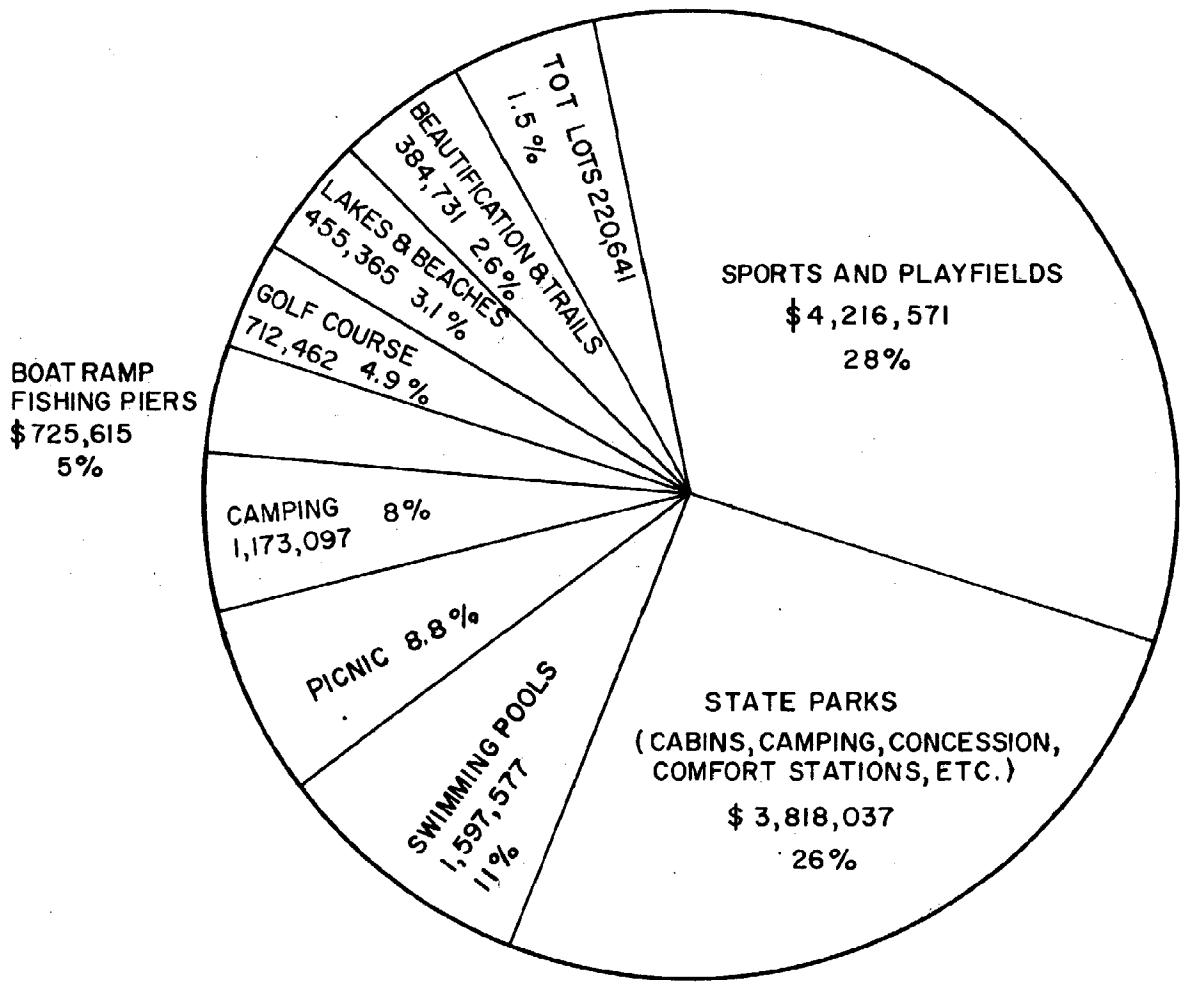
DEVELOPMENT
108 PROJECTS
68%



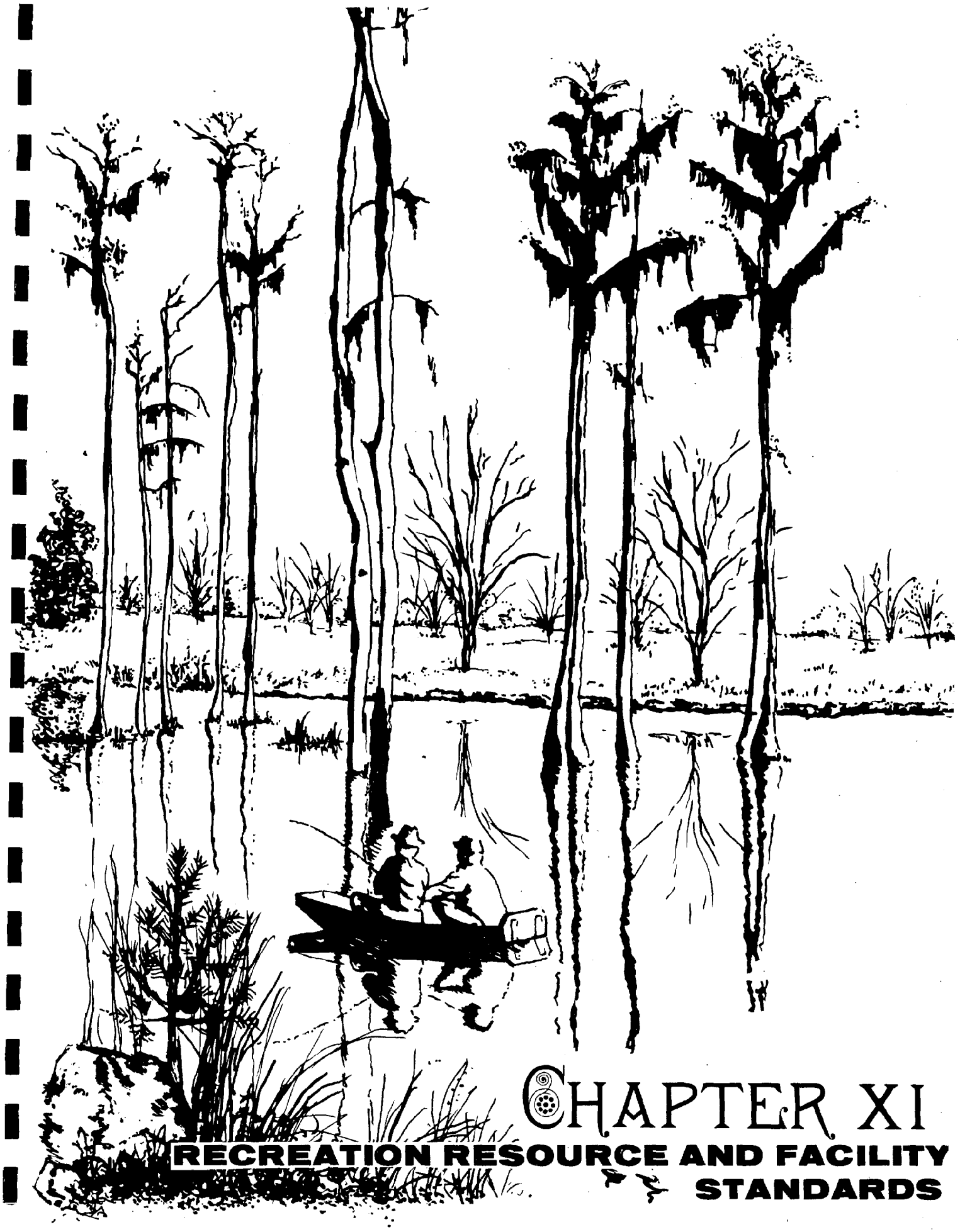
APPROPRIATION
JAN 1, 1966 – DEC. 31, 1971
DOES NOT INCLUDE 3 PLANNING PROJECTS

STATE LAND AND WATER UNIT
LAND AND WATER CONSERVATION FUND

DISTRIBUTION OF FUNDS BY ACTIVITY
$14,592,062



APPROPRIATION
JAN. 1, 1966 – DEC. 31, 1971
DOES NOT INCLUDE 3 PLANNING PROJECTS



CHAPTER XI

RECREATION RESOURCE AND FACILITY STANDARDS

CHAPTER XI

RECREATION RESOURCE AND FACILITY STANDARDS

A. CARRYING CAPACITY STANDARDS

In recreation planning there are two distinctly different standards concepts. One refers to a particular recreation resource or facility available or to be provided for every so many thousands of people living in a certain area. This concept has been well known for many decades by the recreation professionals in the United States. It dates back to the time when recreation and park fields (in a professional sense) were little appreciated or recognized. The "Crisis in Outdoor Recreation" of the postwar period brought the problems into focus, then the Outdoor Recreation Resources Review Commission (commonly known as ORRRC) made the recreation planning profession acceptable to the general public. The Federal Bureau of Outdoor Recreation was established within the Department of the Interior, and it became the focal point of recreation planning. Various service-professional organizations consolidated into the National Park and Recreation Association, which has been active in searching for improved standards for recreation planning.

The second type of recreation resource and facility standard is based on what amount of recreation opportunity a given facility/resource can provide within a year. This concept enables comparison with actual demand for such opportunities, while the former generalizes the relation between large numbers of people and a quantity measurement of resource/facility. Both concepts are usable, but for deeper understanding of recreation planning the latter is a better and improved tool.

Since the latter concept lends itself better for statistical analysis of demand, supply, and need, it will be described first in this chapter. This concept of recreation standards is based on "carrying capacity" of a given recreation resource and/or facility.* The essential advantage of this concept is that it can be applied to resources/facilities of any location, climate, population density, soil condition, season, etc. The concept in itself considers these factors. Its use in setting high quality standards has almost no limit.

The following factors were used in determining carrying capacity standards for the Georgia State Comprehensive Plan, 1971:

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*Developed by J. C. Horvath in 1964-65 in Denver, Colorado, while working on the recreation plan for the Missouri River Basin, the "carrying capacity" concept has been in use for the SCORP for Kansas, Missouri, Colorado, Minnesota, Arkansas, Tennessee, Virgin Islands, and Georgia.

1. What is the physiographical location of the outdoor recreation resource or facility?

    a. Mountain
    b. Piedmont
    c. Seacoastal

2. What is the geographical location of the resource or facility:

    a. Urban
    b. Rural
    c. Wilderness or primitive

3. What recreation opportunity can this resource or facility provide?

4. What quantity of use can be made of such resource (or facility) without lowering the quality of experience it can provide? What amount of opportunity is it able to provide within a day, a week, or any combination thereof, taking into consideration the daily turnover? What average area is needed for quality experience?

5. What length of time is this resource or facility in use during a 12 month period?

B. HOW STANDARDS WERE USED IN THE GEORGIA SCORP, 1971

An example will clarify the use of standards. In determining the carrying capacity standard of swimming pools in Georgia (shown in Table XI-1), the following points were considered and steps taken:

1. Pools can have different carrying capacities in the Georgia Mountains, Piedmont, and Coastal regions.
2. Within each of these physiographic regions, urban and rural areas can have pools, but not the wilderness areas.
3. Swimming pools provide swimming, wading, diving, and just splashing, even sunbathing opportunities.
4. Pool measurements are converted into square footage of water surface. The average area needed for a quality experience is 25 sq. ft., and the daily turnover is 2 for the same area.
5. The length of season is 16 weeks, or 112 days.

$$\frac{112 \times 2}{25} = 8.96$$ swimming activity occasions per square foot of a swimming pool.

Therefore, if maximum utilization of the pool is taking place, a 1,000 sq. ft. swimming pool (in this example) can provide 8.96 times 1,000 = 8,960 swimming activity occasions per year within the season. Since both demand and carrying capacity are easily calculated in annual activity occasions, they can be compared.

Each of the physiographic regions has its peculiarities, however. For example, there are densely populated areas like Atlanta, Augusta, Macon, Columbus, etc., and there are small rural towns. Due to the different makeup of areas with various diversifications of opportunities, standards can differ. Less quality or higher quality may be acceptable. Therefore, a knowledge of these special characteristics of the local population, including other opportunities available, is necessary. In the Piedmont urban areas the standard is 10 swimming activity occasions per year; but in the Piedmont's rural areas the standard is only 5. The lower the actual number, the higher the quality of experience. In swimming, the season is longer in the Georgia Coastal physiographic region; therefore, the urban swimming pool standard is 13 per sq. ft. of a swimming pool.

Standards for the 35 recreation resources or facilities, listed in Table XI-1, were calculated after long months of planning with local recreation planners from the outdoor recreation regions. (See Appendix, Part 2, for further details.) The finalized, accepted standards were used for calculating the carrying capacities of the supply of each of the 35 resources or facilities. These data, by region, are published in the Statistical Summary, under the Need sections.

1. CALCULATIONS OF DEMAND, SUPPLY, AND NEED OR IDLE CAPACITY OF 35 SELECTED ACTIVITIES, FACILITIES, AND RESOURCES, 1970, 1975, 1980, and 1985

Application of the standards gave results as summarized in Table XI-2.* This is the major table comparing demand with supply, when demand is expressed as use of facilities and supply comprises the average annual carrying capacity of facilities and resources.

a. Population data are listed by regions and by 2 age groups for 4 terminal dates--1970, 1975, 1980, and 1985.

b. Demand is calculated as average annual participation of adults or children in a particular recreation activity times the number of adults and children in that region.

Example: (1) Region A has the following population:
10,000 adults 20 and above
5,000 children 6 through 19

(2) Swimming average annual participation rate is:
Adult: 20.0
Children: 30.0

(3) Total use (demand):
10,000 x 20.0 = 200,000
5,000 x 30.0 = 150,000
350,000

*From the Statistical Summary, Volumes I, II, and II, "Needs" sections for 19 regions and the State as a whole.

TABLE XI-1

FACILITY-RESOURCE STANDARDS–1971 GEORGIA SCORP

STANDARDS

Measured in Average Annual Activity Occasions A Facility or Resource Provides

	SUPPLY FACILITIES/RESOURCES	DESCRIPTION OF MEASUREMENT	Standard Unit Per Year	MOUNTAIN			PIEDMONT			SEACOST		
				Urban	Rural	Wild	Urban	Rural	Wild	Urban	Rural	Wild
1.	Swimming Pool	Water surface, in sq. ft.	Sq. foot	8	4		10	5		13	6	
2.	Beach	Water surface, in sq. ft.	Sq. foot	3	4	2	3	5	4	4	6	20
3.	Handball	Number of courts	Court	1,200	600		1,350	700		1,500	700	
4.	Croquet	Number of courts	Court	600	300		800	400		800	400	
5.	Baseball	Number of diamonds	Diamond	1,200	600		1,350	700		1,500	700	
6.	Softball	Number of diamonds	Diamond	1,200	600		1,800	1,000		1,800	1,000	
7.	Soccer and Football	Number of fields	Field	800	400		1,800	1,000		1,800	1,000	
8.	Courts - Multipurpose	Number of courts	Court	1,000	500		1,500	1,000		1,800	1,000	
9.	Trailer Sites	Number of sites	Site	480	420		500	430		600	450	
10.	Tent Sites	Number of sites	Site	100	125		100	130		150	135	
11.	Primitive Sites	Number of sites	Site			100			100			120
12.	Organized Camping	Number of beds	Bed	70	60		80	80		70	80	
13.	Number of Golf Holes	Number of holes	Hole	1,200	800		1,500	800		2,000	800	
14.	Tennis Courts	Number of courts	Court	1,000	800		1,200	1,000		1,200	1,000	
15.	Picnic Sites	Number of picnic tables	Table	80	80		160	100		120	100	
16.	Water Skiing Acres	Water surface in acres	100 Acres	200	100		200	100		200	100	
17.	Canoe Trails	Miles of trails	Mile	100	60	40	200	60	40	200	100	50
18.	Docking Capacity	Number of moorings, etc.	Docking	120	100	50	240	150	60	240	150	80
19.	Boating	Water surface acres	Acre	200	100	50	200	100	50	200	100	50
20.	Water Surface Acres, Sailing	Water surface acres	100 Acre	150	100		250	100		300	100	
21.	Nature Foot Trails, Urban	Miles of trails	Mile	4,160			4,000			6,600		
22.	Nature Foot Trails, Rural	Miles of trails	Mile		340			400			560	
23.	Nat. Foot Trails, Wilderness	Miles of trails	Mile			250			200			340
24.	Bike Trails	Miles of trails	Mile	500	400		800	600		800	600	
25.	Motorized Bike Trails	Miles of trails	Mile	500	400		500	400		500	400	
26.	ATV Designated Trails	Miles of trails	Mile	500	400		500	400		500	400	
27.	Horseback Riding Trails	Miles of trails	Mile	1,200	800	200	1,200	800	200	1,000	600	200
28.	Trout Fishing Stream	Miles of stream	Mile	10	15	18						
29.	Trout Fishing Lake	Acres of water surface	Acre	10	15	15						
30.	Warm Water Fishing Stream	Miles of stream	Mile	10	15	15	10	15	25	10	20	25
31.	Warm Water Fishing Lake	Acres of water surface	Acre	10	15	19	15	25	32	10	30	38
32.	Waterfowl Habitat	Acres of Habitat	100 Acres	1	1	1	1	3	3	1	3	3
33.	Small Game Habitat	Habitat in acres	100 Acres	4	5	7	4	6	6	4	5	6
34.	Big Game Habitat	Habitat in acres	100 Acres	1	3	4	2	4	6	2	4	6
35.	Bow & Arrow Big Game Hunting	Habitat in acres	100 Acres	1	3	4	2	4	6	2	4	6
				Regions: 2 and 3			Regions: all others			Regions: 14 & 19		

TABLE XI-2

COMPARISON OF SUPPLY AND DEMAND FOR OUTDOOR RECREATION–GEORGIA RECREATION SURVEY, 1971 GEORGIA

POPULATION

	1970	1975	1980	1985
6 TO 19 GROUP	1,279,028	1,468,479	1,636,655	1,754,015
20 AND ABOVE	2,653,259	3,046,186	3,360,451	3,652,182

CALCULATION OF DEMAND, SUPPLY, NEED/IDLE CAPACITY
EXPRESSED IN TOTAL ANNUAL ACTIVITY OCCASIONS

DEMAND = PARTICIPATION FOR 1970, PREFERENCE FOR 75, 80, 85

RECREATION FACILITIES	1970			1975			1980			1985		
	DEMAND	SUPPLY	NEED/IDLE	DEMAND	SUPPLY	NEED/IDLE	DEMAND	SUPPLY	NEED/IDLE	DEMAND	SUPPLY	NEED/IDLE
SW. POOL	23509807	11510846	-11998961	29644094	12952216	-16691878	35588011	12952216	-22635795	41650309	12952216	-28698093
SW. BEACH	23509807	284172372	260662565	29644094	310325796	280681702	35588011	310325796	274737785	41650309	310325796	268675487
HANDBALL	14361080	38450	-14322630	18108613	47100	-18061513	21606093	47100	-21558993	25105633	47100	-25058533
CROQUET	3590262	10400	-3579862	4527145	15200	-4511945	5401518	15200	-5386318	6276401	15200	-6261201
BASEBALL	21541627	866150	-20675477	27162927	948150	-26214777	32409141	948150	-31460991	37658454	948150	-36710304
SOFTBALL	14361080	1324300	-13036780	18108613	1452200	-16656413	21606093	1452200	-20153893	25105633	1452200	-23653433
SOCCER	10770807	713100	-10057707	13581458	783300	-12798158	16204567	783300	-15421267	18829224	783300	-18045924
COURTS	7180535	1090500	-6090035	9054301	1345000	-7709301	10803041	1345000	-9458041	12552813	1345000	-11207813
TRAILER C	3393645	3887010	493365	4269256	5153510	884254	5122358	5153510	31152	5995448	5153510	-841938
TENT C.	2064427	389965	-1674462	2578980	521560	-2057420	3116240	521560	-2594680	3654409	521560	-3132849
PRIMIT. C	656138	17100	-639038	814719	17300	-797419	985740	17300	-968440	1128200	17300	-1110900
ORG.GR. C	687326	1284710	597384	879155	1422770	543615	1086866	1422770	335904	1273612	1422770	149158
GOLF	6111854	2775100	-3336754	7551373	2988400	-4562973	9075520	2988400	-6087120	10677331	2988400	-7688931
TENNIS	3143954	1020600	-2123354	3975105	1211200	-2763905	4760532	1211200	-3549332	5538619	1211200	-4327419
PICNICING	15214525	1349260	-13865265	19161103	1610320	-17550783	22925603	1610320	-21315283	26770798	1610320	-25160478
WATER-SKI	6948148	8188750	1240602	8779664	10616550	1836886	10630028	10616550	-13478	12573678	10616550	-1957128
CANOE TR.	297100	15480	-281620	373154	17380	-355774	453400	17380	-436020	525342	17380	-507962
DOCKING	16234354	1018650	-15215704	20392318	1300920	-19091398	24352075	1300920	-23051155	28410755	1300920	-27109835
BOAT-SKI.	16234354	8188750	-8045604	20392318	10616550	-9775768	24352075	10616550	-13735525	28410755	10616550	-17794205
SAILING	528688	19965900	19437212	685959	34130700	33444741	909187	34130700	33221513	988878	34130700	33141822
URBAN TR.	43399321	708360	-42690961	54748394	847120	-53901274	66224266	847120	-65377146	78199261	847120	-77352141
RURAL TR.	31786636	201300	-31585336	39653311	288140	-39365171	47279237	288140	-46991097	54412393	288140	-54124253
WILD. TR.	868961	21820	-847141	1097519	25270	-1072249	1305461	25270	-1280191	1514112	25270	-1488842
BIKE TR.	74390266	128000	-74262266	94033514	193400	-93840114	111786003	193400	-111592603	130648596	193400	-130455196
MOTORB.TR	8524776	90800	-8433976	10679714	107800	-10571914	12860734	107800	-12752934	14818014	107800	-14710214
ATV TRAIL	3523818	55500	-3468318	4436376	60300	-4376076	5341615	60300	-5281315	6240835	60300	-6180535
HORSE TR.	8821959	318000	-8503959	11019066	374000	-10645066	13013363	374000	-12639363	14915993	374000	-14541993
TROUT STR	8260699	6741	-8253958	10514237	6759	-10507478	12519308	6759	-12512549	14537077	6759	-14530318
TROUT LAK	8260699	2335845	-5924854	10514237	2338910	-8175327	12519308	2338910	-10180398	14537077	2338910	-12198167
FISH STR.	23529111	37380	-23491731	29676935	40055	-29636880	35185038	40055	-35144983	40890261	40055	-40850206
FISH LAKE	23529111	8437545	-15091566	29676935	11104040	-18572895	35185038	11104040	-24080998	40890261	11104040	-29786221
WFOWL HUN	376795	510998	134203	484187	657344	173157	566956	657344	90388	652229	657344	5115
SMALL GAM	7415962	11395291	3979329	9322807	11812574	2489767	11063092	11812574	749482	12795397	11812574	-982823
BIG GAME	2189970	9262388	7072418	2740560	9540720	6800160	3259334	9540720	6281386	3801399	9540720	5739321
BOW HUNT.	254938	9262388	9007450	320588	9540720	9220132	384274	9540720	9156446	451740	9540720	9088980

Source: *Statistical Summary*, Volume I, State Totals-64.

Note: The supply column is expressed as so many annual activity occasions available by each one of the 35 recreation resources and/or facilities by terminal date. The 1970 supply carrying capacity includes only the presently open recreation areas. The 1975, 1980 and 1985 carrying capacities include the present ones as well as those potentially available within the next 5 years, as inventoried. Both demand and supply are expressed in the same term, therefore need/idle capacity can be calculated.

The demand participation rates are found on the fifth page of the demand output tables (Statistical Summary) "children" category and "all adults" category, respectively, by region.

The 1970 participation rates were used for 1970. The following increases were used for the other terminal years (1970=100): 1975=110%, 1980=120%, and 1985=130% of the 1970 rates. The percentage increases were determined on the basis of a 10 percent increase every five years, based on projected increases in population, leisure time, income, and travel.

The state totals are simple additions of the 19 regional tables.

c. Supply is expressed as the total annual carrying capacity of a facility or resource within a region. The state total is the simple addition of regional totals.

   Example: Picnicking: 100 picnicking activity occasions per picnic site (this is the carrying capacity standard). If there are 170 developed picnic sites within a region, 17,000 annual average picnic activity occasions can be supplied at the present time.

d. The need or idle capacity column is the difference between demand and supply. Need is when demand is greater than supply, and a negative sign is added to it. Idle capacity is expressed when supply is greater than demand (Table XI-2).

e. The 1970 comparison includes the existing facilities or resources, while data for the 1975, 1980, and 1985 terminal dates include all facilities or resources inventoried (existing and potential).

When need or idle capacity has been calculated, it is unusable for planning until converted back to the related specific unit of recreation resource and/or facility. This conversion procedure can be easily accomplished with the use of the standards. It has been done for the state (Table XI-3) and for the regions (Statistical Summary).

Certain recreation resources, facilities, and activities do not as yet lend themselves to comparison with demand; i.e., we do not have "carrying capacity standards" for the 31 facilities/resources listed in Table XI-4.

A set of standards in terms of carrying capacities is an extremely good and useful instrument in the hands of the recreation planner. This concept is still in the beginning stage, however, and its basic comprehension challenges the profession to go deeper into its value and usefulness in planning for recreation, on both public and private levels.

C. NATIONAL PARK AND RECREATION ASSOCIATION STANDARDS

The concept of the nationally used standards is based on the size of the population in a given city, town, county, or metropolitan area. It is

TABLE XI-3

COMPARISON OF SUPPLY AND DEMAND FOR OUTDOOR RECREATION–GEORGIA RECREATION SURVEY, 1971 GEORGIA

CONVERSION OF NEED/IDLE CAPACITY EXPRESSED IN ACTIVITY OCCASIONS INTO ACTUAL UNIT OF FACILITIES AND RESOURCES.,

RECREATION FACILITY AND/OR RESOURCE	UNIT OF MEASURE	1970	1975	1980	1985
01 SWIMMING POOL	WATER SURFACE, SQ. FEET	-1,488,694	-2,145,482	-2,901,962	-3,679,716
02 SWIMMING BEACH	WATER SURFACE, SQ. FEET	43,190,918	47,701,008	46,207,445	44,679,646
03 HANDBALL COURTS	NUMBER OF COURTS	-11,641	-15,778	-18,777	-21,881
04 CROQUET COURTS	NUMBER OF COURTS	-3,682	-6,373	-7,633	-8,957
05 BASEBALL DIAMONDS	NUMBER OF DIAMONDS	-18,862	-24,111	-28,825	-33,634
06 SOFTBALL DIAMONDS	NUMBER OF DIAMONDS	-8,921	-11,516	-13,922	-16,326
07 SOCCER AND FOOTBALL FIELDS	NUMBER OF FIELDS	-7,106	-9,001	-10,816	-12,673
08 COURTS - MULTIPURPOSE	NUMBER OF COURTS	-4,498	-5,882	-7,202	-8,533
09 TRAILER CAMPING	NUMBER OF TRAILER SITES	1,569	2,580	668	-1,290
10 TENT CAMPING	NUMBER OF TENT SITES	-12,979	-16,051	-20,273	-24,526
11 PRIMITIVE CAMPING	NUMBER OF TENT SITES	-6,034	-6,669	-8,116	-9,253
12 ORGANIZED GROUP CAMPING	NUMBER OF BEDS	9,555	9,326	6,691	4,336
13 GOLF COURSE	NUMBER OF HOLES	-3,078	-4,158	-5,513	-6,940
14 TENNIS COURTS	NUMBER OF COURTS	-1,801	-2,369	-3,046	-3,716
15 PICNICING	NUMBER OF TABLES	-125,470	-157,759	-190,835	-224,837
16 WATER SKIING	WATER SKIING AREA IN ACRES	26,093	36,110	22,626*	8,620*
17 CANOE TRAILS	MILES OF CANOE TRAILS	-2,140	-3,222	-3,944	-4,526
18 DOCKING	MARINA, SLIPS, MOORINGS	-83,109	-117,435	-140,209	-163,479
19 BOATING	ACRES AVAILABLE FOR WSKIING	-58,974	-70,842	-103,573	-136,780
20 SAILING	WATER SURFACE ACRES	194,945	335,451	333,759	333,538
21 URBAN NATURE TRAIL	MILES OF TRAIL IN CITIES	-10,472	-13,230	-16,055	-19,000
22 RURAL NATURE TRAIL	MILES OF TRAIL IN RURAL	-78,635	-98,128	-117,183	-135,070
23 WILDERNESS TRAIL	MILES OF TRAIL IN WILDERNES	-4,000	-5,089	-6,079	-7,066
24 BICYCLE TRAIL	MILES OF BIKE TRAIL	-88,571	-119,510	-141,859	-165,897
25 MOTORBICYCLE TRAIL	MILES OF MOTORIZED BIKE TR.	-13,798	-18,953	-22,797	-26,018
26 ALL TERRAIN VEHICLE TRAIL	MILES OF ATV TRAIL.	-3,954	-5,553	-6,757	-7,976
27 HORSEBACK RIDING TRAIL	MILES OF HORSE TRAIL	-7,308	-10,313	-12,225	-14,084
28 TROUT FISHING STREAM	MILES OF COLDWATER STREAM	-28,541	-34,064	-40,323	-48,032
29 TROUT FISHING LAKE + RES.	ACRES OF TROUT-LAKE/RESERV.	127,608	122,672	116,698*	109,406*
30 FISHING STREAM	MILES OF FISHING STREAM	-1,508,913	-1,921,590	-2,276,704	-2,649,479
31 FISHING LAKE + RESERVOIR	ACRES OF FISHING LAKE/RES.	-603,935	-743,440	-977,090	-1,220,560
32 WATERFOWL HUNTING	ACREAGE OF HABITAT	58,941	65,174	30,310	-6,127**
33 SMALL GAME HUNTING	ACREAGE OF HABITAT	632,060	350,926	28,889	-294,628
34 BIG GAME HUNTING	ACREAGE OF HABITAT	1,499,875	1,414,022	1,261,579	1,100,266
35 BOW + ARROW BIG GAME HUNT.	ACREAGE OF HABITAT	2,032,757	2,084,765	2,064,717	2,043,284

Source: *Statistical Summary*, Volume I, State Totals-65.

*Figures denote idle capacities on state level on this page, 65 (3 of 4), of the *Statistical Summary* because the conversion of annual activity occasions needed, preceding page 64 (2 of 4), into actual units of outdoor recreation resources reflects idle capacity when calculated by regions. The 19 outdoor recreation regions are classified into 3 physiographic regions and grouped further into one of the 9 different levels of standards. This conversion by different levels of standards results in a composite figure of idle capacity at state level when measured in actual units of a resource or facility, instead of need as appears on page 64 (2 of 4), *Statistical Summary*.

**Exactly the reverse is true.

TABLE XI-4

COMPARISON OF SUPPLY AND DEMAND FOR OUTDOOR RECREATION–GEORGIA RECREATION SURVEY, 1971 GEORGIA

DEMAND FOR RECREATION - ACTIVITIES NOT LENDING THEMSELVES TO COMPARISON WITH SUPPLY - EXPRESSED IN ACTIVITY OCCASIONS

	RECREATION ACTIVITIES	1970	1975	1980	1985
1	SCUBA + SKIN DIVING	925,747	1,178,887	1,478,079	1,794,533
2	OTHER WATERBASED ACTIVITIES	620,565	824,717	983,093	1,145,301
3	TRACK AND FIELD	2,824,595	3,602,157	4,417,771	5,242,843
4	MOUNTAIN CLIMBING WITH GEAR	151,622	188,515	223,478	261,165
5	BIRD WATCHING + PHOTO	11,927,407	14,823,765	17,607,065	20,580,012
6	CAVE EXPLORING	155,436	194,124	226,726	258,919
7	WATCHING OUTDOOR GAMES	21,000,308	26,564,203	31,940,115	37,379,441
8	SIGHTSEEING	32,898,640	41,254,677	48,897,492	56,741,057
9	VISITING HISTORICAL/ARCH.SITES	2,912,219	3,663,462	4,461,034	5,321,664
10	DRIVING FOR PLEASURE (SEDAN)	74,529,552	93,803,458	111,894,761	130,178,378
11	TRAP + SKEET SHOOTING	303,443	379,142	451,046	518,995
12	TARGET SHOOTING	3,444,201	4,273,358	5,113,037	5,981,686
13	ARCHERY	2,033,860	2,638,869	3,189,497	3,699,049
14	TRAPPING GAME	168,388	203,839	240,980	274,780
15	VISITING A ZOO	2,557,294	3,270,241	3,942,068	4,612,747
16	VISITING OUTDOOR EXHIBITS	3,070,907	3,896,991	4,732,145	5,496,109
17	ATTENDING OUTDOOR PLAYS	1,000,506	1,295,045	1,549,975	1,828,577
18	VISITING A FARM	8,806,951	11,143,145	13,368,826	15,657,120
19	VISITING AN ARBORETUM	433,009	553,788	670,555	788,703
20	OTHER LANDBASED ACTIVITY	2,764,260	3,509,779	4,359,391	5,292,571
21	SNOW SKIING + SHOEING	123,704	158,397	197,834	240,463
22	SLEDDING + TOBOGGANING	257,798	321,774	396,673	477,661
23	ICE SKATING	173,138	223,570	278,340	338,054
24	SNOWMOBILE DRIVING, RIDING	18,487	23,666	29,823	36,485
25	ICE FISHING	262,208	328,879	383,045	437,833
26	OTHER WINTER SPORTS + ACT.	93,182	117,984	137,496	157,648
27	FLYING FOR PLEASURE	930,975	1,184,079	1,431,233	1,682,185
28	SAILPLANE GLIDING	24,359	31,310	36,357	41,695
29	MODEL PLANE + KITE FLYING	1,789,287	2,284,157	2,754,236	3,216,639
30	SKY DIVING	65,060	83,341	98,183	113,137
31	OTHER AIRBASED	201,245	257,846	306,105	357,083

Source: *Statistical Summary*, Volume I, State Totals-66.

also being used on a statewide basis. The application of these standards is very simple. If the standard for baseball diamonds is 1 per 6,000 population (see below), the number of baseball diamonds needed in a given area is derived by dividing the area's population by 6,000. The following standards were used for calculating the need for certain facilities:

Baseball Diamonds	1 per 6,000 population
Softball Diamonds	1 per 3,000
Tennis Courts	1 per 2,000
Swimming pools, 25 meters or less	1 per 10,000
Swimming pools, 50 meters	1 per 20,000
Golf Courses (18-hole)	1 per 25,000

Using the above standards based on population, Table XI-5 gives for the state as a whole the calculated surpluses or deficits for the facilities named. According to this concept, we have surplus baseball diamonds up to 1977 or about, after which we will have need. Using primary data with carrying capacity standards, more than 18,000 diamonds are needed now statewide. This latter expressed need is a high-quality baseball experience, which could be lowered. Even so, additional diamonds are needed now. Both types of standards indicate softball and tennis court needs. Figures in Table XI-5 indicate a small present surplus of swimming pools, but in terms of carrying capacity there is a need. Both types of standards show needs for pools individually and in combination. Shooting range standards were not calculated for carrying capacities. According to population size standards, there is a surplus in golf courses. Using carrying capacity calculation, however, over 100 18-hole golf courses are needed in Georgia at the present time; and the number is increasing.

Since standards related to population are widely used, these examples are given for comparison purposes on the state level. Some of these standards are not applicable in small regions, i.e., those without the minimum (threshold) population indicated by the standards for one such facility. The door is left open for further research in this area. Certainly, additional insights could help recreation planners in the calculation of needed facilities. At present, the carrying capacity concept is a vast improvement over the population-based standards.

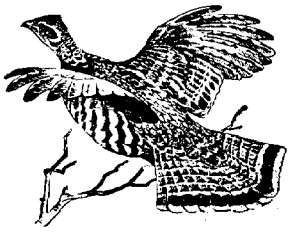


TABLE XI-5

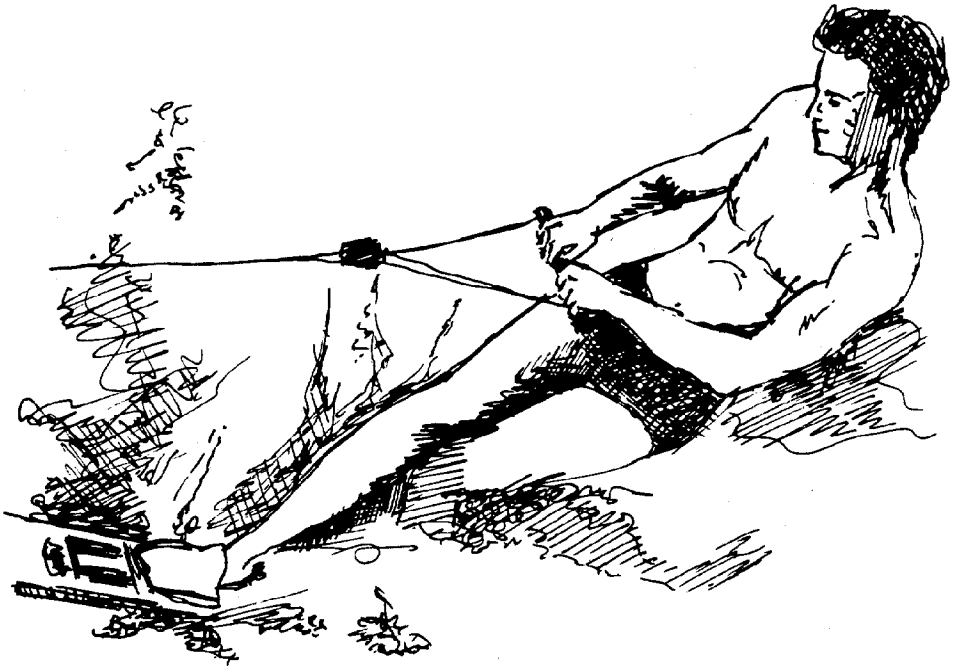
CALCULATION OF NEED USING STANDARDS BY SIZE OF POPULATION FOR SELECTED OUTDOOR RECREATION FACILITIES
STATE OF GEORGIA

1970, 1975, 1980, 1985

	1970			1975			1980			1985		
	Present Units	*Required by NRR OSS Standards	Surplus or Deficit Fac. in Georgia	Pres. & Potential Units	Required by NRR OSS Standards	Surplus or Deficit Fac. in Georgia	Pres. & Potential Units	Required by NRR OSS Standards	Surplus or Deficit Fac. in Georgia	Pres. & Potential Units	Required by NRR OSS Standards	Surplus or Deficit Fac. in Georgia
Baseball Diamonds	735	655	+ 80	809	752	+ 57	809	833	- 24	809	901	- 92
Softball Diamonds	856	1311	- 455	948	1505	- 557	948	1666	- 718	948	1802	- 854
Tennis Courts	893	1966	-1073	1070	2257	- 1187	1070	2499	-1429	1070	2703	-1633
Swimming Pools	405	393	+ 12	451	451	0	451	500	- 49	451	541	- 90
50 Meter Pools	48	197	- 149	57	226	- 169	57	250	- 193	57	270	- 213
Shooting Ranges	102	79	+ 23	102	90	+ 12	102	100	+ 2	102	108	- 6
Golf Courses	258	157	+ 101	280	181	+ 99	280	200	+ 80	280	216	+ 64

* National Park Recreation and Open Space Standards

Note: Standards were used from the booklet by Robert D. Buechner, Senior Associate, National Recreation and Park Association, Washington, D.C., no date, p. 13.



SPECIAL STUDIES

CHAPTER XII

CHAPTER XII

SPECIAL STUDIES

A. PARTICIPATION IN THE PLANNING PROCESS

1. GENERAL

Chambers of Commerce, municipalities, and state legislators were contacted individually in order to broaden the base of total understanding of the outdoor recreation planning effort, to increase potential support for action programs, and to obtain representative opinions relative to recreation development needs of their respective locations.* It is important that state planners and officials at all levels of government be aware of prevailing public opinion on the subject of outdoor recreation and informed as to potential assistance in action programs from various political subgroups, legislators, associations, etc. The information sought from municipalities concerned their planning in connection with outdoor recreation. Chambers of Commerce were questioned regarding the extent of potential local assistance, and state legislators were asked to assess existing assets and needs in their districts and to report on any proposed state legislation in the field of recreation.

In all cases, letters explaining the project accompanied the questionnaires submitted to the three groups. The responses were usually detailed, identifying and explaining the programs which the respondent was interested in or was pursuing. The final picture that emerges is one of widespread concern that opportunities be assessed realistically, that planning continue, and that cooperation be an essential element at all levels.

2. COMMENTS OF RESPONDENTS

a. Chambers of Commerce

Questionnaires were submitted to all of the Chambers listed in the Georgia Chambers of Commerce 1970 Directory. Eighteen responded, giving information as to: (1) whether recreational promotional activities or studies were conducted; (2) whether any outdoor recreation opportunities or activities were provided; and (3) recommended courses of action.

Twelve of the respondents (67 percent) indicated that affirmative action had been taken in planning and providing for the outdoor recreation needs of their communities. The other six respondents either made no comment or said no action had been taken. However, some of those responding negatively did advise that affirmative action was contemplated in the future. The majority of the comments were to the effect that local

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*See Appendix 4 for sample page of questionnaire used.

businesses and civic organizations should make their localities more aware of their recreational needs and should take greater initiative in both planning and acquisition/development of outdoor recreation resources.

b. Municipalities

A questionnaire was submitted to all municipalities and towns in Georgia having a population of at least 5,000 as listed in the Directory of Georgia Municipal Officials. Of the twelve respondents, eleven indicated definite plans or programs were either formulated or were being implemented to meet the future outdoor recreation needs of their cities. Only one of the municipalities stated that there were no such plans now in progress. The means by which future needs are to be met include participating with federal agencies in development of outdoor recreation opportunities and beautification and upgrading of existing areas or facilities. Ten respondents (83 percent) felt, in varying degrees, that county, state, and federal governments should share the burden of the costs of recreation development. One municipality suggested that the state should go beyond the planning stages and actually implement programs, while at least one other felt that the state and federal agencies should offer counseling assistance as well as financial aid. Ten (or 83 percent) of the twelve respondents indicated that some type of recreation board and/or planning commission--either municipal or countywide--was in existence within their governmental structure to study, plan, and provide for outdoor recreation.

c. State Senators and Representatives

Questionnaires were also submitted to all Georgia state legislators. Slightly over half (53 percent) of the nineteen respondents felt that the state and federal government should provide all or the major part of planning and/or financial assistance for development. An additional 37 percent leaned more heavily toward a combination of local, state, and federal aid and/or assistance. A single respondent, primarily because of the geographical location of his district, favored only federal and local assistance. The remaining responding state legislator did not comment in this area. Unfortunately, almost two-thirds (63 percent) of the respondents failed to indicate whether any legislation is being prepared or proposed by either themselves or any other members of the General assembly for meeting the current and future needs of the state for outdoor recreation facilities. It could, therefore, be presumed that little or no such legislation is pending. Two of the nineteen reported that they served on legislative committees relating to recreation-oriented activities, and a single respondent indicated definitely that he knew of no pending legislation. Three legislators professed some knowledge of potential legislation, and one other said he would be willing to support legislation in this area.

B. PRIVATE FINANCING

1. GENERAL

> The private sector plays the major role in providing outdoor recreation activities for America. Approximately 69 percent to 75 percent of the total recreational capacity in the U.S. and approximately 65 percent of the total visitation is provided by the private sector based upon a preliminary analysis of data from the Private Sector Survey.*

A major conclusion reached in this report, however, was that while private banks do supply most of the funds, the availability of private capital to finance outdoor recreation appears to be limited because of the inherent risks in these types of enterprises. These risks include short seasons, uncertain weather conditions, high construction and operating costs, lack of managerial expertise, and the fad nature of many such enterprises.

> Government aid in the form of loans or loan guarantees may be the only means of satisfying the mounting financial requirements of the private sector . . . . Commercial outdoor recreation needs to be able to readily borrow such large sums if it is to be encouraged to fill a large part of the supply gap in visitor accommodations and in various recreation facilities, especially those that go beyond the minimum provided by government agencies.**

Three federal agencies that operate credit programs were found to be of major importance: the Small Business Administration (SBA); Economic Development Administration (EDA), formerly the Area Redevelopment Administration (ARA); and Farmers Home Administration (FHA). Federal credit programs provide or stimulate credit not otherwise available and include direct and participating loans and loan guarantee programs, but they are intended to supplement rather than act as a substitute for private credit. In dollar terms, outdoor recreation loans do not amount to any more than 5 percent of the total of any federal credit program.

For the three-year period 1962-1964 examined in the study by the Bureau of Outdoor Recreation, those principal federal credit agencies provided direct loans of $42.5 million to commercial outdoor recreation, of which SBA provided $30.2 million and ARA (now EDA) $12.3 million; loan guarantees and loan participations were an additional

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*Federal Credit for Recreation Enterprises, Department of the Interior, Bureau of Outdoor Recreation, May 1967, p. 7.

**Ibid., pp. 8-9.

$15.1 million--SBA $6.9 million and FHA $8.2 million.* The types of facilities developed through federal credit programs revealed some agency patterns. ARA loans went chiefly to develop ski areas (43 percent) and resort hotels (38 percent). SBA loans went to resort hotels (36 percent), golf courses (13 percent), and a wide variety of other facilities. FHA loans to individual farmers were also diversified, led by camp grounds (34 percent) and cabins or cottages (23 percent). FHA loans to soil and water associations were largely for golf courses (89 percent).**

2. ADDITIONAL SOURCES OF CAPITAL

a. Retirement Funds

Two retirement funds authorized by the State of Georgia could serve as a significant source of capital for outdoor recreation development. The Teachers Retirement Fund and the Employees Retirement Fund have combined assets of approximately $625 million. The combined funds have an influx of $65 million annually that is available for investment.

The Boards of Trustees for the funds have a great latitude in deciding where to invest the assets of the funds. They can make, and have made, loans for the development of outdoor recreation areas, particularly for motels. In general, the boards are limited only by the requirements that loans for real estate development must be approved by the Georgia Real Estate Investment Board and no loan can exceed 75 percent of the total investment in the project. As a general policy a single loan will not exceed 1 percent of the total assets of the particular retirement fund making the loan.

Applications for loans for development of outdoor recreation resorts are judged by the Boards entirely on their merit as sound investments for the assets of the retirement funds. Interest rates are comparable to current commercial financial institutions.

b. Mortgage Bankers and Brokers

An additional potential source of capital loans is through mortgage bankers and mortgage brokers. They are in correspondence with a variety of lenders, some of whom may be inclined to make loans for projects connected with outdoor recreation. Again, the criteria for obtaining such loans is the soundness of the investment in outdoor recreation as compared to other investment opportunities available to the lender. In at least one instance a mortgage banker stated that his company was taking a greater interest in loans not connected with home financing.

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*Ibid., pp. 58-59.

**Ibid., p. 52.

3. GEORGIA BANK AND SAVINGS AND LOAN SURVEY

A survey was conducted in 1970 to study the extent of commercial bank and savings and loan financing of proposed investments in the outdoor recreation industry in Georgia.* The survey had two major objectives: (1) to determine the existing policy of banks and savings and loan associations regarding recreation industry loans and (2) to determine prior experience, if any, of those financial institutions with loans of this type.

Following is an analysis of the five questions used in the survey. Table XII-1 shows the statistical responses to each question. A sample of the questionnaire used in the survey is given as Figure XII-1.

1. Does your institution's lending policies prohibit loans for equity or operating capital to private developers or operators of recreation businesses? (Private recreation businesses included resort hotels, or motels--not transient motels, etc.--camp grounds, game farms, fishing lakes, etc.)

Responses to this question indicated that a great majority of commercial banks in Georgia do not have policies prohibiting loans for equity or operating capital for outdoor recreation projects. By contrast, the responding savings and loan associations were almost evenly divided as to their existing policies. Only 14.03 percent of the responding commercial banks have policies which prohibit this type of loan; 85.97 percent said they have no policies against such loans. Of the responding savings and loan associations, 42.86 percent reported that they do have policies prohibiting such loans, with the remaining 57.14 percent reporting no such policies.

2. Has your institution ever received a loan application for an outdoor recreation enterprise by a private operator?

Approximately half of the responding banks reported having had no prior experience with loan applications for this purpose. This could result from a number of factors. There is, doubtless, little demand for this type of business enterprise in certain areas of Georgia. Additionally, many banks in the state are very small. Finally, in those cases where banks have known policies against making loans for this purpose, prospective borrowers may have never even made application. Less than half, or 46.95 percent, of the respondent banks had, at some time, received an application of this type of loan, but the remaining 53.05 percent had never received such application. The

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*For the Financial Survey, questionnaires were sent to all banks and savings and loan associations in Georgia. Numerically, this included 441 banks (281 returns) and 101 savings and loan associations (57 returns).

TABLE XII-1

ANALYSIS OF THE GEORGIA BANK AND SAVINGS AND LOAN SURVEY*

Question	Yes	No	No Opinion	Would Seriously Consider	Total Responses
1. Does your institution prohibit loans for recreation businesses?					
A. Banks	39(14.03)	239(85.97)			278
B. Savings & Loan Institutions	24(42.86)	32(57.14)			56
C. Combined	63(18.86)	271(81.14)			334
2. Has your institution ever received application?					
A. Banks	131(46.95)	148(53.05)			279
B. Savings & Loan Institutions	12(21.05)	45(78.95)			57
C. Combined	143(42.56)	193(57.44)			336
3. Has your institution ever made loans?					
A. Banks	121(43.37)	158(56.63)			279
B. Savings & Loan Institutions	9(16.36)	36(83.64)			55
C. Combined	130(38.92)	204(61.08)			334
4. Are they good loan risks?					
A. Banks	101(37.13)	33(12.13)	138(50.74)		272
B. Savings & Loan Institutions	9(15.79)	11(19.30)	37(64.91)		57
C. Combined	110(33.44)	44(13.37)	175(53.19)		329
5. Would institution cooperate with SBA or State Agency?					
A. Banks	89(32.48)	32(11.68)		153(55.84)	274
B. Savings & Loan Institutions	12(21.82)	6(10.91)		37(67.27)	55
C. Combined	101(30.70)	38(11.55)		190(57.75)	329

*Questionnaires were mailed to 441 banks and 101 savings and loan associations. Of these, 281 banks and 57 savings and loan associations responded.

FIGURE XII-1

QUESTIONNAIRE

1. Does your institution's lending policies prohibit loans for equity or operating capital to private developers or operators of recreation businesses?
   (Private recreation business includes resort hotels or motels [not transient motels, etc.], camp grounds, game farms, fishing lakes, etc.)

   _____Yes

   _____No

2. Has your institution ever received a loan application for an outdoor recreation enterprise by a private operator?

   _____Yes

   _____No

3. Has your institution ever made loans to private operators of recreation businesses?

   _____Yes

   _____No

4. Generally speaking, does your institution consider outdoor recreation enterprises to be good loan risks?

   _____Yes

   _____No

5. Would your institution cooperate with state and/or federal agencies (SBA, etc.) to provide capital for private recreation development in your county?

   _____Yes

   _____No

responding savings and loan associations reported having received even fewer applications for outdoor recreation projects: only 21.05 percent responded in the affirmative, with the remaining 78.95 percent having had no prior experience with loan requests for this purpose.

3. Has your institution ever made loans to private operators of recreational businesses?

Slightly over half, or 56.63 percent, of the responding banks have never made loans to private operators for recreational businesses; the remaining 43.37 percent reported that they had made loans for this purpose in the past. Again, the responding savings and loan associations indicated little activity with this kind of loan. Only 16.36 percent answered in the affirmative; the remaining 83.64 percent reported that no loans for recreational businesses had been made.

4. Generally speaking, does your institution consider outdoor recreation enterprises to be good loan risks?

About half, or 50.74 percent, of the responding banks did not express an opinion as to the risk factor of loans to finance outdoor recreation enterprises. About 37.13 percent of the banks, however, considered these loans to be generally good risks, with only 12.13 percent responding negatively. The responding savings and loan associations were even more uncertain in their attitudes on this question. Only 15.79 percent considered outdoor recreation enterprises to be good loan risks; 19.30 percent considered them to be poor risks; and the remaining 64.91 percent expressed no opinion.

5. Would your institutions cooperate with state and/or federal agencies (SBA, etc.) to provide capital for private recreation development in your county?

Nearly one-third, or 32.48 percent, of the responding banks stated a willingness to cooperate with state and/or federal agencies in making loans for private recreation development in their areas. Only 11.68 percent reported an unwillingness to do so. In addition, over half of those responding (55.84 percent) indicated that they would seriously consider providing capital for this type of cooperative loan. The answers from the savings and loan associations were also encouraging. Approximately two-thirds of those responding (67.27 percent) indicated willingness to consider seriously such applications; an additional 21.82 percent replied that they would cooperate in providing capital; with only the remaining 10.91 percent expressing an unwillingness to consider or make loans under those conditions. These responses are a strong indication that Georgia financial institutions as a whole are willing to cooperate in providing capital for private recreation development should federal and/or state agencies participate and, presumably, guarantee repayment of these loans.

4. COMPARATIVE DATA

A comparable bank survey was conducted in the state of Missouri in 1966. In that survey, questionnaires were sent to randomly selected banks with the universe as of June 1965 consisting of approximately 600 commercial banks in Missouri. The sample was designed to provide a 90 percent probability level. While the Georgia survey included savings and loan associations, the bank responses are reported separately; and although random sampling was not utilized as in Missouri, the results are nonetheless meaningful in a comparative analysis. In addition, the same five questions were used in each survey. The results of the two surveys of banks only are summarized in Table XII-2.

TABLE XII-2

COMPARATIVE DATA ON ATTITUDES OF BANKS TOWARDS LOANS FOR OUTDOOR RECREATION MISSOURI AND GEORGIA

Question*	State	Yes		No		No Opinion		Would Seriously Consider	
1.	Missouri	28	(19.7%)	110	(77.5%)				
	Georgia	39	(14.03%)	239	(85.97%)				
2.	Missouri	80	(56.3%)	61	(43.0%)				
	Georgia	131	(46.95%)	148	(53.05%)				
3.	Missouri	75	(52.8%)	66	(46.5%)				
	Georgia	121	(43.37%)	158	(56.63%)				
4.	Missouri	59	(41.5%)	19	(13.4%)	61	(43.0%)		
	Georgia	101	(37.13%)	33	(12.13%)	138	(50.74%		
5.	Missouri	39	(27.5%)	20	(14.1%)			81	(57.0%)
	Georgia	89	(32.48%)	32	(11.68%)			153	(55.84%)

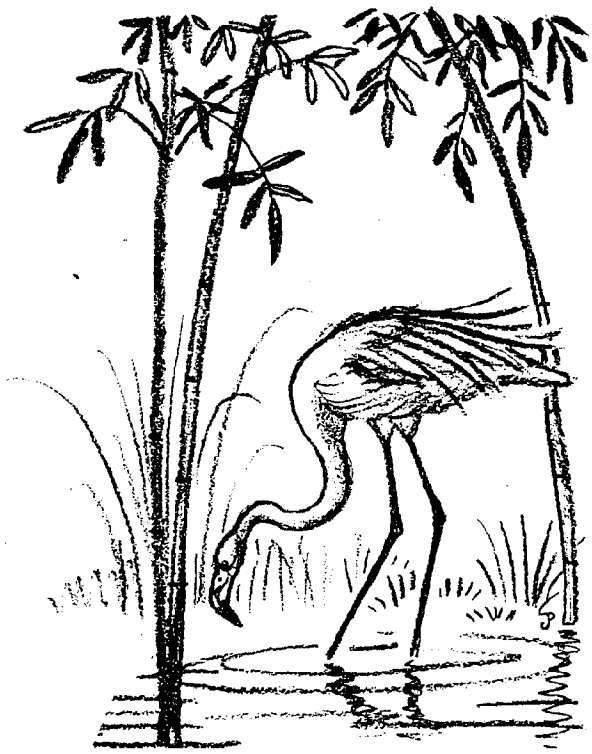
*Questions are as given earlier in text.

The responses are similar in many respects. Perhaps the major encouraging aspect can be found in the reaction to question 5. In both Missouri and Georgia, the overwhelming number of respondents either would provide or would seriously consider providing capital for private recreation development in cooperation with state and/or federal agencies. While this may imply an overall reluctance to bear the full risk of loans of this nature, it does indicate a willingness to cooperate should additional state and federal programs be enacted to offset the potential "risk factor."

5. SUMMARY AND CONCLUSIONS

A private entrepreneur seeking funds for an outdoor recreation enterprise in Georgia will, in general, encounter a favorable climate among commercial lending institutions. Relatively few banks have policies disallowing loans for this purpose, although the percentage of savings and loan associations prohibiting such loans is quite substantial.

Analysis of the data and of the comments, however, reveals an overall consensus among the responding Georgia commercial lending institutions that applications for individual loans by private operators of outdoor recreation enterprises would be considered in light of the same rigid requirements of credit, character, and other aspects of qualifying as for any other type of business loan. Encouragingly, only a small percentage of responding banks and savings and loan associations consider outdoor recreation enterprises definitely to constitute poor loan risks. In addition, a vast majority of both types of commercial lending institutions either would definitely cooperate or would seriously consider cooperating with state and/or federal agencies in providing capital for private recreation development.



APPENDIX

APPENDIX

PART 1
HOW TO USE THE STATISTICAL SUMMARY

The Georgia State Comprehensive Outdoor Recreation Plan, 1971, consists of several publications, each prepared for a different type user of the Plan. The Executive Summary is a small document giving major parts of the Plan and concentrating on the actions to be taken by the decision makers for outdoor recreation development for the population of the state of Georgia. The Narrative Plan is a description of the findings and a detailed analysis of the present and future problems facing the state and the nineteen regions. It also includes the overall perspective of the Plan, the environment of Georgia, legislative actions on both state and national levels affecting the future of Georgia's recreation, appraisal of special Georgia outdoor recreation resources, etc. Its main emphasis, however, is the statewide and regional analyses. The Acquisition and Development Plan is a regional and statewide summary of a six-year period of budgeting for land and water acreage acquisition and recreation facility development. The base for the above publications, with the exception of the Acquisition and Development Plan, is the Statistical Summary. It is a three-volume publication of the supply of, demand and needs for Georgia outdoor recreation. The Summary is divided into twenty main parts, the state level and the nineteen outdoor recreation regions. See "Table of Contents" of the Statistical Summary, Figure A-1.

The Statistical Summary was presented in three volumes for easier handling of the large quantity of data. Volume I includes the state totals and the northern regions of the state, those numbered 1 through 5, which include the Georgia mountain areas and the Atlanta and Athens metropolitan areas. Volume II includes generally the so-called Piedmont regions 6 through 12, and Volume III represents South Georgia and the Coastal regions. The 19 outdoor recreation regions generally correspond to the regions established as Area Planning and Development Commission (APDC) regions. However, some half a dozen counties did not belong to any of them, but each was grouped into one of the 19 outdoor recreation regions. The decision on grouping was made on the basis of the county's outdoor recreation resource base, socioeconomic characteristics of its population, the travel pattern, highway system, etc.

Special reference is here made to the fact that, standardwise, these 19 regions were grouped into 3 major physiographic regions, as listed below:

FIGURE A-1

CONTENTS OF STATISTICAL SUMMARY

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VOL. I

Preface v

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State of Georgia
- Supply S-1
- Demand S-14
- Need S-63

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- Demand 1-24
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Region 2: North Georgia
- Supply 2-1
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- Need 2-69

Region 3: Georgia Mountains
- Supply 3-1
- Demand 3-28
- Need 3-77

Region 4: Atlanta Metropolitan
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Region 6: Chattahoochee-Flint
- Supply 6-1
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- Need 6-72

Region 7: McIntosh Trail
- Supply 7-1
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Region 8: Oconee
- Supply 8-1
- Demand 8-21
- Need 8-70

Region 9: Central Savannah River
- Supply 9-1
- Demand 9-27
- Need 9-76

Region 10: Middle Georgia
- Supply 10-1
- Demand 10-22
- Need 10-71

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Region 15: Lower Chattahoochee
Supply 15-1
Demand 15-21
Need 15-70

Region 16: Southwest Georgia
Supply 16-1
Demand 16-27
Need 16-76

Region 17: Coastal Plain
Supply 17-1
Demand 17-23
Need 17-72

Region 18: Slash Pine
Supply 18-1
Demand 18-24
Need 18-72

Region 19: Coastal
Supply 19-1
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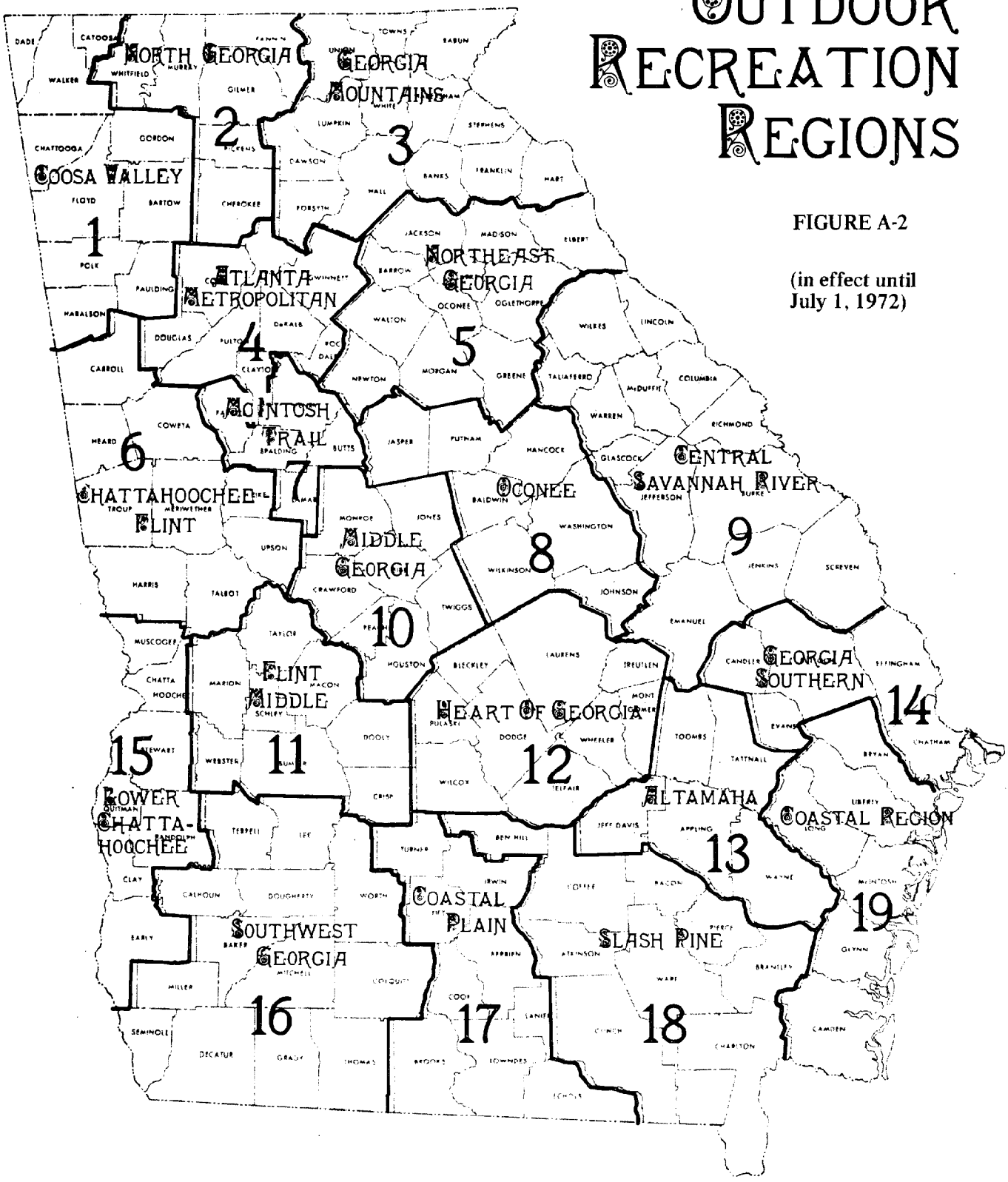
Need 19-69

Correlation Analysis of Selected Factors
State of Georgia S-1
Regions 1-1

OUTDOOR RECREATION REGIONS

FIGURE A-2

(in effect until July 1, 1972)



Physiographic Region	Outdoor Recreation Region	Number of Counties	Volume of Statistical Summary
I. Mountain	North Georgia Region, No. 2	6	
	Georgia Mountains Region, No. 3	13	I
II. Piedmont	Coosa Valley Region No. 1	10	
	Atlanta Metropolitan Region No. 4	7	
	Northeast Georgia Region No. 5	11	
	Chattahoochee-Flint Region No. 6	9	
	McIntosh Trail Region No. 7	5	
	Oconee Region No. 8	7	
	Central Savannah River Region No. 9	13	II
	Middle Georgia Region No. 10	7	
	Middle-Flint Region No. 11	8	
	Heart of Georgia No. 12	9	
	Altamaha Region No. 13	5	
	Lower Chattahoochee Region No. 15	7	
	Southwest Georgia Region No. 16	13	
	Coastal Plain Region No. 17	9	
	Slash Pine Region No. 18	9	III
III. Coastal	Georgia Southern Region No. 14	5	
	Coastal Region No. 19	6	

Standards are defined as keys to convert the annual carrying capacities of outdoor recreation resources and facilities into the same common denominator as the demand. One of the factors of the recreation standards is the climate and geographic location, which in turn influences the use, season, or length of the season. The state of Georgia was therefore divided into these 3 physiographic regions. See figure A-2 for further reference.

Each of the regions and the state totals were further divided into three major chapter headings: SUPPLY, DEMAND and NEED. These subjects will be explained in that order.

SUPPLY

The supply of outdoor recreation can be defined as all the resources and facilities available for an outdoor recreation experience. Generally speaking, these recreation supplies are inventoried as units of administration, and they are called recreation areas. These areas can be publicly or privately owned and/or administered. In the beginning of the Supply section for each region we find the Listing of Recreation Areas by county for that region. These listings denote type of ownership, administration, type of acreages, and the primary data collecting agency for that region. Information on these recreation areas is then summarized into a supply analysis for each region and the state totals. The state totals section does not list the recreation areas as they are listed in the regional

chapter. The state totals of the supply summary are composite figures of the regional supply summaries.

There are 30 tables within the SUPPLY SUMMARY (state totals and region totals). The individual tables are described in the Summary List of SUPPLY OUTPUT TABLES (Figure A-3). Experience has pointed out the need to devise tables for the most particular recreation planner. If additional information is needed, it is available from the individual recreation inventory tables, which are on IBM cards.

DEMAND

The demand for outdoor recreation is the most difficult thing to measure. Due to their peculiar nature, outdoor recreation opportunities are usually publicly available for no charge: only transportation and personal initiative are needed to use them. Therefore, demand for outdoor recreation cannot yet be measured as are other goods and services which command a price. This is changing, however, and economists within a decade will come up with a better way to measure the demand. Differences exist as to the value of measuring devices for local, regional, and state level planning for outdoor recreation development. The most useful method was employed in the Georgia Recreation Demand Survey: recording the participation of an individual in any of the 57 selected outdoor recreation activities during the year 1970, January 1 through December 31. In addition to participation, preventive factors and other socioeconomic characteristics were collected to measure the co-relation or degree of influence on participation. These factors were cross-analyzed in the demand study, and the SUMMARY LIST of the computer output tables will help the reader in his effort of understanding (Figure A-4).

The data were summarized on the state level and on 19 regional levels. The actual calculated demand for each of the 57 outdoor recreation activities is found in the Need section. In the demand section is given only the detailed cross-analysis and tabulation of data of the 2,410 households, including 7,156 persons statewide.

NEED

A comparison of supply (inventoried) and demand (surveyed) is necessary in order to calculate the need and/or the idle capacity of recreation opportunities in the state of Georgia, now and for the years of 1975, 1980, and 1985. The comparison of the opportunities demanded (used and to be used) with the available and potentially available opportunities is known as the need analysis, given in "Need" sections of the Georgia SCORP, 1971.

The need is defined as:

a. excess of demand over supply, or
b. un-met demand

The need analysis was published on 4 computer printout (output)

FIGURE A-3

SUMMARY LIST

GEORGIA STATE COMPREHENSIVE OUTDOOR RECREATION PLAN, 1971
COMPUTER OUTPUT TABLES OF THE SUPPLY INVENTORY
(There are 13 output tables)

COMPUTER OUTPUT PAGE NO. (Tables)	TABLES PER PAGE, AS I.D. NUMBER	GENERAL DESCRIPTION OF TABLES
01	01	Number of recreation areas and their acreages
	02	Potential expansion and new development areas
	03	Primary attraction of the area
	04	Geographic setting
	05	Distance from main highway
02	06	Open months per year
	07	Number of recreation areas by region (state level)
	08	Land and water acreage
	09	Size of outdoor recreation areas
	10	Origin of visitors to area
	11	Water frontage
03	12	Annual visits by number of visits
	13	Annual visits by type of area
	14	Length of stay in area
	15	Fees charged in area
	16	Visits by month
04	17	Recreation activities occurring in oradjacent to area
	18	Special facilities
	19	Further development
05	20	Availability of recreation facilities to selected cities: within 5 miles
06		within 25 miles
07		within 50 miles
08		within 100 miles
09		within 150 miles
10		within 250 miles
11	21	Size of developed recreational facilities
	22	Hunting and fishing resources within recreation area
	23	Capacities of developed recreational areas
12	24	General setting of recreation areas
	25	Non-recreational use of recreation area
	26	Effect of water quality
	27	Features of recreation area
	28	Elevation of area
13	29	Coastal area recreation facilities
	30	Ocean shore recreation area water and beach characteristics

Note: Each of the above tables contains many subheadings and usually includes both number of. . . and its percentages. See any SUPPLY section within the *Statistical Summary*.

FIGURE A-4

SUMMARY LIST

GEORGIA STATE OUTDOOR RECREATION COMPREHENSIVE PLAN, 1971
DEMAND FOR OUTDOOR RECREATION, HUNTING, FISHING AND BOATING COMPUTER OUTPUT TABLES

(There are 51 output tables)

Computer Output Tables Page No.	Individual Tables Per Page	General Description of Tables
01	01	Distribution of Sample Units by Type
	02	Characteristics of Units in the Sample
	03	Average Working Hours Reported, Considered Reasonable Paid Vacation Desired
	04	Availability of Leisure Time in Study Period
02	05	Residence Distribution
	06	Age
	07	Education
	08	Number of Children
	09	Occupation
	10	Industry
	11	Employment
	12	Wife Employment
	13	Location of Residence
	14	Dwelling Unit Type
	15	Oldest Child at Home
03	16	Income
	17	Ownership of Vacation Home by Income Class
	18	Vacation Home Environment
	19	Type Structure of Vacation Home
	20	Value of Vacation Home and Land
	21	Location of Vacation Home
	22	Recreation Development at Vacation Home
04	23	Recreation Facilities Available or Desired Near Vacation Home
05	24	Distribution of Average Annual Activity Participation by Type of Sample (Actual Demand)
06	25	By Income Groups (Actual Demand)
07	25	By Income Groups - continued and concluded
08	26	By Age (Actual Demand)
09	26	By Age - continued and concluded
10	27	By Education (Actual Demand)
11	27	By Education - continued and concluded
12	28	By Occupation (Actual Demand)
13	28	Continued
14	28	Continued
15	28	Continued
16	28	Continued
17	28	Concluded
18	29	By Employment (Actual Demand)
19	29	Continued
20	29	Continued
21	29	Concluded
22	30	By Residence and Dwelling Type (Actual Demand)
23	30	Continued and concluded
24	31	Vacations Taken and Planned
	32	Type of Family Vacation Taken and Preferred

FIGURE A-4 (continued)

Computer Output Tables Page No.	Individual Tables Per Page	General Description of Tables
25	33	Recreation Activities During Vacation
26	33	Continued and concluded
27	34	Vacation Travel - Longest Trip Taken
	34	A. Persons on Trip
	34	B. Days on Trip
	34	C. Farthest Distance
	35	Percentage of Vacation Time Spent in Georgia
	36	Times Stayed with Friends on Vacation
28	37	Average Expenditure Per Day on Vacation
	38	Types of Usual Family Vacations
	39	Attendance at Convention in 1970
	40	Most Common Method of Travel During Vacations
29	41	States, Countries or Continents Visited on Vacation
30	41	Continued and concluded
31	42	Investment in Recreation Equipment
	43	Vacation and Recreation Variable Expenses
	44	Distribution of Factors of Prevention or Satisfaction
	45	Opinion Survey on Funds
	46	Willingness to Pay Additional Licensee Fees
32	47	Boating Activity
	47	A. Ownership
	47	B. Horsepower
	47	C. Kind of Water
	47	D. Boat Utilization
	47	E. Type of Boat and Cabin Facilities
	47	F. Fuel Purchase Location
	47	G. Use of Boat
	47	H. Boat Usually Kept At . . .
33	47	I. Opinions on Marine Fuel Tax Use
	47	J. Water Zoning
	48	Source of Hunting and Fishing Information
	49	Detailed Fishing Activity
	49	A. Number of Persons Fishing
	49	B. Reasons for Not Fishing Next Year
	49	C. Planning for Fishing
	49	D. Trout Areas Actually Fished
	49	E. Preference for Trout Fishing Areas
34	49	F. Type of Areas Fished and Preferred
	49	G. Plans for Fishing, by Type
	49	H. Attraction of a Fishing Area
35	49	I. Counties Most Popular for Fishing
36	49	I. concluded
37	49	J. Preference for Saltwater Fishing
	49	K. Preference for Freshwater Fishing
38	49	L. State in/from Which Most Fishing Done
		Public Relations Information:
	50	A. Use of H & F License Money for Education
	50	B. Participation in Sportsmen Group
	50	C. Visit Game and Fish Exhibits at Fairs
	50	D. Read Newspaper Outdoor Column

children 6 through 19, inclusive, are also shown in the table.

The Supply section in this table is the total carrying capacity of that particular recreation resource or facility within a year. At the beginning of the study, it was designed for a comparison of 17 activities demanded with the corresponding opportunities. With the assistance received from the regional recreation planners, however, the consultant increased the number of comparisons to 35. Some of the activities were compared with the same resource or with more than one resource.

Carrying capacities are expressed in number of annual activity occasions. The corresponding demand data have also been expressed in number of annual activity occasions. Therefore the two can be compared. If demand is greater than supply, then we have need. If the supply is greater than demand, we have idle capacity. A "need" is preceded with a - (minus) sign.

Need Table 3. Conversion of Need/Idle Capacity into Actual Units

The need or idle capacity columns of Table 2 have been reconverted into actual units of recreation opportunities, be it a resource (land and water acreage) or a facility (swimming pool). The 35 comparisons are listed with their units of measurements. The state totals reflect the composite addition of the regional totals, which are not calculated separately. There are only regional standards. Therefore regional needs, even with the same demand and same number of opportunities, do not necessarily reflect the same level of need. Consult Chapter XI (standards) for further explanation.

Need Table 4. Activities Not Lending Themselves to Comparison with Supply

Included in Table 4 are those recreation activities, 31 altogether, which do not lend themselves, as yet, to comparison with recreation facilities. Their demand was calculated by children and by adults and added together in the same manner as the Table 2 Demand column was calculated. These activities are listed and expressed in activity occasions for the information of the recreation planner.

ANALYSIS OF RELATIONSHIPS BETWEEN ACTIVITY PARTICIPATION AND CERTAIN OTHER FACTORS

In almost all aspects of human activity the level or intensity of activity is related in some way to numerous other factors or circumstances. For example, as a person advances in age there is a tendency for him to decrease activity that requires extreme physical exertion; or as a person's income increases he has more funds available to spend for equipment or supplies required to participate in some activity in which he has an interest; also, if a person has a generous vacation period it may

permit him to engage in recreation activities which require considerable time for participation.

If these factors can be represented by numerical values it is then possible to use the responses of interviewees about their recreation participation and about their ages, education, incomes, length of vacation, etc., to calculate the relationship between recreation activity participation and these factors. In technical language, the values of participation obtained in this study are used as the "dependent variables." The other factors--age, income, etc.--to which such participation may be related are the "independent variables."

The data collected for this study were from a random sample of households in the state. It can therefore be assumed that the values of participation in activities are randomly distributed and that the values given for the independent variables are also randomly distributed. From this, values for each of the factors, taken separately, together with the values for participation form what is called a bivariate distribution: that is, two values from each of the interviewees, one being activity participation and the other being one of the various factors, form a joint distribution of the two sets of values. If the dependent variable (participation) and the independent variable (age, income, etc.) increase together (e.g., if, in general, participation increases with an increase in income), the variables are said to be positively correlated. If the dependent variable decreases with an increase in the independent variable (e.g., if, in general, participation decreases with an increase in age) the variables are said to be negatively correlated.

The method used in this analysis is that of simple least-squares regression of the dependent variable on the various independent variables, one at a time. The assumption (or hypothesis) to be tested was that the independent variables "explain" to some extent the participation of the respondents in outdoor recreation. The coefficient of correlation, an abstract value that varies between -1 and +1, is the measure of the degree of association or closeness between two variables. The nearer this coefficient approaches either -1 or +1, the higher the degree of association. There is no implication of a causal association. For example, the level of education does not cause a given level of recreation activity. The explanation of what causes a given degree of association must be determined on the basis of evidence other than the numerical values used in the analysis.

The square of the correlation coefficient is called by some authors the "coefficient of determination." This latter value is a measure of the proportion of variation in the dependent variable, Activity Participation, in this study, which can be attributed to variation in a given independent variable. The balance of variation in the dependent variable, for a given test, is attributable to unexplained forces.

The tests of the sample data show that there are varying degrees of association of Acitivity Participation with each of the independent variables. Based on "t" tests for the total state sample, it can be stated that, with the exception of the relationship of Activity Participation

with Hours Worked per Week, Number of Holidays, and Average Hours per Weekday, the probability is less than 1 in 100 that the value of the coefficient of correlation shown for each bivariate distribution came from a population of sample coefficents whose true value is zero. Stated another way, the probability is almost certainty that there is some degree of association between the dependent and independent variables. For the three independent variables named, the level of significance is less than almost certainty. For this reason, inferences drawn from the analysis of these three distributions will be of reduced reliability.

CONCLUSION

The wide variety of analyzed data on state and regional levels will be a useful tool for the recreation planner on every level of government. Even interstate cooperation can be based on these analyses. Private recreation enterprises, from small family-owned business to multimillion dollar resort developments and/or vacation home community developments, will find this data useful in their determination of economic feasibility. Travel patterns--willingness to travel and for what type of outdoor recreation activity; preference for vacation homes, types, resorts; and dozens of other types of primary information have never before been made available to any state. The consultant expresses willingness to explain its use for regional and other planners if requested.

APPENDIX

PART 2
BRIEF CONTENTS OF PROGRESS REPORTS

The Georgia State Comprehensive Outdoor Recreation Plan (SCORP), 1971 was born out of the necessity of updating the first major Georgia SCORP of 1968. In January 1970 two publicaitons were issued. representing an assembled framework for a major updating. The Executive Summary, 1970 and the Detailed Schedule for Continuing Planning were the result of this preplanning procedure of the present plan, but they are not part of the present plan.

Since Spring 1970 the planning process has resulted in four publications, made available to the Inter-Agency Council on Outdoor Recreation through the Bureau of State Planning and Community Affairs, Natural Resources Division. A brief summary of these publications is given here for better understanding of the planning process. The summary table below clarifies the issue:

NO.		USED FOR	DATE OF PUBLICATION	TOTAL PAGES
1.	INVENTORY OF RECREATION AREAS	Training field data collectors, coding and data processing, comprehension	8-31-1970	93
2.	DEMAND SURVEY MANUAL	Training field data collectors, coding and data processing, comprehension	11-13-1970	142
3.	FACILITY AND RESOURCE STANDARDS	Comprehension of recreation resource and facility standards by regional, state and local planners; request for their assistance in planning	1-15-1971	74
4.	FINAL STANDARDS, COMPUTERIZATION, OUTPUT TABLES PROPOSED	Finalized facility and resource standards to be used for the comparison of demand with carrying capacity of the supply by regions	3-9-1971	22

These progress reports served their purpose of identifying the data to be collected, coded, transformed into data processing cards, tapes, or discs, and processed--as it is now published in the Statistical Summary of this Plan. As can be seen from the Acknowledgement section of the Plan, and other publications, the number of persons involved in the planning process is estimated to be over 200. As the years go by, these trained people could be useful in their special locations in interpreting

APPENDIX

PART 3
GLOSSARY OF TERMS

Acreages:

Acres of land, acres of water, and total acres were listed for recreation areas and areas of individual facilities, like playgrounds, etc.

Activities:

Fifty-seven (57) outdoor recreation activities were listed in the state comprehensive outdoor recreation plan. They were grouped into four major classifications: (1) water-based, (2) land-based, (3) snow- and ice-based, and (4) air-based.

Activity Day:

An activity day is the same as an activity occasion.

Activity Occasion:

An activity occasion represents one person six years and older participating in any of the 57 outdoor recreation activities listed for at least half an hour in one day.

Adjacent Land Ownership:

Ownership of land adjacent to a recreation area was classified as public, private, or both public and private.

Adjacent Land Suitable for Expansion:

If the land adjacent to a recreation area was suitable for expansion, then it was coded accordingly. This was done to determine how many recreation areas will be able to expand as demand increases.

Adjacent Water:

There were six classifications of water adjacent to a recreation area: (1) none; (2) under 100 acres; (3) 101 to 499 acres; (4) 500 to 999 acres; (5) 1,000 acres or more; and (6) river or stream.

Administration:

The administration of a recreation area was classified (into

9 categories) as federal, state, county, city, other local government, quasi-public, school board, church, or private.

Air Sports and Recreation:

Flying for pleasure: Piloting or riding in an airplane for pleasure. Skydiving was also included. Flying on commercial airlines was not included in this category.

Sailplane gliding: Riding or piloting a glider or sailplane for pleasure.

Model plane and kite flying: Included helping children with flying model planes or kites.

Annual Carrying Capacity:

A recreation resource and/or facility can provide a certain amount of use without losing its quality. If this is added up for a 12-month period, then we speak of the annual carrying capacity of that resource or facility.

Bureau of Outdoor Recreation:

The Bureau of Outdoor Recreation (BOR) was established as part of the United States Department of the Interior in 1962. The BOR is responsible for administering the Land and Water Conservation (LAWCON) Fund Act, 1965--federal planning funds. The Bureau of Outdoor Recreation is also responsible for preparing a nationwide Recreation Plan every five years, to be submitted to the United States Congress.

Comparison: Demand and Supply, Need and Idle Capacity:

Comparisons of demand and supply were made for 35 major recreation activities. Demand and supply were converted into annual outdoor recreation activity occasions, and compared. If the demand was greater than supply, there was need. If the supply was greater than demand, there was idle capacity. Comparisons were made for 19 outdoor recreation regions and the state as a whole and published in the three volumes of the Statistical Summary.

Consultant:

Environmental Research Group, Bureau of Business and Economic Research, Georgia State University, 33 Gilmer Street, S.E., Atlanta, Georgia 30303.

Contact Hour:

Same as an activity occasion.

Conversion:

The calculation of a unit of a recreation facility or resource into an annual number of recreation opportunities for the public. In this calculation standards are used, and the product is the average annual carrying capacity.

County:

The 159 counties in Georgia were organized into 19 recreation regions. The county block principle was maintained throughout the planning process because most of the statistical information available from governmental and private sources is based on county lines.

Demand:

The demand for outdoor recreation is defined as the desire and ability to participate in any of the 57 recreation activities listed. The demand for outdoor recreation was identified by use of or participation by adults and children in any of the 57 outdoor recreation activities in the calendar year 1970. The demand survey was compiled through household interviews in December 1970 and in January 1971. It includes 2,410 households with 7,156 persons 6 years and older (see Statistical Summary, Volume I, State Totals-14, Table 2.)

Demand Projection Multiplier:

Fixed projection multipliers were used to determine the future demand for outdoor recreation activities and opportunities. The 1970 calendar year participation rate of the Georgia population was accepted as 100 percent. For future years the following fixed projection multipliers of the base year were used: 110 percent for 1975, 120 percent for 1980 and 130 percent for 1985.

Demand Survey, 1970:

To determine the demand for outdoor recreation activities a survey was designed and administered to a randomly selected portion (2,410 household units) of the total Georgia population. Their participation was extended to the universe (total Georgia population). The survey provided the demand structure for recreation opportunities in Georgia, which was analyzed for 19 outdoor recreation regions and the state as a whole.

Development of Recreation Areas:

Further development of recreation areas was divided into three

categories: planned, considered, or not considered. If a recreation area was planning to develop more facilities, then it was also inventoried (i.e., the expansion part) as a potential recreation area. If the further development of an area was only considered or not considered, such was recorded only, and not considered in the potential inventory.

Eligibility:

The eligibility of federal or state agencies or political subdivisions to receive federal funds from the Land and Water Conservation Fund Act, 1965, for the purposes of acquiring land and water acreages and developing outdoor recreation facilities in the state is based on an accepted state plan for outdoor recreation. The procedure of acceptance and time span is one of the functions and responsibilities of the U.S. Bureau of Outdoor Recreation.

Existing Recreation Area:

An area open for recreation during the calendar year 1970.

Factors of Prevention:

Factors that prevented the persons interviewed from participating more often in outdoor recreation were:

1. Lack of time
2. Lack of funds
3. Prefer urban-cultural activity
4. Dissatisfied with opportunities in Georgia
5. Areas close to home too crowded
6. Visited relatives out-of-state
7. Young children in the family
8. Indoor activities preferred
9. Age or health reasons, or do not like to travel

Fees Charged:

There were five categories under the question:

Which of the following methods for providing additional funds for outdoor recreation facilities would you recommend? (one per each)

1. User fee (camping, etc.)
2. State Park Permit
3. Federal Golden Eagle Passport
4. State tax revenues
5. Local tax assessment bond issue

User fee: A charge for the use of a developed facility, such

as a camping area or cabin.

State Park Permit: An entrance fee to be collected and earmarked for further development of the State Park System in Georgia.

Federal Golden Eagle Passport: Federal admission "passport" to national forests, parks, monuments, and other federal recreation areas all over the United States. Its receipts have been utilized for land and water acquisition and development of additional and/or improved facilities for the public.

State tax revenues: Information or opinion was sought from the general population of Georgia as to their willingness to earmark additional or new taxes for outdoor recreation development for general public use.

Local tax assessment and bond issue: Opinion was sought as to local tax increases or bond issues for local recreation development. This information is available on a county basis. However, the data are statistically significant only for the state and regional levels.

Idle Capacity:

When supply is greater than demand. This is available by region and state level in 35 recreation opportunities (see Statistical Summary).

Land-Based Activities:

1. Archery: Any bow and arrow shooting for sport only.
2. Attending outdoor concerts and plays: Attendance at musical, dramatic, artistic, or other nonsporting, passive, outdoor events. Drive-in movie attendance was excluded.
3. Biking: Any type of bicycling for recreation. Bicycling for transportation was not included.
4. Bow and arrow hunting: Hunting with bow and arrow.
5. Bird watching, bird and wildlife photography: Watching birds or wildlife outdoors and/or taking pictures of them.
6. Cave exploring: Visiting caves underground.
7. Driving for pleasure (sedan): Driving and riding for pleasure in regular passenger car.
8. Driving for pleasure (All-Terrain-Vehicle (ATV), Jeep, Dune Buggy): Driving a four-wheel drive vehicle, such as a Jeep, International Harvester Scout, Ford Bronco, or Land-Rover, etc., on a rough road in order to see more of the outdoors or to pursue game and fish; also riding motorcycles on rough roads.
9. Driving for pleasure (motorcycle): Any kind of two or three-wheeled motorcycle riding in outdoors.
10. Organized camping: Organized camping by a public organi-

zation like Boy Scouts, Girl Scouts, etc.; could be in a barracks type building or in a hotel or motel, not necessarily a tent.

11. Hiking in wilderness (with gear): Hiking with gear or pack in primitive, wilderness areas.
12. Horseback riding: Recreational horseback riding.
13. Hunting big game: Big game includes deer, elk, bear, mountain goat, bighorn sheep, and antelope.
14. Hunting small game: Small game includes rabbits, pheasants, turkey, quail, fox, etc.
15. Mountain climbing with gear: Climbing rocks with gear, either alone or in teams. Mountain hiking was excluded.
16. Nature walking in rural areas: Walking in rural setting for pleasure.
17. Other land based: Any land-based activity not listed here.
18. Picnicking: An outdoor activity away from home, the primary purpose being the preparation or eating of a meal outdoors.
19. Playing golf: Includes playing golf on a regular 9 or 18-hole golf course or driving range, or putting on a miniature course.
20. Playing outdoor games: Team play and individual play with emphasis on active participation. Golf and tennis are excluded.
21. Playing tennis: Any type of tennis played outdoors.
22. Primitive camping: Camping in wilderness, or in primitive natural setting.
23. Sightseeing: Seeing interesting sights, either scenic areas or man-made objects, outdoors.
24. Target shooting: Practicing or target shooting with any gun, BB, air or firearm.
25. Tent camping: Living outdoors with a shelter or bedroll, sleeping bag, or in a partially open hut. The tent camper had to take his bedding equipment and food with him.
26. Track and field participation: Includes all sport and recreation using tracks and/or related fields or open spaces.
27. Trailer camping: Camping outdoors with trailer (house trailer, pickup camper, or camper-trailer) for recreation. Regular living in a trailer home area was not included.
28. Trapping game: Any trapping of game included in this category.
29. Trap shooting: Trap and skeet shooting for pleasure.
30. Visiting an arboretum: Visits to botanic gardens are included here.
31. Visiting farm: If resident of a nonfarm home in urban area.
32. Visiting outdoor exhibits: All outdoor exhibits and fairs attended.
33. Visiting zoo: Visits to zoo or a zoo-type facility.
34. Walking for pleasure: Walking for pleasure inside urban areas.
35. Watching outdoor games: Passive recreation activity, included because of the location and/or facility needed to accom-

modate this participation.

36. Wildlife and bird photography: Only wildlife and bird photography included.

Leisure Time:

In family sample unit types, information on the available leisure time in the calendar year of 1970 was requested from the husband, wife, and children. In nonfamily units, the information was requested from occupants one, two, and three (adult males or adult females).

Vacation: Vacation was measured in working days and defined as paid vacation time or, in the case of self-employed or retired persons, vacation was measured as time away from work or time away from home.
Holidays: Nine days are considered holidays: New Year's Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas, and New Year's Eve.
Leisure hours per weekend: The leisure hours per weekend were expressed as a standard total of 28 hours per weekend, starting Friday, 6:00 p.m. until 10:00 p.m.; and Saturday and Sunday from 9:00 a.m. until 9:00 p.m.
Leisure hours per weekday: Daily number of hours of leisure time was four hours, from 6:00 p.m. to 10:00 p.m., Monday through Thursday.

Local Resident:

A resident of the State of Georgia during the study period.

Most Popular Activities:

The most popular activities were ranked as first, second, and third most pursued by a recreationist in a given recreation area. The first three activities were chosen from the 57 recreation activities listed.

Need:

Need is the difference between demand and supply when demand is greater than supply.

Nonrecreation Use of Area:

The following 10 nonrecreation uses were recorded: timber production, mining, grazing, farming, industry, commerce, private inholdings, seasonal buildings, through roads, and public utilities.

Other Features:

Recreation areas could have additional features: natural lakes and ponds, reservoirs, rivers and streams, rapids and waterfalls, cold springs, warm or hot springs, river swamps, canyons and river gorges, forest environment, wildlife, primitive areas, caves, fire and lookout towers, archeology, human history, natural history, urban parks, cultural parks, interpretive facilities, museums, outdoor exhibits, geology, overlooks, fish hatcheries, game farms, zoos, and reptile and/or bird farms.

Outdoor Recreation Activity:

The Georgia SCORP covers 57 outdoor recreation activities in the following major categories:

water-based
land-based
winter sports
air-based

Some of the activities require developed facilities, some resources only.

Out-of-State Activities:

The extent to which Georgia residents participated in recreation activities out-of-state was examined. The percentage of the total vacation time spent in the state was measured. Each person was asked about the first and second activities.

Out-of-State Visitor:

A visitor from any other state to Georgia.

Ownership:

The ownership of a recreation area was classified as federal, state, county, city, other local government, quasi-public, school board, church, or private.

Participation Rate:

Annual average number of times an adult (age 20 or above) or a child (6 through 19, inclusive) participated in any one of the listed outdoor recreation activities. The participation rate is an average "use" figure.

Physiographic Region:

Georgia has three distinguishable physiographic regions: mountain, seacoast, and (in between) Piedmont. The 19 outdoor recreation regions were grouped into these three physiographic regions for planning purposes.

Population:

The population of the state of Georgia as of July 1, 1969, and population projections to 1975, 1980, and 1985 were used. In each case, the population was divided into two age groups: children 6 through 19 and adults 20 and older.

Potential Recreation Area:

Potential recreation areas were identified in the supply inventory as those that are presently planned or under construction and will be open to the public on or before December 31, 1974.

Primary Data:

Information collected from households and/or businesses which is not available in published sources.

Questionnaire:

Demand Survey: A twelve-page questionnaire, providing for several hundred answers, was designed to record the primary data collected from 2,410 Georgia households. These data were coded on the questionnaire and later transferred to IBM punch-cards for data processing. A sample page of the questionnaire is found in Part 4 of the Appendix.

Supply Inventory: A ten-page questionnaire was designed to contain the data collected on the outdoor recreation areas. A sample page of this questionnaire also appears in Part 4 of the Appendix.

Ratio:

The number of units of recreation resources and/or facilities divided by 1,000 Georgia population 6 years and older.

Recreation Activity:

Any recreation activity, either active or passive, for pleasure or enjoyment, in any of the 57 activities listed in the demand and supply surveys and/or inventories.

Recreation Area:

A recreation area is a unit of recreation enterprise, public or private, that is administered for outdoor recreation.

Recreation Facilities:

A recreation facility is a man-made recreation building or

structure that provides outdoor recreation opportunities for visitors to an area. Recreation facilities were measured in acres, square feet, and other units. See any supply or need section in the Statistical Summary.

Recreationist:

A person who participates in any of the 57 outdoor recreation activities and is at least six years old.

Recreation Opportunity:

A recreation opportunity is the availablity of recreation resources and/or areas with facilities or equipment that provides outdoor recreation experiences for pleasure and enjoyment. Certain outdoor recreation activities need only a resource, such as land for hunting game. Other activities need developed facilities: golf courses, swimming pools, tennis courts, etc. Opportunities are limited by the seasons of the year; climatic conditions; lack of facilities, resources, and maintenance; and other factors.

Recreation Region:

A recreation region is one of the 19 regional combinations of the 159 counties in Georgia. The regions were formed on the basis of the similarity of the recreation resources, population, climate, topography, and other socioeconomic and geographic factors--corresponding to the regions of the Area Planning and Development Commission regions, commonly known as APDCs.

Recreation Resources:

A recreation resource is any natural or man-made area or facility that provides recreation opportunities. The primary recreation resources are land, water, and air. All the other resources, timber, scenery, etc., are subject to or a direct function of the three primary resources.

Rural Area:

A rural area is an area with little concentration of population and less than 2,500 people.

Sample Unit:

A sample unit in the Georgia Recreation Survey, 1970, demand function was one household within the state of Georgia where a nonfamily or family unit resided. There were 2,410 sample units with 7,156 persons in the demand survey.

SCORP:

State Comprehensive Outdoor Recreation Plan, a study required by federal law for states to be eligible to receive funds for recreation land and water acquisition and development.

Season:

Each recreation area was identified by the number of months it was open for business: 1-3, 4-6, 7-9, and 10-12.

Secondary Data:

Usually refers to government publications on population, business, housing, recreation characteristics, etc. It might be any data not designed to be collected for a particular study.

Snow and Ice-Based Activities:

1. Ice fishing: Fishing on ice for any type of fish.
2. Ice skating: Ice skating outdoors for enjoyment, including playing hockey.
3. Other winter sport: Not elsewhere identified.
4. Sledding and tobogganing: Any kind of snow sledding and tobogganing.
5. Snowmobile driving and riding: Driving or riding in a snowmobile for outdoor enjoyment.
6. Snow skiing and snow shoeing: Skiing at either a regular ski resort or anywhere outdoors; snow shoeing--walking on snow with the aid of a snowshoe.

Socioeconomic Factors:

Seven socioeconomic factors were surveyed and used throughout this study:

1. Age: The age of the head of the sample unit on December 31, 1970--classified into six different groups.
2. Education: The number of school years completed by December 31, 1970.
3. Employment Record: Number of months employed or unemployed during 1970.
4. Income: Annual income during 1970.
5. Length of residency: Number of years of residency in the state of Georgia.
6. Occupation: Seventeen occupational classifications were used, corresponding generally to the U.S. Department of Commerce, Bureau of the Census classifications. In addition, twelve industries were identified as to location of work. Categories of "not in labor force" and "other" were also given in the total coverage of this factor.

7. Wife's employment record: The wife's employment record was requested even if she was not considered the head of the sample unit.

Standards:

Standards are the keys to converting the capacities of recreation facilities or resources into activity occasions so that the facilities or resources may be compared with demand. Standards are approved by state and regional recreation planners as the best attainable goals for resource management and development for their regions.

State Outdoor Recreation Comprehensive Plan (SCORP):

This plan is required by the Land and Water Conservation Fund Act, 1965. In order to receive or to be eligible for federal funds, each state must prepare a plan that calculates the recreation needs or idle capacities of its counties and/or regions. This planning effort is concentrated on outdoor recreation facilities and land and water resources, both public and private. The Georgia SCORP consists of an Executive Summary, a Narrative Plan, Acquisition and Development Plan, and the Statistical Summary.

Statistical Summary:

The Statistical Summary, in three volumes, contains the data from the Georgia Recreation Survey, 1970. The supply and demand functions and the comparisons to determine the need for or idle capacity of major recreation facilities and resources throughout the state are in the Statistical Summary. The analysis is organized into 19 recreation regions and the state as a whole.

Supply:

The supply of outdoor recreation in Georgia represents the total carrying capacities of the resources, opportunities, and facilities of recreation areas, both public and private.

Supply Inventory:

The supply inventory is that part of the Georgia Recreation Survey, 1970, which includes a complete inventory of outdoor recreation areas, both public and private, in Georgia. After the field survey was completed, the State Outdoor Recreation Inter-Agency Council checked missing recreation areas. The supply inventory includes all recreation areas existing in the Spring of 1971 and field checked to May 10,1971.

Terrain or Setting:

The terrain or setting of the recreation area was ranked as first and second type only. The types of terrain are: agricultural, wetland, brushland, woodlands and forest, urban, grassland, and mountainous.

Tourist Enroute:

A transient tourist who is going to another state, but traveling through Georgia.

Transient Motel:

Transient motels cater to travelers who stay only one night. Transient motels were not considered to be recreation facilities in this SCORP.

Type of Recreation Area:

Functional types of recreation areas: natural, historic, and man-made as listed in the BOR Classifications in Chapter VIII. There were four classifications of recreation areas: existing 10 acres or less; existing 11 acres or more; potential expansion of existing area; and potential absolutely new development.

Type of Sample Unit:

Sample unit types were either family or nonfamily types. The family types included husband, wife, and child or children; husband and wife only; husband and children only; wife and children only; husband, wife and others. Nonfamily units included one, two, or more male(s) or female(s) and nonfamily other.

Urban Area:

An urban area is an area with a large concentration of population. According to the Bureau of the Census of the U.S. Department of Commerce, any town with a population of more than 2,500 is an urban area.

Visitation:

Visitations to recreation areas were classified as either daytime or overnight. The number of visitations was either an actual count or estimate. One visit may represent more than one recreation activity.

Visitor:

A visitor to a recreation area is one person at least six

years old.

Visitor Day:

A visitor day represents either a full day or part of a day spent in a recreation area by one visitor. It implies participation in at least one activity.

Visits:

One person at least six years old visiting a recreation area for part of a day, a full day, or overnight, implying that recreation activities were pursued during the visit. Visits are classified as either daytime or overnight.

Universe:

The total population of the state of Georgia on July 1, 1970. The characteristics of the sampled population were extended to the universe population by region and added together for the state totals.

Water-Based Activities:

Boating: All types of boating on water except canoeing.
Canoeing: Riding or paddling a canoe on water.
Fishing, coldwater: Fishing for any kind of freshwater trout.
Fishing, warmwater: Fishing for fish except trout.
Sailing: Riding or sailing a sailboat on water.
Skin diving: Scuba or skin diving in fresh or salt water.
Swimming: Swimming, wading, or bathing outdoors for sport and/or recreation.
Waterfowl hunting: Hunting wild duck, geese, mallard, or any other waterfowl on land or water, including wood ducks.
Water skiing: Skiing on water skis on a water surface, being pulled by a motor boat or any other means.

APPENDIX

PART 4
QUESTIONNAIRES USED IN GEORGIA SCORP, 1971

Various questionnaires were used in collecting the basic data for the Georgia State Comprehensive Outdoor Recreation Plan, 1971. The one used to inventory the Demand for Outdoor Recreation and Fishing and Hunting Impact Study (Demand) consisted of 12 pages which were coded on 13 IBM cards. This questionnaire consisted of 95 single or multiple questions, including the 3 uniform field questions on each card. To these questions, there were a total of 889 possible answers available to the respondents.

The Inventory of Recreation Areas (Supply) questionnaire consisted of 10 pages of questions which were coded on 8 IBM cards. This inventory contained 88 single or multiple questions with a total of 371 possible answers. In addition, the responses to Feature Card 6 allow for an infinite number of answers as a description of the recreation area is requested. Thus, the total possible answers cannot be mathematically computed for this questionnaire.

The Civic Leaders Participation Survey consisted of 3 different questionnaires, of 2 pages each. One, containing 5 questions, was submitted to the mayors of cities and towns in Georgia with a population in excess of 10,000. The other two, each containing 4 questions, surveyed Chambers of Commerce in the state and state legislators on the subject of outdoor recreation facilities. The possible answers to all questions in the survey, with the exception of the one on each questionnaire requesting permission to publish the information, are infinite. This is due to the fact that the questions do not provide for multiple choice or single answers.

The Financial Survey consisted of a 1-page questionnaire which was submitted to financial institutions, both banks and savings and loan associations in the state. Each consisted of 5 questions with 12 possible answers.

1

GEORGIA STATE COMPREHENSIVE OUTDOOR RECREATION PLAN–1970
INVENTORY OF RECREATION AREAS

CARD 01
CARD COLUMNS

1. *TITLE CARD (NO. 01)
2. *RECREATION AREA IDENTIFICATION NUMBER _____ (COLS. 3-6) _____ (COLS. 7-9)
3. *LARGEST PART OF AREA LOCATED IN COUNTY (CODE NUMBER) _____
4. *PERCENT OF AREA IN THIS COUNTY _____ (COLS. 10-11)
5. *SECOND LARGEST PART OF AREA LOCATED IN COUNTY (CODE NUMBER) _____
(COLS. 12-14)
6. *ADMINISTRATION (CHECK ONE)(COL. 15). 7. *OWNERSHIP (CHECK ONE)(COL. 16)

FEDERAL	___1	___1	
STATE	___2	___2	
COUNTY	___3	___3	
CITY	___4	___4	
OTHER LOCAL GOVT.	___5	___5	
QUASI-PUBLIC	___6	___6	
SCHOOL/BOARD	___7	___7	
CHURCH	___8	___8	
PRIVATE	___9	___9	

8. *TYPE OF RECREATION AREA: EXISTING, 10 ACRES OR LESS ___1
EXISTING, 11 ACRES OR MORE ___2
POTENTIAL, EXPANSION OF EXISTING AREA[1] ___3
POTENTIAL, ABSOLUTELY NEW DEVELOPMENT[2] ___4
(CHECK ONE)(COL. 17)
9. *PRIMARY ATTRACTION OF THIS RECREATION AREA (CHECK ONE)(COL. 18)
___1–LAND-BASED ___4–HISTORICAL SITE[3]
___2–WATER-BASED ___5–ARCHEOLOGICAL SITE[3]
___3–AIR SPORTS ___6–ARCHITECTURAL SITE[3]
(RECREATION ONLY) ___7–ROADSIDE PARK
10. *GEOGRAPHIC SETTING (CHECK ONE)(COL. 19)
1. ___URBAN 2. ___RURAL 3. ___WILDERNESS
11. *NAME OF RECREATION AREA: (COLS. 20-55) _____ (PLEASE PRINT)
_____
ADDRESS: NO. STREET TOWN ZIP CODE) (PLEASE PRINT)
12. *NAME OF ADMINISTERING AGENCY: _____
13. *GEOGRAPHIC LOCATION (LONGITUDE AND LATITUDE)
LONGITUDE _____ DEGREES (COLS. 56-57) _____ MINUTES (COLS. 58-59)
LATITUDE _____ DEGREES (COLS. 60-61) _____ MINUTES (COLS. 62-63)
14. DISTANCE FROM MAIN HIGHWAY TO PRINCIPAL ENTRANCE _____ (COLS. 64-65)
MILES TO STATE HIGHWAY _____ (COLS. 66-68); U.S. HIGHWAY _____ (COLS. 69-71)
INTERSTATE HIGHWAY _____ (COLS. 72-74)
15. ACCESS ROAD FROM MAIN HIGHWAY IS ADEQUATE TO PERMIT ALL WEATHER
TRAFFIC: (COL. 75) 1. ___YES 0. ___NO
16. SEASON: ___1–OPEN ALL YEAR ROUND
(COL. 76) ___2–OPEN SUMMER ONLY
___3–OPEN SUMMER AND BIG GAME HUNTING SEASON ONLY
___4–OPEN SPRING, SUMMER AND FALL ONLY
___5–OPEN WINTER ONLY
17. NUMBER OF MONTHS OPEN _____ (COLS. 77-78)
18. *RECREATION REGION _____ (COLS. 79-80)

(LEAVE BLANK)

*...ed expansion and/or development of existing area, complete all items with asterisks
...development) within existing acreage.
... adjoining land/water acreage.

GEORGIA STATE COMPREHENSIVE OUTDOOR RECREATION PLAN, 1971

Civic Leaders Participation Survey #1

1. Please comment on the current assets and needs of your city for outdoor recreation facilities.

2. What plans are now in progress to meet the future outdoor recreation needs of your city?

...you consider is the role of the county, state, and federal ...ts in meeting your current and future requirements for out-...ation facilities?

...do you have within your city governmental structure ...de for outdoor recreation needs?

GEORGIA STATE UNIVERSITY
33 GILMER STREET, S. E. • ATLANTA, GEORGIA 30303

Bureau of Business and Economic Research
School of Business Administration

QUESTIONNAIRE

1. Does your institution's lending policies prohibit loans for equity or operating capital to private developers or operators of recreation businesses?
(Private recreation business includes resort hotels or motels [not transient motels, etc.], camp grounds, game farms, fishing lakes, etc.)

_____Yes

_____No

2. Has your institution ever received a loan application for an outdoor recreation enterprise by a private operator?

_____Yes

_____No

3. Has your institution ever made loans to private operators of recreati... businesses?

_____Yes

_____No

4. Generally speaking, does your institution consider outdoor recreat... enterprises to be good loan risks?

_____Yes

_____No

_____No Opinion

5. Would your institution cooperate with state and/or federal age... (SBA, etc.) to provide capital for private recreation develop... your county?

_____Yes

_____No

_____Would Seriously Consider

Comments: _____

GEORGIA–STATE COMPREHENSIVE OUTDOOR RECREATION PLAN–1971
DEMAND FOR OUTDOOR RECREATION AND FISHING AND
HUNTING IMPACT STUDY (STUDY PERIOD: CALENDAR YEAR 1970)
SOCIO-ECONOMIC CHARACTERISTICS CARD, NO. 01

DEMAND NO. 01
CARD COLUMNS

UNIFORM FIELDS

1. CARD NUMBER 01
3. COUNTY NAME _____ 2. ELEMENTARY SAMPLE UNIT NO.
4. CITY _____ 5. LIVE WITHIN CITY LIMITS? ___0. NO ___1. YES
5. CENSUS COUNTY DIVISION, CENSUS TRACT, OR ENUMERATION DISTRICT _____
7. TYPE OF SAMPLE UNIT: ((X) APPLICABLE CODE NO.)
___0. HUSBAND, WIFE AND CHILD(REN) ___5. NON-FAMILY: ONE MALE
___1. HUSBAND AND WIFE ONLY ___6. NON-FAMILY: TWO OR MORE MALES
___2. HUSBAND AND CHILD(REN) ONLY ___7. NON-FAMILY: ONE FEMALE
___3. WIFE AND CHILD(REN) ONLY ___8. NON-FAMILY: TWO OR MORE FEMALES
___4. HUSBAND, WIFE AND OTHERS ___9. NON-FAMILY: OTHER
8. NUMBER OF CHILDREN, SIX YEARS OR OLDER, BUT STILL DEPENDENT ON AND LIVING WITH PARENTS _____.
9. OLDEST CHILD LIVING AT HOME: A. AGE: ___ YEARS B. SEX: ___1. MALE ___2. FEMALE
10. AVAILABILITY OF LEISURE TIME DURING STUDY PERIOD

CATEGORY OF LEISURE	HUSBAND OR OCCUPANT NO. 1	WIFE OR OCCUPANT NO. 2	CHILDREN OR OCCUPANT NO. 3
VACATION-TOTAL DAYS			
HOLIDAYS-TOTAL DAYS			
WEEKEND-AVERAGE HOURS/WEEKEND			
WEEKDAY-AVERAGE HOURS/DAY			

LEFT OPEN FOR FUTURE USE 46-47 AND 48.

QUESTIONS 11 THROUGH 19 ARE APPLICABLE ONLY TO THE HEAD OF HOUSEHOLD

11. WHAT IS THE NUMBER OF PAID VACATION DAYS YOU CONSIDER REASONABLE FOR YOU AND YOUR EMPLOYER? (EXPRESSED IN NUMBER OF WORKING DAYS ONLY. NOT PAID HOLIDAYS) _____ (49-50)
12. HOW LONG HAVE YOU LIVED IN GEORGIA? (CHECK ONE CATEGORY)
___1. ONE YEAR OR LESS ___5. FIVE YEARS
___2. TWO YEARS ___6. SIX TO TEN YEARS
___3. THREE YEARS ___7. ELEVEN OR MORE, NOT LIFETIME
___4. FOUR YEARS ___8. LIFETIME
13. WHAT IS THE AGE OF THE HEAD OF THE HOUSEHOLD? (CHECK ONE CATEGORY)
___1. 29 YEARS OLD, OR UNDER ___4. 50 TO 59 YEARS OLD
___2. 30 TO 39 YEARS OLD ___5. 60 TO 69 YEARS OLD
___3. 40 TO 49 YEARS OLD ___6. 70 YEARS AND OVER
14. HOW MANY YEARS HAVE YOU ATTENDED SCHOOL? (CHECK ONE CATEGORY)
___1. 7 YEARS OR LESS ___4. 14 TO 17 YEARS
___2. 8 TO 10 YEARS ___5. 18 OR MORE YEARS
___3. 11 TO 13 YEARS
15. WHAT IS YOUR OCCUPATION? (READ LIST TO RESPONDENT) (CHECK ONE CATEGORY)
___01. PROFESSIONAL ___10. CRAFTSMAN, SKILLED
___02. TECHNICAL ___11. OPERATIVE
___03. MANAGER, FOREMAN ___12. RETIRED FULL TIME
___04. CLERICAL ___13. PROPRIETOR
___05. SALES, RETAIL-WHOLESALE ___14. MEMBER ARMED FORCES (ACTIVE DUTY)
___06. SERVICE, INCLUDING PERSONAL ___15. STUDENT, FULL TIME
___07. FARMER, RANCHER, FISHER, OR FORESTRY WORKER ___16. STUDENT, PART TIME
___08. CONSTRUCTION WORKER ___17. HOMEMAKER
___09. LABORER ___18. OTHER _____
___00. NOT IN THE LABOR FORCE
16. IN WHAT INDUSTRY DO YOU WORK? (READ LIST TO RESPONDENT)(CHECK ONE CATEGORY)
___01. AGRICULTURE, FORESTRY, FISHERIES ___08. WHOLESALE OR RETAIL TRADE
___02. CONTRACT CONSTRUCTION ___09. FINANCE, INSURANCE OR REAL ESTATE
___03. MANUFACTURING ___10. SERVICES (BUSINESS OR PERSONAL)
___04. MINING ___11. GOVERNMENT (FEDERAL, STATE OR LOCAL)
___05. TRANSPORTATION ___12. OTHER _____
___06. COMMUNICATIONS
___07. ELECTRIC, GAS OR SANITARY ___00. NOT IN THE LABOR FORCE

10	14
15	
19	
20	
22	24
25	27 20
31	33 35
37	39 41
43 44 45	
46 47 48	(OPEN)
49	VACATION
51	RESIDENCY
52	AGE
53	EDUCATION
54	OCCUPATION
56	INDUSTRY

MAPS BASED ON APDC REORGANIZATION, JULY 1972

The Georgia SCORP was prepared according to survey data tabulated by recreation regions which largely corresponded with the existing Area Planning and Development Commission (APDC) regions as shown on the map on page xiii.

As of July 1, 1972, some changes were made in the geographical composition of the Area Planning and Development Commissions. The new regions are shown on the following map, after which individual regional maps indicate major existing and planned recreation resources and facilities according to the new organization of APDCs.

The reorganization of July affected the following regions as indicated:

5. Northeast Georgia: dropped Newton County.

6. Chattahoochee Flint: dropped Harris, Talbot, Upson, and Pike counties.

7. McIntosh Trail: added Newton, Upson, and Pike counties.

13. Altamaha and 14. Georgia Southern: combined to become Region 13, Altamaha/Georgia Southern; dropped Effingham and Chatham counties.

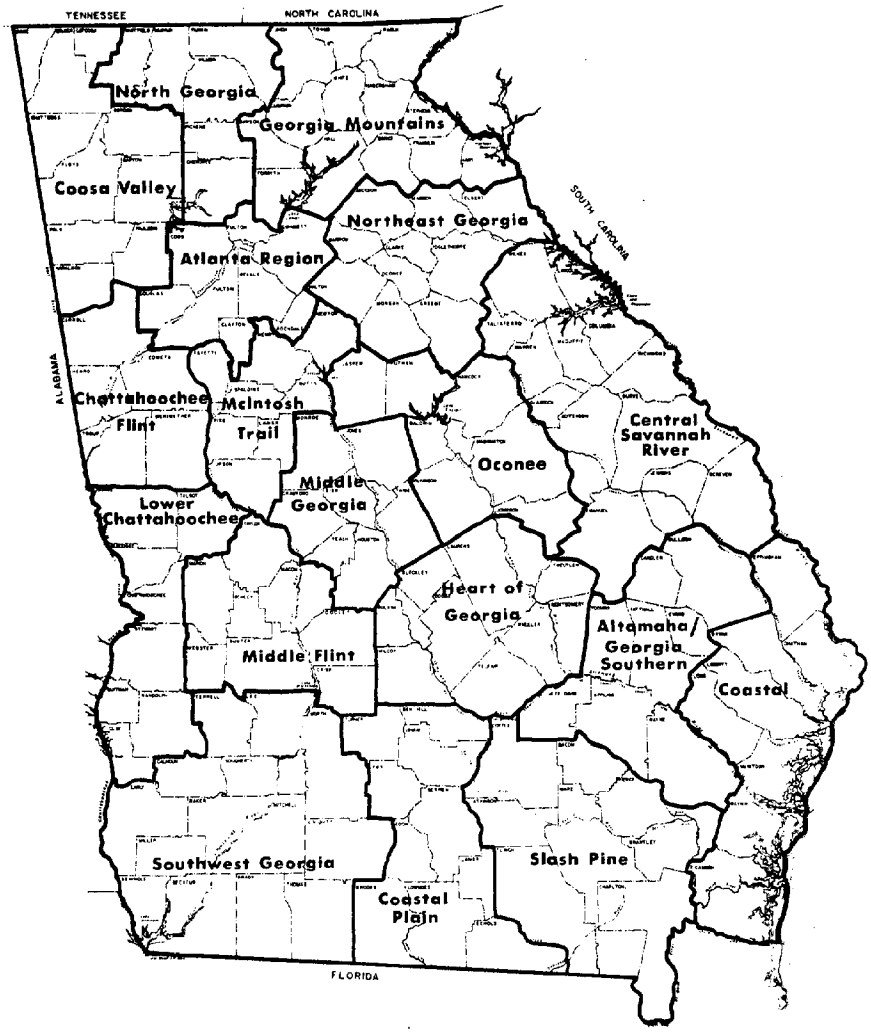
15. Lower Chattahoochee: became Region 14; added Harris and Talbot counties; dropped Early County.

16. Southwest Georgia: became Region 15; added Early County.

17. Coastal Plain: became Region 16; added Ben Hill County.

18. Slash Pine: became Region 17; dropped Ben Hill County.

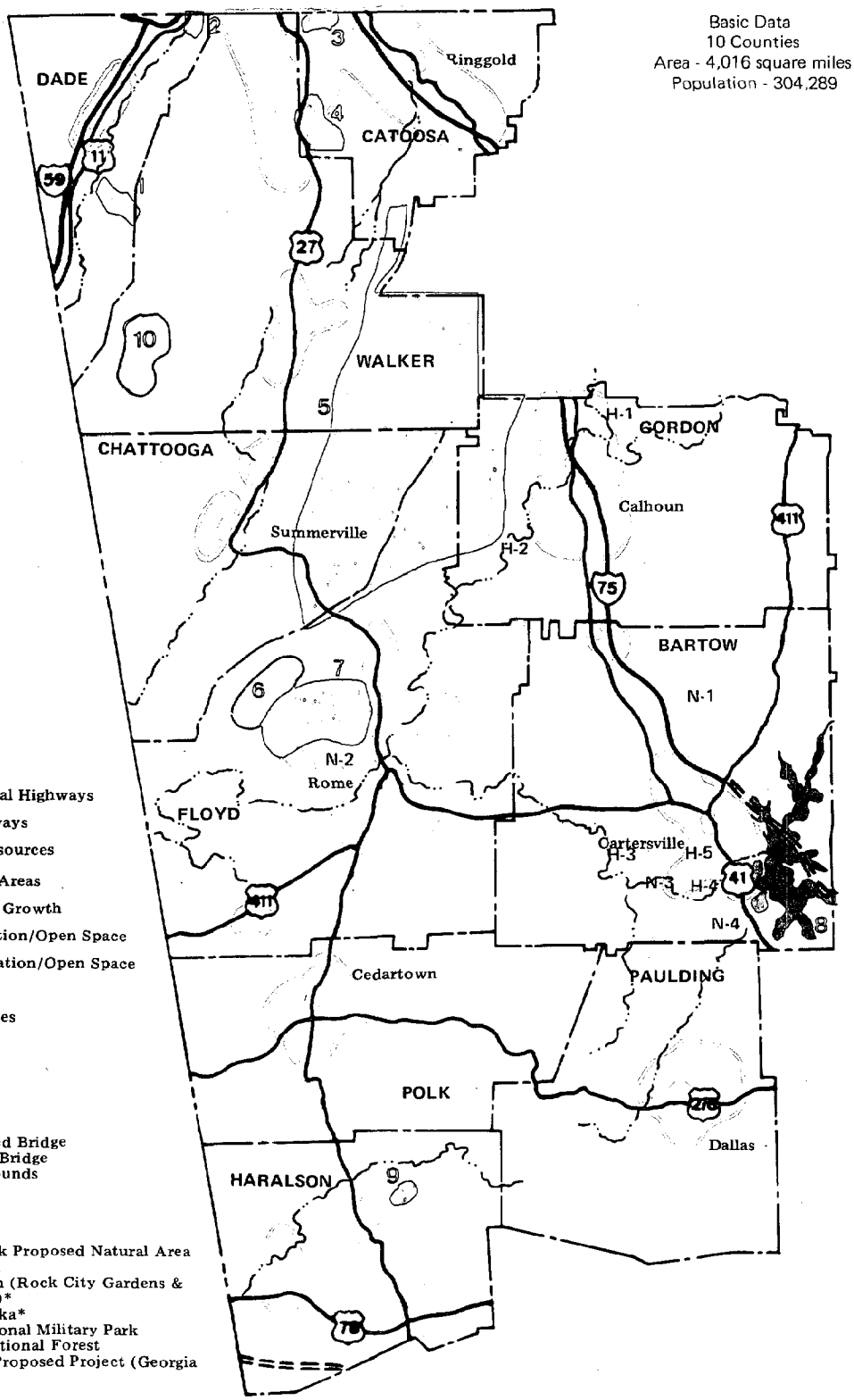
19. Coastal Region: became Region 18; added Effingham and Chatham counties.



MAPS BASED ON APDC REORGANIZATION, JULY 1972

COOSA VALLEY

Basic Data
10 Counties
Area - 4,016 square miles
Population - 304,289



LEGEND:

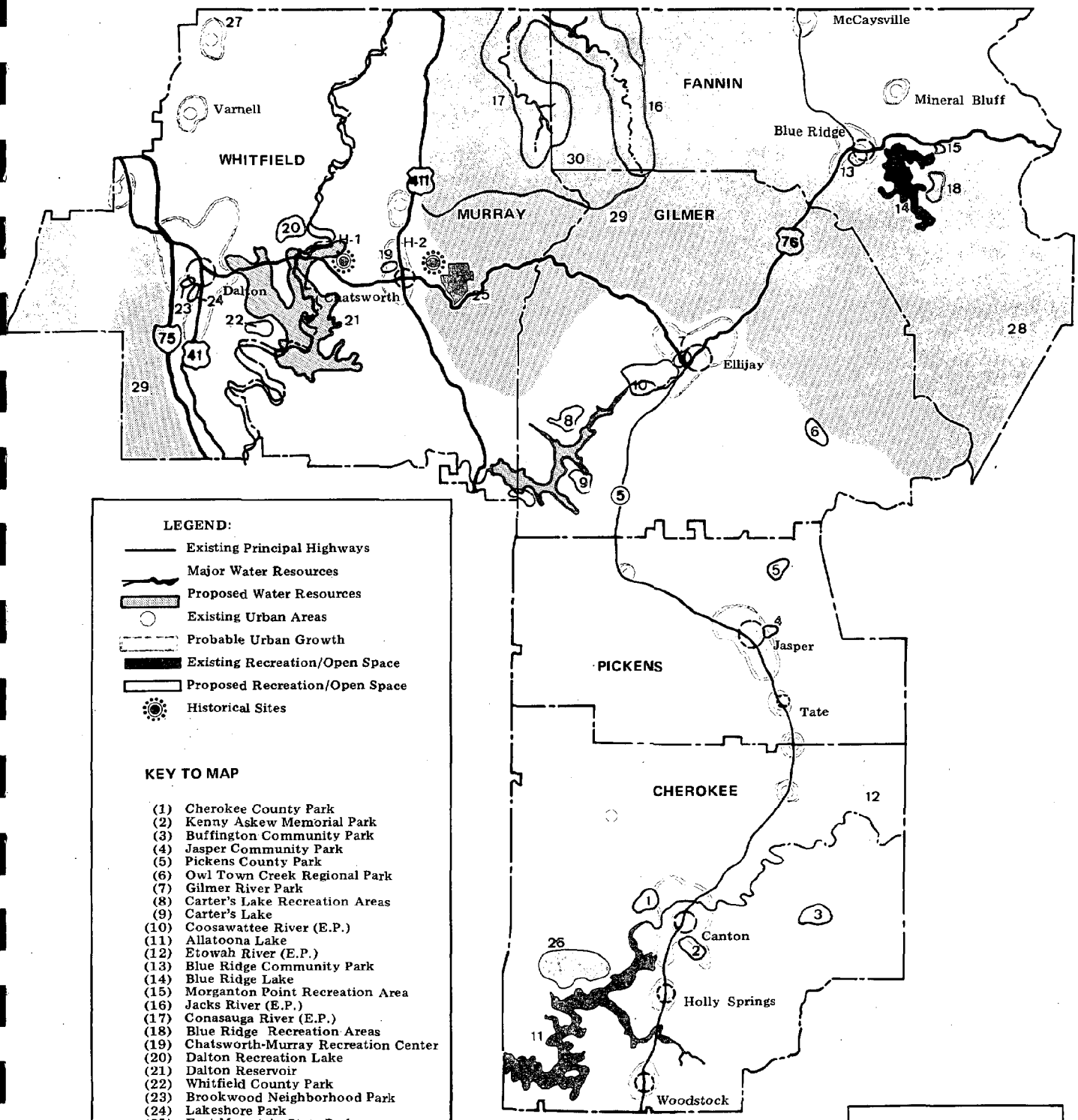
- Existing Principal Highways
- Proposed Highways
- Major Water Resources
- Existing Urban Areas
- Probable Urban Growth
- Existing Recreation/Open Space
- Proposed Recreation/Open Space
- H-1 Historical Sites
- N-1 Natural Area Sites

KEY TO MAP

H-1 New Echota
H-2 Oostanaula Covered Bridge
H-3 Euharlee Covered Bridge
H-4 Etowah Indian Mounds
H-5 Sam Jones House
N-1 Sag Ponds
N-2 Marshall Forest*
N-3 Ladds Quarry
N-4 Pumpkinvine Creek Proposed Natural Area
1 Cloudland Canyon
2 Lookout Mountain (Rock City Gardens & Fairyland Caverns)*
3 Lake Winnepassauka*
4 Chickamauga National Military Park
5 Chattahoochee National Forest
6 Rocky Mountain Proposed Project (Georgia Power Company)
7 Berry College*
8 Lake Allatoona
9 Sea Breeze - Lake Olympia*
10 Pigeon Mountain Proposed Open Space Site

*Private

NORTH GEORGIA



LEGEND:

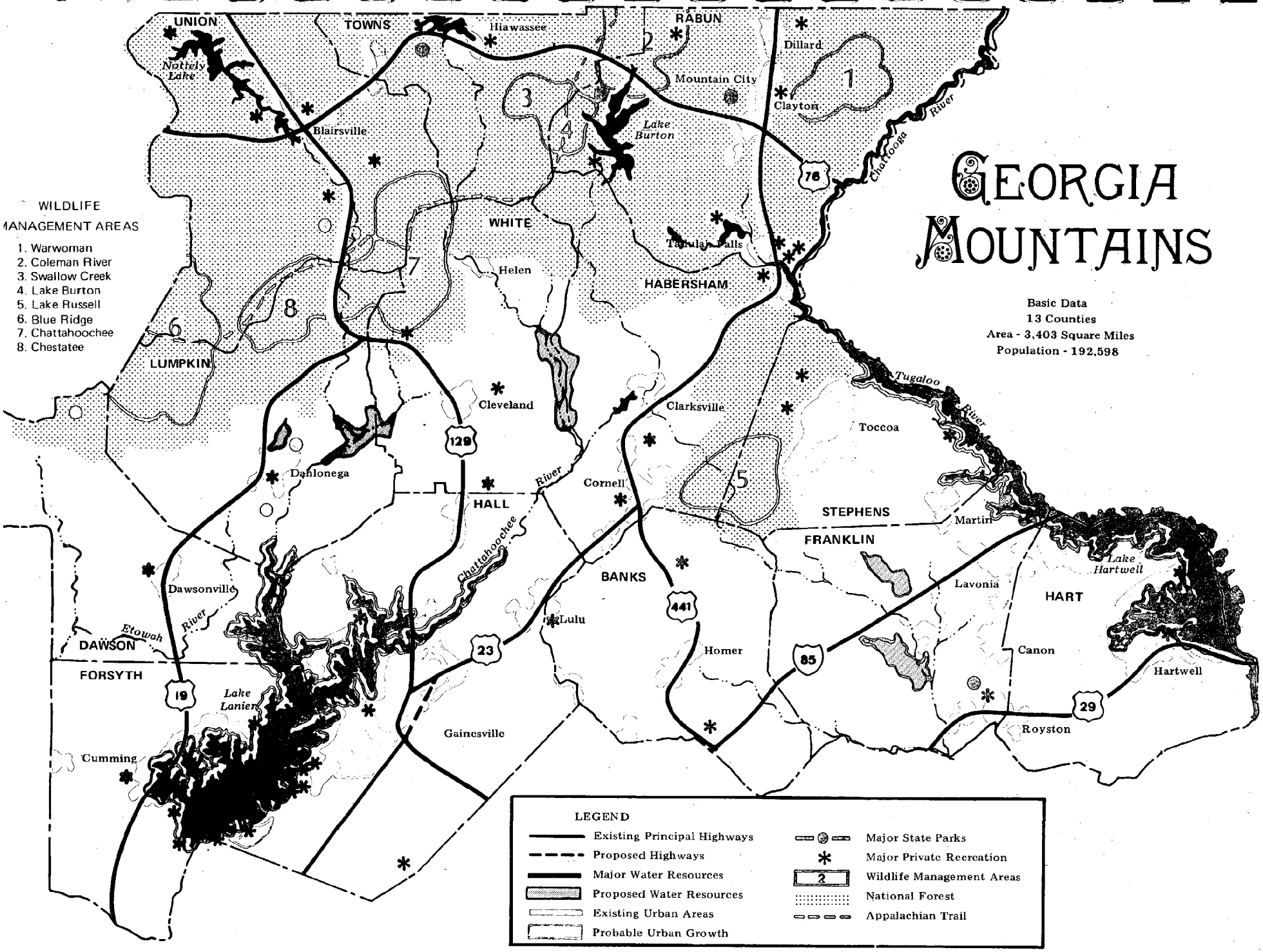
- Existing Principal Highways
- Major Water Resources
- Proposed Water Resources
- Existing Urban Areas
- Probable Urban Growth
- Existing Recreation/Open Space
- Proposed Recreation/Open Space
- Historical Sites

KEY TO MAP

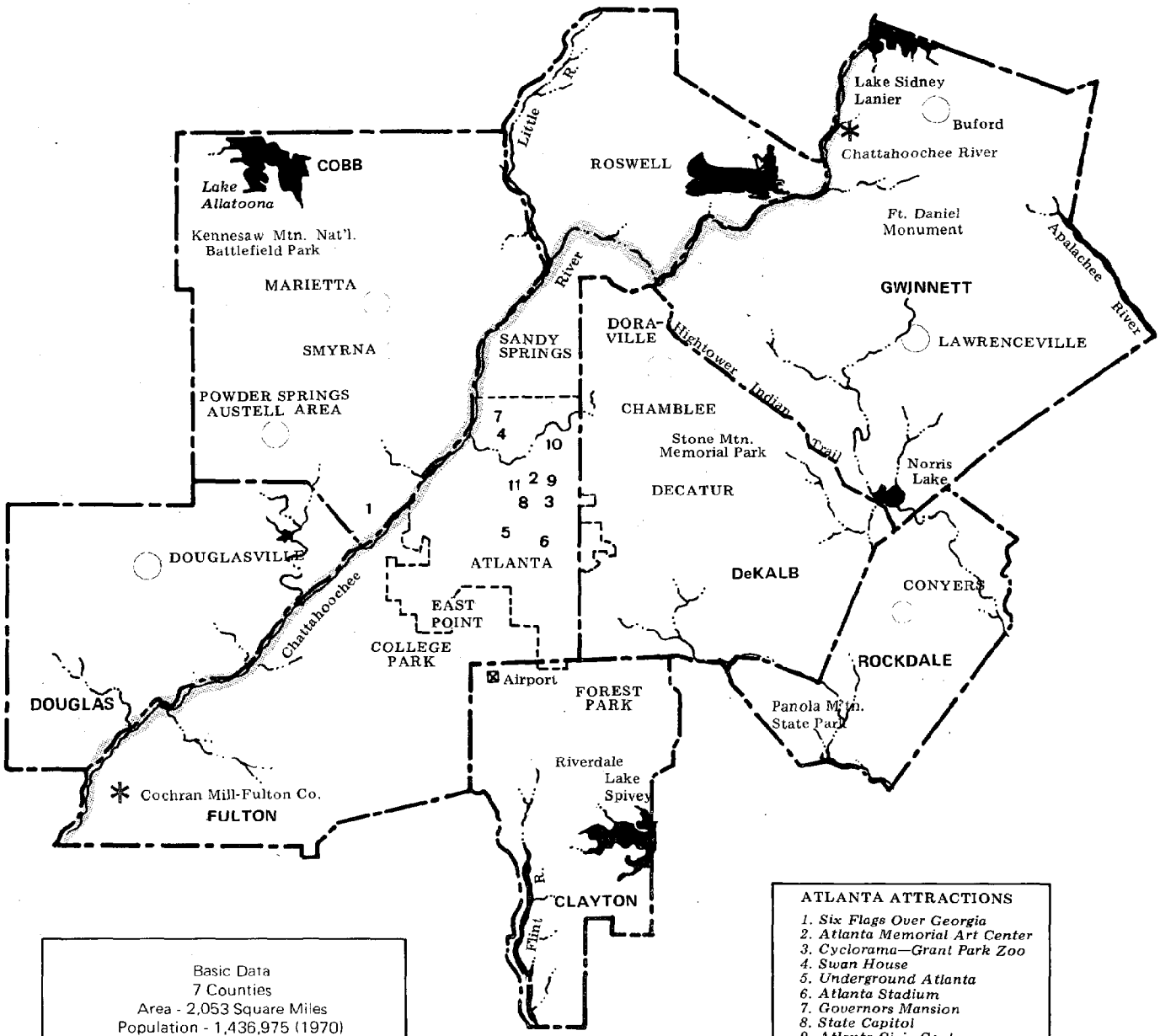
(1) Cherokee County Park
(2) Kenny Askew Memorial Park
(3) Buffington Community Park
(4) Jasper Community Park
(5) Pickens County Park
(6) Owl Town Creek Regional Park
(7) Gilmer River Park
(8) Carter's Lake Recreation Areas
(9) Carter's Lake
(10) Coosawattee River (E.P.)
(11) Allatoona Lake
(12) Etowah River (E.P.)
(13) Blue Ridge Community Park
(14) Blue Ridge Lake
(15) Morganton Point Recreation Area
(16) Jacks River (E.P.)
(17) Conasauga River (E.P.)
(18) Blue Ridge Recreation Areas
(19) Chatsworth-Murray Recreation Center
(20) Dalton Recreation Lake
(21) Dalton Reservoir
(22) Whitfield County Park
(23) Brookwood Neighborhood Park
(24) Lakeshore Park
(25) Fort Mountain State Park
(26) Allatoona Public Hunting Area
(27) Cohutta National Fish Hatchery
(28) Chattahoochee National Fish Hatchery
(29) National Forest
(30) Cohutta Wildlife Management Area (includes Jacks/Conasauga River)

H 1 -Chief Vann House
H 2 -Fort Mountain

Basic Data
6 Counties
Area - 2,096 square miles
Population - 131,086 (1970)


GEORGIA MOUNTAINS
Basic Data
13 Counties
Area - 3,403 Square Miles
Population - 192,598
WILDLIFE MANAGEMENT AREAS
1. Warwoman
2. Coleman River
3. Swallow Creek
4. Lake Burton
5. Lake Russell
6. Blue Ridge
7. Chattahoochee
8. Chestatee
UNION
TOWNS
RABUN
WHITE
HABERSHAM
LUMPKIN
HALL
BANKS
STEPHENS
FRANKLIN
HART
DAWSON
FORSYTH
Hiawassee
Nottely Lake
Blairsville
Dillard
Mountain City
Clayton
Lake Burton
Tallulah Falls
Helen
Cleveland
Clarksville
Toccoa
Dahlonega
Cornell
Martin
Lake Hartwell
Lavonia
Dawsonville
Lulu
Homer
Canon
Hartwell
Royston
Lake Lanier
Gainesville
Cumming
Etowah River
Chattahoochee River
Tugaloo River
Chattooga River
76
129
19
23
441
85
29
LEGEND
Existing Principal Highways
Proposed Highways
Major Water Resources
Proposed Water Resources
Existing Urban Areas
Probable Urban Growth
Major State Parks
Major Private Recreation
Wildlife Management Areas
National Forest
Appalachian Trail

ATLANTA METROPOLITAN



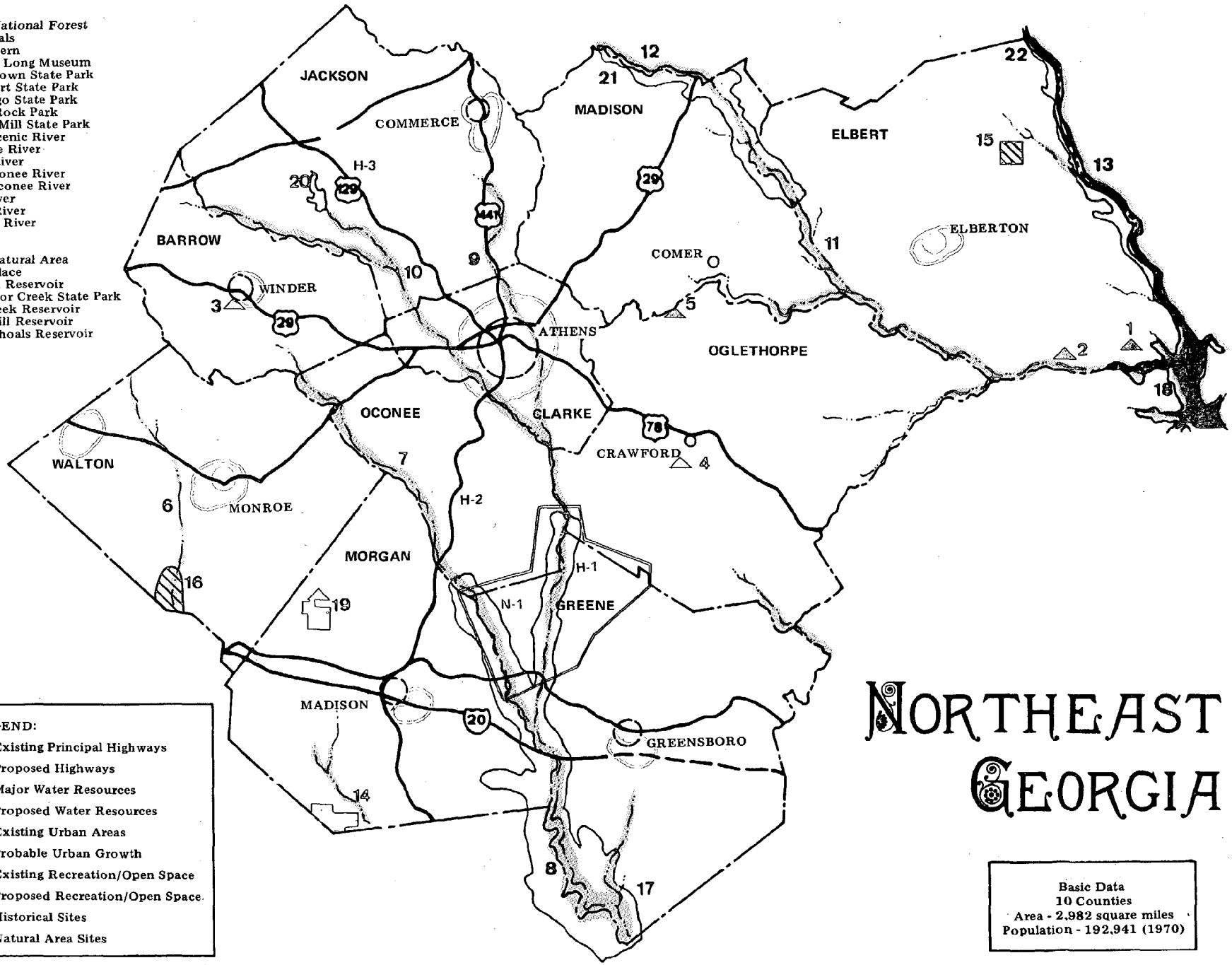
Basic Data
7 Counties
Area - 2,053 Square Miles
Population - 1,436,975 (1970)
Population Density: 700 Per Sq. Mile (1970)

ATLANTA ATTRACTIONS

1. *Six Flags Over Georgia*
2. *Atlanta Memorial Art Center*
3. *Cyclorama—Grant Park Zoo*
4. *Swan House*
5. *Underground Atlanta*
6. *Atlanta Stadium*
7. *Governors Mansion*
8. *State Capitol*
9. *Atlanta Civic Center*
10. *Piedmont Park*
11. *Omni*

KEY TO MAP

(N-1) Oconee National Forest
(H-1) Scull Shoals
(H-2) Eagle Tavern
(H-3) Crawford Long Museum
(1) Bobby Brown State Park
(2) Nancy Hart State Park
(3) Fort Yargo State Park
(4) Shaking Rock Park
(5) Watson's Mill State Park
(6) Alcovy Scenic River
(7) Apalachee River
(8) Oconee River
(9) North Oconee River
(10) Middle Oconee River
(11) Broad River
(12) Hudson River
(13) Savannah River
(14) WMA
(15) WMA
(16) Alcovy Natural Area
(17) Lake Wallace
(18) Clark Hill Reservoir
(19) Hard Labor Creek State Park
(20) Curry Creek Reservoir
(21) Tallow Hill Reservoir
(22) Trotter Shoals Reservoir

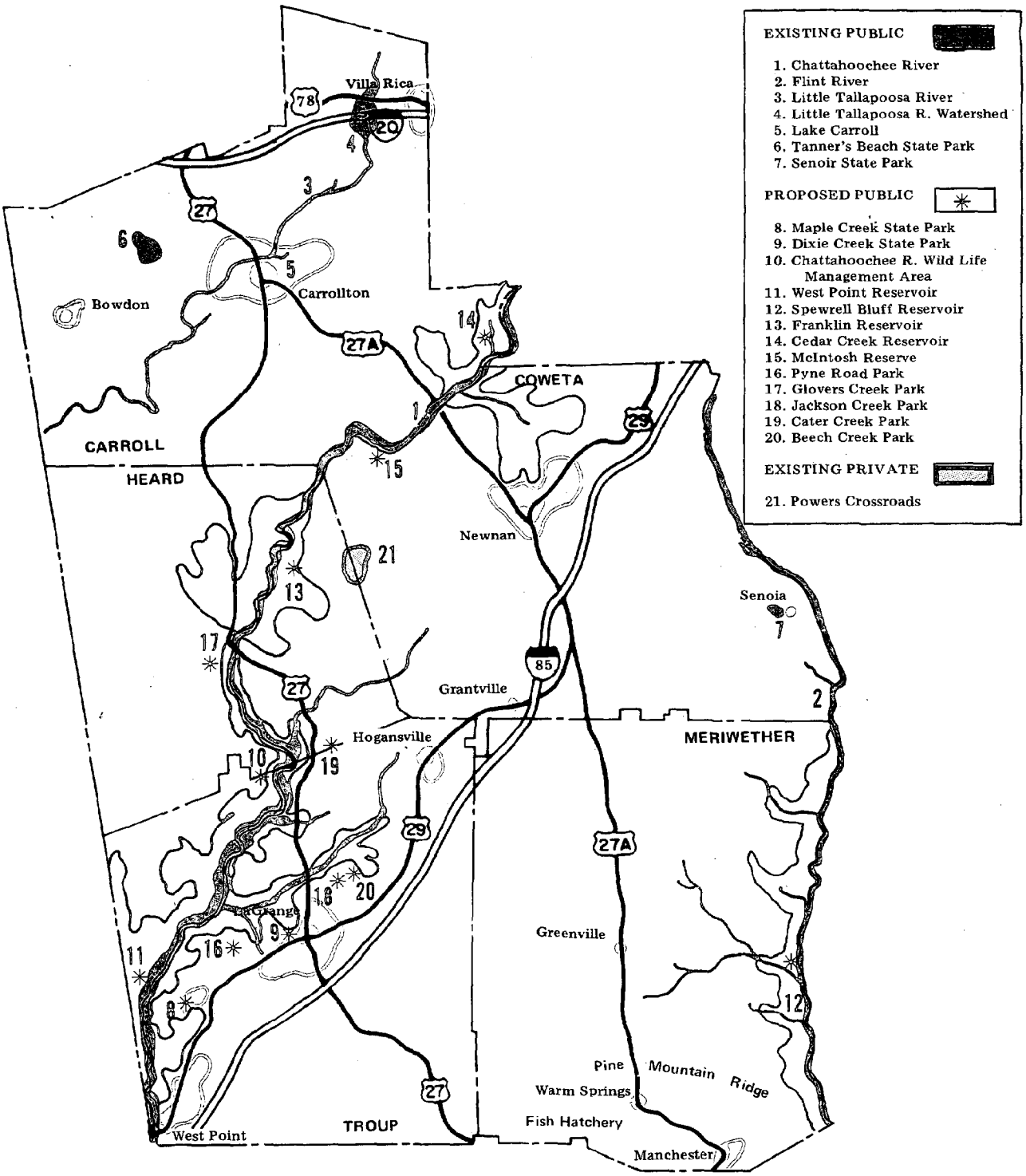


NORTHEAST GEORGIA

LEGEND:
- Existing Principal Highways
- Proposed Highways
- Major Water Resources
- Proposed Water Resources
- Existing Urban Areas
- Probable Urban Growth
- Existing Recreation/Open Space
- Proposed Recreation/Open Space
- H-1 Historical Sites
- N-1 Natural Area Sites

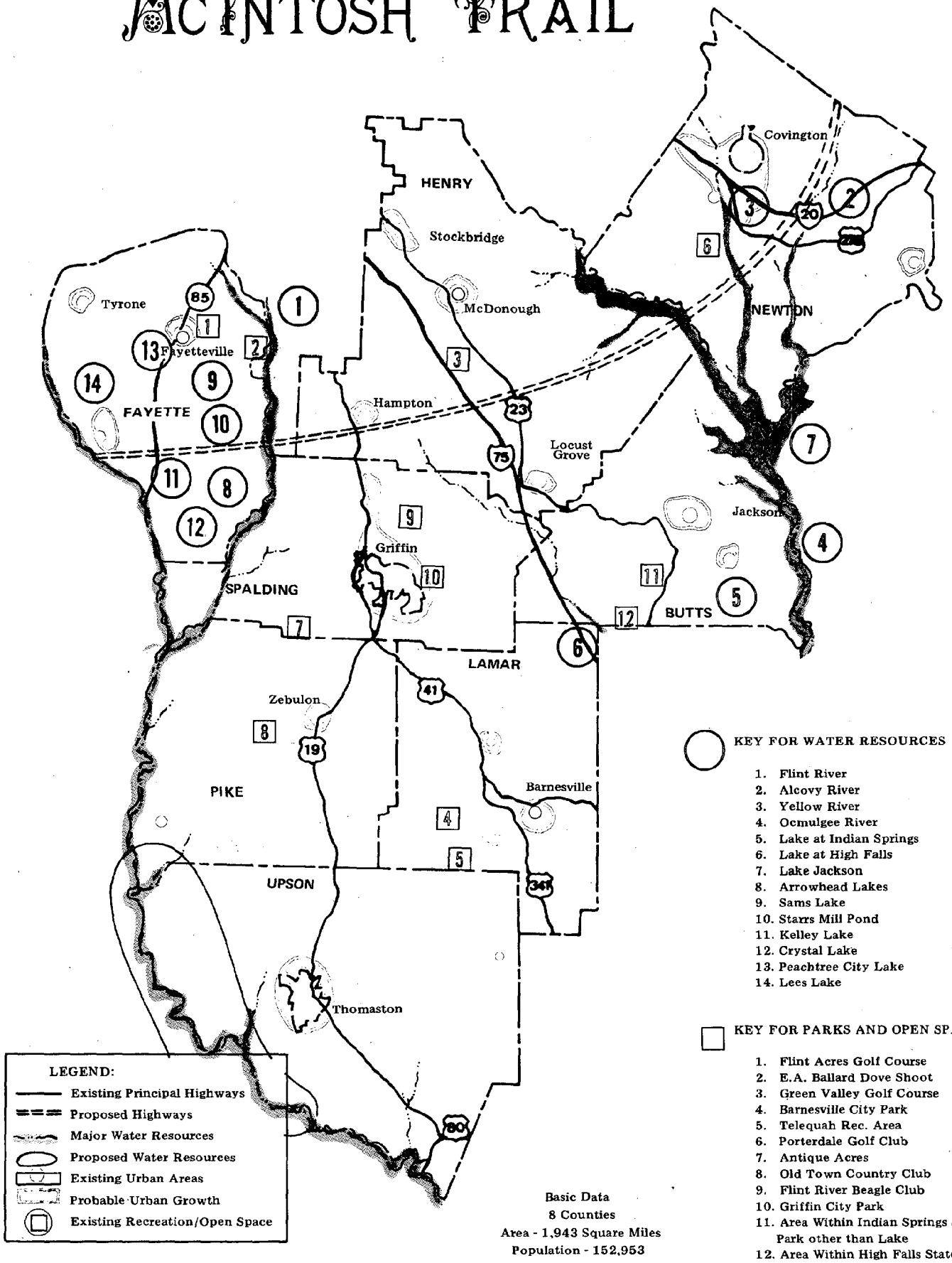
Basic Data
10 Counties
Area - 2,982 square miles
Population - 192,941 (1970)

CHATTAHOOCHEE FLINT



Basic Data
5 Counties
Area - 2,184 square miles
Population - 146,995 (1970)

McINTOSH TRAIL



KEY FOR WATER RESOURCES

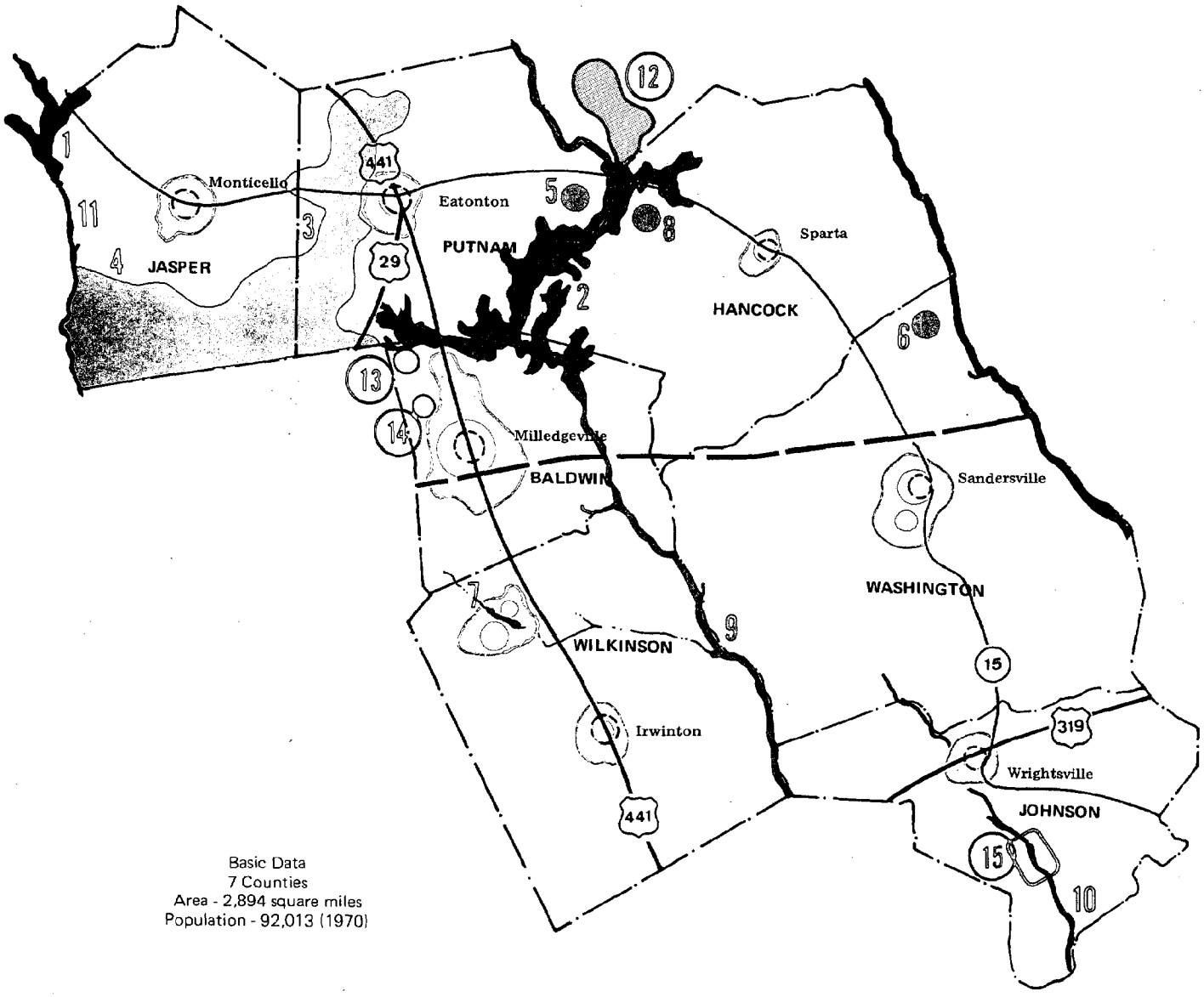
1. Flint River
2. Alcovy River
3. Yellow River
4. Ocmulgee River
5. Lake at Indian Springs
6. Lake at High Falls
7. Lake Jackson
8. Arrowhead Lakes
9. Sams Lake
10. Starrs Mill Pond
11. Kelley Lake
12. Crystal Lake
13. Peachtree City Lake
14. Lees Lake

KEY FOR PARKS AND OPEN SPACE

1. Flint Acres Golf Course
2. E.A. Ballard Dove Shoot
3. Green Valley Golf Course
4. Barnesville City Park
5. Telequah Rec. Area
6. Porterdale Golf Club
7. Antique Acres
8. Old Town Country Club
9. Flint River Beagle Club
10. Griffin City Park
11. Area Within Indian Springs State Park other than Lake
12. Area Within High Falls State Park other than Lake

Basic Data
8 Counties
Area - 1,943 Square Miles
Population - 152,953

OCONEE



Basic Data
7 Counties
Area - 2,894 square miles
Population - 92,013 (1970)

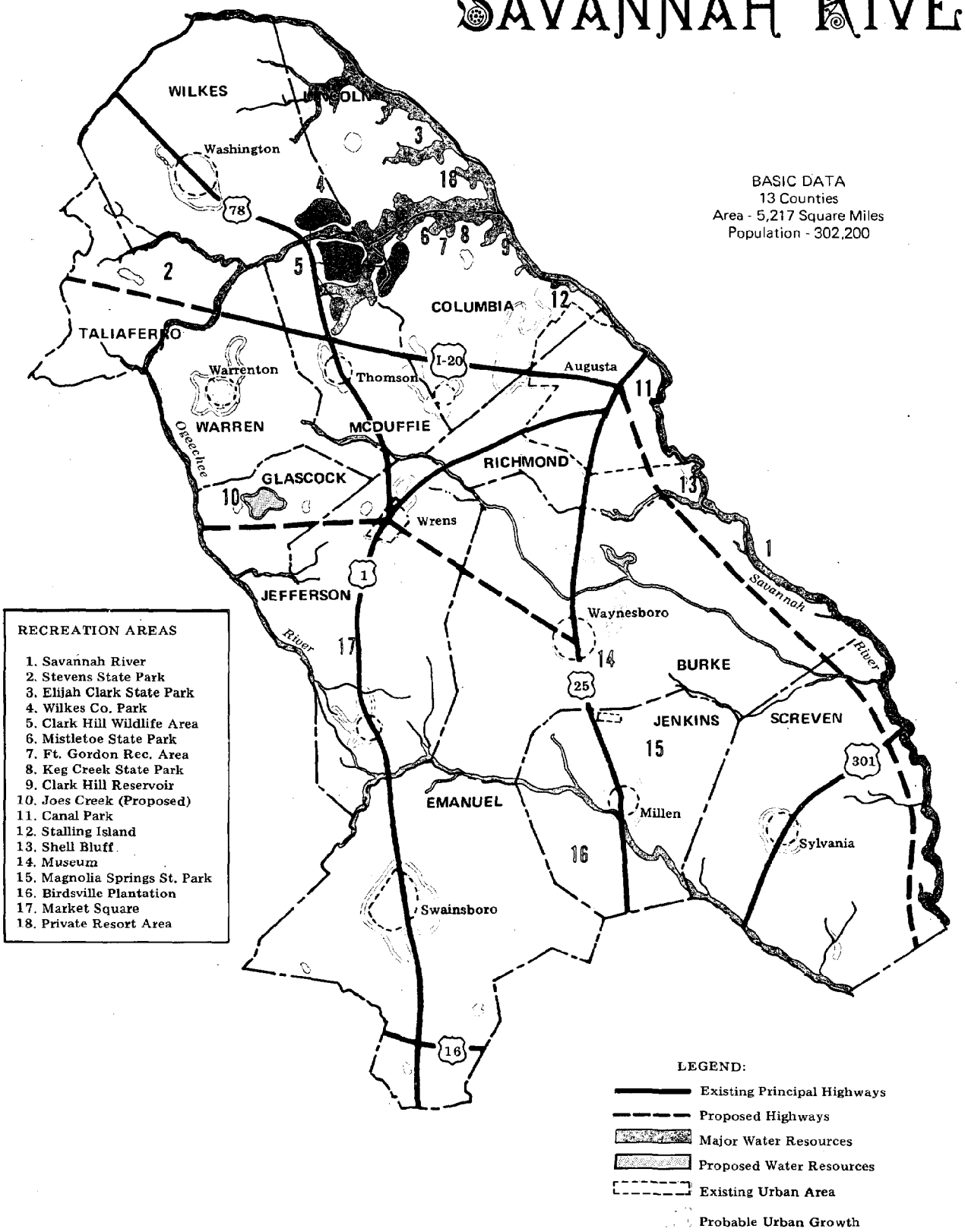
RECREATION AREAS

EXISTING
1. Jackson Lake
2. Lake Sinclair
3. Oconee National Forest
4. Piedmont National Wildlife Refuge
5. Oconee Springs Park
6. Hamburg State Park
7. Holiday Hills—Lake Tchukalako
8. Little Hudson Park
9. Oconee River
10. Ohoopee River
11. Ocmulee River

PROPOSED
12. Lake Wallace
13. Regional Park—Sinclair Astro Resort
14. Walter B. Williams, Jr. Park
15. Ohoopee River Recreation Areas

LEGEND:
- Existing Principal Highways
- Proposed Highways
- Major Water Resources
- Proposed Water Resources
- Existing Urban Areas
- Probable Urban Growth
- Existing Recreation/Open Space
- Proposed Recreation/Open Space

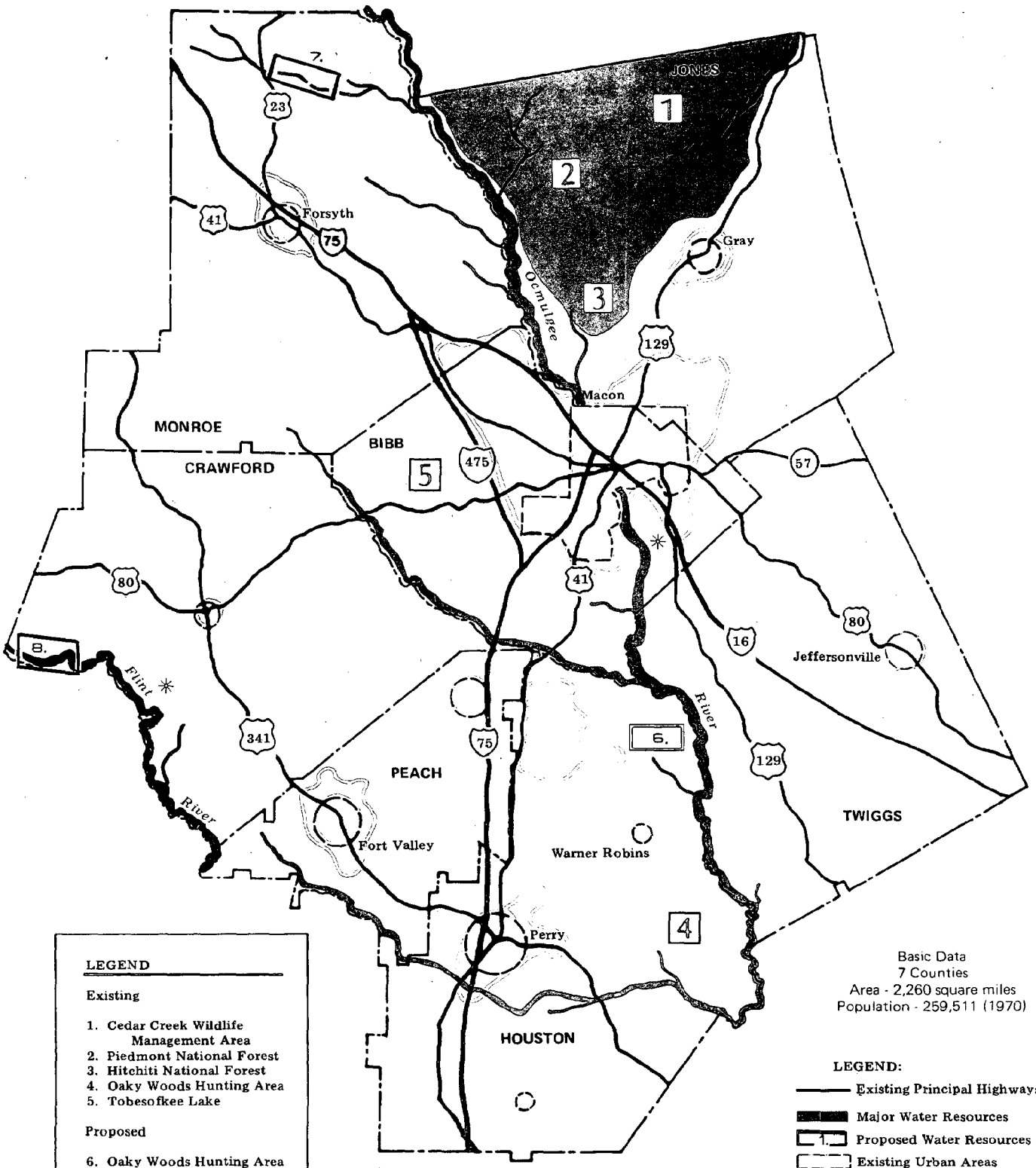
CENTRAL SAVANNAH RIVER



RECREATION AREAS

1. Savannah River
2. Stevens State Park
3. Elijah Clark State Park
4. Wilkes Co. Park
5. Clark Hill Wildlife Area
6. Mistletoe State Park
7. Ft. Gordon Rec. Area
8. Keg Creek State Park
9. Clark Hill Reservoir
10. Joes Creek (Proposed)
11. Canal Park
12. Stalling Island
13. Shell Bluff
14. Museum
15. Magnolia Springs St. Park
16. Birdsville Plantation
17. Market Square
18. Private Resort Area

MIDDLE GEORGIA



LEGEND

Existing

1. Cedar Creek Wildlife Management Area
2. Piedmont National Forest
3. Hitchiti National Forest
4. Oaky Woods Hunting Area
5. Tobesofkee Lake

Proposed

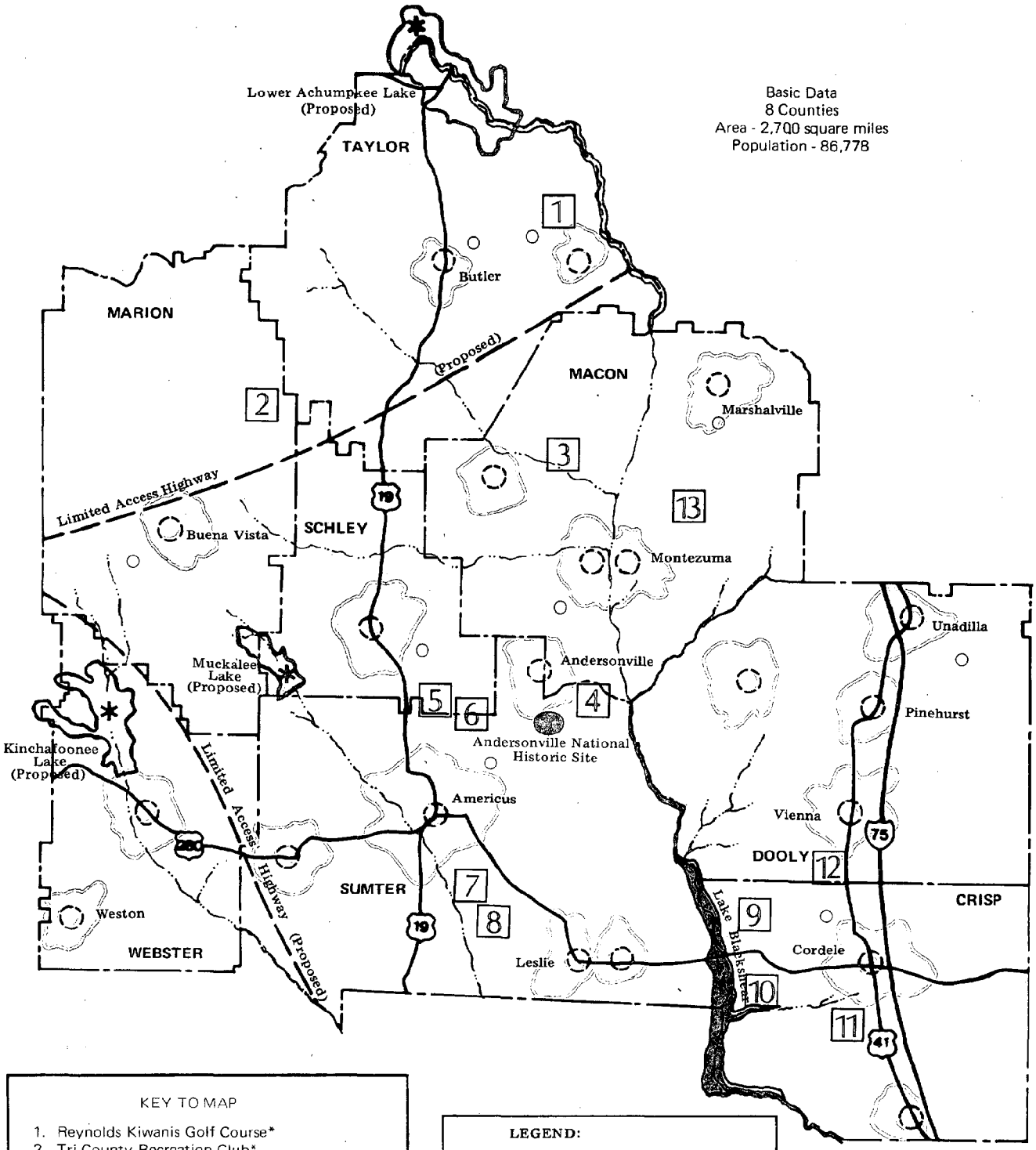
6. Oaky Woods Hunting Area
7. Towiliga River
8. Flint River

Basic Data
7 Counties
Area - 2,260 square miles
Population - 259,511 (1970)

LEGEND:

- Existing Principal Highways
- Major Water Resources
- Proposed Water Resources
- Existing Urban Areas
- Probable Urban Growth
- Historical Sites

MIDDLE FLINT



Basic Data
8 Counties
Area - 2,700 square miles
Population - 86,778

KEY TO MAP

1. Reynolds Kiwanis Golf Course*
2. Tri-County Recreation Club*
3. Whitewater State Park
4. Andersonville National Historic Site
5. Sumter Shrine Arena*
6. South Georgia Technical and Vocational School
7. Americus Country Club*
8. Georgia Southwestern College
9. Lake Blackshear
10. Georgia Veteran's Memorial State Park
11. Pine Hills Country Club*
12. Vienna Swimming Pool
13. Montezuma Swimming Pool

*Private

LEGEND:

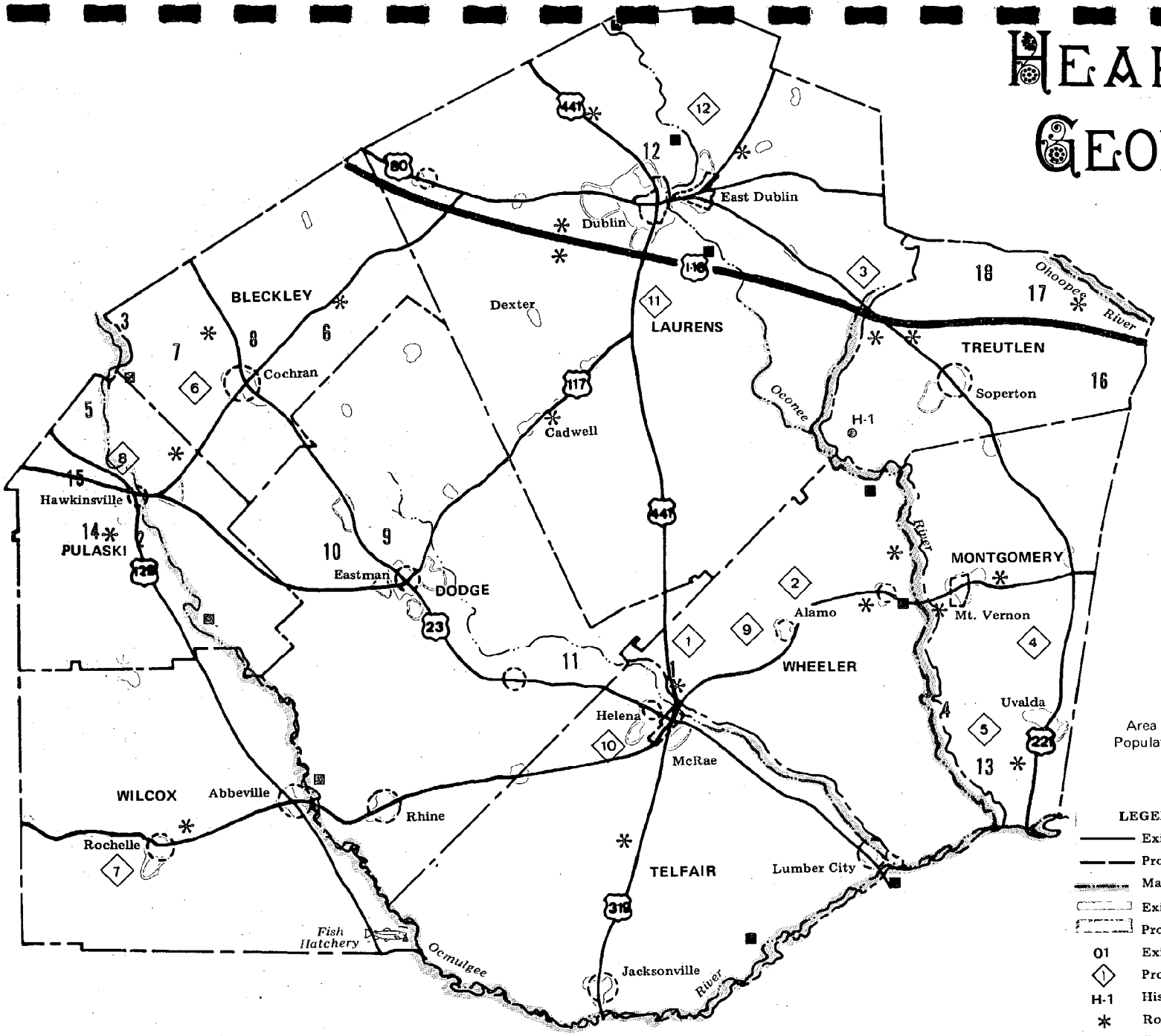
- Existing Principal Highways
- Proposed Highways
- Major Water Resources
- Proposed Water Resources
- Existing Urban Areas
- Probable Urban Growth
- Existing Recreation/Open Space
- Proposed Public Pools
- Historical Sites

LEGEND

1 EXISTING	OWNER Pub.	OWNER Pvt.
H Troup Tomb	X	
1. Little Ocmulgee State Park	X	
2. Hawkinsville State Park	X	
3. Wildlife Management Area		X
4. Oconee Scenic River	X	
5. Ocmulgee Scenic River	X	
6. Dykes' Ponds 60 acres		X
7. Trunnell's Ponds 66 acres		X
8. Country Club 100 acres		X
9. Country Club 72 acres		X
10. Tripp's Beach 200 acres		X
11. Jaybird Springs 187 acres		X
12. Country Club 201 acres		X
13. Mobley's Bow Hunt 2500 acres		X
14. Country Club 215 acres		X
15. Hunting Area 1000 acres		X
16. Wildwood Lake 325 acres		X
17. Sandhill Lake 350 acres		X
18. Black Creek Preserve 1000 acres		X

◇ PROPOSED	OWNER Pub.	OWNER Pvt.
1. State Park Expansion	X	
2. Wheeler County Lake 150 acres	X	
3. Treutlen County Lake 100 acres	X	
4. Montgomery Co. Lake 125 acres	X	
5. Uvalda City Park	X	
6. Cochran Pool	X	
7. Rochelle Pool	X	
8. Indian Mounds	X	
9. Alamo City Park	X	
10. McRae Open Space	X	
11. Lovett Garden		X
12. Holiday Estate		X

HEART OF GEORGIA

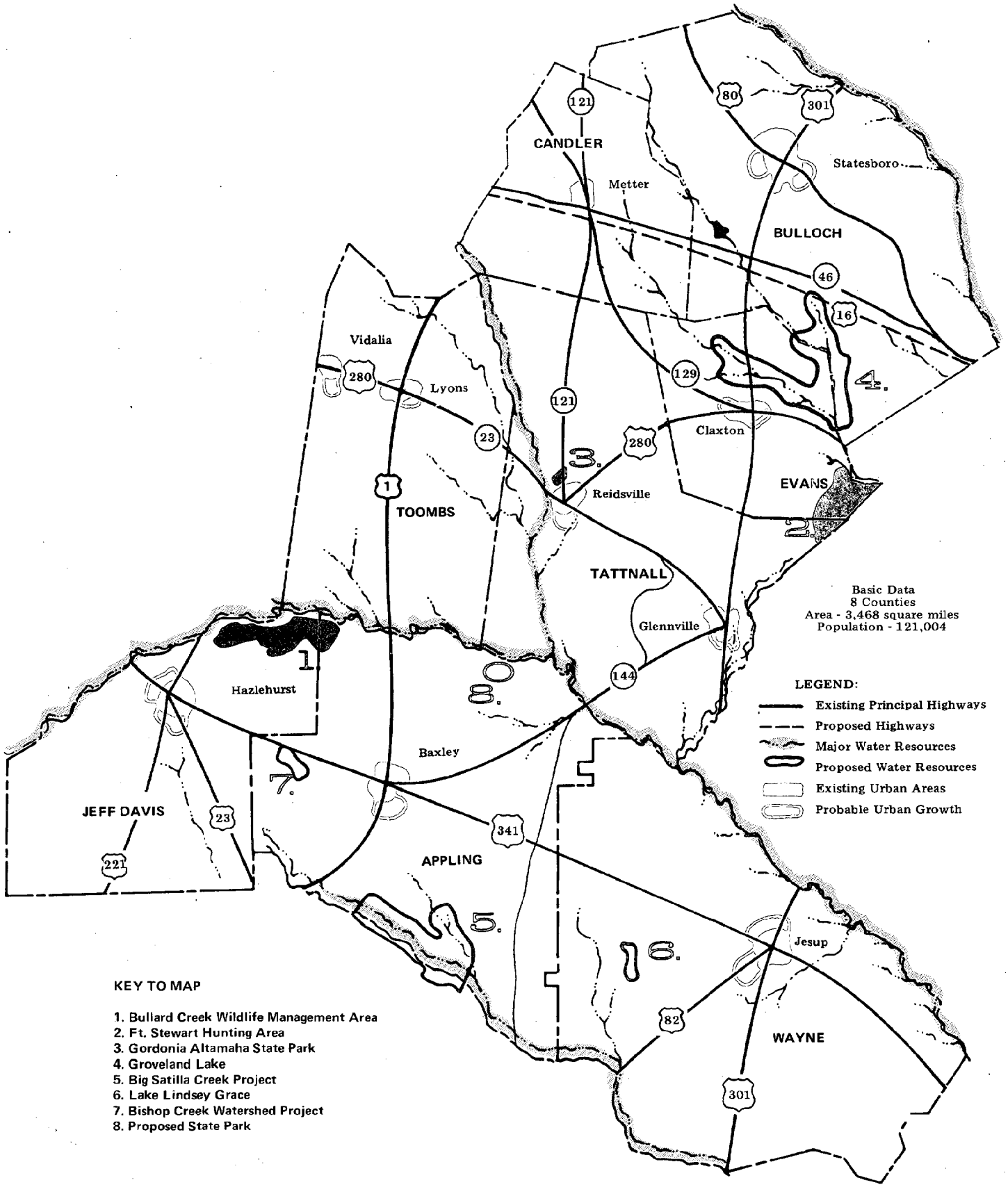


Basic Data
9 Counties
Area - 3,345 square miles
Population - 101,474 (1970)

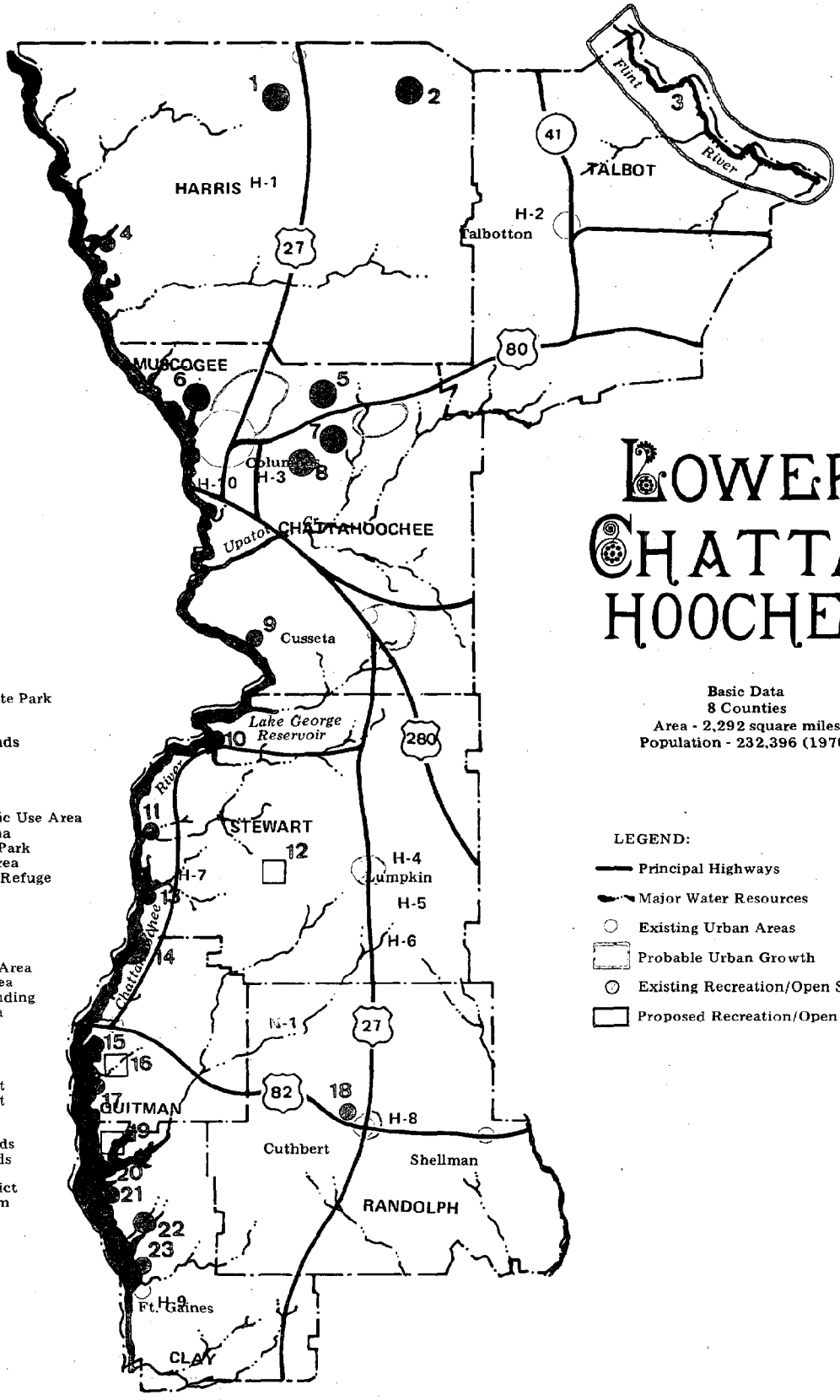
LEGEND:

- Existing Principal Highways
- Proposed Highways
- Major Water Resources
- Existing Urban Areas
- Probable Urban Growth
- 01 Existing Recreation/Open Space
- ◇ Proposed Recreation/Open Space
- H-1 Historical Sites
- * Roadside Parks
- ■ Boat Ramps

ALTAMAHA GEORGIA SOUTHERN AREA



LOWER CHATTA-HOOCHEE



Basic Data
8 Counties
Area - 2,292 square miles
Population - 232,396 (1970)

LEGEND:

- Principal Highways
- Major Water Resources
- Existing Urban Areas
- Probable Urban Growth
- Existing Recreation/Open Space
- Proposed Recreation/Open Space

KEY TO MAP

1. Callaway Gardens
2. Franklin D. Roosevelt State Park
3. Flint River Reservoirs
4. Bartletts Ferry
5. Midland Pines Campgrounds
6. Lake Oliver
7. Bull Creek Golf Course
8. Bull Creek Tennis Center
9. River Bend Park
10. Hannahatchee Creek Public Use Area
11. Florence Landing & Marina
12. Providence Canyon State Park
13. Rood Creek Public Use Area
14. Eufaula National Wildlife Refuge
15. River Bluff Park
16. Tobannee Creek
17. Cool Branch Park
18. Cuthbert Golf Course
19. Pataula Creek State Park
20. Sandy Branch Public Use Area
21. Cotton Hill Public Use Area
22. Sandy Creek Park and Landing
23. East Bank Public Use Area

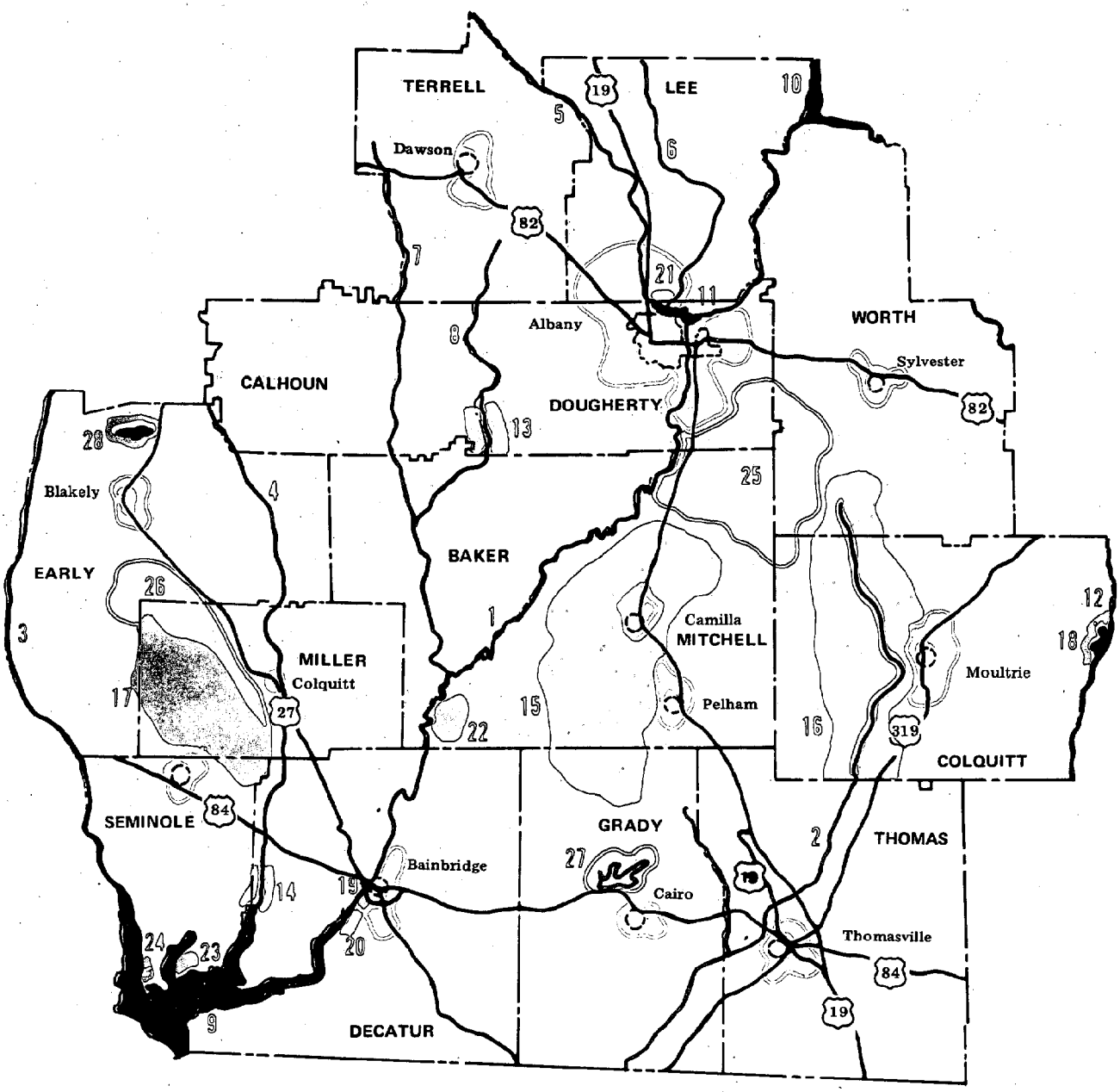
HISTORIC AREAS

1. Hamilton on the Square
2. Talbotton Historic District
3. Columbus Historic District
4. Bedingfield Inn
5. Westville
6. Singer-Moye Indian Mounds
7. Rood Creek Indian Mounds
8. Cuthbert Historic District
9. Fort Gaines Historic District
10. Confederate Naval Museum

NATURAL AREAS

1. Pataula Creek

SOUTHWEST GEORGIA



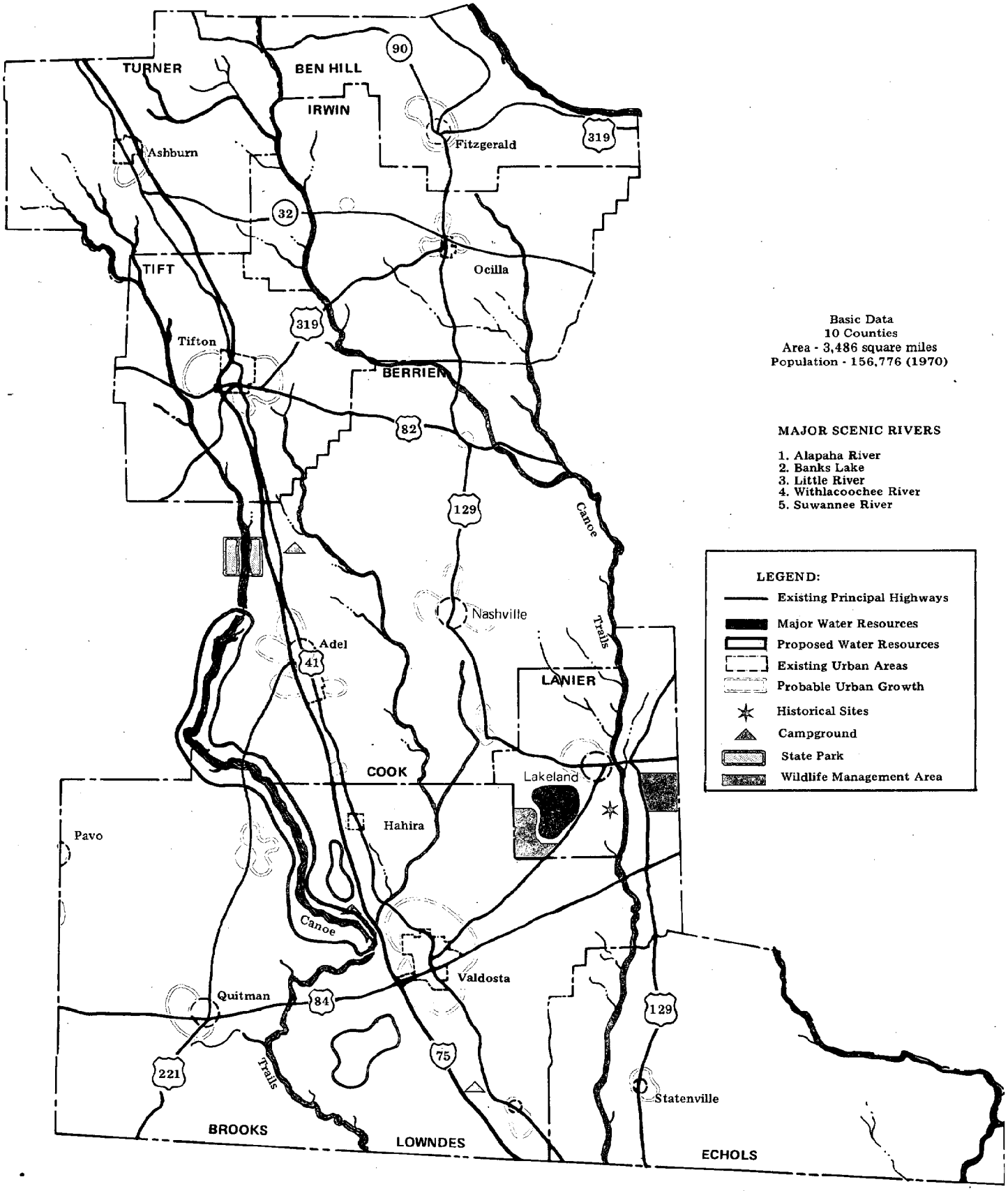
LEGEND:

- Existing Principal Highways
- Major Water Resources
- Existing Urban Areas
- Probable Urban Growth

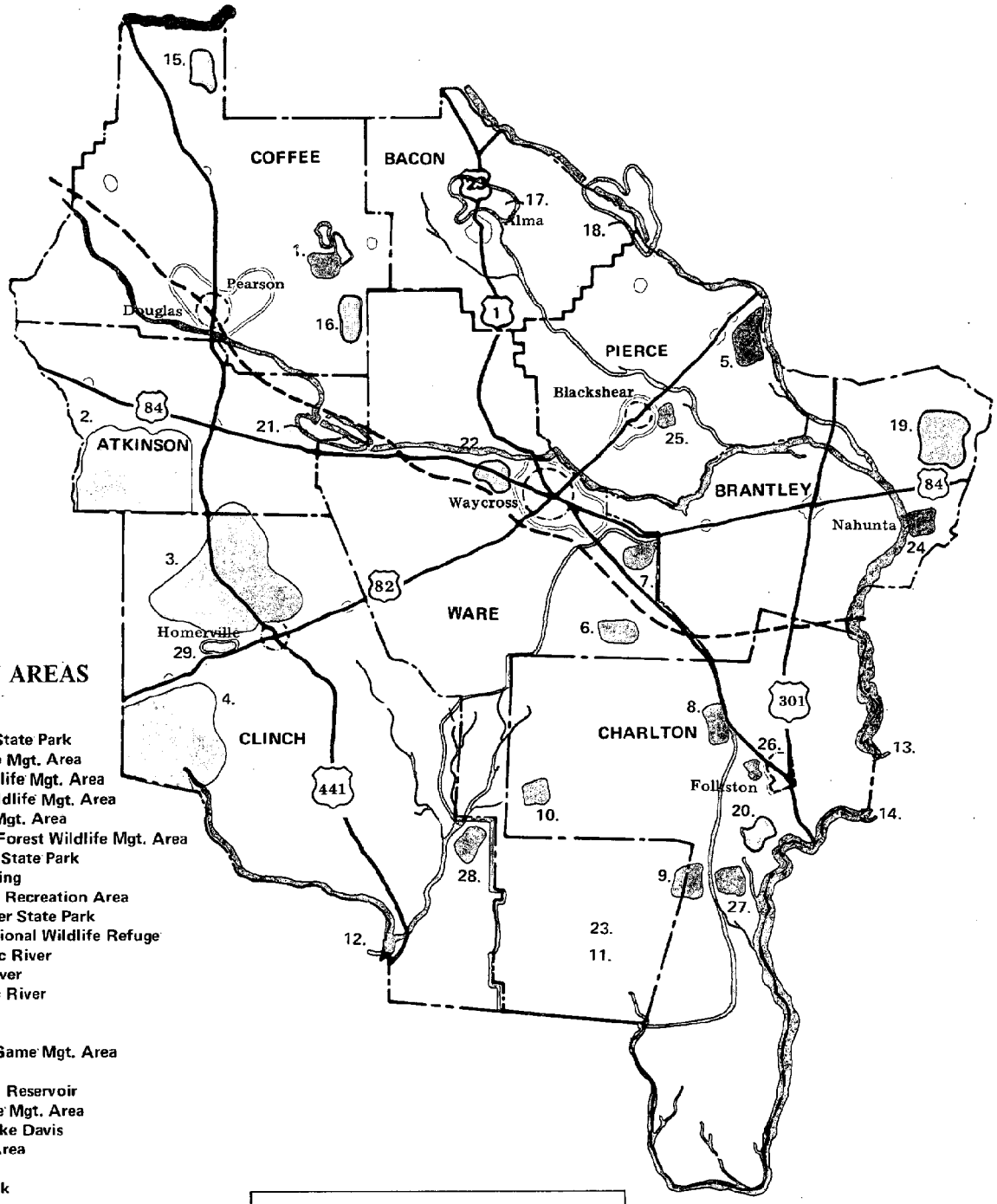
Basic Data
14 Counties
Area - 5,943 square miles
Population - 285,295 (1970)

NOTE: See Table 16-1, Volume II, for Map Code Identification.

COASTAL PLAIN



SLASH PINE



RECREATION AREAS

EXISTING PUBLIC

1. Coffee County State Park
2. Alapaha Wildlife Mgt. Area
3. Arabia Bay Wildlife Mgt. Area
4. Suwanooche Wildlife Mgt. Area
5. Satilla Wildlife Mgt. Area
6. Waycross State Forest Wildlife Mgt. Area
7. Laura S. Walker State Park
8. Kingfisher Landing
9. Suwannee Canal Recreation Area
10. Stephen C. Foster State Park
11. Okefenokee National Wildlife Refuge
12. Suwannee Scenic River
13. Satilla Scenic River
14. St. Marys Scenic River

PROPOSED PUBLIC

15. The Rocks
16. Coffee County Game Mgt. Area
17. Lake Alma
18. Big Satilla Creek Reservoir
19. Nahunta Wildlife Mgt. Area
20. Traders Hill - Lake Davis Recreation Area
21. Axon Reservoir
22. Kettle Creek Park

EXISTING PRIVATE

23. Okefenokee Swamp Park Association (Non-Profit)
24. Sewell's Fish Camp
25. Pierce Recreation Inc. (Non-Profit)
26. Folkston Golf & Country Club
27. K.O.A. Kampground
28. Lem Griffis Hunting & Fishing Camp

PROPOSED PRIVATE

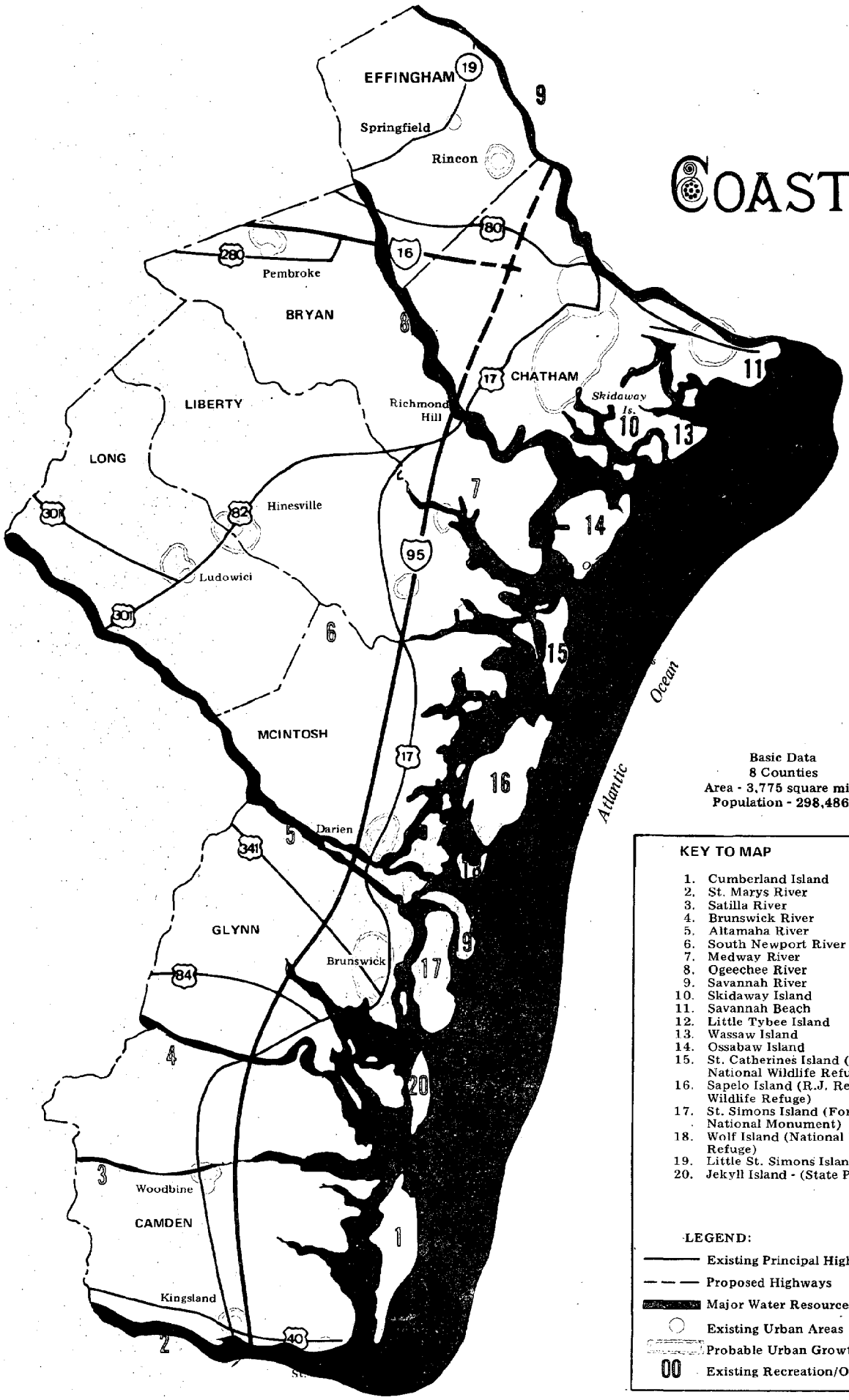
29. Tri-County Recreation Area (Non-Profit)

LEGEND:

- Existing Principal Highways
- Proposed Highways
- Major Water Resources
- Existing Urban Areas
- Probable Urban Growth
- Existing Recreation/Open Space
- Proposed Recreation/Open Space

Basic Data
8 Counties
Area-4,517 square miles
Population - 97,771 (1970)

COASTAL



Basic Data
8 Counties
Area - 3,775 square miles
Population - 298,486

KEY TO MAP

1. Cumberland Island
2. St. Marys River
3. Satilla River
4. Brunswick River
5. Altamaha River
6. South Newport River
7. Medway River
8. Ogeechee River
9. Savannah River
10. Skidaway Island
11. Savannah Beach
12. Little Tybee Island
13. Wassaw Island
14. Ossabaw Island
15. St. Catherines Island (Harris Neck National Wildlife Refuge)
16. Sapelo Island (R.J. Reynolds State Wildlife Refuge)
17. St. Simons Island (Fort Frederica National Monument)
18. Wolf Island (National Wildlife Refuge)
19. Little St. Simons Island
20. Jekyll Island - (State Park)

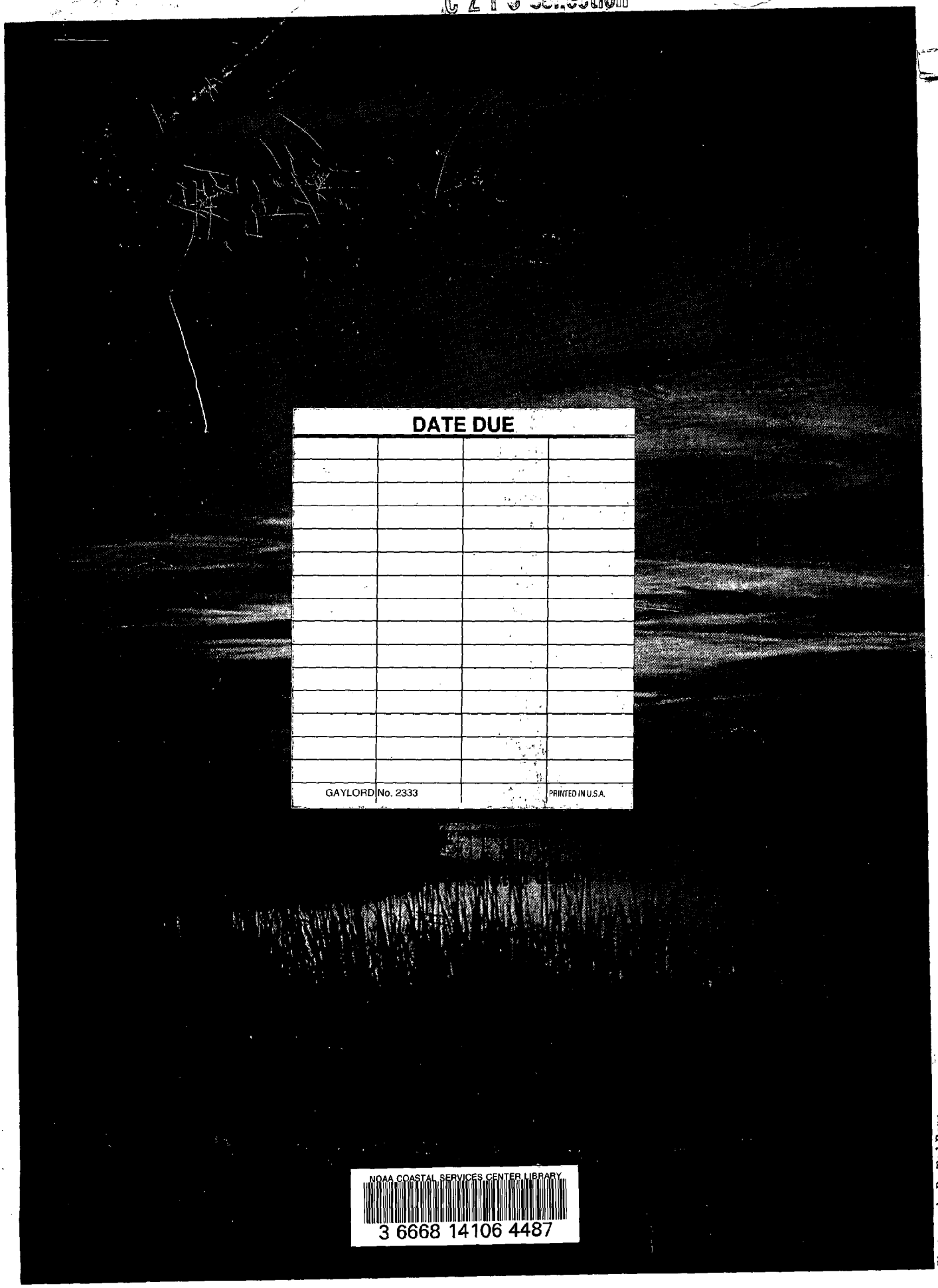
LEGEND:

- Existing Principal Highways
- Proposed Highways
- Major Water Resources
- Existing Urban Areas
- Probable Urban Growth
- 00 Existing Recreation/Open Space

C Z I C collection

COASTAL ZONE
INFORMATION CENTER

C Z I C collection



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