



US Army Corps  
of Engineers®

---

## **J. STROM THURMOND LAKE MASTER PLAN**

### **US ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT**

McCormick and Abbeville Counties in South Carolina; and Columbia, McDuffie, Warren,  
Wilkes, Lincoln, and Elbert Counties in Georgia

**June 2022**

---

## Introduction

The Master Plan (MP) provides a programmatic approach to the management of all the lands included within the J. Strom Thurmond Project (Thurmond Project). The MP is the basic document guiding the United States Army Corps of Engineers (USACE) responsibilities pursuant to Federal laws to preserve, conserve, restore, maintain, manage, and develop the project's lands, waters, and associated resources. The MP is a planning document anticipating what could and should happen and is flexible based upon changing conditions. MPs are required for civil works projects and other fee-owned lands for which USACE has administrative responsibility for management of natural and manmade resources.

The primary goals of the MP are to prescribe an overall land and water management plan, resource objectives, and associated design and management concepts, which: (1) Provide the best possible combination of responses to regional needs, resource capabilities and suitability, and expressed public interests and desires consistent with authorized project purposes; (2) Contribute towards providing a high degree of recreation diversity within the region; (3) Emphasize the particular qualities, characteristics, and potentials of the project; and (4) Exhibit consistency and compatibility with national objectives and other state and regional goals and programs.

Current guidance for MP development includes revised categories of Land Classifications used to define project lands. All lands are acquired for authorized project purposes and allocated for these uses. The classification process is a further distribution of project lands by management categories which, based upon resources available and public needs, will provide for utilization while protecting project resources. The guidance also includes requirements for an interdisciplinary team approach for MP supplements or revisions. Coordination with other agencies and the public is an integral part of the master planning process.

The MP includes a Geographic Information Systems (GIS) database. Management can continually update the database throughout the life of the plan to allow USACE to take proactive management actions and adapt existing strategies. Acreages were calculated using the best available GIS technology and may vary from acreages in prior MPs or official land acquisition records. As a land use tool, this MP provides USACE and the public with the current classification and preferred future uses of project lands. The land classification of project lands allows USACE and the public to visually evaluate the distribution of uses of project lands. Maintaining an up-to-date MP allows USACE to respond effectively to development plans made internally or by outside parties as well as identify laws and policies that govern management of the Thurmond Project.

This policy-based MP, along with the accompanying Environmental Assessment (EA), provides USACE with a document that sets goals and objectives, but does not establish concrete development plans. The MP does not preclude the requirement for submittal and approval of individual development plans for public entities and private concessionaires. All potential improvements, as well as natural resource management

actions, will be reviewed for compliance with the Endangered Species Act, the Fish and Wildlife Coordination Act, the National Historic Preservation Act (NHPA), the Clean Water Act, in accordance with ER 200-2-2, Procedures for Implementing NEPA, and will be addressed by the appropriate categorical exclusion at the time of implementation.

This MP allows USACE flexibility in the management and development of the Thurmond Project, within a clear policy framework. This MP does not address the specifics of regional water quality, shoreline management, or water level management.

**J. STROM THURMOND DAM AND LAKE PROJECT MASTER PLAN  
TABLE OF CONTENTS**

1.0	INTRODUCTION.....	1
1.1	Project Authorization.....	1
1.2	Project Purposes.....	2
1.3	Purpose and Scope of the Master Plan.....	2
1.4	Description of Project and Watershed.....	3
1.5	Prior Documentation .....	5
1.6	Pertinent Project Information.....	6
2.0	PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT .....	6
2.1	Description of Reservoir .....	6
2.2	Hydrology and Groundwater .....	6
2.3	Sedimentation and Shoreline Erosion .....	7
2.4	Water Quality & Supply .....	8
2.5	Project Access .....	10
2.6	Climate.....	10
2.7	Topography, Geology, and Soils.....	11
2.8	Resources Analysis.....	11
2.8.1	Fisheries and Wildlife Resources .....	11
2.8.2	Vegetative Resources .....	12
2.8.3	Protected Species .....	13
2.8.4	Invasive Species .....	16
2.8.5	Ecological Setting .....	17
2.8.6	Wetlands .....	17
2.9	Borrow Pits and Utilities.....	18
2.10	Mineral and Timber Resources.....	18
2.11	Cultural Resources .....	19
2.12	Socioeconomic Resources .....	20
2.12.1	Affected Environment.....	20
2.12.2	Population Demographics.....	20
2.12.3	Education and Employment.....	23
2.12.4	Households and Income.....	26
2.13	Recreation Facilities, Activities and Needs .....	28

2.13.1 Zones of Influence.....	28
2.13.2 Visitation Profile .....	28
2.13.3 Recreation Analysis .....	28
2.13.4 Recreational Carrying Capacity.....	28
2.14 Real Estate .....	29
2.15 Applicable Public Laws .....	29
3.0 RESOURCE OBJECTIVES.....	30
3.1 Aids to Navigation (ATON) .....	30
3.2 Safety Objectives .....	30
3.3 Recreation Objectives .....	31
3.4 Natural Resources Objectives .....	31
3.4.1 General Objectives.....	31
3.4.2 Wildlife Management.....	32
3.4.3 Fisheries Management.....	32
3.5 Cultural Resource Objectives .....	32
3.6 Other Resource Objectives.....	33
3.7 State Comprehensive Outdoor Recreation Plan (SCORP).....	33
4.0 LAND ALLOCATION, LAND CLASSIFICATION, WATER SURFACE, AND PROJECT EASEMENT LANDS .....	33
4.1 Land Allocation .....	33
4.2 Land Classification.....	34
4.2.1 Project Operations .....	34
4.2.2 High-Density Recreation .....	34
4.2.3 Mitigation.....	35
4.2.4 Environmentally Sensitive Areas.....	35
4.2.5 Multiple Resource Management Lands.....	35
4.2.6 Water Surface .....	36
4.3 Project Easement Lands.....	39
4.3.1 Operations Easements .....	39
4.3.2 Flowage Easements .....	39
4.3.3 Conservation Easements.....	39
4.4 Land Classification Objectives .....	40
4.4.1 Project Operations .....	40
4.4.2 High-density Recreation .....	40

4.4.3 Mitigation.....	40
4.4.4 Environmentally Sensitive Areas.....	40
4.4.5 Multiple Resource Management.....	40
4.4.6 Surface Water.....	41
4.4.7 Easements.....	41
5.0 RESOURCE PLAN.....	41
5.1 Purpose.....	41
5.2 Common Recreation Facilities.....	41
5.3 Area Resource Plans.....	43
6.0 SPECIAL TOPICS/ISSUES/CONSIDERATIONS.....	45
6.1 Non-Residential Use Designation for J. Strom Thurmond Lake Airstrip #1.....	45
6.2 Thurmond Marina (Clarks Hill Marina) Underground Storage Tank Site.....	48
6.3 Longleaf Pine Restoration.....	49
6.4 Pollinator Habitat Improvements.....	50
7.0 AGENCY AND PUBLIC COORDINATION.....	50
8.0 SUMMARY OF RECOMMENDATIONS.....	50
9.0 BIBLIOGRAPHY.....	51

**List of Tables**

Table 1: Pertinent Project Information and Water Storage Capacities.....	6
Table 2: Vegetative Resources.....	13
Table 3: Federally Protected Species Potentially Found on Thurmond Project Lands.....	15
Table 4: Invasive Species.....	16
Table 5: Wetland Summary.....	18
Table 6: 2019 Population Estimates and 2021 Projections.....	21
Table 7: 2019 Age and Gender Distribution.....	22
Table 8: 2019 Population Estimate by Race/Hispanic Origin.....	23
Table 9: Population Highest Level of Education Attainment (Age 25 or greater).....	24
Table 10: Employment by Sector (percentage of employed civilians population).....	25
Table 11: Labor Force, Employment and Unemployment Rates for Civilian Labor Force Over Age 16.....	26
Table 12: Households, Household Size, Median Income, and Per Capita Income.....	27
Table 13: Surface Water Restrictions.....	36
Table 14: Land and Water Classifications.....	38
Table 15: Road Easement Summary.....	39
Table 16: Potential Recreational Facilities Development.....	42
Table 17: Recreation Area Managing Agency.....	44

### List of Figures

Figure 1: Hydrologic Units Upper Savannah, Broad, and Little River at J. Strom Thurmond.....	5
Figure 2: Water Quality Monitoring Sites .....	9
Figure 3: Non-Residential Use Designation Location Map .....	47
Figure 4: Clarks Hill Marina Underground Storage Tanks and Fuel Line .....	48
Figure 5: Historic Range of Longleaf Pine.....	49

### Appendices

Appendix A	Common Terrestrial and Aquatic Plants, Mammals, Reptiles, Amphibians, Birds, Fish, and Freshwater Mussels Found on J. Strom Thurmond Project
Appendix B	Applicable Public Laws
Appendix C	Land Classification Maps
Appendix D	Area Resource Plans
Appendix E	Comments Received and Responses

## **1.0 INTRODUCTION**

As stated in Engineer Regulation 1130-2-550, Chapter 2, Paragraph 2-2.a.(1), dated November 15, 1996, the Natural Resource Management Mission of the U.S. Army Corps of Engineers (USACE) is as follows:

### **Mission Statement**

*The Army Corps of Engineers is the steward of the lands and waters at Corps' water resources projects. Its Natural Resource Management Mission is to manage and conserve those natural resources, consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations.*

*In all aspects of natural and cultural resources management, the Corps promotes awareness of environmental values and adheres to sound environmental stewardship, protection, compliance, and restoration practices.*

*The Corps manages for long-term public access to, and use of, the natural resources in cooperation with other Federal, State, and local agencies as well as the private sector.*

*The Corps integrates the management of diverse natural resource components such as fish, wildlife, forests, wetlands, grasslands, soil, air, and water with the provision of public recreation opportunities. The Corps conserves natural resources and provides public recreation opportunities that contribute to the quality of American life.*

### **1.1 Project Authorization**

The initial construction of the J. Strom Thurmond Project (Thurmond Project) was authorized as part of the Rivers and Harbors Act of 1927. This act authorized the USACE to investigate existing and prospective development on various streams throughout the nation for purposes of navigation, power development, flood control, and irrigation. This authorization was embodied in House Document (HD) 308, 69th Congress, first session. Savannah District completed a report on the entire Savannah River Basin in May 1933. This document recommended against any U.S. Government flood control project for the river. Two locations, however, were proposed as likely sites for future power dams in the upper Savannah River Basin: Clark Hill (Thurmond) and Hartwell. The Thurmond Project was authorized as a multipurpose dam and reservoir as part of Public Law 534, 78th Congress, passed on December 22, 1944.

On December 22, 1987, President Ronald Reagan signed into law legislation (P.L. 100-209) which changed the name of Clarks Hill Dam, Lake and Highway to J. Strom Thurmond Dam, Reservoir, and Highway in honor of the senior Senator from South Carolina.

## **1.2 Project Purposes**

The Flood Control Act of 1944 (P.L. 78-534) authorized construction of Thurmond Project for flood control, generation of hydropower, and to increase minimum regulated flows for navigation of the Savannah River below Augusta, GA.

The Water Resources Development Act of 1986 (P.L. 99-662) authorized recreation and fish and wildlife management as Thurmond Project purposes. In addition, this act included authorization to designate certain Thurmond Project lands for the mitigation of wildlife habitat loss due to the construction of Richard B. Russell Project.

The Water Supply Act of 1958, as amended (P.L. 85-500) allows the USACE to reallocate water storage from hydropower to water supply if there is no significant impact on authorized project purposes.

The Federal Water Pollution Control Act of 1972 (P.L. 92-500) established a national goal of eliminating all pollutant discharges into the waters of the U.S. and added water quality as a consideration in general terms.

## **1.3 Purpose and Scope of the Master Plan**

The last Thurmond Project MP update was finalized in June 1995. Over the past 25 years, changes have occurred that warrant an update to the MP. These include changes in policy, changes in regulations, increases in economic growth, increase in surrounding community growth, changes in recreational use patterns, and changes in natural resources management practices. Pursuant to ER 1130-2-550, Chapter 3 (MP guidance) the objective of the updated MP is to provide a strategic land use management document to guide the comprehensive management and development of all recreational, natural, and cultural resources for the next 10 to 20 years.

The proposed MP update meets the following goals:

- Incorporates updates to policies and regulations pertaining to the management and future development of Thurmond Project.
- Provides the best possible combination of responses to regional needs, resource capabilities and suitability, and expressed public interests and desires consistent with authorized project purposes.
- Addresses changes in land uses, recreational uses, and natural resources management activities.
- Provides for the orderly and timely development of recreation facilities by lessees and the USACE.
- Ensures that program management actions are based on current information and regulations through collaboration with the public, stakeholders, and subject matter experts.

The MP guidance includes revised categories of Land Classifications used to define project lands. All lands were acquired for authorized project purposes and allocated for these uses. The classification process is a further distribution of project lands by management categories which, based upon resources available and public needs, will provide for utilization while protecting project resources. The guidance also includes requirements for an interdisciplinary team approach for the development, re-evaluation, and supplementation, or updating of the MP. Coordination with other agencies and the public is an integral part of the MP process.

The MP serves three primary purposes that are equal in importance. First, it is the primary management document for the project and provides direction for many of the other plans that also guide the management of the Thurmond Project. Second, it is a land use management tool. This MP will be utilized to update many of the resource management plans as needed such as the Operational Management Plan (OMP). Third, the MP provides for the environmental assessment and public review necessary for facilities and activities proposed in the MP.

As a land use tool, this MP provides the USACE and the public with the current classification and preferred future uses of project lands. The land classification of project lands allows USACE and the public to visually evaluate the distribution of uses of project lands. For example, the identification of project lands that are suitable for the development of a new recreation facility by USACE, a lease holder, or a future development is beneficial. Maintaining an up-to-date MP allows USACE to respond effectively to development plans made internally or by outside parties.

The MP includes a GIS database. Management can continually update the database throughout the life of the plan to allow USACE to take proactive management actions and adapt existing strategies.

The policy-based MP along with the associated EA provides the USACE with a document that sets goals and objectives but does not establish concrete development plans. This allows the USACE flexibility in the management and development of Thurmond Project, within a clear policy framework. A separate EA will not be required for proposed activities or facilities described in this MP.

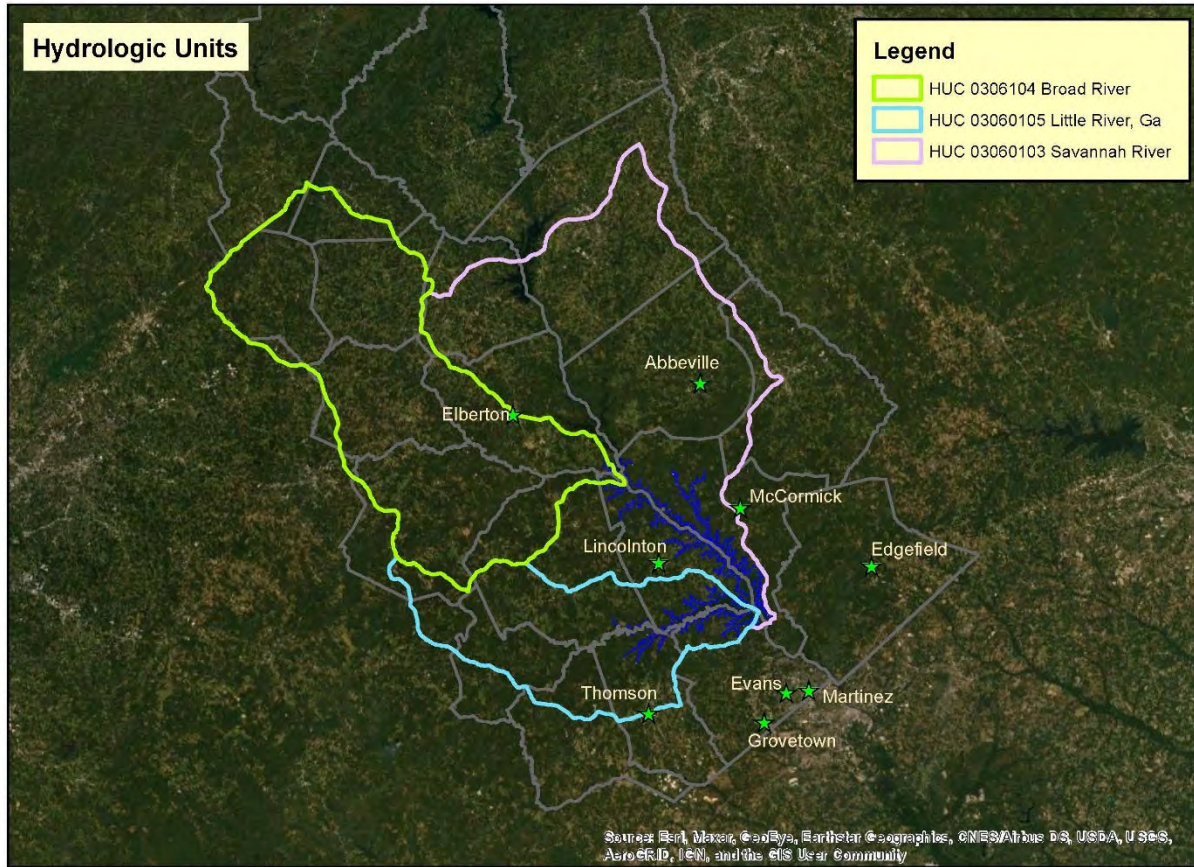
#### **1.4 Description of Project and Watershed**

The Thurmond Project is located on the Savannah River near the southeastern margin of the Piedmont Plateau Region and comprises parts of McCormick and Abbeville counties in South Carolina; and parts of Columbia, McDuffie, Warren, Wilkes, Lincoln, and Elbert counties in Georgia. The 70,714-acre reservoir has a shoreline of approximately 1,166 miles and an additional 79 miles of island shoreline, with the entire project comprising approximately 150,301 acres of public land and water. This data is based on 2017 LIDAR data and differs from shoreline data reported in previous master plans and shoreline management plans.

There are 93 public recreation areas located around Thurmond Lake ranging from boat ramp only areas to a destination resort state park. The States of Georgia and South Carolina lease approximately 30,342 acres of land for wildlife management. The USACE manages 22,749.7 acres of land for wildlife.

Within the vicinity of the Thurmond Project, land use is primarily forest and agriculture. Residential development is primarily low-density and scattered. There are 91 subdivisions around Thurmond Lake. There are also 42 private club sites around the lake. Broken out by county, there are 63 subdivisions/clubs in Lincoln County, 34 in McCormick County, 27 in Columbia County, six (6) in Elbert County, and three (3) in McDuffie County. These developments impact the economy of the surrounding counties.

The Savannah River Basin consists of 34 watersheds. The Thurmond Project is in three (3) hydrologic units (HUC) (Figure 3); they are HUC 03060103 (Upper Savannah, 1,830 sq. mi), HUC 03060104 (Broad, 1,500 sq. mi.), and HUC 03060105 (Little, 766 sq. mi.). Detailed information regarding hydrologic units and subunits is available from the South Carolina Department of Health and Environmental Control <http://www.scdhec.gov/HomeAndEnvironment/Docs/60103-07.pdf> and the Georgia Watershed Boundary Dataset <https://databasin.org>.



**Figure 1: Hydrologic Units Upper Savannah, Broad, and Little River at J. Strom Thurmond**

### 1.5 Prior Documentation

The original MP for the Thurmond Project (formerly known as Clarks Hill Lake) was published in September 1950. Updates were published in 1966, 1980, and 1995. These updates reflected changes made in response to public demands for recreational opportunities and natural resources needs. Copies of the updates are available at the Thurmond Project Manager’s office and may be reviewed upon request.

## 1.6 Pertinent Project Information

**Table 1: Pertinent Project Information and Water Storage Capacities**

<b>Feature</b>	<b>Elevation (feet above mean sea level)</b>	<b>Area (acres)</b>	<b>Capacity (acre-feet)</b>
Top of Dam (Roadway)	351	n/a	n/a
Maximum Surcharge Elevation	346	96,587*	
Flood Surcharge Storage	335-346		950,000
Top of Flood Pool (Flood Gates)	335	77,756*	
Flood Storage	330-335		390,000
Top of Conservation Pool	330	70,520*	
Usable Conservation Storage	312-330		1,045,000
Minimum Design Pool	312	45,000	
Spillway Crest	300		1,000,000

\* Acreage based on LIDAR topography collected in FY 2017.

## 2.0 PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

### 2.1 Description of Reservoir

Thurmond Dam is located on the Savannah River, 22 miles upstream of the Fifth Street Bridge in Augusta, GA. It impounds a 70,714-acre reservoir that has a shoreline of approximately 1,166 miles and 79 miles of island shoreline. The reservoir stretches nearly 37.8 miles up the Savannah River to Richard B. Russell (RBR) Dam, 44.5 miles up Little River, Georgia and 19.7 miles up Little River in South Carolina. Other main tributaries include Long Cane Creek (6.9 miles), Benningsfield Creek (3.7 miles), and Hawe Creek (3.5 miles) in South Carolina and Broad River (6.1 miles), Soap Creek (8.6 miles), Fishing Creek (9.5 miles), Keg Creek (6.4 miles), Pistol Creek (4.0 miles), Germany Creek (4.1 miles), Lloyd Creek (4.7 miles), Grays Creek (4.6 miles), and Murray Creek (3.2 miles) in Georgia. At full pool, there are over 300 islands in the reservoir ranging in size from 0.10-acre to 43 acres. There are numerous islands less than 0.10-acre in size.

### 2.2 Hydrology and Groundwater

The sub-basin drainage area for Thurmond Lake totals 4,096 square miles which represents 39 percent of the 10,579 square miles of the Savannah River Basin. Reservoir pool elevations fluctuate considerably and are influenced to a great degree by stream flow, power production demand, and regulated releases and pumped storage operations from the RBR Dam. Normally, the reservoir reaches a summer pool elevation of 330' above mean sea level (amsl) in April and remains within a few feet of this height until September. From September to mid-December, the pool is gradually

lowered to 326' amsl in preparation for winter and spring rains. A rising pool elevation occurs from January through April. At 330' amsl, the conservation pool which is usable storage totals 1,045,000 acre-feet. The flood storage pool which is between 330'-335' amsl totals 390,000 acre-feet. Additional information regarding storage and water releases can be found in the Savannah District Water Control Manual: <http://155.82.195.51/manual/index.cfm>.

### **2.3 Sedimentation and Shoreline Erosion**

Like many river basins, sedimentation in the Savannah River basin has been greatly reduced since the early 1900's by the conversion of former cropland to forest and pasture. Cotton farming, considered a highly erosive land use, has greatly declined during the last century in east central Georgia and western South Carolina. The combination of agricultural decline, transition of cropland to timber and pasture, and widespread implementation of soil conservation practices have resulted in lessened stream sediment loads. Deposits of silt in the reservoirs and channel retrogression below the dams are not major problems. Silt and retrogression ranges were established when the projects were initially constructed. At Thurmond Lake, ranges 16, 20, 30, 35, 40, 49, and 59 were resurveyed in 1959. Only range 35, which had an average depth of 4 feet of sediment, showed any appreciable change from the initial conditions. All 71 ranges were resurveyed in 1973, with no significant accumulation of sediment noted. Because the 1973 survey reflected relatively minor change in the cross-sections, there was little interest in resurveying the lines until 1999. In June of 1999, 61 sediment ranges were surveyed. Sedimentation has occurred in Broad River, Soap Creek, and Long Cane Creek. An estimate of conservation storage lost was 3,000 acre-feet which is less than 0.3 percent of the total conservation storage. Most of this lost conservation storage was in the lower part of the Conservation Pool, below elevation 320 feet, and is seldom used. The majority of the sedimentation was found below the usable conservation storage, in the inactive storage pool below elevation 312 feet. At the time of the 1999 survey, the sedimentation was more of a nuisance and/or aesthetic loss to lakeside residents and recreationists in the shoal areas. The actual volume of storage lost did not significantly impact any project purposes, other than minor impacts to recreation in a few locations. A summary of the 1999 sediment survey can be found at the following link: [http://155.82.195.51/ThurmondSediment/sed\\_surv.pdf](http://155.82.195.51/ThurmondSediment/sed_surv.pdf). A whole lake bathymetry survey was conducted in 2017 and compared to the pre-impoundment survey from 1954. The comparison revealed a 2.9 percent decrease in reservoir storage in the Thurmond Lake pool between elevation 330 and 305 due to sedimentation. The survey results have not analyzed specific tributaries.

Shoreline erosion is a major problem for many areas on Thurmond Lake, especially on the South Carolina side of the lake due to prevailing westerly winds. In several instances, private property has been eroded. The USACE, outgrantees, and many adjoining property owners have undertaken considerable erosion control efforts to protect facilities and property. The USACE is only responsible for erosion control measures to protect USACE facilities. Outgrantees and adjoining property owners must obtain the necessary permits prior to implementing erosion control measures.

## 2.4 Water Quality and Supply

The headwaters of Thurmond Lake back up to the RBR Dam. As a result, water released from RBR Dam affects water quality in Thurmond Lake. Russell project conducts continuous monitoring of RBR reservoir discharges to evaluate the impacts of USACE project operations on water quality in the reservoirs and immediate tailrace areas.

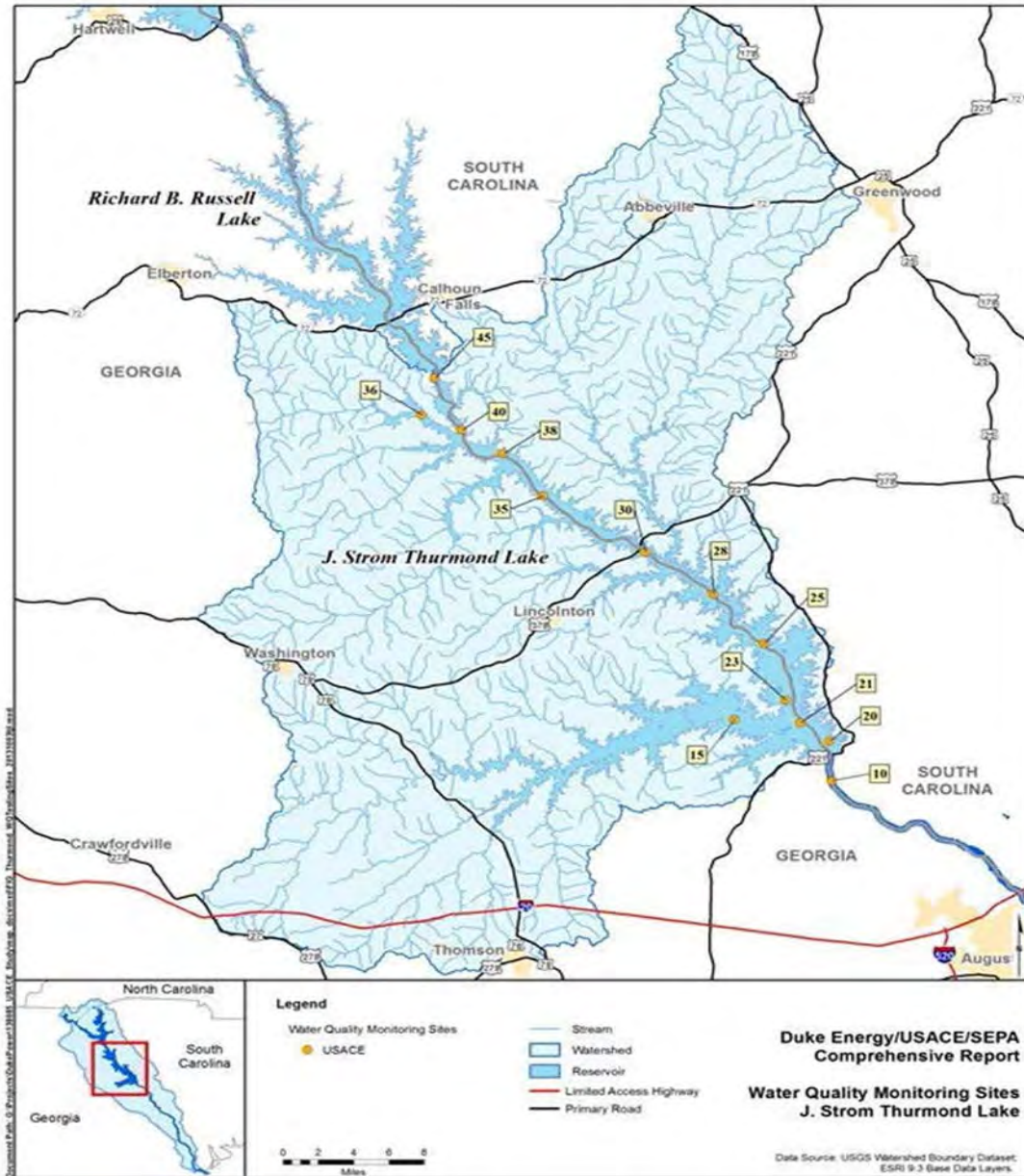
Surface water quality in Thurmond Lake is measured periodically by Georgia and South Carolina natural resource agencies. Georgia monitors water quality in the dam forebay, the Savannah River at Dordon Creek, and the Savannah River at U.S. Highway 378 from April to October. South Carolina monitors water quality in the dam forebay. Aquatic life and recreational uses are fully supported at all sites. Both states have identified fish consumption advisories for largemouth bass caught in Thurmond Lake due to potential mercury levels resulting from outside sources. Additionally, the state of South Carolina has designated Thurmond Lake as a No Discharge Lake.

Thurmond Lake experiences thermal stratification from April through September. Thermal stratification in the downstream region of the reservoir usually begins in late-April with the establishment of a thermocline (20-26 feet) in mid-May. Temperatures range from 57.2 to 86°F, and the thermocline remains near an average depth of 26 to 33 feet throughout the stratification period. The thermocline begins to weaken in late-September when seasonal cooling begins until the reservoir conditions are almost completely isothermal by mid-October. Temporal regimes in the Savannah River portion (mainstem) of Thurmond Lake can be influenced by flow releases from RBR Lake.

In a water quality summary report (Ashby et al., 1994), temporal and spatial gradients of dissolved oxygen (DO) were observed in the mainstem of the reservoir during stratification (1984–1988 monitoring period). The DO concentrations remained near 8 to 10 milligrams per liter (mg/L), gradually decreasing towards the downstream area of the reservoir. Anoxic conditions were established in the downstream hypolimnion area from mid-to-late August continuing until late October. Anoxic conditions remained within 33 feet of the surface. Concentrations of DO did not fall below 4 mg/L in the mid-region of the reservoir. The oxygenated waters during stratification can be attributed to the well-oxygenated flow releases from RBR Dam. Anoxic conditions may also be the result of the proximity of major and secondary tributaries entering Thurmond Lake. Temperature and DO concentrations in the water releases showed similar trends to those of the forebay. During fall mixing, DO levels were near 10 mg/L in the tailrace.

Thurmond Project conducts monthly sampling of DO and temperature at established locations in the reservoir. The routine monthly sampling is conducted only at the forebay station from December through March when reservoir conditions are isothermal and DO concentrations are near saturation. From April through November, stratification resulting from temperature changes leads to reduced DO conditions, and the reservoir

is sampled at 12 established locations throughout the mainstem and major tributaries. Sampling locations are shown in Figure 2. Additional sampling may occasionally be required for special studies (i.e. operation of oxygen system and blueback herring entrainment).



**Figure 2: Water Quality Monitoring Sites**

The turbines at Thurmond Dam were replaced during a major rehabilitation effort that was completed in 2007. The new turbines included a self-aspirating design that is an advanced form of turbine venting. This venting adds 2 to 3 mg/l of DO to the water as it passes through the dam. In addition to turbine venting, the USACE, Savannah District installed an oxygen injection system in the lake that began operating in 2011. This system is located adjacent to the Modoc Boat Ramp near Modoc, SC approximately

5.5-miles upstream of the dam. The primary objective of this system is to improve cool water fishery habitat in the lower 1/3 of the reservoir, but the system also improves the DO of water immediately upstream of Thurmond Dam. Thus, the operation of this DO system in combination with the turbine venting at the dam results in the DO concentration below Thurmond Dam remaining near or above 5 mg/l throughout the year.

There is a low potential for pollution from industrial discharges and other forms of chemical discharge into Thurmond Lake. Such discharges are monitored by the states and the U.S. Environmental Protection Agency (EPA). In addition, both the States of SC and GA are developing their nonpoint source pollution programs. Project personnel look for evidence of harmful discharges during their daily activities. Emergency procedures for handling oil spills and hazardous substances are contained in the project Spill Prevention, Control and Countermeasures Plan.

To maintain and enhance the water quality of Thurmond Lake, USACE personnel will diligently pursue enforcement of State and Federal pollution control laws. Sources of pollution not covered under Federal regulations will be reported to the Georgia Environmental Protection Division and/or South Carolina Department of Health and Environmental Control for appropriate action.

Average daily water withdrawals from Thurmond Lake (2017 - 2019) are 6.7 million gallons per day (mgd) including withdrawals from eleven raw water intakes. There are six users with a total of eight permanent water storage contracts withdrawing from the lake: McCormick, South Carolina (two contracts); Lincolnton, Georgia (two contracts); Thomson, Georgia; Columbia County, Georgia; Savannah Lakes Village, South Carolina; and Washington, Georgia. Additionally, Hickory Knob State Park Golf Course withdraws water in accordance with riparian rights. The contracted amount of storage accounts for 3,741-acre feet of conservation storage.

## **2.5 Project Access**

Thurmond Project is served by an extensive network of state and county roads. Access roads to all major recreation areas are paved and well maintained. Thurmond Project maintains all or portions of paved roads on retained road easements leading into Winfield and Hesters Ferry Campgrounds.

Access to wildlife management areas may be by either paved or gravel roads. In several instances, access is at the discretion of the adjoining property owner. Efforts are underway to obtain permanent access or reclaim abandoned easements to larger management areas.

## **2.6 Climate**

Hot, humid summers and mild, pleasant winters characterize the Piedmont Region. Over the course of a year, the temperature typically varies from 37°F to 91°F and is

rarely below 24°F or above 98°F. The warm season lasts from May 25 to September 15 with an average daily high temperature above 84°F. The hottest day of the year is around July 20, with an average high of 91°F and low of 72°F. The cold season lasts from November 27 to February 27 with an average daily high temperature below 55°F. The coldest day of the year is around January 17, with an average low of 37°F and high of 55°F. Over the entire year, the most common forms of precipitation are thunderstorms, light rain, and moderate rain. Snowfall is rare in the region.

Severe thunderstorms with damaging winds and ice storms occur periodically causing moderate damage to affected timber stands and facilities. Tornadoes occur infrequently in the region; however, microbursts are more common. Remnants from hurricanes and tropical storms periodically impact the region.

## **2.7 Topography, Geology, and Soils**

Thurmond Project is in the lower Piedmont region and has a rolling, highly eroded topography with numerous creeks and small streams. Elevations range from 200' amsl below the dam to 550' amsl on the northern end of the Project.

Much of the southeastern Piedmont is covered by deeply weathered bedrock called saprolite. Average saprolite thickness in the Piedmont rarely exceeds 20 meters, but the thickness can vary widely within a short distance. A considerable amount of ground water flows through the saprolite and recharges streams in the Piedmont. Saprolite is easily eroded when covering vegetation and soil are removed. Extensive erosion of soil and saprolite caused by agricultural practices during the 1800s and early 1900s contributed a vast quantity of sediment into stream valleys, choking the streams and raising the streams base level. As conservation practices stabilized erosion, streams began to reestablish grade and cut into the thick accumulations of sediments, remobilizing them into the major rivers and eventually into reservoirs.

Soils consist primarily of sandy clays and sandy silt with an overlying porphyritic granite composed primarily of quartz and feldspar. Soils are quite erodible and create serious erosion problems when exposed to wind and wave action. Approximately 25 percent of the soils have moderate limitations for building recreation facilities. Approximately 75 percent of the soils have severe to very severe limitations for development.

## **2.8 Resources Analysis**

A list of common terrestrial and aquatic plants, animals and fish found on the Thurmond Project is found in Appendix A.

### **2.8.1 Fisheries and Wildlife Resources**

Due to the large land base, reservoir size, and diverse habitats, the Thurmond Project is able to maintain stable populations of most fish and wildlife species common to the region. The Thurmond Project is working with the South Carolina and Georgia

Departments of Natural Resources as well as other partners to improve habitat for these species. Resource managers utilize an ecosystem-based approach in the daily management of Thurmond's natural resources. Prescribed fire is an ever-growing part of this management strategy. Many species of concern, like the bobwhite quail, have evolved in fire dependent systems like those found in the region.

Natural Resources staff have also increased efforts to promote native pollinators as part of national and international initiatives sparked by declining pollinator populations worldwide. As part of this effort, native plantings have been incorporated into landscape improvements around the project. Interpretive materials and programs are being developed to promote/emphasize this effort.

### **2.8.2 Vegetative Resources**

Thurmond Project is situated near the southeastern margin of the Piedmont Plateau Region. Lands acquired for Thurmond Project were generally owned by small landowners, forest industries, and power companies. In many cases, the land had been used for agricultural purposes prior to the Depression era but has been allowed to revert to forest growth. At the time of acquisition, most forested areas were supporting second growth pine with a mixture of regional hardwoods. Most river bottom hardwoods were inundated when Thurmond reservoir was constructed.

Five basic forest types may be identified on project lands: shortleaf pine, shortleaf pine-hardwood, loblolly pine-shortleaf pine, loblolly pine, and loblolly pine-hardwood. For practical silviculture, these five types are consolidated into three types: pine, pine-hardwood, and hardwood. The pine forest type is made up of shortleaf pine, loblolly pine, and scattered small stands of longleaf pine that occur naturally or have been planted. The pine-hardwood forest type includes the pine species given above associated with hardwood species such as sweetgum, yellow-poplar, white oak, post oak, southern red oak, other red oaks, white ash, winged elm, and other regional hardwoods. Minor constituents of this type include sourwood, American holly, sycamore, and red maple.

Understory species vary widely and include viburnum, poison ivy and oak, sassafras, several species of blackberry, greenbriar, dogwood, and redbud. Japanese honeysuckle is abundant throughout the area but is kept in check by whitetail deer. Kudzu and wisteria are problematic in some areas. Other exotics found on project lands include chinaberry, princess tree, privet, climbing fern, tallow tree, bamboo, giant reed, and periwinkle.

Only a small percentage of the total land area is open or not forested. A few of the open areas are maintained for operational use and utility right-of-ways, but most exist under the wildlife management program.

Thurmond Project has always implemented an active forest management plan designed to provide increased user benefits by creating and maintaining a healthy, mixed forest.

Silvicultural treatments are prescribed for forest management activities each year. Selective tree thinnings and regeneration harvest are made to improve wildlife habitat, diversify habitat, and enhance low-density recreational use. Special consideration is given to high-density recreation areas and other areas with unique or cultural values.

The vegetative resources of the Thurmond Project were classified using information derived from FY2020 Project Site Vegetative Resource Records reported in the Operations and Maintenance Business Information Link (OMBIL). These data are displayed in Table 2.

**Table 2: Vegetative Resources**

Division	Order	Class	Sub-Class	Acreage
Vegetated	Herb Dominated	Herb Dominated	Annual Gramimoid or Forb Vegetation	942
Vegetated	Tree Dominated	Closed Canopy	Deciduous Closed Tree Canopy	5,996
Vegetated	Tree Dominated	Closed Canopy	Evergreen Forest	22,521
Vegetated	Tree Dominated	Closed Canopy	Mixed Evergreen-Deciduous Closed Tree Canopy	42,441
Vegetated	Tree Dominated	Open Canopy	Evergreen Open Tree Canopy	4,282
Vegetated	Herb Dominated	Herb Dominated	Perennial Gramimoid Vegetation (Grasslands)	864
Vegetative	Nonvascular Dominate	Nonvascular Vegetation	Algae Vegetation	71,022
Non-Vegetative	Non-Vegetative	Non-Vegetative	Non-Vegetative	1,642
<b>Total Vegetated</b>				<b>149,710</b>

### 2.8.3 Protected Species

Using the list published by the U.S. Fish and Wildlife Service (USFWS), Department of Interior, the following species of concern have been identified on Thurmond Project lands:

- Michaux's sumac (*Rhus michauxii*), a Federal endangered species, has been located in Elbert County on the Broad River Wildlife Management Area (WMA). The area is managed by Georgia Department of Natural Resources (GADNR).

- Shoals Spider-lily (*Hymenocallis coronaria*) a Federal species of concern is found in the Anthony shoals portion of Broad River.

Section 7(a)(2) of the Endangered Species Act requires federal agencies to ensure that any action authorized, funded, or carried out by such agency is not likely to:

- Jeopardize the continued existence of any endangered or threatened species, or
- Result in the destruction or adverse modification of critical habitat.

The term, "jeopardize the continued existence of" means to reduce appreciably the likelihood of both the survival and recovery of listed species in the wild by reducing the species' reproduction, numbers, or distribution (50 CFR, Section 402.02). Jeopardy opinions must present reasonable evidence that the project will jeopardize the continued existence of the listed species or result in destruction or adverse modification of critical habitat.

If a survey for a project site is positive for any federally-listed protected species, the following best management practices would be implemented:

- Project footprint will be minimized to the greatest extent practicable.
- Equipment will utilize existing roads and all equipment will use the same path to minimize disturbance.
- Vegetation will be established in areas not permanently impacted that were disturbed during project construction as soon as possible following construction. This will be accomplished with an appropriate mix of plant species native to the project site. Plants listed as invasive by the U.S. Department of Agriculture or the State of Georgia and/or South Carolina should not be used.
- At least an area equal to the suitable habitat impacted by the project actions (impacts of existing flood pools excluded) will be replaced through improved management or restoration of habitat suitable for federally-listed protected species. USACE will prepare a habitat plan outlining proposed habitat improvements and the improved or restored habitat must be in a location approved by the USFWS.
- Management and monitoring of these habitat areas must be incorporated to maintain these areas and such actions will be included in an annual report to the USFWS.

In accordance with the Memorandum of Agreement between the USACE, Savannah District, and the U.S. Fish and Wildlife Service, dated July 2010, endangered species surveys are conducted by qualified personnel prior to any ground disturbing activity in

unmaintained areas. State-listed species, determined from current lists provided by the States of GA and SC, are also considered in these surveys and avoided when possible. Results of these surveys are on file at the Project Manager’s Office. Other threatened and endangered species having potential habitat at Thurmond Project fee lands, as identified by the USFWS, can be found in Table 3.

**Table 3: Federally Protected Species Potentially Found on Thurmond Project Lands**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Federal Status</b>
<b>Birds</b>		
Bald eagle *	<i>Haliaeetus leucocephalus</i>	BGEPA
Wood stork +	<i>Mycteria americana</i>	T
Red-cockaded woodpecker	<i>Picoides borealis</i>	E
<b>Mammals</b>		
Northern Long-eared bat	<i>Myotis septentrionalis</i>	T (PE)
<b>Reptiles</b>		
Gopher Tortoise	<i>Gopherus polyphemus</i>	C
<b>Invertebrates</b>		
Monarch butterfly	<i>Danaus plexippus</i>	C
<b>Mollusks</b>		
Carolina Heelsplitter	<i>Lasmigona decorate</i>	E
<b>Plants</b>		
Harperella	<i>Ptilimnium nodosum</i>	E
Pool Sprite	<i>Amphianthus pusillus</i>	T
Miccosukee Gooseberry	<i>Ribes echinellum</i>	T
Michaux’s Sumac*	<i>Rhus michauxii</i>	E
Relict Trillium	<i>Trillium reliquum</i>	E
Smooth Coneflower	<i>Echinacea laevigata</i>	E
Source: FWS ECOS IPaC 2020 Notes: E = Endangered, T = Threatened, PE = Proposed Endangered, C = Candidate, BGEPA = Bald & Golden Eagle Protection Act * Present on Thurmond Project + Occasionally seen on Thurmond Project		

### 2.8.4 Invasive Species

Georgia and South Carolina have 207 state-listed invasive species. Table 4 lists invasive species that occur on Thurmond Project lands and waters. Data was retrieved from the FY2020 Project Site Invasive Species records reported in OMBIL and updated annually.

**Table 4: Invasive Species**

Species Group	Species Common Name	Type of Occurrence	Acreage Impacted	Percent Acreage Impacted
Aquatic and Wetlands Plants	Water Primrose	Minor	10	0.01%
Aquatic and Wetlands Plants	Hydrilla*	Significant to Major	2,363	3.35%
Aquatic and Wetlands Plants	Alligator Weed	Moderate	90	0.12%
Aquatic and Wetlands Plants	Curlyleaf Pondweed	Moderate	150	0.21%
Aquatic and Wetlands Plants	Giant-reed	Minor	3	0.004%
Terrestrial Animals	Red imported fire ant	Significant to Major	1,000	1.26%
Terrestrial Animals	Wild Boar	Significant to Major	1,800	2.26%
Terrestrial Plants	Autumn Olive	Significant to Major	90	0.11%
Terrestrial Plants	Chinaberry	Significant to Major	150	0.19%
Terrestrial Plants	Chinese Privet	Moderate	55	0.07%
Terrestrial Plants	Chinese Tallow Tree	Moderate	25	0.03%
Terrestrial Plants	Japanese Climbing Fern	Moderate	50	0.06%
Terrestrial Plants	Chinese Privet	Moderate	55	0.07%
Terrestrial Plants	Johnson Grass	Significant to Major	225	0.28%
Terrestrial Plants	Royal Paulownia	Minor	20	0.03%
Terrestrial Plants	Kudzu	Significant to Major	150	0.19%
Terrestrial Plants	Wisteria	Significant to Major	2,000	2.5%
<b>Total Impacted</b>			<b>8,236</b>	<b>5.48%</b>

\*a cursory survey conducted in the fall of 2019 did not identify any hydrilla at the time of survey

Hydrilla is the most problematic invasive species due to its widespread impacts on recreation uses and it is proven to be the dominate host at Thurmond Lake for a cyanobacteria linked to Avian Vacuolar Myelinopathy (AVM), a neurological disorder that impacts American Bald Eagle and various waterfowl and shorebird populations. The Aquatic Plant Management Plan for USACE, Savannah District Water Resources Projects addresses actions taken to reduce the negative impacts of nuisance aquatic vegetation. The Avian Vacuolar Myelinopathy Plan for USACE, Savannah District, J. Strom Thurmond Project, addresses actions taken to reduce the effects of AVM on bald eagle and waterfowl populations. Preliminary vegetation surveys in 2019 indicated a significant decline in hydrilla and aquatic vegetation. A lake-wide comprehensive survey is planned for 2022.

Other invasive species that are problematic include feral hogs, imported fire ants, Johnson grass, and wisteria. Feral hogs negatively impact bottom land habitat and food plots in certain areas. Permits are issued to hunters to allow them to hunt feral hogs outside of the regular hunting seasons. Imported fire ant mounds are treated when they cause significant impacts within recreation areas. Johnson grass is treated as part of wildlife food plot maintenance when funds are available. Wisteria is treated in conjunction with forest management activities.

### **2.8.5 Ecological Setting**

The Thurmond Project is located on the Savannah River near the southeastern margin of the Piedmont Plateau Region. Thurmond Dam is located on the Savannah River, 22 miles upstream of the Fifth Street Bridge in Augusta, GA. The reservoir stretches nearly 37.8 miles up the Savannah River to Russell Dam, 44.5 miles up to Little River, Georgia and 19.7 miles up Little River in South Carolina.

Within the vicinity of the Thurmond Project, land use is primarily forest and agriculture. While residential development is primarily low-density and scattered. There are 91 subdivisions around Thurmond Lake. There are also 42 private club sites around the lake.

### **2.8.6 Wetlands**

Table 5 lists the acreages of various types of wetlands present in and around Thurmond Lake. Data was obtained from the National Wetlands Inventory.

**Table 5: Wetland Summary**

<b>Wetland Class</b>	<b>Subtotals</b>	<b>Total Acres</b>
Palustrine		2,762.0
Emergent Wetland	505.7	
Forested Wetland	1,914.4	
Scrub-Shrub Wetland	288.9	
Unconsolidated Bottom	48.8	
Unconsolidated Shore	4.2	
Riverine		1,125.1
Lacustrine		70,286.5
Unconsolidated Bottom	70,164.4	
Unconsolidated Shore	122.1	
		Total 74,173.6

## 2.9 Borrow Pits and Utilities

There are seven (7) active borrow/burn pits on Thurmond Project lands totaling 10.5 acres. The pits are used to burn woody debris removed from recreation areas and obtain soil for minor construction and maintenance. Two (2) borrow pits are inactive and are being allowed to naturally regenerate.

Utility rights-of-way encumber approximately 295 acres of project lands. Many of these rights-of-way provide open areas for wildlife. Approximately 1,000 acres of project lands are encumbered by roads and parking lots.

## 2.10 Mineral and Timber Resources

The potential exists to dredge sand deposits from certain tributaries that flow into Thurmond Lake, most notably, the Broad River portion of the reservoir. To date, no private companies have been willing to pursue this possibility. Additional environmental assessments will be necessary to pursue this activity.

Thurmond Project has always implemented an active forest management plan designed to provide increased user benefits by creating and maintaining a healthy, mixed forest. Silvicultural treatments are prescribed for forest management activities each year. Selective tree thinnings and regeneration harvest are made to improve wildlife habitat, diversify habitat, and enhance values for low-density recreational use. Salvage operations are conducted when feasible to slow insect infestations and salvage and/or remove damaged timber and remove timber prior to construction of new facilities. Prescribed burning is an integral part of the program. Special consideration is given to high-density recreation areas and other areas with unique or cultural values. On average, 12,500 tons of sawtimber and 7,000 to 9,500 tons of pulpwood are harvested annually. Timber is made available for sale by the Thurmond Project Natural Resources Manager. The timber sales are conducted by the Savannah District Real Estate Division.

## 2.11 Cultural Resources

The Savannah River Basin has a long history of human occupation with the earliest evidence of settlement dating as far back as the Paleoindian Period, ca. 9,500 B.P. The basin has long been an area of archaeological interest for researchers. Prior to the impoundment and subsequent inundation of Thurmond Lake, cultural resources investigations of varying degrees of comprehensiveness were conducted. Recent archaeological investigations at Thurmond Project have focused primarily on the upland areas (i.e., above 330' amsl), although smaller shoreline surveys have been conducted. Archaeological fieldwork conducted in the late 1940s and early 1950s through the Smithsonian Institution's River Basin Survey identified more than 200 sites at Thurmond Project, with limited excavation conducted at a minimum of 21 of the sites by former Smithsonian Institution and University of Georgia personnel (Elliott 1995). The survey focused on site visits to locales reported by local citizens, previously recorded sites and visits to likely village sites as determined through archival research and previous experience of working in similar environmental settings. Some of the recorded sites were discovered during excavation of the reservoir. Nearly 100 of the sites were determined to be flooded by the inundation of Thurmond Lake (i.e., at or below 330' amsl) and almost the same number was situated outside of the flood pool.

Since 1990, shoreline cultural surveys of the Thurmond Project documented numerous previously unrecorded archaeological sites. In 1983-84 the US Forest Service identified 54 sites, 38 of which had been previously unrecorded. Sites ranged from the Early Archaic period (8,000 B.C. – 6,000 B.C) to the early 20th century (Elliott 1995). Anderson et al. (1994) conducted a terrestrial and underwater survey of a two-mile section of shoreline and a 440-acre upland tract that identified 14 upland sites, 32 sites along the shoreline as well as one underwater site. Only the underwater site had been previously located by the River Basin Survey in the 1940s-1950s.

Archaeological surveys conducted in the mid-late 1990s at Thurmond Project by cultural resources firms contracted by Savannah District have focused exclusively on upland areas. These large-scale surveys were conducted to comply with Section 110 of the National Historic Preservation Act, as amended (NHPA) in areas that were managed for timber. As a result of the surveys, over 1600 archaeological sites, isolated finds and rock piles have been recorded. A wide array of site types are represented at Thurmond Project, ranging from prehistoric camp sites to 19th-20th century mills and cemeteries.

There are no identified Traditional Cultural Properties (TCP) which is a property or a place that is eligible for inclusion on the National Register of Historic Places (NRHP) because of its association with cultural practices and beliefs that are rooted in the history of a community.

Eight (8) archaeological sites have been formally determined eligible for listing in the NRHP. There are 327 sites that are potentially eligible for NRHP status and two of unknown status that require additional investigation before eligibility can be determined. These sites are afforded the same protections as NRHP-eligible sites until fully

evaluated. Project lands include a total of 78 cemeteries. There are 12 additional cemeteries that were not acquired during Project acquisition that are surrounded by Project lands. Cemeteries are protected by various state laws.

Management of cultural resources would continue in accordance with the J. Strom Thurmond Project Historic Properties Management Plan, updated April 2001 and the Programmatic Agreement Among the U.S. Army Engineer District, Savannah, the Georgia State Historic Preservation Officer, the South Carolina Historic Preservation Office, and the Advisory Council on Historic Preservation for the Operation and Maintenance of the J. Strom Thurmond Lake Project, Georgia and South Carolina, dated 2003. This plan and agreement define policies and procedures implemented at Thurmond Project to assure compliance with federal cultural resources laws and regulations. In 2019, the Programmatic Agreement Among the U.S. Army Corps of Engineers, Savannah District the Georgia State Historic Preservation Officer and the South Carolina Historic Preservation Officer Regarding the 2019 Savannah River Basin Comprehensive Study Drought Contingency Plan Update January 2020 provided for additional cultural surveys below full pool when drought conditions allow.

## **2.12 Socioeconomic Resources**

Socioeconomic resources describe the existing setting in relation to population demographics, employment, income, and ethnicity.

### **2.12.1 Affected Environment**

The affected environment includes regional and local demographic and economic information as it relates to the Thurmond Project and the surrounding area. For the purposes of this section, the socioeconomic study defines the zone of interest as the area is Abbeville, Aiken, Edgefield, and McCormick Counties in South Carolina and Columbia, Elbert, Lincoln, McDuffie, Richmond, Warren, and Wilkes Counties in Georgia.

### **2.12.2 Population Demographics**

The total population for the zone of interest is approximately 654,812, as shown in Table 6. More than 80 percent of the population is in the greater Augusta area which consist of Richmond, Columbia, and Aiken counties. Each of the remaining counties make up less than 5 percent each of the total population. The population in the zone of interest makes up approximately 3.9 percent of the total population of Georgia and 4.5 percent of South Carolina. The zone of interest includes those adjacent counties that would be directly impacted by the management of Thurmond Project.

In Georgia, Columbia County experienced the highest annual growth in 2020 and the highest projected growth from 2010 through 2021. In South Carolina, Aiken County experienced the highest growth in population annually and projected from 2010 through 2021.

**Table 6: 2019 Population Estimates and 2021 Projections**

	2019 Population Estimate <sup>1</sup>	2019 Percent of Zone of Interest <sup>1</sup>	2020 Annual Growth Rate <sup>2</sup>	Estimated Growth 2010-2021 <sup>2</sup>
<b>States:</b>				
Georgia	10,711,908			
South Carolina	5,118,714			
<b>Counties:</b>				
Abbeville, SC	24,527	3.75%	-0.24%	-3.64%
Aiken, SC	170,872	26.09%	0.84%	8.20%
Edgefield, SC	27,260	4.16%	0.47%	2.05%
McCormick	9,463	1.45%	0.58%	-6.23%
Columbia, GA	156,714	23.93%	1.68%	29.64%
Elbert, GA	19,194	2.93%	0.52%	-3.52%
Lincoln, GA	7,921	1.21%	-0.05%	-0.72%
McDuffie, GA	21,312	3.25%	-1.02%	-4.27%
Richmond, GA	202,518	30.93%	0.42%	1.54%
Warren, GA	5,254	0.80%	0.13%	-8.89%
Wilkes, GA	9,777	1.49%	-0.88%	-7.56%
Zone of Interest Total	654,812			

<sup>1</sup>U.S. Bureau of the Census, 2019 Estimate

<sup>2</sup>Annual Growth and Estimated Growth, World Population Review Projections from the 2019 Census Estimate

The distribution of the population among gender is approximately 49.2 percent male and 50.8 percent female as shown in Table 7. Table 7 also shows the population composition by age group. It should be noted that many of the rural counties have a higher population of those over age 65.

**Table 7: 2019 Age and Gender Distribution**

<b>Geographical Area</b>	<b>Under 18</b>	<b>18 to 64</b>	<b>65 and Over</b>	<b>Female</b>	<b>Male</b>
<b>States:</b>					
Georgia	23.6%	62.1%	14.3%	51.3%	48.7%
South Carolina	21.6%	60.2%	18.2%	51.7%	48.3%
<b>Counties:</b>					
Abbeville, SC	20.8%	58.1%	21.1%	48.3%	51.7%
Aiken, SC	20.9%	60.4%	18.7%	51.7%	48.3%
Edgefield, SC	18.6%	63.0%	18.4%	46.7%	53.3%
McCormick	12.2%	54.4%	33.4%	44.6%	55.4%
Columbia, GA	25.5%	61.3%	13.2%	51.1%	48.9%
Elbert, GA	21.9%	57.8%	20.3%	52.0%	48.0%
Lincoln, GA	19.2%	57.6%	23.2%	53.2%	46.8%
McDuffie, GA	25.3%	57.4%	17.3%	54.2%	45.8%
Richmond, GA	23.1%	63.3%	13.6%	51.6%	48.4%
Warren, GA	20.8%	57.6%	21.6%	53.4%	46.6%
Wilkes, GA	21.4%	55.7%	22.9%	51.5%	48.5%
<b>Zone of Interest Total</b>	<b>20.9%</b>	<b>58.8%</b>	<b>20.3%</b>	<b>50.8%</b>	<b>49.2%</b>

Source: U.S. Bureau of the Census, 2019 American Community Survey

Population by Race and Hispanic Origin is displayed in Table 8. For the zone of interest, 58.5 percent of the population is White, 37.3 percent is Black or African American, 3.8 percent are Hispanic or Latina, 0.9 percent are Asian, and 1.9 percent are two or more races. The remainder of the races makes up less than 1 percent each.

By comparison, for the state of South Carolina, 66.7 percent of the population is White, 26.5 percent is Black or African American, and the remaining races constitute a slightly greater percentage of the total population than in the zone of interest. For Georgia, 57.8 percent of the population is White, 31.9 percent is Black or African American, and the remaining races constitute a slightly greater percentage of the total population than in the zone of interest.

**Table 8: 2019 Population Estimate by Race/Hispanic Origin**

<b>Geographical Area</b>	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian or Other Pacific Islander Alone	Two or more races	Hispanic or Latino
<b>States:</b>							
Georgia	57.8%	31.9%	0.4%	4.1%	0.1%	2.7%	9.8%
South Carolina	66.7%	26.5%	0.4%	1.7%	0.1%	2.4%	5.8%
<b>Counties:</b>							
Abbeville, SC	69.9%	27.6%	0.1%	0.3%	0.0%	1.9%	1.5%
Aiken, SC	70.7%	25.0%	0.3%	0.9%	0.0%	2.4%	5.7%
Edgefield, SC	60.0%	35.3%	0.4%	0.3%	0.0%	1.8%	6.0%
McCormick	51.5%	44.8%	0.2%	0.2%	0.0%	2.7%	0.8%
Columbia, GA	73.9%	16.7%	0.3%	3.9%	0.0%	4.2%	6.7%
Elbert, GA	68.1%	29.9%	0.0%	0.6%	0.0%	0.9%	5.7%
Lincoln, GA	67.4%	31.0%	0.1%	0.0%	0.0%	1.0%	1.8%
McDuffie, GA	54.0%	39.9%	0.0%	0.4%	1.2%	1.9%	3.1%
Richmond, GA	37.1%	56.5%	0.3%	1.9%	0.2%	2.6%	4.9%
Warren, GA	37.5%	61.1%	0.0%	0.6%	0.0%	0.7%	0.5%
Wilkes, GA	52.6%	42.6%	0.0%	0.4%	0.0%	0.9%	5.1%
Zone of Interest Total	58.5%	37.3%	0.2%	0.9%	0.1%	1.9%	3.8%

Source: U.S. Bureau of the Census, 2019 American Community Survey

### 2.12.3 Education and Employment

Table 9 shows the population over 25 years of age by highest level of educational attainment for each of the geographical areas. In the zone of interest, for 5.4 percent of the population 25 years old and older, the highest level of education attained is below the ninth-grade level. Another 11.6 percent attended high school but did not graduate. For 36.2 percent of the population, the largest in the zone of interest, a high school degree is the highest level of educational attainment. Another 19.4 percent attended some college but did not graduate. Bachelor's degrees were the highest educational attainment of 11.9 percent, while associate degrees were 8.8 percent. The smallest group, those that have graduate or professional degrees, is 6.7 percent.

By comparison, in Georgia 4.5 percent have less than ninth grade education, 7.6 percent attended some high school, 27.4 percent graduated high school, 20.0 percent attended some college, 9.9 percent obtained an associate degree, 19.9 percent obtained a bachelor's degree, and 12.6 percent have a graduate or professional degree. For South Carolina, 3.7 percent have less than ninth grade education, 7.9 percent attended some high school, 28.5 percent graduated high school, 20.4 percent attended some college, 9.9 percent obtained an associate degree, 18.4 percent obtained a bachelor's degree, and 11.2 percent have a graduate or professional degree.

**Table 9: Population Highest Level of Education Attainment (Age 25 or greater)**

Geographic Area	Less than 9th grade	9th to 12th grade, no diploma	High school graduate (includes equivalency)	Some college, no degree	Associate degree	Bachelor degree	Graduate or professional degree
<b>States:</b>							
Georgia	4.5%	7.6%	27.4%	20.0%	9.9%	19.9%	12.6%
South Carolina	3.7%	7.9%	28.5%	20.4%	9.9%	18.4%	11.2%
<b>Counties:</b>							
Abbeville, SC	6.0%	12.4%	34.0%	18.9%	13.1%	11.0%	4.5%
Aiken, SC	4.3%	7.7%	32.8%	20.3%	8.5%	17.1%	9.3%
Edgefield, SC	6.7%	10.4%	36.7%	20.8%	8.8%	10.2%	6.5%
McCormick	4.1%	12.5%	33.9%	18.4%	10.6%	13.9%	6.6%
Columbia, GA	2.4%	4.9%	23.8%	22.0%	10.6%	22.5%	13.9%
Elbert, GA	6.2%	15.4%	40.9%	18.9%	7.0%	6.9%	4.7%
Lincoln, GA	5.4%	12.5%	39.7%	18.8%	7.8%	11.0%	4.9%
McDuffie, GA	4.2%	12.5%	41.6%	19.6%	8.1%	8.7%	5.3%
Richmond, GA	4.1%	11.8%	31.4%	22.7%	8.6%	13.1%	8.3%
Warren, GA	9.8%	17.0%	39.8%	14.2%	6.9%	8.1%	4.2%
Wilkes, GA	6.0%	10.3%	44.0%	18.6%	7.3%	8.0%	5.8%
Zone of Interest Total	5.4%	11.6%	36.2%	19.4%	8.8%	11.9%	6.7%

Source: U.S. Bureau of the Census, 2019 American Community Survey

Employment by sector is presented in Table 10 (U.S. Bureau of the Census, 2019 American Community Survey). Each figure represents the percentage of the employed civilian population in each area. In the zone of interest, the largest sectors are educational services, health care, and social assistance, employing 22.6 percent of the population. The second largest sector is manufacturing, employing 17.1 percent. This is followed by retail trade with 11.5 percent.

**Table 10: Employment by Sector (percentage of employed civilian population)**

Sector	GA	SC	Abbe-ville, SC	Aiken SC	Edge field, SC	McCor mick, SC	Colum -bia, GA	Elbert GA	Lincoln GA	McDuffie GA	Richmond GA	Warren GA	Wilkes GA	Zone of Interest Total
Public Administration	4.4%	4.3%	3.2%	4.6%	4.3%	8.2%	7.9%	5.7%	6.3%	4.4%	5.6%	5.9%	7.3%	5.7%
Other Service except Public Administration	4.7%	5.0%	4.6%	5.5%	6.7%	4.8%	4.0%	5.5%	3.7%	3.1%	4.4%	3.6%	5.4%	4.8%
Arts, entertainment, recreation, food	9.4%	10.8%	7.0%	8.5%	5.1%	7.1%	7.4%	4.4%	5.6%	10.0%	11.8%	2.4%	4.5%	7.2%
Educational services, health care, social	20.8%	21.9%	24.3%	21.1 %	19.6 %	28.5%	26.4%	20.1%	30.5%	16.8%	24.9%	17.8%	27.2%	22.6%
Professional, scientific, admin	13.1%	10.2%	7.9%	10.7 %	8.9%	4.9%	11.5%	5.2%	7.1%	8.9%	11.9%	7.0%	6.7%	8.9%
Finance, insurance, real estate, rentals	6.3%	5.6%	3.3%	4.4%	3.7%	3.3%	4.2%	3.3%	5.3%	2.9%	3.5%	1.8%	5.2%	3.4%
Information	2.3%	1.3%	1.1%	1.4%	1.6%	3.0%	1.8%	0.6%	1.5%	2.4%	1.6%	0.4%	1.1%	1.2%
Transportation, warehouse, utilities	7.2%	5.3%	4.6%	6.1%	5.2%	3.4%	5.2%	4.4%	5.8%	4.7%	5.4%	8.1%	6.5%	5.2%
Retail trade	10.7%	11.5%	9.2%	12.6 %	11.5 %	7.5%	13.0%	11.4%	10.8%	16.8%	13.4%	14.3%	8.2%	11.5%
Wholesale trade	2.9%	2.3%	1.7%	1.5%	2.2%	0.8%	1.9%	4.4%	1.7%	3.1%	1.9%	2.1%	2.2%	2.1%
Manufacturing	10.6%	13.7%	24.0%	14.1 %	17.7 %	21.7%	9.8%	27.3%	14.0%	15.3%	9.7%	25.2%	16.3%	17.1%
Construction	6.7%	7.2%	6.3%	8.0%	7.4%	6.0%	6.7%	3.4%	15.1%	8.9%	5.2%	4.4%	3.8%	7.4%
Agriculture, forestry, fishing and hunting	1.0%	0.9%	1.5%	1.5%	6.2%	0.9%	0.3%	4.4%	2.5%	2.6%	0.6%	6.6%	5.4%	2.9%

Source: U.S. Bureau of Census, 2019

Similarly, the largest employment sectors for Georgia and South Carolina are also educational services, health care, and social assistance, with 20.8 percent and 21.9 percent, respectively, of the total employment. While manufacturing has importance in both the zone of interest and state, it is evident that the economies are driven by service sector employment.

As shown in Table 11, the 2019 unemployment rate for the zone of interest at 6.8 percent is higher than that of Georgia and South Carolina average unemployment rate of 4.75 percent. Columbia, Lincoln, and Wilkes Counties are the only counties with unemployment rates below the state averages.

**Table 11: Labor Force, Employment and Unemployment Rates for Civilian Labor Force Over Age 16**

<b>Geographical Area</b>	<b>Labor Force</b>	<b>Employed</b>	<b>Unemployed</b>	<b>Unemployment Rate</b>	<b>Armed Forces</b>
<b>States:</b>					
Georgia	5,308,730	5,002,153	251,981	4.7%	54,596
South Carolina	2,513,088	2,359,714	116,037	4.6%	37,337
<b>Counties:</b>					
Abbeville, SC	10,719	10,104	586	5.5%	29
Aiken, SC	77,441	71,279	5,813	7.5%	349
Edgefield, SC	11,389	10,602	753	6.6%	34
McCormick	3,066	2,803	263	8.6%	0
Columbia, GA	75,480	68,738	3,271	4.3%	3,471
Elbert, GA	8,401	7,769	623	7.4%	9
Lincoln, GA	3,418	3,289	116	3.4%	13
McDuffie, GA	9,229	8,481	641	6.9%	107
Richmond, GA	96,101	82,032	8,095	8.4%	5,974
Warren, GA	2,224	2,115	107	4.8%	2
Wilkes, GA	4,234	4,092	128	3.0%	14
Zone of Interest Total	301,702	271,304	20,396	6.8%	10,002

Source: U.S. Bureau of the Census, 2019 American Community Survey

#### **2.12.4 Households and Income**

There are approximately 233,416 households in the zone of interest with an average household size of 2.51 persons. For Georgia, there are 3.85 million households and in South Carolina, 1.98 million, with an average size of households at 2.69 for Georgia and 2.54 for South Carolina, as shown in Table 12. Also as shown in Table 12, the zone of

interest is poorer than Georgia and South Carolina overall. In the counties in zone of interest, the median household income is \$45,896 compared to the state median household incomes of \$56,227 in South Carolina and \$61,890 in Georgia. Similarly, the zone of interest has a lower per capita income (\$23,423) compared to Georgia (\$32,657) and South Carolina (\$31,295). Within the zone of interest, Columbia County has the highest per capita income (\$34,579).

**Table 12: Households, Household Size, Median Income, and Per Capita Income**

<b>Geographical Area</b>	<b>Households</b>	<b>Persons/ household</b>	<b>Median household income 2019 Dollars</b>	<b>Per capita income 2019 Dollars</b>
<b>States:</b>				
Georgia	3,852,714	2.69	\$61,890	\$32,657
South Carolina	1,975,915	2.54	\$56,227	\$31,295
<b>Counties:</b>				
Abbeville, SC	9,660	2.46	\$38,714	\$22,646
Aiken, SC	67,598	2.45	\$51,399	\$28,396
Edgefield, SC	9,176	2.64	\$49,127	\$26,228
McCormick, SC	3,957	2.11	\$43,633	\$25,617
Columbia, GA	47,215	3.18	\$82,330	\$34,579
Elbert, GA	7,559	2.50	\$38,678	\$22,355
Lincoln, GA	3,475	2.23	\$39,742	\$26,918
McDuffie, GA	8,153	2.59	\$43,468	\$21,625
Richmond, GA	71,400	2.69	\$42,728	\$22,787
Warren, GA	2,244	2.32	\$37,203	\$23,448
Wilkes, GA	3,979	2.45	\$37,838	\$24,674
<b>Zone of Interest Total</b>	<b>233,416</b>	<b>2.51</b>	<b>\$45,896</b>	<b>\$23,423</b>

Source: U.S. Bureau of the Census, 2019 American Community Survey

## **2.13 Recreation Facilities, Activities and Needs**

### **2.13.1 Zones of Influence**

The primary area of economic influence encompasses portions of Abbeville, Aiken, Edgefield, and McCormick Counties in South Carolina and Columbia, Elbert, Lincoln, McDuffie, Richmond, Warren, and Wilkes Counties in Georgia with additional economic influence from within a 100-mile radius of the lake. This eleven-county region has been utilized as the basis in summarizing the population characteristics of Thurmond Lake.

### **2.13.2 Visitation Profile**

The majority of visitors to Thurmond Lake come from within a 100-mile radius of the lake area. Visitors primary activities involve water-based recreation such as swimming, fishing, boating, water skiing (including wakeboarding), kayaking, and sailing. Picnicking and camping are often an important part of their visit. Another large segment of visitors relies on Thurmond Project's large land base for activities such as hunting, hiking, horseback riding, and mountain biking. The majority of visitors are repeat customers who have been "going to the lake" for years.

### **2.13.3 Recreation Analysis**

Thurmond Lake receives approximately 3.5 million visitors per year. Recreational visitation has remained relatively consistent for the last 15 years due to reoccurring droughts, lack of major recreation area development, and changes in the public's leisure pursuits. With the exception of summer holiday weekends, the demand for picnic sites, group shelters, and campsites are met. The six existing marinas meet the current demand for boat moorage. While there are an ample number of boat ramps around the lake, parking is insufficient at many boat ramps especially on the lower end of the lake. This is, in part, due to larger boat trailers and tow vehicles. The demand for 50 amp or greater electrical service at campsites has increased due to the larger RVs preferred by many campers. The demand for quality rental cabins and/or motel rooms exceeds what is available in state parks and marinas.

### **2.13.4 Recreational Carrying Capacity**

The recreational carrying capacity of a lake is the amount of development, use, and activity any lake and associated recreational lands can sustain without being permanently adversely impacted. Overuse occasionally occurs at choice campsites and picnic sites. The lake staff in conjunction with lessees will continue to identify possible causes and effects of overcrowding and overuse and apply appropriate best management practices including site management and modifying visitor behavior.

## **2.14 Real Estate**

Thurmond Project was authorized as a multipurpose dam and reservoir as part of Public Law 534, 78th Congress, passed on 22 December 1944. Thurmond Project was surveyed to encompass elevation 346' amsl. The acquisition of land began in 1945 and ended in 1952. Initially, 171,320 acres of land (including 3,900 acres of riverbed already in public domain) was acquired for the construction of Thurmond Project. In 1979, approximately 1,836 acres were transferred to the RBR for construction and operations. Approximately 19,258 acres have been disposed to the private sector through various disposal actions. A net disposal of 2,053 acres of land above 346' amsl occurred as a result of a land exchange with the US Forest Service in October 1973.

Government property is monitored by lake personnel to identify and correct instances of unauthorized use. When permanent encroachments are discovered, the project will notify and work with Real Estate Division to resolve them.

Forest products generated through clearing and salvage operations or incidental to implementation of the approved Operational Management Plan (OMP) and not required for USACE use are sold. Disposal procedure for standing timber is a Real Estate Division function and all proposed sales will incorporate a disposal plan. Generally, the plan will indicate extent, volume, and justification for such sales, and will be accomplished through the Real Estate Division, Savannah District. Funds derived from the sale of forest products are returned to the project and utilized for the implementation of natural resource management programs in accordance with the Collection of Civil Works Appropriation Refunds USACE Policy (2016-05).

Lake personnel oversee and manage 253 real estate instruments at Thurmond Lake, also a function of the Real Estate Division, Savannah District. These instruments include 42 leases for marinas, state and county parks, quasi-public sites and private clubs, as well as 20 federal, state and county permits, licenses and consents, and 188 highway and utility easements. Easements are renewed on a regular basis and new easements are issued for utilities to serve recreation areas and adjoining private customers. All easements are reviewed for compliance with NEPA in accordance with ER 200-2-2, the USACE Non-Recreational Outgrant Policy and all applicable environmental laws and regulations. Issuance of easements is addressed in accordance with a categorical exclusion for real estate grants for rights-of-way.

## **2.15 Applicable Public Laws**

In addition to the MP, SMP, and USACE policies, a number of public laws are applicable to Thurmond Project. Compliance with these laws further guides management of USACE lands and waters. A complete listing of applicable public laws can be found in Appendix B.

### **3.0 RESOURCE OBJECTIVES**

Resource objectives describe measurable and attainable current and future management and development activities that support the goals of the MP, Environmental Operating Principles, and applicable national performance measures. They are guidelines for obtaining maximum public benefits while minimizing adverse impacts to the environment and are developed in accordance with: 1) authorized project purposes; 2) applicable laws and regulations; 3) resource capabilities and suitability; 4) regional needs; 5) other governmental plans and programs; and; 6) expressed public desires.

Conflicts regularly arise between multiple user groups, various government agencies, and private business that have interests in the management of Project lands, recreation facilities, and waters. The Project is also obligated to balance and manage these resources for the best long-term interest of the public and the natural resources.

#### **3.1 Aids to Navigation (ATON)**

**The ATON objectives are:**

- to manage an effective aids to navigation program that assures critical buoys are properly maintained; and
- there is consistency in the placement of “No Wake” and hazard buoys, and inspections are conducted on a frequent basis

#### **3.2 Safety Objectives**

**The safety objectives are:**

- to assure a safe working environment for Project staff and contractor personnel through adherence to safety standards, regular safety training, and regular inspection of facilities and equipment;
- to implement and maintain a proactive safety management system in accordance with the USACE Safety and Occupational Health Management System (CESOHMS);
- to provide a robust public water safety program including organized programs and events, personal contacts, volunteer outreach, media involvement, coordination with other agencies, and personal floatation device (PFD) loaner boards; and
- to provide safe, well maintained facilities through regular inspection and prompt action to correct safety deficiencies.

### **3.3 Recreation Objectives**

**The recreation objectives are:**

- to maintain existing USACE facilities to assure current and future visitor demands are met. This includes rehabilitation or replacement of existing facilities and repaving roads and parking lots;
- to increase the use of renewable energy sources, reduce energy consumption, and increase recycling efforts within recreation areas;
- to maintain partnerships with lessees to assure current and future visitor demands are met. This is especially applicable to facilities not provided by the USACE such as cabins and marina facilities;
- to explore and implement opportunities to partner with other government agencies and/or private entities to form public/private partnership to operate and maintain recreation areas;
- to maintain a strong cadre of volunteers to assist in all phases of recreation and natural resources management;
- to improve management of forest resources within recreation areas to provide for the conversion of over mature pine stands into areas dominated by desirable hardwoods;
- Develop and manage the area for maximum enjoyment of the recreating public to the extent compatible with other authorized purposes. It is a goal of the USACE to make its facilities accessible to persons with disabilities. The USACE will comply with standards of the Architectural Barriers Act (ABA) of 1968 to the maximum extent practicable and feasible without compromising the facility's function.

### **3.4 Natural Resources Objectives**

#### **3.4.1 General Objectives**

The general objectives are:

- to work closely with state agencies, other federal agencies, universities, and other stakeholders to address management issues including habitat improvement on leased lands, fisheries management, water quality, invasive species management, AVM, and species of concern;
- to detect, monitor, and treat invasive species to minimize impacts to authorized project purposes in a cost-effective and environmentally sound manner;
- to improve access to larger tracts of Project lands through the reclaiming of existing easements and obtaining new easements as needed to assure public access and the continued ability to manage the natural resources;
- to identify and protect rare, threatened, and endangered species and critical habitats. This includes state listed species of concern; and

- to develop a program to better delineate Project wetlands. The existing National Wetlands Inventory does not adequately identify wetlands that have expanded or developed due to continued siltation of numerous tributaries.

### **3.4.2 Wildlife Management**

The wildlife management objectives are:

- to maintain habitat diversity consistent with ecosystem management principles. Forest management techniques (i.e., timber thinning, regeneration, site preparation, and prescribed burning) are utilized to diversify wildlife habitat on USACE wildlife management units and South Carolina Department of Natural Resources (SCDNR) and GADNR wildlife management areas;
- to improve habitat for a variety of game and non-game species, including the maintenance of existing wildlife openings and development of additional wildlife openings and permanent fire breaks; and
- to encourage and accommodate the public use and appreciation of the project's wildlife resources. This includes improving and maintaining key access roads within wildlife management units to meet management objectives and for use by hunters, hikers, cycles, and horseback riders.

### **3.4.3 Fisheries Management**

The fisheries management objectives are:

- to monitor, conserve, restore and improve aquatic ecosystems including the establishment of native aquatic vegetation;
- to monitor fisheries populations to ensure the populations are healthy and stable and provide a quality fishery for recreation;
- to assist partners in improving the quality and quantity of fishing opportunities to meet visitor demand; and
- to encourage and accommodate public use, public access, and appreciation of the project fisheries resources.

## **3.5 Cultural Resource Objectives**

The cultural resources objectives are:

- to protect cultural resources sites that are eligible and potentially eligible for nomination to the National Register of Historic Places and cemeteries from further disturbance;
- to further evaluate potentially eligible archeological sites to determine eligibility status;
- to nominate eligible sites to the NRHP; and
- to ensure cultural collections are properly curated.

### **3.6 Other Resource Objectives**

The remaining resource objectives are:

- to conserve aesthetic values of the Project's natural features;
- to delineate and periodically inspect flowage easements to ensure private development has not encroached into the easements; and
- to maintain the integrity to the Project's boundary line by periodic inspection and maintenance, minimizing encroachment on public property.

### **3.7 State Comprehensive Outdoor Recreation Plan**

Both GA and SC have State Comprehensive Outdoor Recreation Plans (SCORP), which make the states eligible to receive federal grant dollars through the Land and Water Conservation Fund. These plans are typically updated every five years.

The GA 2017-2021 SCORP stresses the positive impacts provided by outdoor recreation by highlighting the value that parks and recreation bring to protecting natural resources, maintaining healthy populations, and adding to local economic vitality. Their priority is to attend to the urgent needs of current outdoor recreation facilities.

The SC 2019 SCORP focuses on providing recreational opportunities to all populations and creating economic benefits for the surrounding communities while adapting to changes in recreation demand.

One of the unique challenges identified in the SCORP is that outdoor recreation demand increases and evolves as the population grows and the state's demographic composition changes. USACE will continue to maintain public access to these areas to facilitate outdoor recreation use and help address these needs.

## **4.0 LAND ALLOCATION, LAND CLASSIFICATION, WATER SURFACE, AND PROJECT EASEMENT LANDS**

### **4.1 Land Allocation**

Land allocation categories (Operations, Recreation, Fish and Wildlife Management, Mitigation) identify the congressionally authorized purpose for which project lands were acquired, whether by fee simple purchase or through other means as described below. All Project lands were acquired for the purpose of Operations (flood control, hydropower, to increased minimum regulated flows for navigation), recreation, and fish and wildlife management.

## 4.2 Land Classification

Land Classification refers to the primary use for which project lands are managed. Project lands have been classified for development and resource management consistent with authorized Project purposes and provisions of the NEPA and other Federal laws. Maps of land classifications are available in Appendix C. Mapping capabilities have greatly improved with the implementation of GIS and easily accessible digital aerial photography. Therefore, Land Classifications have been mapped in greater detail than was previously possible.

### 4.2.1 Project Operations

Approximately 647.4 acres of Thurmond Project lands are classified as Project Operations. This classification identifies Project lands required for the dam, the switch yard, maintenance facilities, Volunteer Village, and the Project Manager's Office and Visitor Center. It also includes lands that are encumbered by uses that are not consistent with other classifications such as major highways, roads, bridge crossings, water intake structures, and utilities. While all lands acquired below the maximum surcharge elevation (346' amsl) are required to fulfill the flood control mission of the project, these lands are classified based on their primary use other than flood control.

### 4.2.2 High-Density Recreation

Approximately 13,890.8 acres of Project lands are classified as high-density recreation. These lands have been developed for intensive recreation uses including day use areas, campgrounds, boat ramps, resorts, and public marinas. This classification is further subdivided:

- a. **Public Recreation:** These areas are defined as lands identified and managed for the benefit of the public in general (11,627.8 acres).
- b. **Quasi-Public Development:** This category includes lands leased to churches, Boy Scouts, and the Family Y for group recreational usage (935.3 acres).
- c. **Private Club Leases:** This designation will allow the Project to honor past lease commitments in accordance with existing USACE policy on private exclusive use. There are no additional lands for lease to private clubs (26.3 acres).
- d. **Special Use Area:** This category includes areas leased for Points West Army Resort, the Veterans Administration Recreation Area, and the South Carolina Army National Guard Clarks Hill Training Site. Use of these areas is limited to active duty and retired military personnel (1,301.4 acres).

### 4.2.3 Mitigation

While Project lands were not specifically acquired to offset losses associated with the construction of Thurmond Project, the Water Resources Development Act of 1986 (P.L. 99-662) included authorization to designate 6,858 acres of Thurmond Project lands for the mitigation of wildlife habitat loss due to the construction of RBR Project. The current leases state that 2,773 acres are leased to GADNR and 4,085 acres are leased to SCDNR.

### 4.2.4 Environmentally Sensitive Areas

These are areas where scientific, ecological, cultural, and aesthetic features have been identified. These areas include wetlands, most islands, cultural resources sites, and cemeteries, and areas containing rare and endangered plants, unusual plant communities, and bald eagle nesting territories. This designation limits and can prohibit any further development within the area. There are currently 2,419.8 acres of land above 330' amsl classified as environmentally sensitive areas. There are two key elements of this designation: 1) The sensitive area classification will be extended to other project lands as additional sensitive areas are identified including eagle nesting territories that can frequently change; and 2) To protect the integrity of known cultural resources sites, cemeteries, and plants of concern, their locations are not shown on Land Classification maps. The previous master plan designated 3,188 acres as environmentally sensitive while the current plan designates approximately 2,420 acres as environmentally sensitive. The change in acres identified as environmentally sensitive results from reclassifying 911 acres previously designated as environmentally sensitive for aesthetic purposes to other classifications, 788 acres of which were reclassified to Wildlife Management or Low-Density Recreation. Only aesthetics, which were subjectively identified in the 1995 plan, were reclassified to other uses. Wetlands, protected species, cultural resources, and other significant features continue to be protected as environmentally sensitive. Additional minor classification changes are the result of technology advances such as GIS and Global Positioning Systems (GPS), as well as additional field data collected since the last plan. This information is on file at the Project Operations Manager's Office and is available for reference as needed.

### 4.2.5 Multiple Resource Management Lands

- a. **Low-density Recreation:** These are lands with minimal publicly funded development that support passive public recreational use. The majority of Project lands in this classification (9,538.2 acres) are those areas utilized by adjoining property owners as authorized by the Thurmond Lake Shoreline Management Plan. Other areas include designated bank fishing areas, primitive camping areas, trails, and trailheads.
- b. **Wildlife Management:** Approximately 44,369.7 acres of Project lands are classified as Wildlife Management. In addition to lands leased to the states for Mitigation (6,858.0 acres), 21,190.3 acres of land and water are leased to

GADNR and 6,201.0 acres of land and water are leased to SCDNR for wildlife management. The remaining lands in this classification are managed by the USACE.

- c. **Vegetative Management:** There are no areas designated specifically for or authorized for vegetative management.
- d. **Future or Inactive Recreation Areas:** Currently there are no inactive recreation areas. This classification is also subject to change if recreation areas are closed.

#### 4.2.6 Water Surface

The Project’s surface water zoning program is intended to facilitate project operations and public safety. The navigation channel and hazard buoys are managed by the USACE. Restricted water areas are restricted for project operations, safety, and security purposes. The following table summarizes these restricted areas.

**Table 13: Surface Water Restrictions**

Restriction	Acres	Effected Facilities
Prohibited Access	32.9	The water intake and flood gate portions of the dam, dam tailrace, and county water intake structures
Boats Keep Out	92.6	Designated beaches, USACE boat ramp, and maintenance dock
No Divers	9.6	The water intake and flood gate portions of the dam adjacent to the Prohibited Access area
Total	135.0	

- a. **Designated No-Wake:** Approximately 852.4 acres of the lake adjoining designated beach areas, boat ramps, at bridge crossings, within marina basins, and other high boat traffic areas have been designated as No Wake. In addition, boating regulations enforced by the states impose no wake restrictions in the vicinity of docks, anchored vessels, and/or persons in the water.
- b. **Fish and Wildlife Sanctuary:** These areas are managed with annual or seasonal restrictions to protect fish and wildlife species during periods of migration, resting, feeding, nesting, and/or spawning. Thurmond Lake does not have surface water designated for this purpose. However, there are spring water level restrictions for the purpose of maintaining largemouth bass spawning habitat (Division Regulation PDS-O-1). The spawning period is defined as beginning when the water temperature reaches 65 degrees Fahrenheit and lasts until three weeks after the water temperature reaches 70 degrees. The spawning period usually starts around the first of April and lasts 4 to 6 weeks. Past studies indicate that the four-week period of April 1 - 28 is the peak spawning period. Stable lake levels should be provided during this peak spawning period to

prevent the stranding of eggs and abandonment of nests. Throughout the spawning season, water levels should not be lowered more than six inches below the highest lake elevation recorded during the operational spawning window. If inflows during the spawning season cause lake levels to rise to flood levels, managers have the authority to lower lake levels more than 6 inches, since flood control takes precedence over fish spawn. Additionally, maintaining stable lake levels may not always be possible during drought.

- c. **Open Recreation:** The remainder of the lake is open to recreational use, approximately 68,969.0 acres.
- d. **Sensitive Areas:** Approximately 574.1 acres of project lands below 330' amsl are designated as Environmentally Sensitive Areas due to the presences of wetlands or buffer areas for eagle nests. While this designation may limit facility development, it does not impact most recreational uses.
- e. **River:** Portions of rivers on Project lands that are not impounded at elevation 330' amsl, approximately 183.2 acres.

Table 14 provides a summary of land classifications at Thurmond Project. A map representing these areas is available in Appendix C.

**Table 14: Land and Water Classifications**

<b>Land Classification</b>		<b>Acres</b>	
Project Operations		647.4	
High-density Recreation		13,890.8	
Public Recreation Areas	11,627.8		
Quasi-public Recreation Areas	935.3		
Private Clubs	26.3		
Special Use Areas	1,301.4		
Mitigation Lands		6,882.8	
Environmental Sensitive Areas Above 330' amsl (includes islands)		2,419.8	
Cultural Resource Sites, Cemeteries, Buffer*	1,654.5		
Plants of Concern*	137.2		
Multiple Resources Management Lands		55,746.7	
Low-density Recreation	9,538.2		
Wildlife Management	46,208.5		
Closed/Future Recreation Areas	0		
Vegetative Management	0		
<b>TOTAL LAND</b>		<b>79,587.5</b>	
<b>Surface Water Classification</b>			
Restricted		135.0	
Designated No-Wake		852.4	
Fish and Wildlife Sanctuary		0.0	
Sensitive Areas		574.1	
Open Recreation		68,969.0	
River		183.2	
<b>TOTAL WATER</b>		<b>70,713.7</b>	

\*Cultural resources and plants of concern acreages are included within other classifications.

### 4.3 Project Easement Lands

#### 4.3.1 Operations Easements

These are easements the USACE purchased or retained for the purpose of project operations.

Three easements were acquired to construct saddle dikes and outfall ditches to prevent lake water from entering the Stevens Creek drainage basin during flood risk management operations. These easements located within or near the town of Parksville, SC total 2.65 acres.

Seventy-six (76) road easements totaling 274.09 acres were retained during various disposal actions dating back to the early 1960s or have been acquired since 2002. The status of these easements is summarized in Table 15:

**Table 15: Road Easement Summary**

<b>Number of Easements</b>	<b>Acres</b>	<b>Status</b>	<b>Action Required for Project Operations</b>
18	80.13	Public roads	None
4	19.66	Rarely used public roads	Monitor for continued access
25	78.59	Easements encumbered by private property owners	Re-establish easement
2	1.62	Easements encumbered by private property owners	No longer needed for project operations
6	23.44	No access to public roads.	Re-establish easement if public access becomes available
12	26.45	No access to public roads.	No longer needed for project operations
9	44.20	Roads maintained by USACE	Continue maintenance

#### 4.3.2 Flowage Easements

These are easements purchased or retained by the USACE giving the right to temporarily flood private land during flood control operations. There are approximately 4,940 acres of flowage easement lands located at Thurmond Lake. The majority of these easements are on lands managed by the US Forest Service (4,118 acres).

#### 4.3.3 Conservation Easements

These are easements purchased by the USACE for the purpose of protecting wildlife, fisheries, recreation, vegetation, archeological, threatened and endangered species, or other environmental benefits. There are no conservation easements at Thurmond Lake.

## **4.4 Land Classification Objectives**

### **4.4.1 Project Operations**

The Thurmond Project will continue to operate and maintain lands designated for Project Operations to assure the safety and security of Project assets. Project personnel will continue to work with outgrantees to assure they are able to sustain the operational requirements of their approved facilities (e. g. water intake structures and highways).

### **4.4.2 High-density Recreation**

Because high-density recreation includes marina concessions, campgrounds, boat ramps, and day use areas, often in close proximity to each other, the Thurmond Project will coordinate planning with state, local, and private partners while ensuring that use of project lands is compatible with sound stewardship of the natural resource. In cooperation with our partners, Thurmond Project will develop and manage project resources to support various types and levels of recreational activities indicated by visitor demand and consistent with carrying capacities, mitigation requirements, and natural resources capabilities.

### **4.4.3 Mitigation**

Thurmond Project will work with the RBR Project, SCDNR, and GADNR to ensure the RBR Project mitigation goals established in HD 97-244 and the Mitigation Implementation Plan of 1995 are met. Existing leases will be modified to include the approximately 89 acres needed to meet the intent of the mitigation plan.

### **4.4.4 Environmentally Sensitive Areas**

Identification, documentation, and protection of environmentally sensitive areas has been engrained into the Natural Resources Management Programs at Thurmond Project. Thurmond Project will continue to work with our partners to ensure these areas are not adversely impacted. Shoreline Management permits will not be issued in Sensitive Areas regardless of Shoreline Management Allocation.

### **4.4.5 Multiple Resource Management**

**a. Low-density Recreation:** Thurmond Project will manage areas designated for low-density recreation to accommodate and support a variety of uses such as hiking, wildlife observation, hunting, and fishing. Provisions of the J. Strom Thurmond Project Shoreline Management plan will be enforced. Forest techniques such as thinning and regeneration harvest may be used when practical to improve the health of the forest and to diversify wildlife habitats.

**b. Wildlife Management:** Thurmond Project will utilize both forest management and agricultural techniques to provide a diversity of habitats to support game and nongame wildlife. Management techniques will include but are not limited to invasive species suppression, insect and disease suppression, timber thinnings, regeneration timber harvest, site preparation and replanting, and prescribed burning. In addition, public access will be improved to promote a variety of uses including hiking, wildlife observation, hunting, and fishing.

**c. Inactive Recreation Areas:** Thurmond Project will work with local agencies, non-profit organizations and private interests to reopen inactive or closed recreation areas if possible.

#### **4.4.6 Surface Water**

The Thurmond Project will continue to maintain existing aids to navigation to ensure consistency of buoy placement especially for No Wake and hazard buoys. Another objective will be to reduce maintenance costs.

#### **4.4.7 Easements**

The Thurmond Project will develop a program to delineate all flowage easements and provide for the periodic easement inspection to minimize encroachments. Road easements will be clearly identified by survey and ground monumentation and reopened as warranted to meet operation needs and ensure public access.

### **5.0 RESOURCE PLAN**

#### **5.1 Purpose**

The overall objective of the resource plan is to maximize recreational benefits while maintaining the projects unique natural resources and scenic qualities. The resource plan recognizes that budgets are variable from year to year and visitor use patterns and preferences change over time.

#### **5.2 Common Recreation Facilities**

In general, the following types of common recreational facilities listed in Table 16 may be considered for development within existing high-density recreation areas without an additional formal EA or modification to the MP:

**Table 16: Potential Recreational Facilities Development**

Public Parks:	
Facilities approved on the lease development plan	Replacement, relocation, and/or modernization of existing facilities not to exceed 10 percent of the original facility's footprint
Campsites not to exceed 25 percent of the existing number of campsites	Picnic Sites not to exceed 50 percent of the existing number of picnic sites
Yurts not to exceed 25 percent of the existing number of campsites/yurts sites combined	Portable or fixed mini cabins not to exceed 25 percent of the existing number of campsites/yurts sites combined
Sanitary facilities necessary to meet existing or expected demand including restrooms, shower houses, septic systems, RV dump station, etc.	Conversion of picnic areas to campgrounds or campgrounds to picnic areas.
Picnic shelter not to exceed 200-person capacity	Amphitheater not to exceed 250-person capacity
Designated parking lot(s) not to exceed 100 spaces	Disc golf course not to exceed 25 acres in size
Archery or skeet range not to exceed 25 acres in size	Additional lanes to existing boat ramps. Realignment of roads to improve safety and traffic flow at boat ramps
Playground(s)	Park office or gate house
Restaurant	Hiking, biking, interpretive, fitness, endurance, or equestrian trails or zip lines/high ropes courses
Courtesy dock, fishing pier	Park attendant/camp host sites
Fish cleaning station	Swim beach(s)
Shoreline erosion control	Game court, ball field
Camp store not to exceed 1,000 sq. ft.	Designated pet friendly areas
Interpretive center	Splash pad/mini water park not to exceed one acre

Public Marinas:	
Facilities approved on the lease development plan	Replacement, relocation, and/or modernization of existing facilities not to exceed 10 percent of the original facility's footprint
Additional wet slip, dry stack, or open boat storage not to exceed 25 percent of the approved total of boat storage opportunities	Marina office, ships store or gate house
Sanitary facilities necessary to meet existing or expected demand including restrooms, shower houses, septic systems, marine pump out station	Picnic shelters not to exceed 200-person capacity
Amphitheater not to exceed 250-person capacity	Marine service and sales facility not to exceed 1 acre
Playground(s)	Fish cleaning station
Courtesy dock, fishing pier	Restaurant

Lessee must submit detailed plans prior to approval of such facilities. Engineer approved plans may be required. An economic analysis including market and feasibility studies may be required for larger, revenue producing facilities. All state and local ordinances and laws apply. Prior to construction, an endangered species survey will be conducted in accordance with the Memorandum of Agreement between the USACE, Savannah District, and the U.S. Fish and Wildlife Service, dated July 2010. Cultural resources information will be reviewed to assure these resources are protected. Section 404 permits may be required for certain water-based construction. Generally, habitable structures will not be authorized below 346' amsl elevation, the maximum flood surcharge.

### 5.3 Area Resource Plans

Appendix D provides resource plans and maps for individual recreation areas (including lease areas) and wildlife management areas. These descriptions provide the following information:

- **Management Agency** – The agency responsible for the day-to-day operations and maintenance of an area (Table 17).
- **Land Classification** – The designated land use as defined in Section 4.2.
- **Location** – A brief description of the area's location.
- **Description** – A brief description of the area, focusing on recreation features currently on site.
- **Resource Objective and Future Development** – Lists the potential for future development based on the features originally in the design, but due to various constraints were not constructed. Also, includes those features being proposed for development, but not in the original design.

**Table 17: Recreation Area Managing Agency**

PARK	MAP #	TOTAL ACRES	AGENCY
Project Manager's Office/Visitor Center (PMO)	1	22.1	USACE
Below Dam, South Carolina Day Use Area	2	26.1	USACE
Clarks Hill Park	3	78.4	USACE
Scotts Ferry Boat Ramp	4	7.7	USACE
Modoc Campground	5	224.2	USACE
JST Volunteer Village	6	43.9	USACE
Modoc Boat Ramp	7	96.6	USACE
Parksville Recreation Area	8	42.3	USACE
Dordon Creek Boat Ramp	9	24.2	USACE
Hawe Creek Campground	10	156.8	USACE
Leroys Ferry Campground	11	74.7	USACE
Mt. Pleasant Boat Ramp	12	6.1	USACE
Calhoun Falls Ramp	13	11.5	USACE
Morrahs Boat Ramp	14	24.7	USACE
Gill Point Recreation Area	15	17.2	USACE
Bussey Point Campground	16	209.1	USACE
Amity Recreation Area	17	100.1	USACE
Winfield Campground	18	189.5	USACE
Ridge Road Campground	19	129.8	USACE
Keg Creek Boat Ramp	20	17.4	USACE
Petersburg Campground	21	263.9	USACE
Lake Springs Recreation Area	22	252.3	USACE
West Dam Recreation Area	23	28.9	USACE
Below Dam, Georgia Boat Ramp	24	19.5	USACE
Hamilton Branch State Park	25	727.2	SCPRT
Baker Creek State Park	26	1324.8	SCPRT
Hickory Knob State Resort Park	27	963.4	SCPRT
Bobby Brown Park	28	661.8	GADNR/Elbert County, GA Sublease
Elijah Clark State Park	29	450.9	GADNR
Mistletoe State Park	30	1915.0	GADNR
Parksville Wayside	31	7.6	McCormick County, SC
Dorn Fishing and Boating Facility	32	28.0	McCormick County, SC
Broad River Campground	33	29.3	Lincoln County, GA
Hester's Ferry Campground	34	187.5	Lincoln County, GA
Parkway Boat Ramp	35	33.5	Lincoln County, GA

PARK	MAP #	TOTAL ACRES	AGENCY
Eddie Fletcher Park	36	64.1	Lincoln County, GA
Cherokee Recreation Area	37	219.8	Lincoln County, GA
Clay Hill Campground	38	68.7	Lincoln County, GA
Holiday Park	39	316.9	Wilkes County, GA
Raysville Campground	40	105.7	McDuffie County, GA
Big Hart Recreation Area	41	425.7	McDuffie County, GA
Wildwood Park	42	948.9	Columbia County, GA
Plum Branch Yacht Club	43	66.8	Private Concessionaire
Savannah Lakes Marina	44	3.5	Private Concessionaire
Soap Creek Marina	45	107.3	Private Concessionaire
Raysville Marina	46	22.8	Private Concessionaire
Clarks Hill (Thurmond) Marina	47	100.0	Private Concessionaire
Tradewinds Marina	48	201.8	Private Concessionaire
Future Marina Sites (4 sites)	49	505.2	Private Concessionaire
Hester's Bottom Campground	50	161.6	Private Concessionaire
Clarks Hill Training Site	51	867.7	SC National Guard
Fort Gordon Recreation Area (Points West Army Resort)	52	908.5	Department of Army

## 6.0 SPECIAL TOPICS/ISSUES/CONSIDERATIONS

### 6.1 Non-Residential Use Designation for J. Strom Thurmond Lake Airstrip #1

From 1950s until 1970s, Thurmond Project conducted active mosquito control programs that included the use of pesticides including DDT. A chemical mixing area located at the lower airstrip near Lake Springs Road required clean up and remediation.

Approximately 389 tons of contaminated material were removed in 2010 (Figure 3). In the Revised Compliance Status Report dated June 08, 2016, Georgia Environmental Protection Division has required the following in order to remove the site from the State of Georgia Hazardous Site Index:

- The Site shall not be used for recreational purposes, agricultural or grazing purposes, residential purposes, childcare centers, schools, parks, athletic fields, sporting activities of any kind, kennels, private animal pens or riding clubs without the written approval of the Georgia EPD.
- Groundwater beneath the Site shall not be used as a source of potable or irrigation water without the written approval of the Georgia EPD.
- The USACE shall take no action to modify the Site provisions of the J. Strom Thurmond Lake Master Plan listed in subsections a & b above, without the written approval of the Georgia EPD.

- If the Department of Defense determines the property to be excess, USACE will advise the General Services Administration (GSA) of contamination that remains on the Site. During the disposal process, GSA will evaluate the need to impose any land use restrictions upon transfer of the Site property or conduct additional investigation into potential corrective action to bring the Site into compliance with Georgia EPD Risk Reduction Standards (RRS) for residential use.



Figure 3: Non-Residential Use Designation Location Map

## 6.2 Thurmond Marina (Clarks Hill Marina) Underground Storage Tank Site

Thurmond Marina (Clarks Hill Marina) was originally established in 1953 as Little River Sportsmen's Camp. At that time, two 2,000-gallon underground fuel storage tanks (UST) and one 1,000-gallon UST were installed. These tanks were abandoned in place and replaced with two 4,000-gallon tanks and one 2,000-gallon tank in 1988. Upon expiration of the previous lease in 2010, all USTs were abandoned and replaced with above-ground storage tanks under the current lease. During removal of the USTs in 2014, soil and groundwater contamination was discovered. A corrective action plan was developed in accordance with State of Georgia regulations for removal of 1,482 cubic yards of benzene, toluene, and ethylbenzene (BTE) contaminated soil and installation of injection wells and monitoring wells to treat and monitor groundwater contamination. Oxygen Release Compound (ORC-A) in pellet form was placed in the excavated area prior to backfilling and ORC-A in liquid form was subsequently injected via the wells for a second treatment. Periodic groundwater monitoring will be conducted in accordance with state requirements and the corrective action plan.



**Figure 4: Clarks Hill Marina Underground Storage Tanks and Fuel Line**

### 6.3 Longleaf Pine Restoration

A significant portion of Thurmond Project is located on the northern edge of the historic range of longleaf pine (*Pinus palustris*) as noted in Figure 5. Substantial remnant populations of longleaf pine have been found near Modoc, Shriver Creek, Bussey Point, and Clarks Hill WMA. Since 2004, efforts have been undertaken to restore longleaf habitat in locations that have suitable soils and where prescribed burns can be conducted easily on a regular rotation. Restoration of this type of habitat benefits numerous wildlife species that prefer open woodlands, especially bobwhite quail. In addition to the areas previously listed, longleaf pines have been planted in the Below Dam, GA Quail Habitat Demonstration Area. As of 2020, over 535 acres have been replanted to longleaf pine. In 2018, the Longleaf Alliance began to partner with the Project in this effort.

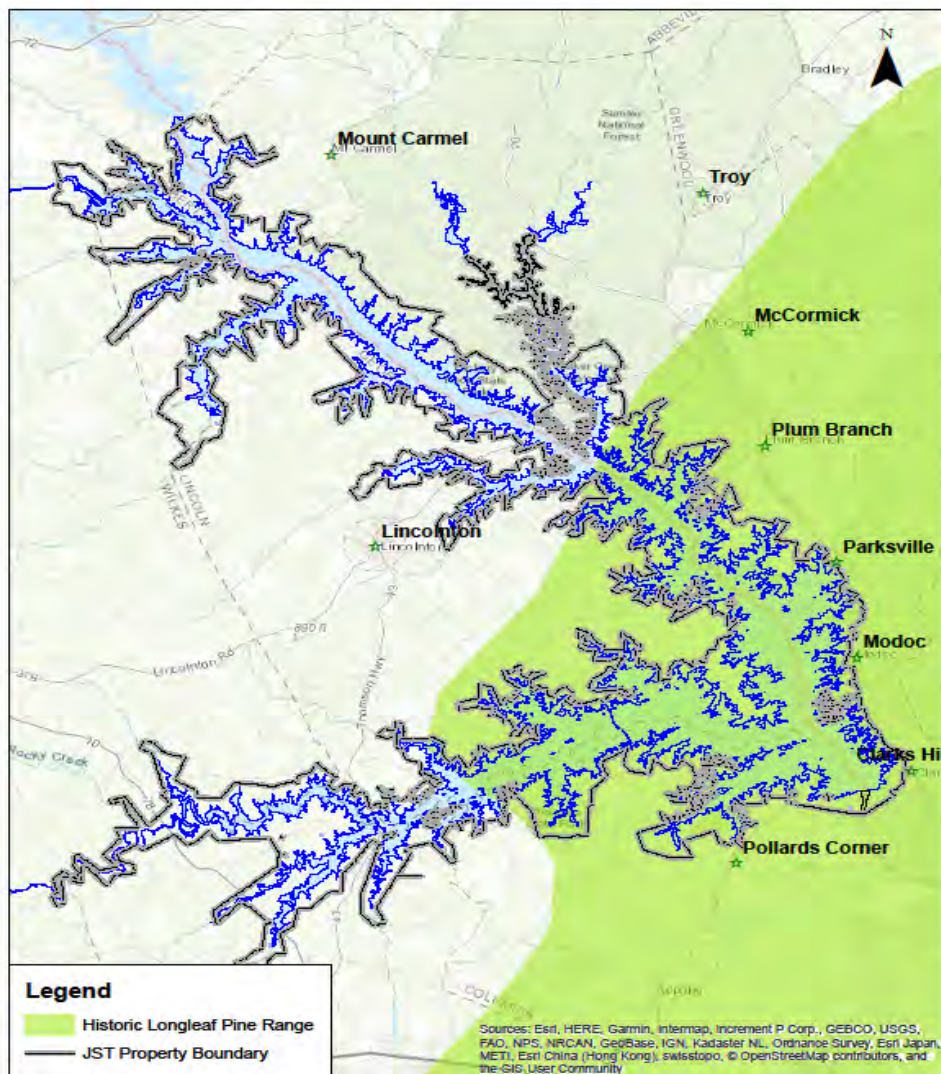


Figure 5: Historic Range of Longleaf Pine

## **6.4 Pollinator Habitat Improvements**

On May 19, 2015, the [National Strategy to Promote the Health of Honey Bees and Other Pollinators](#) was released by the White House. The Strategy includes the [USACE Pollinator Protection Plan](#) which establishes guidance to promote the health of pollinator species on lands and waters administered by the USACE. At Thurmond Project, the use of plants beneficial to pollinators in landscaping and the maintenance of wildlife openings was increased. In 2019, the 40-acre Pollinator and Longleaf Pine Habitat Demonstration Area located between the Project Managers Office and Clarks Hill Park was opened to the public. In April 2021, this area was dedicated in memory of Chris Spiller, Natural Resources Manager at Thurmond Lake. This area provides visitors with the opportunity to learn more about the importance of pollinators and to view firsthand the uniqueness of a longleaf pine habitat.

## **7.0 AGENCY AND PUBLIC COORDINATION**

The USACE began planning to revise the Thurmond Project MP in the fall of 2018. The objectives for a MP revision were:

- Update land classifications to reflect changes in USACE land management policies since 1980 and new agency requirements for MP documents in accordance with ER 1130-2-550, Change 7, January 30, 2013 and EP 1130-2-550, Change 5, January 30, 2013.
- Identify and approve proposed recreation area development in concept.
- Identify and approve proposed natural resource management activities.

The Public Comment period was from December 6, 2021 to January 20, 2022. Comments received and responses are listed in Appendix E.

## **8.0 SUMMARY OF RECOMMENDATIONS**

The recommended course of action necessary to manage Thurmond Project considered a broad spectrum of public use, environmental, socioeconomic, and workload constraints. The final Master Plan for Thurmond Lake will continue to provide for and enhance recreational opportunities for the public, improve environmental quality, and create a management philosophy that recognizes the unique qualities, characteristics, and potentials of the project.

## 9.0 BIBLIOGRAPHY

Ashby, S. L., Kennedy, R. H., Carroll, J. H., and Hains, J. J. (1994). "Water quality studies: Richard B. Russell and J. Strom Thurmond lakes; Summary report," Miscellaneous Paper EL-94-6, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Anderson, David G. and Christopher Amer. (1994). Archaeological Survey along the Upper Savannah River.

Elliott, Daniel T. 1995. Savannah River Archaeological Research Papers 7, Clarks Hill River Basin Survey

USACE. 1995. J. Strom Thurmond Lake Master Plan, Savannah District GA/SC

USACE. 2004 Update. J. Strom Thurmond Lake Operations Management Plan, Savannah District, GA/SC

USACE. 2018. NRM Assessment Recreation Module

USACE. 2018. NRM Environmental Stewardship Module

USACE. 2013. Engineer Regulation 1130-2-500, Change 7, Chapter 3 Project Master Plans and Operational Management Plans

USACE. 2013. Engineer Pamphlet 1130-2-500, Change 5, Chapter 3 Project Master Plans and Operational Management Plans

USACE. 1996. Savannah River Basin Water Control Manual, Savannah District GA/SC

# **Appendix A**

**Common Terrestrial and Aquatic Plants,  
Mammals, Reptiles, Amphibians, Birds, Fish, and Freshwater  
Mussels of**

**J. Strom Thurmond Project**

## Commonly Occurring Plant Species

### Overstory

Common Name	Scientific Name
Southern Sugar Maple	<i>Acer barbatum</i>
Red Maple	<i>Acer rubrum</i>
Silver Maple	<i>Acer saccharum</i>
River Birch	<i>Betula nigra</i>
Bitternut Hickory	<i>Carya cordiformis</i>
Pignut Hickory	<i>Carya glabra</i>
Shagbark Hickory	<i>Carya ovata</i>
Mockernut Hickory	<i>Carya tomentosa</i>
White Ash	<i>Fraxinus americana</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Yellow Poplar	<i>Liriodendron tulipifera</i>
Southern Magnolia	<i>Magnolia grandiflora</i>
Blackgum	<i>Nyssa sylvatica</i>
Shortleaf Pine	<i>Pinus echinata</i>
Slash Pine	<i>Pinus elliottii</i>
Longleaf Pine	<i>Pinus palustris</i>
Loblolly Pine	<i>Pinus taeda</i>
Sycamore	<i>Platanus occidentalis</i>
Eastern Cottonwood	<i>Populus deltoides</i>
White Oak	<i>Quercus alba</i>
Scarlet Oak	<i>Quercus coccinea</i>
Southern Red Oak	<i>Quercus falcata</i>
Turkey Oak	<i>Quercus laevis</i>
Laural Oak	<i>Quercus laurifolia</i>
Blackjack Oak	<i>Quercus marilandica</i>
Water Oak	<i>Quercus nigra</i>
Pin Oak	<i>Quercus palustris</i>
Willow Oak	<i>Quercus phellos</i>
Swamp Chestnut Oak	<i>Quercus prinus</i>
Northern Red Oak	<i>Quercus rubra</i>
Post Oak	<i>Quercus stellata</i>
Black Oak	<i>Quercus velutina</i>
Winged elm	<i>Ulmus alata</i>
American elm	<i>Ulmus americana</i>

## Midstory

Common Name	Scientific Name
Boxelder	<i>Acer negundo</i>
Beauty-berry	<i>Callicarpa americana</i>
American Hornbeam, Musclewood	<i>Carpinus caroliniana</i>
Hackberry	<i>Celtis occidentalis</i>
Redbud	<i>Cercis canadensis</i>
Fringetree	<i>Chionanthus virginicus</i>
Dogwood	<i>Cornus florida</i>
Hawthorn	<i>Craetagus sp.</i>
Persimmon	<i>Diospyros virginiana</i>
Honey locust	<i>Gleditsia triacanthos</i>
American Holly	<i>Ilex opaca</i>
Black Walnut	<i>Juglans nigra</i>
Eastern Red Cedar	<i>Juniperus virginiana</i>
Red Mulberry	<i>Morus rubra</i>
Wax myrtle	<i>Myrica cerifera</i>
Eastern Hop Hornbeam, Ironwood	<i>Ostrya virginiana</i>
Sourwood	<i>Oxydendron arboreum</i>
Black Cherry	<i>Prunus serotina</i>
Wild Plum	<i>Prunus sp.</i>
Winged Sumac	<i>Rhus copallina</i>
Black locust	<i>Robinia pseudoacacia</i>
Palmetto	<i>Sabal minor</i>
Black Willow	<i>Salix nigra</i>
Sassafras	<i>Sassafras albidum</i>
Southern Catapala	<i>Catalpa bignonioides</i>
Sparkleberry	<i>Vaccinium sp.</i>
Blueberry	<i>Vacinium corymbosum</i>

## Ground Covers

Common Name	Scientific Name
Trumpet Creeper	<i>Campsis radicans</i>
Yellow jessamine	<i>Gelsemium sempervirens</i>
Virginia Creeper	<i>Parthenocissus quinquefolia</i>
Ferns	<i>Polystichum sp.</i>
Poison Oak	<i>Rhus quercifolia</i>
Poison Ivy	<i>Rhus radicans</i>
Poison Sumac	<i>Rhus vernix</i>
Black Berry	<i>Rubus sp.</i>
Greenbrier, Smilax	<i>Smilax sp.</i>
Wood grass	<i>Uniola sessiliflora</i>
Periwinkle	<i>Vinca minor</i>
Muscadine	<i>Vitis rotundifolia</i>

## Aquatic Plants

<b>Common Name</b>	<b>Scientific Name</b>
Brazilian elodea, egeria	<i>Egeria densa</i>
Waterhyacinth	<i>Eichhornia crassipes</i>
Hydrilla	<i>Hydrilla verticillata</i>
Water primrose	<i>Ludwigia hexapetala</i>
Parrotfeather	<i>Myriophyllum aquaticum</i>
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
American lotus, lotus lily	<i>Nelumbo lutea</i>
Alligatorweed	<i>Alternanthera philoxeroides</i>
Fanwort	<i>Cabomba caroliniana</i>
Coontail, hornwort	<i>Ceratophyllum demersum</i>
Chara, musk grass	<i>Chara sp.</i>
Elodea	<i>Elodea canadensis</i>
Marsh Hibiscus	<i>Hibiscus moscheutos</i>
Southern watergrass	<i>Hydrochloa caroliniensis</i>
Water pennywort	<i>Hyrocotyle umbellata</i>
Waterwillow	<i>Justicia americana</i>
Southern naiad	<i>Najas guadalupensis</i>
Slender naiad, spiny-leaf naiad	<i>Najas minor</i>
Fragrant waterlily	<i>Nymphaea odorata</i>
Water paspalum	<i>Paspalum fluitans</i>
Pickerelweed	<i>Pontederia cordata</i>
Pondweed	<i>Potamogeton sp.</i>
Arrowheads	<i>Sagittaria sp.</i>
Cattail	<i>Typha sp.</i>
Bladderwort	<i>Utricularia sp.</i>

## Exotics

<b>Common Name</b>	<b>Scientific Name</b>
Japanese honeysuckle	<i>Lonicera japonica</i>
China-berry	<i>Melia azedarach</i>
Kudzu	<i>Pueraria lobata</i>
Wisteria	<i>Wisteria frutescens</i>
Chinese Tallow Tree	<i>Sapium sebiferum</i>
Giant Reed	<i>Arundo donax</i>
Chinese Privet	<i>Ligustrum sinense</i>
Old World Climbing Fern	<i>Lygodium microphyllum</i>
Johnson Grass	<i>Sorghum halepense</i>
Autumn Olive or Eleagnus	<i>Elaeagnus umbellata</i>
Bamboo	<i>Phyllostachys sp</i>
Hydrilla	<i>Hydrilla verticillata</i>
Alligator Weed	<i>Alternanthera philoxeroides</i>
Parrot Feather	<i>Myriophyllum aquaticum</i>

## Commonly Occurring Bird Species

Common Name	Scientific Name	
Wood Duck	<i>Aix sponsa</i>	Summer
Mallard	<i>Anas platyrhynchos</i>	Summer
Canada Goose	<i>Branta canadensis</i>	Summer
Hooded Merganser	<i>Lophodytes cucullatus</i>	Summer
Blue-winged Teal	<i>Anas discors</i>	Winter
Green-winged Teal	<i>Podilymbus podiceps</i>	Winter
Northern Shovelers	<i>Anas clypeata</i>	Winter
Canvasback	<i>Aythya valisineria</i>	Winter
Redhead	<i>Aythya americana</i>	Winter
Ring-necked Duck	<i>Aythya collaris</i>	Winter
Greater Scaup	<i>Aythya marila</i>	Winter
Lesser Scaup	<i>Aythya affinis</i>	Winter
Long-tailed Duck	<i>Clangula hyemalis</i>	Winter
Bufflehead	<i>Bucephala albeola</i>	Winter
Common Golden eye	<i>Bucephala clangula</i>	Winter
Common Merganser	<i>Mergus merganser</i>	Winter
Red Breasted Merganser	<i>Mergus serrator</i>	Winter
Ruddy Duck	<i>Oxyura jamaicensis</i>	Summer
Pacific Loon	<i>Gavia Pacifica</i>	Winter
Common Loon	<i>Gavia immer</i>	Winter
Red Throated Loon	<i>Gavia stellata</i>	Winter
Pied Billed Grebe	<i>Podilymbus podiceps</i>	Summer/Winter
Horned Grebe	<i>Podiceps auritus</i>	Winter
Eared Grebe	<i>Podiceps nigricollis</i>	Winter
American Coot	<i>Fulica americana</i>	Winter
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	Summer/Winter
Anhinga	<i>Anhinga anhinga</i>	Summer
Belted Kingfisher	<i>Megaceryle alcyon</i>	Summer
Great Egret	<i>Ardea alba</i>	Summer
Great Blue Heron	<i>Ardea herodias</i>	Summer
Green Heron	<i>Butorides virescens</i>	Summer
White Ibis	<i>Eudocimus albus</i>	Summer
Least Bittern	<i>Ixobryhus exilis</i>	Summer
Wood Stork	<i>Mycteria americana</i>	Late summer
Brown Pelican	<i>Pelecanus occidentalis</i>	Winter
White Pelican	<i>Pelecanus erythrorhynchos</i>	Winter
Chimney Swift	<i>Chaetura pelagica</i>	Summer
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	Summer
Chuck-will's-widow	<i>Caprimulgus carolinensis</i>	Summer
Whip-poor-will	<i>Caprimulgus vociferus</i>	Summer
Common Nighthawk	<i>Chordeiles minor</i>	Summer

<b>Birds Continued</b>		
Killdeer	<i>Charadrius vociferus</i>	Summer
Cooper's Hawk	<i>Accipiter cooperii</i>	Summer
Sharp-shinned Hawk	<i>Accipiter striatus</i>	Summer
Red-tailed Hawk	<i>Buteo jamaicensis</i>	Summer
Broad-winged Hawk	<i>Buteo playtyperus</i>	Summer
Red-shouldered Hawk	<i>Buteo lineatus</i>	Summer
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Summer/Winter
Osprey	<i>Pandion haliaetus</i>	Summer/Winter
Turkey Vulture	<i>Cathartes aura</i>	Summer/Winter
Black Vulture	<i>Coragyps atratus</i>	Summer/Winter
Peregrine Falcon	<i>Falco peregrinus</i>	Winter
American Kestrel	<i>Falco sparverius</i>	Winter
Mourning Dove	<i>Zenaida macroura</i>	Summer/Winter
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Summer
Northern Bobwhite	<i>Colinus virginianus</i>	Summer/Winter
Wild Turkey	<i>Meleagris gallopavo</i>	Summer/Winter
Cedar Waxwing	<i>Bombycilla cedrorum</i>	Winter
Northern Cardinal	<i>Cardinalis cardinalis</i>	Summer/Winter
American Crow	<i>Corvus brachyrhynchos</i>	Summer/Winter
Fish Crow	<i>Corvus ossifragus</i>	Summer/Winter
Blue Jay	<i>Cyanocitta cristata</i>	Summer/Winter
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	Summer/Winter
American Goldfinch	<i>Carduelis tristis</i>	Summer/Winter
House Finch	<i>Carpodacus mexicanus</i>	Summer/Winter
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	Summer
Orchard Oriole	<i>Icterus spurius</i>	Summer
Brown-headed Cowbird	<i>Molothrus ater</i>	Summer
Common Grackle	<i>Quiscalus quiscula</i>	Summer
Eastern Meadowlark	<i>Sturnella magna</i>	Summer
Loggerhead Shrike	<i>Lanius ludovicianus</i>	Summer
Northern Mockingbird	<i>Mimus polyglottos</i>	Summer/Winter
Brown Thrasher	<i>Toxostoma rufum</i>	Summer/Winter
Tufted Titmouse	<i>Baeolophus bicolor</i>	Summer/Winter
Carolina Chickadee	<i>Poecile carolinensis</i>	Summer/Winter
Pine Warbler	<i>Dendroica pinus</i>	Summer/Winter
Yellow-breasted Chat	<i>Icteria virens</i>	Summer
Prothonotary Warbler	<i>Protonotaria citrea</i>	Summer
American Redstart	<i>Setophaga ruticilla</i>	Summer
Hooded Warbler	<i>Wilsonia citrina</i>	Summer
Ovenbird	<i>Seiurus aurocapilla</i>	Summer
Louisiana Waterthrush	<i>Seiurus motacilla</i>	Summer
Black-and-White Warbler	<i>Mniotilta varia</i>	Summer
Kentucky Warbler	<i>Oporornis formosus</i>	Summer
Common Yellowthroat	<i>Geothlypis trichas</i>	Summer

<b>Birds Continued</b>		
Hooded Warbler	<i>Wilsonia citrina</i>	Summer
Northern Parula	<i>Parula Americana</i>	Summer
Pine Warbler	<i>Dendroica pinus</i>	Summer
Yellow-throated Warbler	<i>Dendroica dominica</i>	Summer
Prairie Warbler	<i>Dendroica discolor</i>	Summer
Yellow-Breasted Chat	<i>Icteria virens</i>	Summer
Bachman's Sparrow	<i>Aimophila aestivalis</i>	Summer/Winter
Chipping Sparrow	<i>Spizella passerine</i>	Summer/Winter
Field Sparrow	<i>Spizella pusilla</i>	Summer/Winter
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	Summer/Winter
Song Sparrow	<i>Melospiza melodia</i>	Summer/Winter
White-throated Sparrow	<i>Zonotrichia albicollis</i>	Winter
Summer Tanager	<i>Piranga rubra</i>	Summer
Northern Cardinal	<i>Cardinalis cardinalis</i>	Summer/Winter
Blue Grosbeak	<i>Passerina caerulea</i>	Summer/Winter
Indigo Bunting	<i>Passerina cyanea</i>	Summer
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	Summer/Winter
Eastern Meadowlark	<i>Sturnella magna</i>	Summer
House Finch	<i>Carpodacus mexicanus</i>	Summer/Winter
American Goldfinch	<i>Carduelis tristis</i>	Summer/Winter
Ruby-crowned Kinglet	<i>Regulus calendula</i>	Winter
Brown-headed Nuthatch	<i>Sitta pusilla</i>	Summer/Winter
European Starling	<i>Sturnus vulgaris</i>	Summer/Winter
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>	Summer
Summer Tanager	<i>Piranga rubra</i>	Summer
Carolina Wren	<i>Thryothorus ludovicianus</i>	Summer/Winter
Wood Thrush	<i>Hylocichla mustelina</i>	Summer
Eastern Bluebird	<i>Sialia sialis</i>	Summer/Winter
American Robin	<i>Turdus migratorius</i>	Summer/Winter
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	Summer
Eastern Phoebe	<i>Sayornis phoebe</i>	Summer
Eastern Kingbird	<i>Tyrannus tyrannus</i>	Summer
Red-eyed Vireo	<i>Vireo olivaceus</i>	Summer
White-eyed Vireo	<i>Vireo grieus</i>	Summer
Pileated Woodpecker	<i>Dryocopus pileatus</i>	Summer/Winter
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	Summer/Winter
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Summer/Winter
Downy Woodpecker	<i>Picoides pubescens</i>	Summer/Winter
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	Winter
Great Horned Owl	<i>Bubo virginianus</i>	Summer/Winter
Eastern Screech-Owl	<i>Megascops asio</i>	Summer/Winter
Barred Owl	<i>Strix varia</i>	Summer/Winter

\*\*compiled from "Georgia Breeding Bird Atlas", Georgia Ornithological Society Records, UGA Museum of Natural History Records, and field observations.

## Commonly Occurring Mammal Species

<b>Common Name</b>	<b>Scientific Name</b>
Hispid Cotton Rat	<i>Sigmodon hispidus</i>
Golden Mouse	<i>Ochrotomys nuttalli</i>
Eastern Harvest Mouse	<i>Reithrodontomys humulis</i>
White-footed Mouse	<i>Peromyscus leucopus</i>
Cotton Mouse	<i>Peromyscus gossypinus</i>
Common Muskrat	<i>Ondatra zibethicus</i>
Oldfield Mouse	<i>Peromyscus polionotus</i>
Southern Flying Squirrel	<i>Glaucomys volans</i>
Eastern Gray Squirrel	<i>Sciurus carolinensis</i>
Eastern Fox Squirrel	<i>Sciurus niger</i>
Eastern Chipmunk	<i>Tamias striatus</i>
Southern Short-tailed Shrew	<i>Blarina carolinensis</i>
Least Shrew	<i>Cryptotis parva</i>
Eastern Mole	<i>Scalopus aquaticus</i>
Eastern Cottontail	<i>Sylvilagus aquaticus</i>
Swamp Rabbit	<i>Sylvilagus floridanus</i>
Eastern Pipistrille	<i>Pipistrellus subflavus</i>
Rafineques Big Eared bat	<i>Corynorhinus rafinesquii</i>
Southeastern Myotis	<i>Myotis austroriparius</i>
Big Brown Bat	<i>Eptesicus fuscus</i>
Little Brown Bat	<i>Myotis lucifugus</i>
Silver-haired Bat	<i>Lasionycteris noctivagans</i>
Eastern Red Bat	<i>Lasiurus borealis</i>
Hoary Bat	<i>Lasiurus cinereus</i>
Seminole Bat	<i>Lasiurus seminolus</i>
Evening Bat	<i>Pipistrellus subflavus</i>
Coyote	<i>Canis latrans</i>
Gray Fox	<i>Urocyon cinereoargenteus</i>
Red Fox	<i>Vulpes vulpes</i>
Bobcat	<i>Lynx rufus</i>
Striped Skunk	<i>Mephitis mephitis</i>
Spotted Skunk	<i>Spilogale putorius</i>
Long-tailed Weasel	<i>Mustela frenata</i>
Mink	<i>Mustela vison</i>
Northern Raccoon	<i>Procyon lotor</i>
Northern River Otter	<i>Lontra canadensis</i>
Virginia Opossum	<i>Didelphis virginiana</i>
American Beaver	<i>Castor canadensis</i>
Nine-banded Armadillo	<i>Dasypus novemcinctus</i>
White-tailed Deer	<i>Odocoileus virginianus</i>

## Commonly Occurring Reptile Species

<b>Common Name</b>	<b>Scientific Name</b>
<b>Snakes</b>	
Eastern Black Racer	<i>Coluber constrictor</i>
Corn Snake	<i>Elaphe guttata</i>
Rat Snake	<i>Elaphe obsoleta</i>
Eastern Hognose Snake	<i>Heterodon platirhinos</i>
Southern Hognose	<i>Heterodon simus</i>
Mole Snake	<i>Lampropeltis calligaster</i>
Eastern King Snake	<i>Lampropeltis getula</i>
Scarlet King	<i>Lampropeltis triangulum elapsoides</i>
Coachwhip	<i>Masticophis flagellum</i>
Plain-bellied Watersnake	<i>Nerodia erythrogaster</i>
Northern Watersnake	<i>Nerodia sipedon</i>
Brown Watersnake	<i>Nerodia taxispilota</i>
Rough Green Snake	<i>Opeodrys aestivus</i>
Queen Snake	<i>Regina septemvittata</i>
Brown Snake	<i>Storeria dekayi</i>
Red-bellied Snake	<i>Storeria occipitomaculata</i>
Southeastern Crowned Snake	<i>Tantila coronata</i>
Eastern Ribbon Snake	<i>Thamnophis suaritus</i>
Common Garter Snake	<i>Thamnophis sirtalis</i>
Rough Earth Snake	<i>Virginia striatula</i>
Smooth Earth Snake	<i>Virginia valeriae</i>
Copperhead	<i>Agkistrodon contortrix</i>
Cottonmouth	<i>Agkistrodon piscivorus</i>
Timber Rattlesnake	<i>Crotalus horridus</i>
Pygmy Rattlesnake	<i>Sistrurus miliarius</i>
<b>Lizards</b>	
<b>Common Name</b>	<b>Scientific Name</b>
Eastern Fence Lizard	<i>Sceloporus undulatus</i>
Green Anole	<i>Anolis carolinensis</i>
Five-lined Skink	<i>Eumeces fasciatus</i>
Southeastern Five-lined Skink	<i>Eumeces inexpectatus</i>
Six-lined Racerunner	<i>Cnemidophorus sexlineatus</i>
Slender Glass Lizard	<i>Ophisaurus attenuatus</i>
Eastern Glass Lizard	<i>Ophisaurus ventralis</i>
Broadhead Skink	<i>Eumeces laticeps</i>
Ground Skink	<i>Scincella lateralis</i>

<b>Crocodylian</b>	
<b>Common Name</b>	<b>Scientific Name</b>
American Alligator	<i>Alligator mississippiensis</i>
<b>Turtles</b>	
<b>Common Name</b>	<b>Scientific Name</b>
Common Snapping Turtle	<i>Chelydra serpentina</i>
Eastern Box Turtle	<i>Terrapene carolina</i>
Pond Slider	<i>Trachemys scripta</i>
Painted Turtle	<i>Chrysemys picta</i>
River Cooter	<i>Pseudemys coninna</i>
Eastern Musk Turtle	<i>Kinosternon subrubrum</i>
Common Musk Turtle	<i>Sternotherus odoratus</i>
Spiny Softshell	<i>Apalone spinifera</i>

### **Commonly Occurring Amphibian Species**

<b>Common Name</b>	<b>Scientific Name</b>
<b>Frogs and Toads</b>	
American Toad	<i>Bufo americanus</i>
Fowler's Toad American Toad	<i>Bufo fowleri</i> <i>Bufo americanus</i>
Northern Cricket Frog Fowler's Toad	<i>Acris crepitans</i> <i>Bufo fowleri</i>
Bird-voiced Treefrog Northern Cricket Frog	<i>Hyla avivoca</i> <i>Acris crepitans</i>
Cope's Gray Treefrog Bird-voiced Treefrog	<i>Hyla chrysoscelis</i> <i>Hyla avivoca</i>
Green Treefrog Cope's Gray Treefrog	<i>Hyla cinerea</i> <i>Hyla chrysoscelis</i>
Barking Treefrog Green Treefrog	<i>Hyla gratiosa</i> <i>Hyla cinerea</i>
Squirrel Treefrog Barking Treefrog	<i>Hyla squirella</i> <i>Hyla gratiosa</i>
Spring Peeper Squirrel Treefrog	<i>Pseudacris crucifer</i> <i>Hyla squirella</i>
Upland Chorus Frog Spring Peeper	<i>Pseudacris feriarum</i> <i>Pseudacris crucifer</i>
Southern Chorus Frog Upland Chorus Frog	<i>Pseudacris nigrita</i> <i>Pseudacris feriarum</i>
Eastern Narrowmouth Toad Southern Chorus Frog	<i>Gastrophryne carolinensis</i> <i>Pseudacris nigrita</i>
Eastern Spadefoot Toad Eastern Narrowmouth Toad	<i>Scaphiopus holbrookii</i> <i>Gastrophryne carolinensis</i>
Bullfrog Eastern Spadefoot Toad	<i>Rana catesbeiana</i> <i>Scaphiopus holbrookii</i>
Green Frog / Bronze Frog Bullfrog	<i>Rana clamitans</i> <i>Rana catesbeiana</i>
Pickerel Frog Green Frog / Bronze Frog	<i>Rana palustris</i> <i>Rana clamitans</i>
Southern Leopard Frog Pickerel Frog	<i>Rana sphenoccephala</i> <i>Rana palustris</i>
Southern Leopard Frog	<i>Rana sphenoccephala</i>
<b>Salamanders</b>	
Spotted Salamander	<i>Ambystoma maculatum</i>
Marbled Salamander Spotted Salamander	<i>Ambystoma opacum</i> <i>Ambystoma maculatum</i>

Mole Salamander Marbled Salamander	<i>Ambystoma talpoideum</i> <i>Ambystoma opacum</i>
Two-toed Amphiuma Mole Salamander	<i>Amphiuma means</i> <i>Ambystoma talpoideum</i>
Spotted Dusky Salamander Two-toed Amphiuma	<i>Desmognathus conanti</i> <i>Amphiuma means</i>
Two-lined Salamander Spotted Dusky Salamander	<i>Eueycea bislineata</i> <i>complex</i> <i>Desmognathus conanti</i>
Three-lined Salamander Two-lined Salamander	<i>Eueycea guttolineatta</i> <i>Eueycea bislineata</i> <i>complex</i>
Atlantic Coast Slimy Salamander Three-lined Salamander	<i>Plethodon chlorobryonis</i> <i>Eueycea guttolineatta</i>
Savannah Slimy Salamander Atlantic Coast Slimy Salamander	<i>Plethodon savannah</i> <i>Plethodon chlorobryonis</i>
Mud Salamander Savannah Slimy Salamander	<i>Pseudotriton montanus</i> <i>Plethodon savannah</i>
Red Salamander Mud Salamander	<i>Pseudotriton ruber</i> <i>Pseudotriton montanus</i>
Red Salamander	<i>Pseudotriton ruber</i>

\*\*Compiled utilizing "Amphibians and Reptiles of Georgia" and the UGA Museum of Natural History Records website

### Commonly Occurring Fish Species

Common Name	Scientific Name
<b>Game Fish</b>	
<b>Bass</b>	<b><i>Serranidae</i></b>
Striped bass*	<i>Morone saxatilis</i>
White bass	<i>Morone chrysops</i>
Hybrid bass*	<i>Morone saxatilis</i> x <i>Morone chrysops</i>
White perch	<i>Morone americana</i>
<b>Sunfish</b>	<b><i>Centrarchidae</i></b>
Largemouth bass	<i>Micropterus salmoides</i>
Spotted bass	<i>Micropterus punctulatus</i>
Black crappie	<i>Pomoxis nigromaculatus</i>
White crappie	<i>Pomoxis annularis</i>
Bluegill	<i>Lepomis macrochirus</i>
Redbreast	<i>Lepomis auritus</i>
Green sunfish	<i>Lepomis cyanellus</i>
Pumpkinseed	<i>Lepomis gibbosus</i>
Flier	<i>Centrarchus macropterus</i>
Warmouth	<i>Lepomis gulosus</i>
Redear	<i>Lepomis microlophus</i>
<b>Perch</b>	<b><i>Percidae</i></b>
Yellow perch	<i>Perca flavescens</i>

<b>Non-Game Fish</b>	
<b>Catfish</b>	<b><i>Lepisosteidae</i></b>
Channel catfish	<i>Ictalurus punctatus</i>
White catfish	<i>Ictalurus catus</i>
Flat bullhead	<i>Ictalurus platycephalus</i>
Brown bullhead	<i>Ictalurus nebulosus</i>
Flathead catfish	<i>Pylodictis olivaris</i>
<b>Other</b>	
Longnose gar	<i>Lepososteus osseus</i>
Chain pickerel (jack)	<i>Esox niger</i>
Redhorse sucker	<i>Maxostoma spp.</i>
Northern hogsucker	<i>Hypentelium nigricans</i>
Spotted sucker	<i>Minytrema melanops</i>
<b>Forage Species</b>	
<b>Shad and herring</b>	<b><i>Clupeidae</i></b>
Gizzard shad	<i>Dorosoma cepedianum</i>
Threadfin shad	<i>Dorosoma petenense</i>
Blueback herring	<i>Alosa aestivalis</i>
<b>Minnows</b>	<b><i>Cyprinidae</i></b>
Spottail shiner	<i>Notropis hudsonius</i>
Golden shiner	<i>Notemigonus chrysoleucas</i>
Common Carp*	<i>Cyprinus carpio</i>
Grass Carp	<i>Ctenopharyngodon idella</i>
<b>Livebearers</b>	<b><i>Poeciliidae</i></b>
Mosquito fish	<i>Gambusia affinis</i>

\*Stocked species

### Freshwater Mussels

<b>Common Name</b>	<b>Scientific Name</b>
Asian Clam	<i>Corbicula fluminea</i>
Altamaha Arc Mussel	<i>Alasmidonta arcula</i>
Yellow Lampmussel	<i>Lampsilis cariosa</i>
Rayed Pink Fatmucket	<i>Lampsilis splendida</i>
Eastern Floater	<i>Pyganodon cataracta</i>
Creeper	<i>Strophitus undulatus</i>
Paper Pondshell	<i>Utterbackia imbecillas</i>

**APPENDIX B**

**APPLICABLE PUBLIC LAWS (P.L.)**

<b>STATUTE</b>	<b>DESCRIPTION</b>
P.L. 59-209, THE ANTIQUITIES ACT OF 1906	THE FIRST FEDERAL LAW ESTABLISHED TO PROTECT WHAT ARE NOW KNOWN AS "CULTURAL RESOURCES" ON PUBLIC LANDS. IT PROVIDES A PERMIT PROCEDURE FOR INVESTIGATING "ANTIQUITIES" AND CONSISTS OF TWO PARTS: AN ACT FOR THE PRESERVATION OF AMERICAN ANTIQUITIES, AND UNIFORM RULES AND REGULATIONS.
P.L. 74-292, THE HISTORIC SITES ACT OF 1935	DECLARES IT TO BE A NATIONAL POLICY TO PRESERVE FOR (IN CONTRAST TO PROTECTING FROM) THE PUBLIC, HISTORIC (INCLUDING PREHISTORIC) SITES, BUILDINGS, AND OBJECTS OF NATIONAL SIGNIFICANCE. THIS ACT PROVIDES BOTH AUTHORIZATION AND A DIRECTIVE FOR THE SECRETARY OF THE INTERIOR, THROUGH THE NATIONAL PARK SERVICE, TO ASSUME A POSITION OF NATIONAL LEADERSHIP IN THE AREA OF PROTECTING, RECOVERING, AND INTERPRETING NATIONAL ARCHEOLOGICAL HISTORIC RESOURCES. IT ALSO ESTABLISHES AN "ADVISORY BOARD ON NATIONAL PARKS; HISTORIC SITES, BUILDINGS, AND MONUMENTS, A COMMITTEE OF ELEVEN EXPERTS APPOINTED BY THE SECRETARY TO RECOMMEND POLICIES TO THE DEPARTMENT OF THE INTERIOR".
P.L. 75-761, THE FLOOD CONTROL ACT OF 1938	THIS ACT AUTHORIZES THE CONSTRUCTION, REPAIR, AND PRESERVATION OF CERTAIN PUBLIC WORKS ON RIVERS AND HARBORS FOR NAVIGATION, FLOOD CONTROL, AND FOR OTHER PURPOSES.
16 U.S. CODE §§ 668-668A-D, THE BALD EAGLE PROTECTION ACT OF 1940, AS AMENDED	THIS ACT PROHIBITS ANYONE, WITHOUT A PERMIT ISSUED BY THE SECRETARY OF THE INTERIOR, FROM TAKING BALD EAGLES, INCLUDING THEIR PARTS, NESTS, OR EGGS. THE ACT PROVIDES CRIMINAL PENALTIES FOR PERSONS WHO TAKE, POSSESS, SELL, PURCHASE, BARTER, OFFER TO SELL, TRANSPORT, EXPORT OR IMPORT, AT ANY TIME OR ANY MANNER, ANY BALD EAGLE [OR ANY GOLDEN EAGLE], ALIVE OR DEAD, OR ANY PART, NEST, OR EGG THEREOF. THE ACT DEFINES "TAKE" AS PURSUE, SHOOT, SHOOT AT, POISON, WOUND, KILL, CAPTURE, TRAP, COLLECT, MOLEST, OR DISTURB
P.L. 78-534, FLOOD CONTROL ACT OF 1944	SECTION 4 OF THE ACT AS LAST AMENDED IN 1962 BY SECTION 207 OF P.L. 87-874 AUTHORIZES USACE TO CONSTRUCT, MAINTAIN, AND OPERATE PUBLIC PARKS AND RECREATIONAL FACILITIES IN RESERVOIR AREAS AND TO GRANT LEASES AND LICENSES FOR LANDS, INCLUDING FACILITIES, PREFERABLY TO FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES
P.L. 79-525, RIVER AND HARBOR ACT OF 1946	THIS ACT AUTHORIZES THE CONSTRUCTION, REPAIR, AND PRESERVATION OF CERTAIN PUBLIC WORKS ON RIVERS AND HARBORS FOR NAVIGATION, FLOOD CONTROL, AND FOR OTHER PURPOSES
P.L. 83-780, FLOOD CONTROL ACT OF 1954	THIS ACT AUTHORIZES THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF A PUBLIC PARK AND RECREATIONAL FACILITIES IN RESERVOIR AREAS UNDER THE CONTROL OF THE DEPARTMENT OF THE ARMY AND AUTHORIZES THE SECRETARY OF THE ARMY TO GRANT LEASES OF LANDS IN RESERVOIR AREAS DEEMED TO BE IN THE PUBLIC INTEREST

<p>P.L. 85-624, FISH AND WILDLIFE COORDINATION ACT 1958</p>	<p>THIS ACT AS AMENDED IN 1965 SETS DOWN THE GENERAL POLICY THAT FISH AND WILDLIFE CONSERVATION SHALL RECEIVE EQUAL CONSIDERATION WITH OTHER PROJECT PURPOSES AND BE COORDINATED WITH OTHER FEATURES OF WATER RESOURCE DEVELOPMENT PROGRAMS. OPPORTUNITIES FOR IMPROVING FISH AND WILDLIFE RESOURCES AND ADVERSE EFFECTS ON THESE RESOURCES SHALL BE EXAMINED ALONG WITH OTHER PURPOSES WHICH MIGHT BE SERVED BY WATER RESOURCES DEVELOPMENT</p>
<p>P.L. 86-523, RESERVOIR SALVAGE ACT OF 1960, AS AMENDED</p>	<p>THIS ACT PROVIDES FOR: (1) THE PRESERVATION OF HISTORICAL AND ARCHEOLOGICAL DATA THAT MIGHT OTHERWISE BE LOST OR DESTROYED AS THE RESULT OF FLOODING OR ANY ALTERATION OF THE TERRAIN CAUSED AS A RESULT OF ANY FEDERAL RESERVOIR CONSTRUCTION PROJECTS; (2) COORDINATION WITH THE SECRETARY OF THE INTERIOR WHENEVER ACTIVITIES MAY CAUSE LOSS OF SCIENTIFIC, PREHISTORIC, OR ARCHEOLOGICAL DATA; AND (3) EXPENDITURE OF FUNDS FOR RECOVERY, PROTECTION, AND DATA PRESERVATION. THIS ACT WAS AMENDED BY P.L. 93-291</p>
<p>P.L. 86-717, FOREST COVER ACT</p>	<p>THE FOREST COVER ACT PROVIDES A STATUTORY MANDATE FOR MULTIPLE USE FOREST MANAGEMENT AND TO PROVIDE FOR THE CONTINUED PRODUCTION AND HARVEST OF FOREST PRODUCTS THROUGH SUSTAINED YIELD PROGRAMS, REFORESTATION, AND ACCEPTED CONSERVATION PRACTICES. THE ACT PROVIDES FOR THE PROTECTION, CONSERVATION, MAINTENANCE, AND DEVELOPMENT OF OTHER VEGETATIVE COVER TYPES SUCH AS WETLANDS AND GRASSLANDS. THE FOREST COVER ACT ALSO PROVIDES AUTHORITY FOR THE USACE TO MANAGE PROJECT LANDS AND WATERS FOR ANY OR ALL CONSERVATION PURPOSES, INCLUDING FISH AND WILDLIFE CONSERVATION</p>
<p>P.L. 87-874, RIVERS AND HARBORS ACT OF 1962</p>	<p>THIS ACT AUTHORIZES THE CONSTRUCTION, REPAIR, AND PRESERVATION OF CERTAIN PUBLIC WORKS ON RIVERS AND HARBORS FOR NAVIGATION, FLOOD CONTROL, AND FOR OTHER PURPOSES</p>
<p>P.L. 88-578, LAND AND WATER CONSERVATION FUND ACT OF 1965</p>	<p>THIS ACT ESTABLISHED A FUND FROM WHICH CONGRESS CAN MAKE APPROPRIATIONS FOR OUTDOOR RECREATION. SECTION 2(2) MAKES ENTRANCE AND USER FEES AT RESERVOIRS POSSIBLE BY DELETING THE WORDS "WITHOUT CHARGE" FROM SECTION 4 OF THE 1944 FLOOD CONTROL ACT AS AMENDED</p>
<p>P.L. 89-90, WATER RESOURCES PLANNING ACT OF 1965</p>	<p>THIS ACT ESTABLISHED THE WATER RESOURCES COUNCIL AND GIVES IT THE RESPONSIBILITY TO ENCOURAGE THE DEVELOPMENT, CONSERVATION, AND USE OF THE NATION'S WATER AND RELATED LAND RESOURCES ON A COORDINATED AND COMPREHENSIVE BASIS</p>

<p>P.L. 89-665, NATIONAL HISTORIC PRESERVATION ACT OF 1966</p>	<p>THIS ACT PROVIDES FOR: (1) AN EXPANDED NATIONAL REGISTER OF SIGNIFICANT SITES AND OBJECTS AND THE (2) ESTABLISHMENT OF AN ADVISORY COUNCIL ON HISTORIC PRESERVATION. IT DOES NOT PREVENT AN ACTION BUT MANDATES PROCEDURAL STEPS IN CONSIDERATION OF EFFECTS TO HISTORIC PROPERTIES, INCLUDING SURVEY, EVALUATION/TESTING, AND MITIGATION. SECTION 106 REQUIRES FEDERAL AGENCIES TO CONSIDER THE EFFECTS ON HISTORIC PROPERTIES OF THEIR UNDERTAKINGS AND REQUIRES THAT THE PRESIDENT'S ADVISORY COUNCIL ON HISTORIC PRESERVATION HAVE AN OPPORTUNITY TO COMMENT ON ANY UNDERTAKING WHICH ADVERSELY AFFECTS PROPERTIES LISTED, NOMINATED, OR CONSIDERED IMPORTANT ENOUGH TO BE INCLUDED ON THE NATIONAL REGISTER OF HISTORIC PLACES</p>
<p>P.L. 90-483, RIVER AND HARBOR AND FLOOD CONTROL ACT OF 1968, MITIGATION OF SHORE DAMAGES</p>	<p>SECTION 210 RESTRICTED COLLECTION OF ENTRANCE FEE AT USACE LAKES AND RESERVOIRS TO USERS OF HIGHLY DEVELOPED FACILITIES REQUIRING CONTINUOUS PRESENCE OF PERSONNEL</p>
<p>P.L. 91-190, NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (NEPA)</p>	<p>NEPA DECLARED A "CONTINUING POLICY OF THE FEDERAL GOVERNMENT TO USE ALL PRACTICABLE MEANS AND MEASURES TO FOSTER AND PROMOTE THE GENERAL WELFARE, TO CREATE CONDITIONS UNDER WHICH MAN AND NATURE CAN EXIST IN PRODUCTIVE HARMONY, AND FULFILL THE SOCIAL, ECONOMIC, AND OTHER REQUIREMENTS OF PRESENT AND FUTURE GENERATIONS OF AMERICANS." SECTION 102 AUTHORIZED AND DIRECTED THAT, TO THE FULLEST EXTENT POSSIBLE, THE POLICIES, REGULATIONS AND PUBLIC LAW OF THE UNITED STATES SHALL BE INTERPRETED AND ADMINISTERED IN ACCORDANCE WITH THE POLICIES OF THE ACT</p>
<p>P.L. 91-611, RIVER AND HARBOR AND FLOOD CONTROL ACT OF 1970</p>	<p>SECTION 234 PROVIDES THAT PERSONS DESIGNATED BY THE CHIEF OF ENGINEERS SHALL HAVE AUTHORITY TO ISSUE A CITATION FOR VIOLATIONS OF REGULATIONS AND RULES OF THE SECRETARY OF THE ARMY, PUBLISHED IN THE CODE OF FEDERAL REGULATIONS</p>
<p>P.L. 92-500, FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972.</p>	<p>THE FEDERAL WATER POLLUTION CONTROL ACT OF 1948 (P.L. 845, 80TH CONGRESS), AS AMENDED IN 1956, 1961, 1965 AND 1970 (P.L. 91- 224), ESTABLISHED THE BASIC TENET OF UNIFORM STATE STANDARDS FOR WATER QUALITY. P.L. 92-500 STRONGLY AFFIRMS THE FEDERAL INTEREST IN THIS AREA. "THE OBJECTIVE OF THIS ACT IS TO RESTORE AND MAINTAIN THE CHEMICAL, PHYSICAL AND BIOLOGICAL INTEGRITY OF THE NATION'S WATERS."</p>
<p>P.L. 92-347, GOLDEN EAGLE PASSBOOK AND SPECIAL RECREATION USER FEES</p>	<p>THIS ACT REVISES P.L. 88-578, THE PUBLIC LAND AND WATER CONSERVATION ACT OF 1965, TO REQUIRE FEDERAL AGENCIES TO COLLECT SPECIAL RECREATION USER FEES FOR THE USE OF SPECIALIZED SITES DEVELOPED AT FEDERAL EXPENSE AND TO PROHIBIT THE USACE OF ENGINEERS FROM COLLECTING ENTRANCE FEES TO PROJECTS</p>
<p>P.L. 93-81, COLLECTION OF FEES FOR USE OF CERTAIN OUTDOOR RECREATION FACILITIES</p>	<p>THIS ACT AMENDS SECTION 4 OF THE LAND AND WATER CONSERVATION ACT OF 1965, AS AMENDED TO REQUIRE EACH FEDERAL AGENCY TO COLLECT SPECIAL RECREATION USE FEES FOR THE USE OF SITES, FACILITIES, EQUIPMENT, OR SERVICES FURNISHED AT FEDERAL EXPENSE</p>

<p>P.L. 93-205, CONSERVATION, PROTECTION, AND PROPAGATION OF ENDANGERED SPECIES ACT OF 1973, AS AMENDED</p>	<p>THIS LAW REPEALS THE ENDANGERED SPECIES CONSERVATION ACT OF 1969. IT ALSO DIRECTS ALL FEDERAL DEPARTMENTS/AGENCIES TO CARRY OUT PROGRAMS TO CONSERVE ENDANGERED AND THREATENED SPECIES OF FISH, WILDLIFE, AND PLANTS AND TO PRESERVE THE HABITAT OF THESE SPECIES IN CONSULTATION WITH THE SECRETARY OF THE INTERIOR. THIS ACT ESTABLISHES A PROCEDURE FOR COORDINATION, ASSESSMENT, AND CONSULTATION. THIS ACT WAS AMENDED BY P.L. 96-159</p>
<p>P.L. 93-291, ARCHEOLOGICAL CONSERVATION ACT OF 1974</p>	<p>THE SECRETARY OF THE INTERIOR SHALL COORDINATE ALL FEDERAL SURVEY AND RECOVERY ACTIVITIES AUTHORIZED UNDER THIS EXPANSION OF THE 1960 ACT. THE FEDERAL CONSTRUCTION AGENCY MAY TRANSFER UP TO ONE PERCENT OF PROJECT FUNDS TO THE SECRETARY WITH SUCH TRANSFERRED FUNDS CONSIDERED NON-REIMBURSABLE PROJECT COSTS</p>
<p>P.L. 93-303, RECREATION USE FEES</p>	<p>THIS ACT AMENDS SECTION 4 OF THE LAND AND WATER CONSERVATION ACT OF 1965, AS AMENDED, TO ESTABLISH LESS RESTRICTED CRITERIA UNDER WHICH FEDERAL AGENCIES MAY CHARGE FEES FOR THE USE OF CAMPGROUNDS DEVELOPED AND OPERATED AT FEDERAL AREAS UNDER THEIR CONTROL.</p>
<p>P.L. 94-422, AMENDMENT OF THE LAND AND WATER CONSERVATION FUND ACT OF 1965</p>	<p>EXPANDS THE ROLE OF THE ADVISORY COUNCIL. TITLE 2 - SECTION 102A AMENDS SECTION 106 OF THE HISTORICAL PRESERVATION ACT OF 1966 TO SAY THAT THE COUNCIL CAN COMMENT ON ACTIVITIES WHICH WILL HAVE AN ADVERSE EFFECT ON SITES EITHER INCLUDED IN OR ELIGIBLE FOR INCLUSION IN THE NATIONAL REGISTER OF HISTORIC PLACES</p>
<p>P.L. 95-217, CLEAN WATER ACT OF 1977, AS AMENDED</p>	<p>THIS ACT AMENDS THE FEDERAL WATER POLLUTION CONTROL ACT OF 1970 AND EXTENDS THE APPROPRIATIONS AUTHORIZATION. THE CLEAN WATER ACT IS A COMPREHENSIVE FEDERAL WATER POLLUTION CONTROL PROGRAM THAT HAS AS ITS PRIMARY GOAL THE REDUCTION AND CONTROL OF THE DISCHARGE OF POLLUTANTS INTO THE NATION'S NAVIGABLE WATERS. THE CLEAN WATER ACT OF 1977 HAS BEEN AMENDED BY THE WATER QUALITY ACT OF 1987, P.L. 100-4.</p>
<p>P.L. 95-341, AMERICAN INDIAN RELIGIOUS FREEDOM ACT OF 1978</p>	<p>THE ACT PROTECTS THE RIGHTS OF NATIVE AMERICANS TO EXERCISE THEIR TRADITIONAL RELIGIONS BY ENSURING ACCESS TO SITES, USE AND POSSESSION OF SACRED OBJECTS, AND THE FREEDOM TO WORSHIP THROUGH CEREMONIALS AND TRADITIONAL RITES</p>
<p>P.L. 95-632, ENDANGERED SPECIES ACT AMENDMENTS OF 1978</p>	<p>THIS LAW AMENDS THE ENDANGERED SPECIES ACT AMENDMENTS OF 1973. SECTION 7 DIRECTS AGENCIES TO CONDUCT A BIOLOGICAL ASSESSMENT TO IDENTIFY THREATENED OR ENDANGERED SPECIES THAT MAY BE PRESENT IN THE AREA OF ANY PROPOSED PROJECT. THIS ASSESSMENT IS CONDUCTED AS PART OF A FEDERAL AGENCY'S COMPLIANCE WITH THE REQUIREMENTS OF SECTION 102 OF NEPA</p>

<p>P.L. 96-95,  ARCHEOLOGICAL  RESOURCES  PROTECTION ACT OF  1979</p>	<p>THIS ACT PROTECTS ARCHEOLOGICAL RESOURCES AND SITES THAT ARE ON PUBLIC AND TRIBAL LANDS AND FOSTERS INCREASED COOPERATION AND EXCHANGE OF INFORMATION BETWEEN GOVERNMENTAL AUTHORITIES, THE PROFESSIONAL ARCHEOLOGICAL COMMUNITY, AND PRIVATE INDIVIDUALS. IT ALSO ESTABLISHES REQUIREMENTS FOR ISSUANCE OF PERMITS BY THE FEDERAL LAND MANAGERS TO EXCAVATE OR REMOVE ANY ARCHEOLOGICAL RESOURCE LOCATED ON PUBLIC OR NATIVE AMERICAN LANDS</p>
<p>P.L. 98-63,  SUPPLEMENTAL  APPROPRIATIONS ACT  OF 1983</p>	<p>THIS ACT AUTHORIZED THE USACE VOLUNTEER PROGRAM. THE UNITED STATES ARMY CHIEF OF ENGINEERS MAY ACCEPT THE SERVICES OF VOLUNTEERS AND PROVIDE FOR THEIR INCIDENTAL EXPENSES TO CARRY OUT ANY ACTIVITY OF USACE, EXCEPT POLICYMAKING OR LAW OR REGULATORY ENFORCEMENT</p>
<p>P.L. 99-662, THE  WATER RESOURCES  DEVELOPMENT ACT  1986</p>	<p>PROVIDES FOR THE CONSERVATION AND DEVELOPMENT OF WATER AND RELATED RESOURCES AND THE IMPROVEMENT AND REHABILITATION OF THE NATION'S WATER RESOURCES INFRASTRUCTURE</p>

# Appendix C

## Land Classification Maps

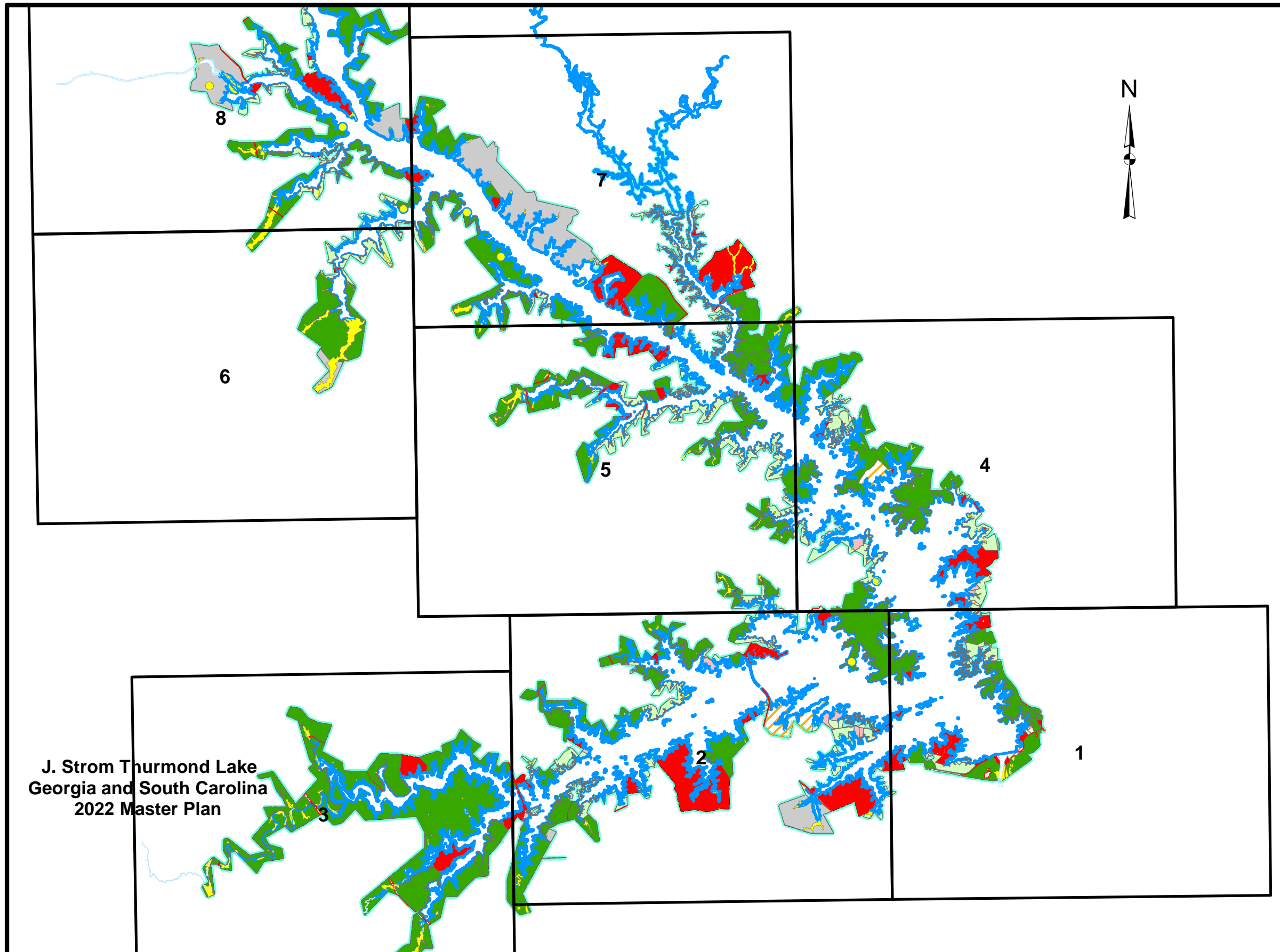
# JST Land Classification Key Map



**US Army Corps of Engineers®**  
Savannah District



**Location Map**

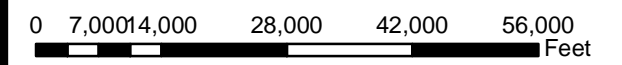


**J. Strom Thurmond Lake  
Georgia and South Carolina  
2022 Master Plan**

**Legend**

**Land Classification**

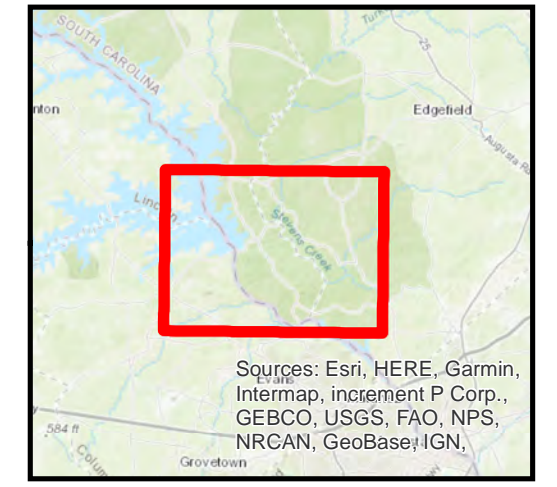
- Environmentally Sensitive Areas
- High Density Recreation
- Lake
- Low Density Recreation
- Mitigation
- Project Operations
- Recreation - Quasi\_Private
- River
- Special Use
- Wildlife Mgt
- Property Line
- Zoning Index



# JST Land Classification Maps- Plate 1 of 8

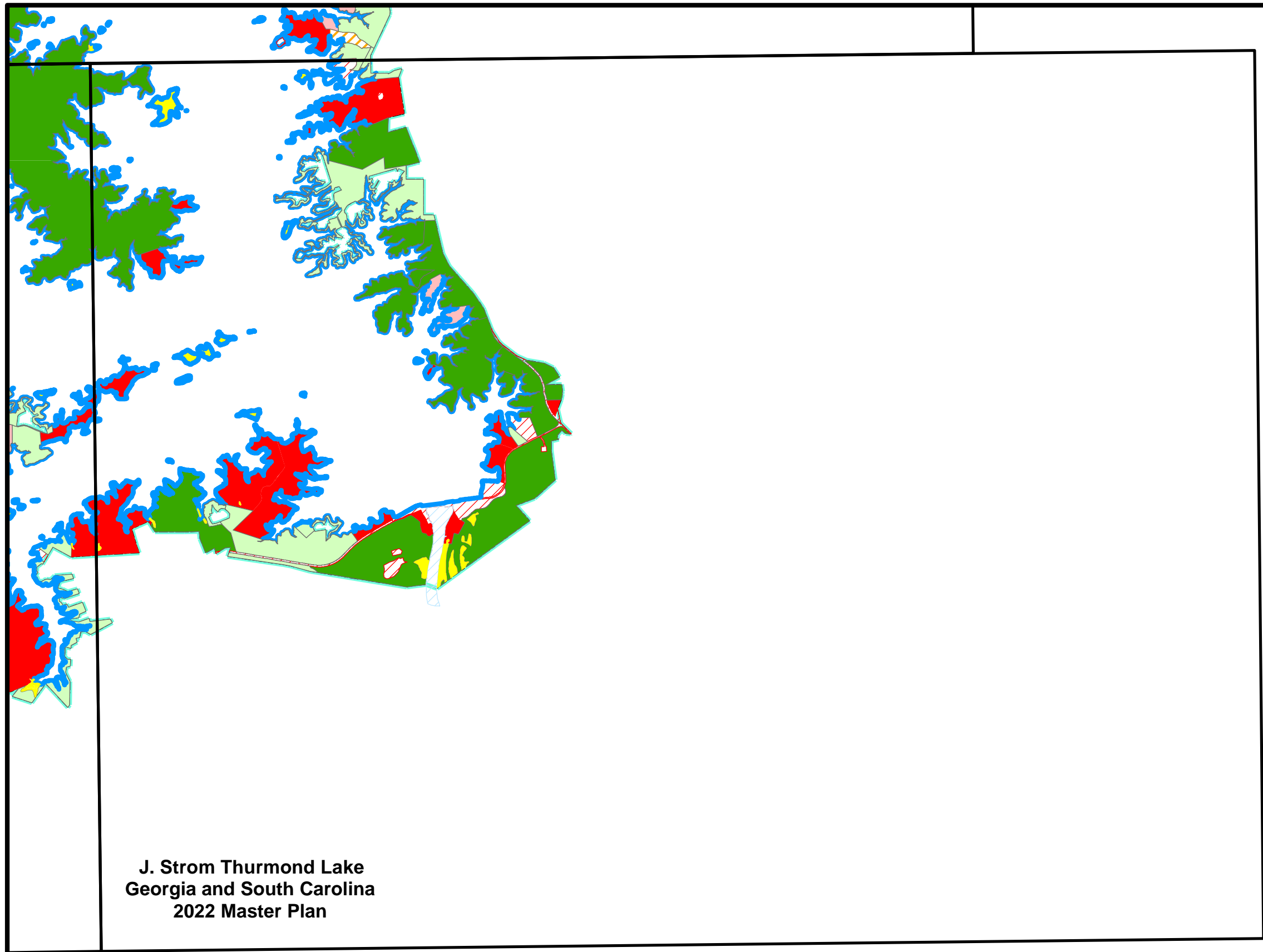


**US Army Corps  
of Engineers®**  
Savannah District



**Location Map**

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN,

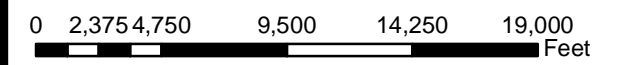


**J. Strom Thurmond Lake  
Georgia and South Carolina  
2022 Master Plan**

**Legend**

**Land Classification**

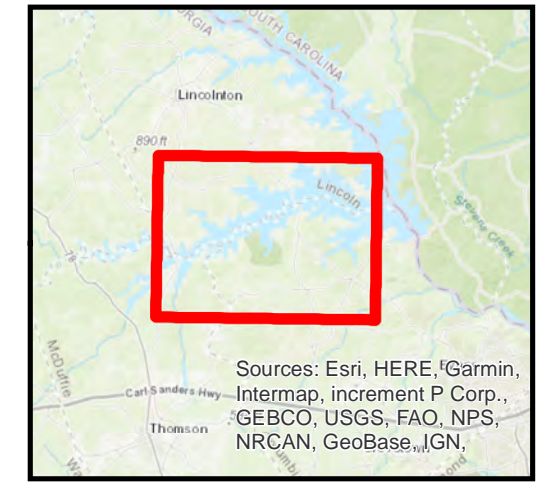
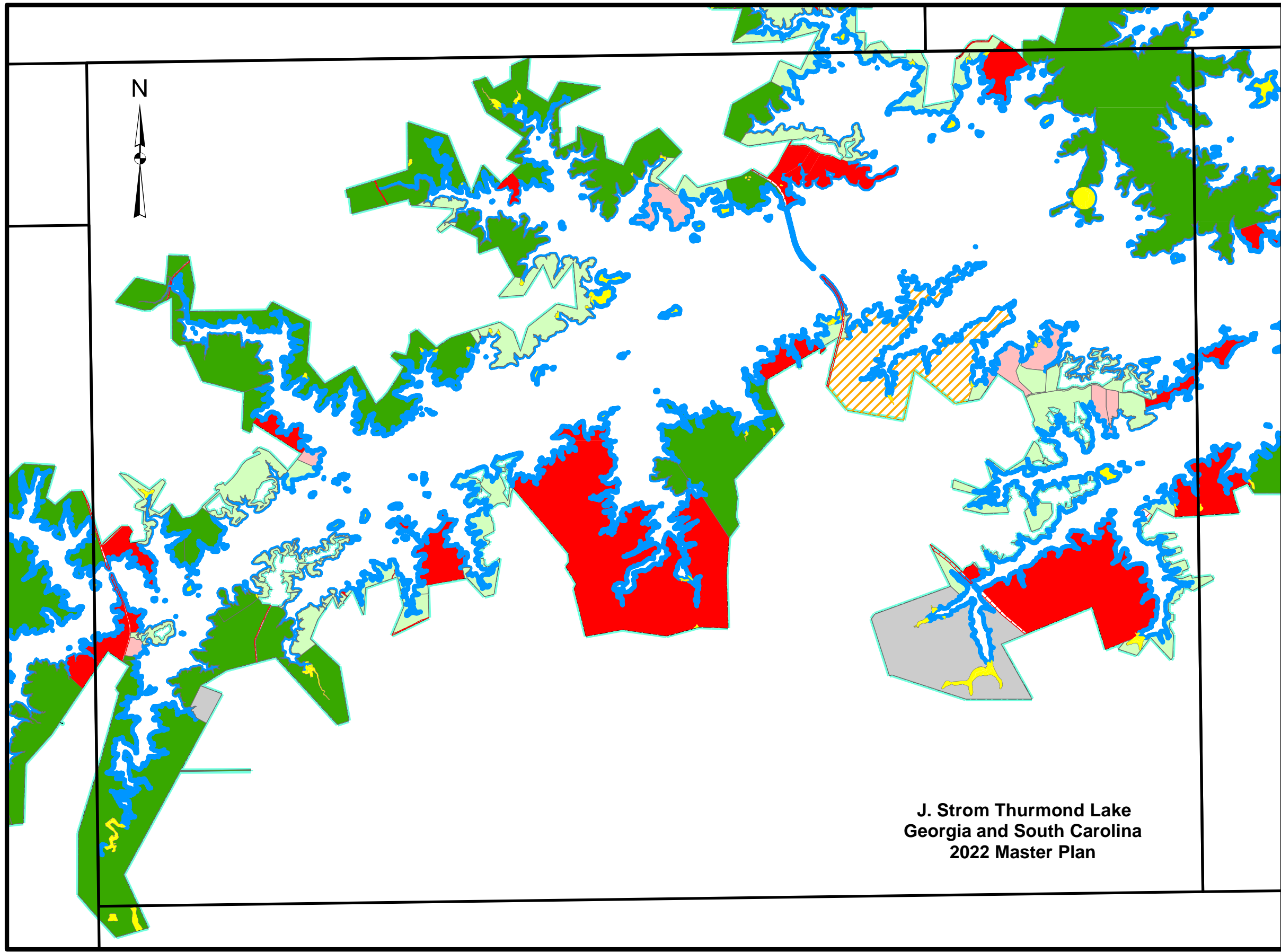
- Environmentally Sensitive Areas
- High Density Recreation
- Lake
- Low Density Recreation
- Mitigation
- Project Operations
- Recreation - Quasi\_Private
- River
- Special Use
- Wildlife Mgt
- Property Line
- Zoning Index



# JST Land Classification Maps- Plate 2 of 8



**US Army Corps of Engineers**  
Savannah District



**Location Map**

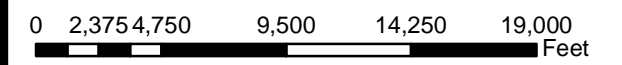
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN,

**J. Strom Thurmond Lake  
Georgia and South Carolina  
2022 Master Plan**

**Legend**

**Land Classification**

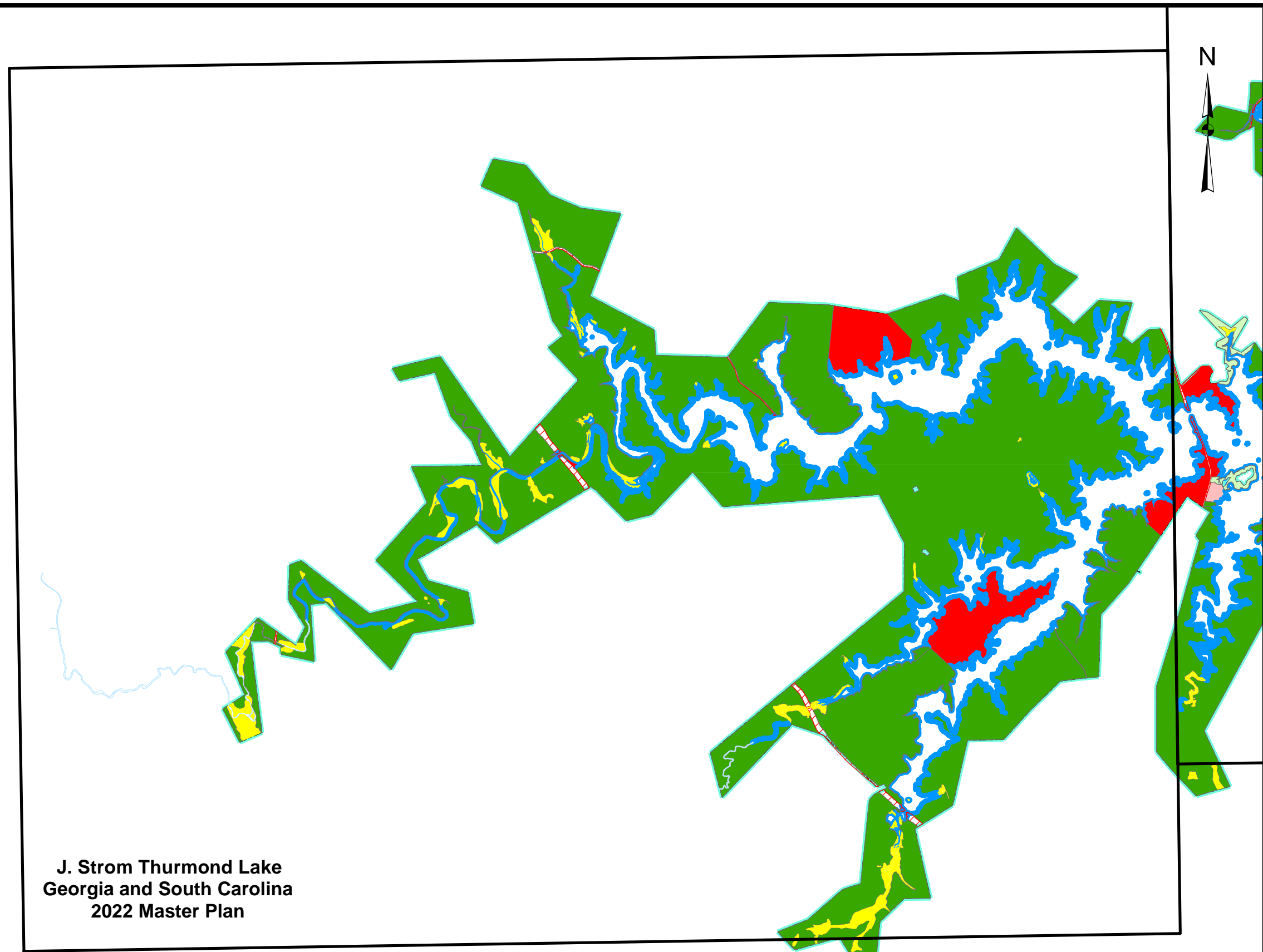
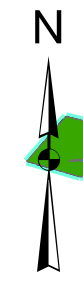
- Environmentally Sensitive Areas
- High Density Recreation
- Lake
- Low Density Recreation
- Mitigation
- Project Operations
- Recreation - Quasi\_Private
- River
- Special Use
- Wildlife Mgt
- Property Line
- Zoning Index



# JST Land Classification Maps- Plate 3 of 8



**US Army Corps of Engineers**  
Savannah District



**J. Strom Thurmond Lake  
Georgia and South Carolina  
2022 Master Plan**

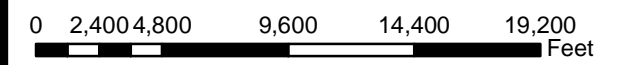


**Location Map**

**Legend**

**Land Classification**

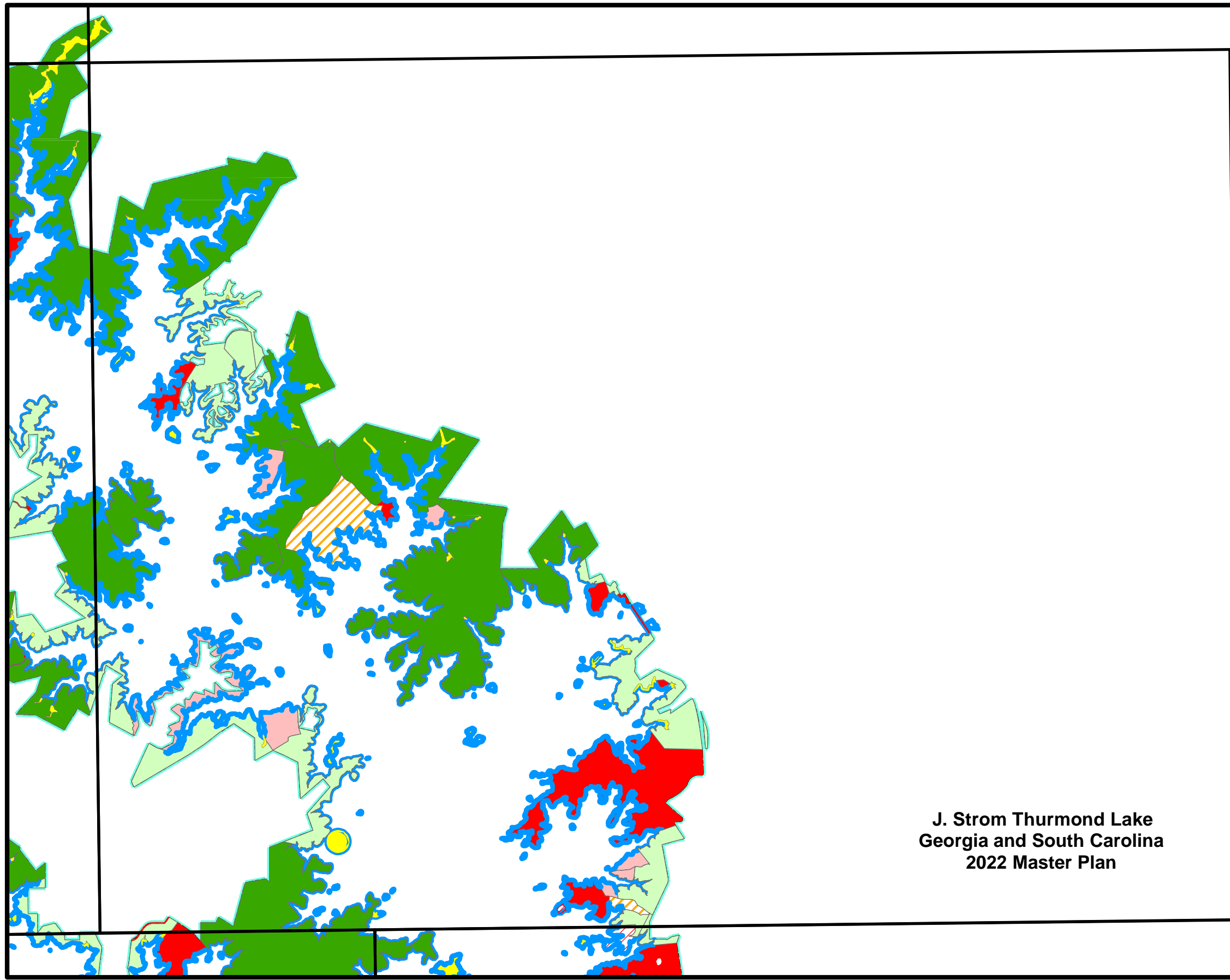
- Environmentally Sensitive Areas
- High Density Recreation
- Lake
- Low Density Recreation
- Mitigation
- Project Operations
- Recreation - Quasi\_Private
- River
- Special Use
- Wildlife Mgt
- Property Line
- Zoning Index



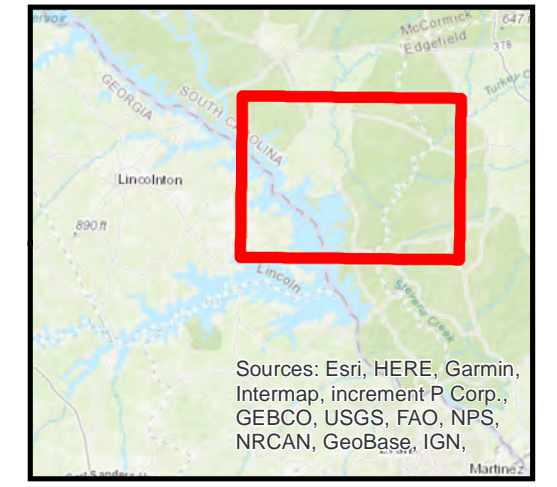
# JST Land Classification Maps- Plate 4 of 8



**US Army Corps of Engineers**  
Savannah District



**J. Strom Thurmond Lake  
Georgia and South Carolina  
2022 Master Plan**



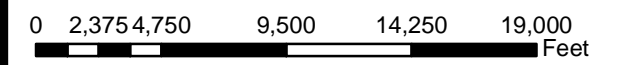
**Location Map**

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, ...

**Legend**

**Land Classification**

- Environmentally Sensitive Areas
- High Density Recreation
- Lake
- Low Density Recreation
- Mitigation
- Project Operations
- Recreation - Quasi\_Private
- River
- Special Use
- Wildlife Mgt
- Property Line
- Zoning Index



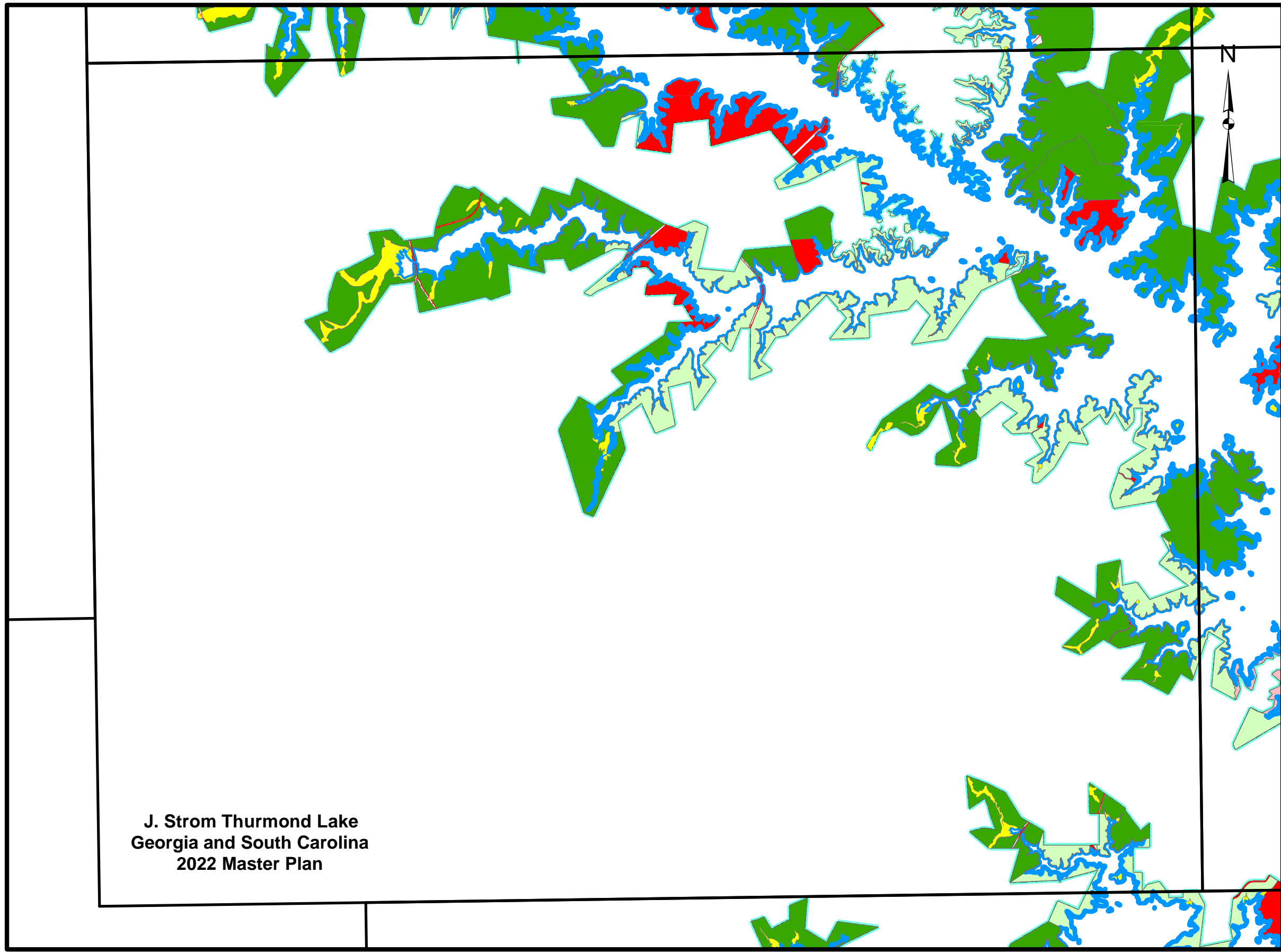
# JST Land Classification Maps- Plate 5 of 8



**US Army Corps of Engineers**  
Savannah District



**Location Map**

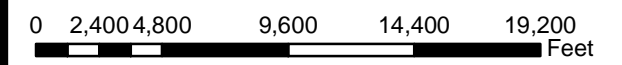


**J. Strom Thurmond Lake  
Georgia and South Carolina  
2022 Master Plan**

**Legend**

**Land Classification**

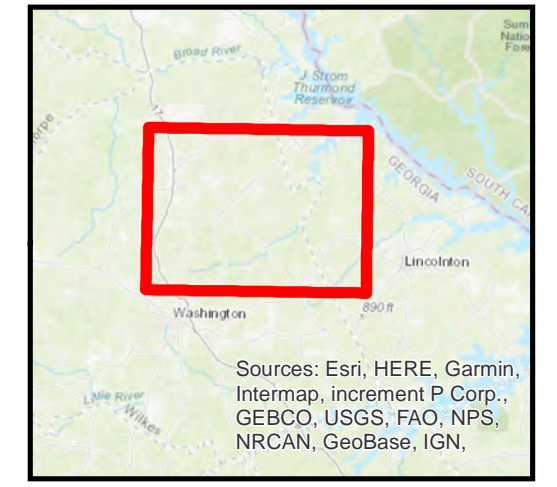
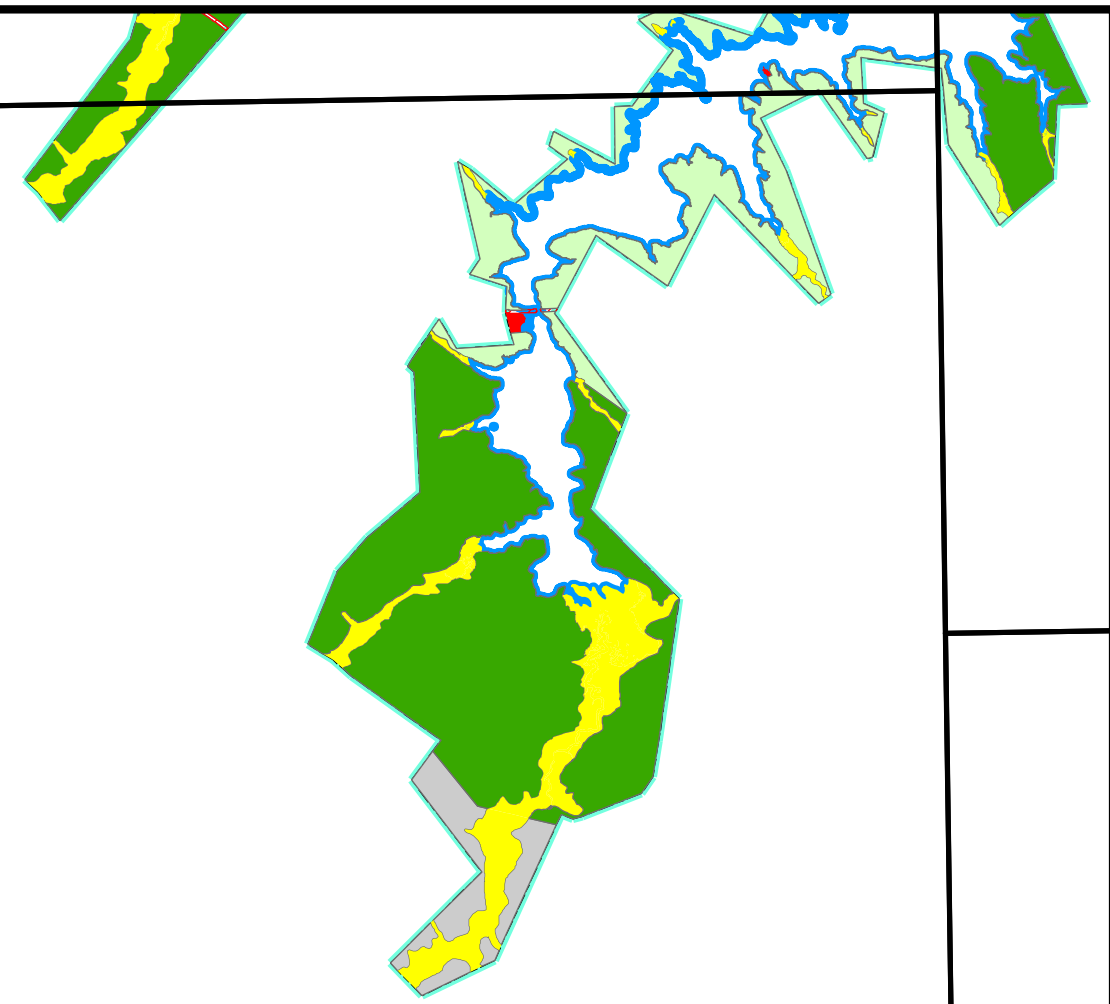
- Environmentally Sensitive Areas
- High Density Recreation
- Lake
- Low Density Recreation
- Mitigation
- Project Operations
- Recreation - Quasi\_Private
- River
- Special Use
- Wildlife Mgt
- Property Line
- Zoning Index



# JST Land Classification Maps- Plate 6 of 8



**US Army Corps  
of Engineers®**  
Savannah District



**Location Map**

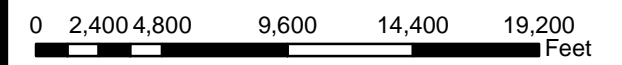
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN,

**J. Strom Thurmond Lake  
Georgia and South Carolina  
2022 Master Plan**

**Legend**

**Land Classification**

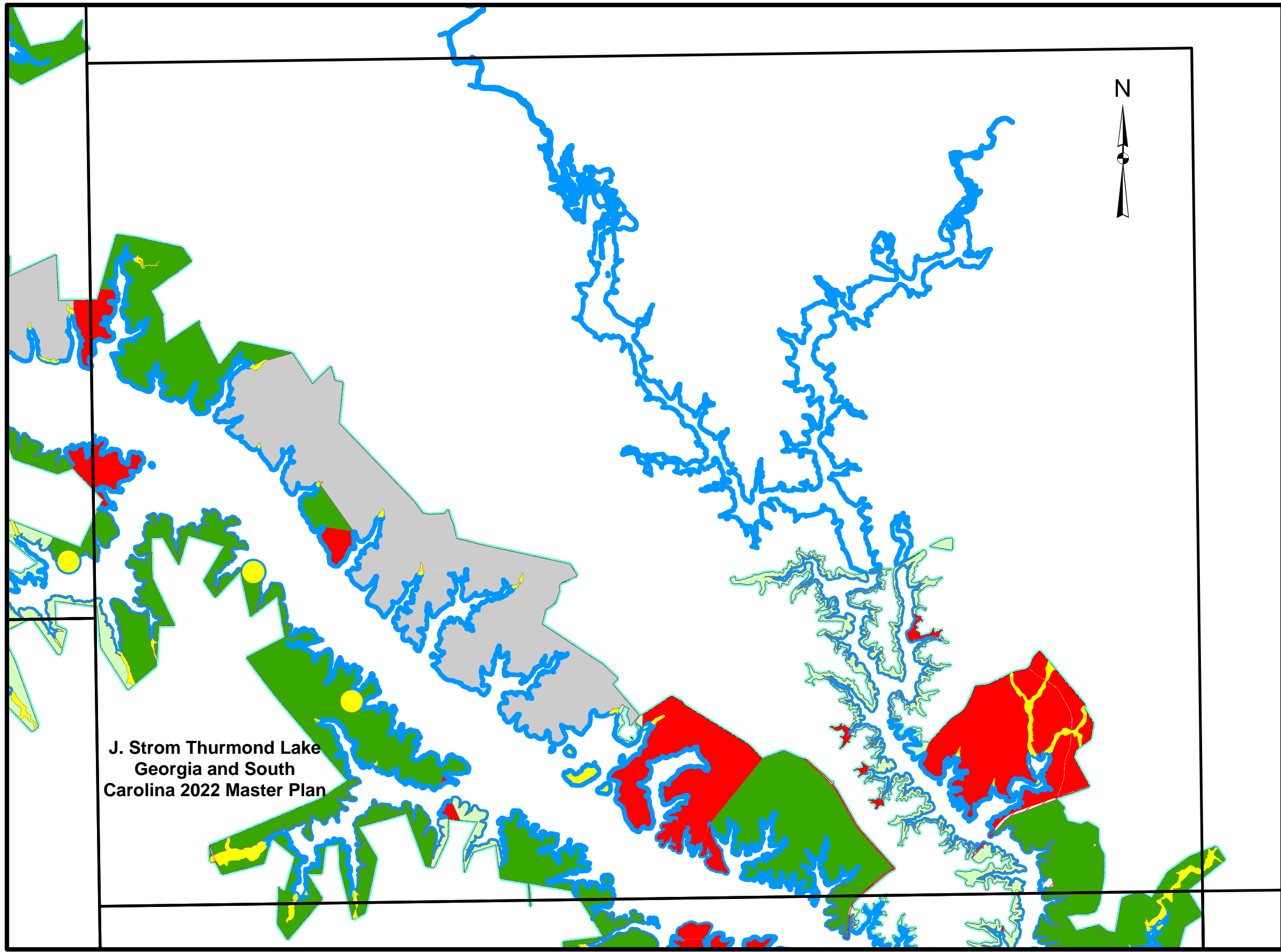
- Environmentally Sensitive Areas
- High Density Recreation
- Lake
- Low Density Recreation
- Mitigation
- Project Operations
- Recreation - Quasi\_Private
- River
- Special Use
- Wildlife Mgt
- Property Line
- Zoning Index



# JST Land Classification Maps- Plate 7 of 8



**US Army Corps of Engineers®**  
Savannah District



**J. Strom Thurmond Lake  
Georgia and South  
Carolina 2022 Master Plan**



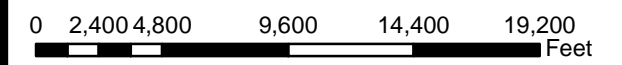
**Location Map**

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN,

**Legend**

**Land Classification**

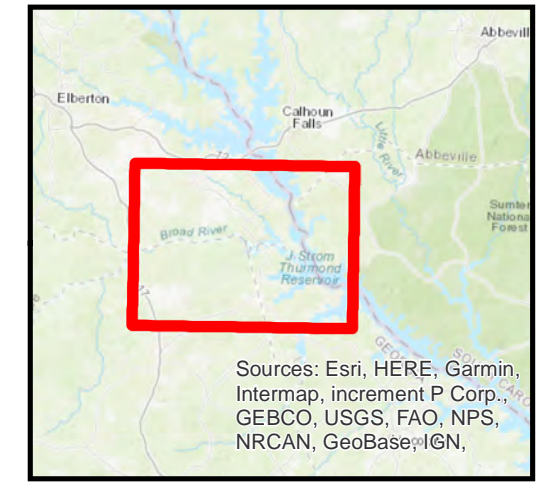
- Environmentally Sensitive Areas
- High Density Recreation
- Lake
- Low Density Recreation
- Mitigation
- Project Operations
- Recreation - Quasi\_Private
- River
- Special Use
- Wildlife Mgt
- Property Line
- Zoning Index



# JST Land Classification Maps- Plate 8 of 8

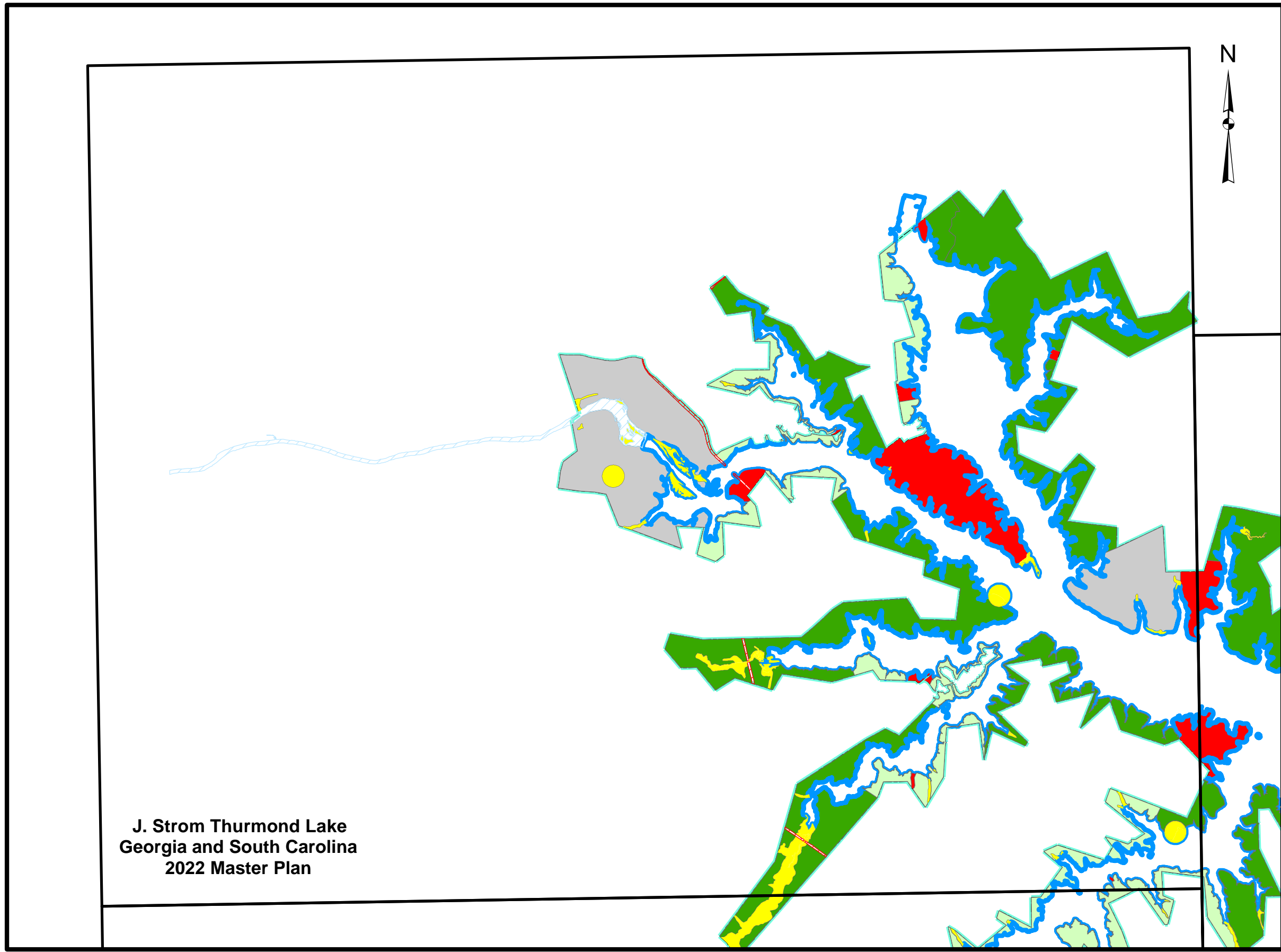
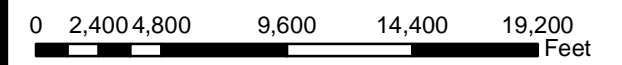
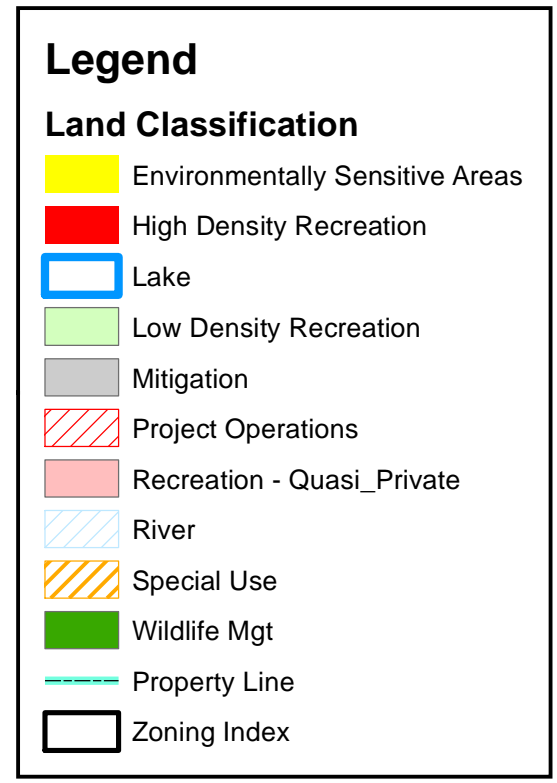


**US Army Corps of Engineers®**  
Savannah District



**Location Map**

**J. Strom Thurmond Lake  
Georgia and South Carolina  
2022 Master Plan**



## **Appendix D**

### **Area Resource Plans**

## Table of Contents

Area Number	Area Name	Page Number
<b>USACE Areas</b>		
1	Project Manager's Office/Visitor Center (PMO), Power Plant, Maintenance Compound, and USACE Storage Compound	D-1
2	Below Dam, South Carolina Day Use Area	D-3
3	Clarks Hill Park	D-4
4	Scotts Ferry Boat Ramp	D-5
5	Modoc Campground	D-6
6	JST Volunteer Village	D-7
7	Modoc Boat Ramp	D-7
8	Parksville Recreation Area	D-8
9	Dordon Creek Boat Ramp	D-9
10	Hawe Creek Campground	D-10
11	Leroys Ferry Campground	D-10
12	Mt. Pleasant Boat Ramp	D-11
13	Calhoun Falls Ramp	D-12
14	Morrahs Boat Ramp	D-12
15	Gill Point Recreation Area	D-13
16	Bussey Point Campground	D-14
17	Amity Recreation Area	D-15
18	Winfield Campground	D-16
19	Ridge Road Campground	D-17
20	Keg Creek Boat Ramp	D-18
21	Petersburg Campground	D-18
22	Lake Springs Recreation Area	D-20
23	West Dam Recreation Area	D-21
24	Below Dam, Georgia Boat Ramp	D-21
<b>State Parks</b>		
25	Hamilton Branch State Park	D-22
26	Baker Creek State Park	D-23
27	Hickory Knob State Resort Park	D-24
28	Bobby Brown Park (subleased to Elbert County)	D-25
29	Elijah Clark State Park	D-26
30	Mistletoe State Park	D-27
<b>County Parks</b>		
31	Clarks Hill Ball Field	D-28
32	Parksville Wayside	D-29
33	William Bryant Dorn Sports Fishing and Boating Facility	D-29
34	Broad River Campground	D-30
35	Hester's Ferry Campground	D-30

Area Number	Area Name	Page Number
<b>County Parks (continued)</b>		
36	Parkway Boat Ramp	D-31
37	Eddie Fletcher Park	D-32
38	Cherokee Recreation Area	D-33
39	Clay Hill Campground	D-33
40	Holiday Park	D-34
41	Raysville Campground	D-35
42	Big Hart Recreation Area	D-35
43	Wildwood Park	D-36
44	Minor Boat Ramp Only Areas (32 areas)	D-38
<b>Marinas</b>		
45	Plum Branch Yacht Club	D-39
46	Savannah Lakes Marina	D-39
47	Soap Creek Marina	D-40
48	Raysville Marina	D-41
49	Clarks Hill (Thurmond) Marina	D-41
50	Tradewinds Marina	D-42
51	Future Marina Sites	D-43
<b>Other Recreation Areas</b>		
52	Hester's Bottoms Campground	D-43
53	Fort Gordon Recreation Area (Points West Army Resort)	D-44
54	Clarks Hill Training Site	D-46
55	Quasi-Public Lease Areas	D-47
56	Pine Point Club	D-48
57	Other Private Club Minor Lease Areas	D-49
<b>Wildlife Management Areas</b>		
58	USACE Wildlife Management Units	D-50
59	SCDNR Wildlife Management Areas	D-52
60	GADNR Wildlife Management Areas	D-53

**1. Project Manager’s Office/Visitor Center (PMO), Power Plant, Maintenance Compound, and USACE Storage Compound**

**Management Agency:** USACE

**Land Classification:** Project Operations

**Location:** PMO – 510 Clarks Hill Hwy, Clarks Hill, SC  
 Power Plant – 384 Power Plant Road, Clarks Hill, SC  
 Maintenance Compound – 220 Clarks Hill Hwy, Clarks Hill, SC  
 USACE Storage Compound - 220 Clarks Hill Hwy, Clarks Hill, SC

**Description and Use:**

Acres	22.1	Season	All Year
Office/Visitor Center	12,000 sq. ft.	Public Parking Spaces	49
Secured Government Vehicle Parking Spaces	34	Employee Parking Spaces	20
East Overlook Parking Spaces	48	Covered Gov’t Boat Storage	2 bays
Boat Trailer Parking	5	Public Restrooms	1
Water Supply	County		

Narrative: The PMO and Visitor Center serves as the primary point of contact for lake visitors as well as the office space for the lake staff. The PMO and Visitor Center was completed in 1978. Over the years, the interior of the building has been extensively modified to meet staffing requirements. The size of the Visitor Center was reduced by approximately 50% when it was renovated in 2000. The Visitor Center is open year around except for winter holidays. It receives moderate to high visitation during the main recreation season. The conference room is available for use by other government agencies and civic groups. Approximately half the area is dominated by buildings and parking areas. The remaining area is dominantly pine. The Project’s two-way radio antennae is located within the secured government vehicle parking area. The shoreline below the overlook is used extensively by fisherman during the spring and summer especially in the evening and at night.

**Power Plant**

Acres	62.3	Season	All Year
Power Plant/Offices/Visitor Center	150,000 sq. ft.	Public parking spaces	50
Secured vehicle parking spaces	23	Warehouse	4,500 sq. ft.
Switch yard	1.6 ac.	Water Supply	County

Narrative: The power plant houses the seven main generators, two station service generators, transformers, and office and shop space for the power plant staff. For

security reasons following the terrorist attacks on September 11, 2001, the Power Plant Visitor Center is only opened for special events. Following rehabilitation of the generators and turbines in 2007, one of the turbines was placed along the entrance road and developed into an interpretive display. For inspection and security purposes, most of the area is maintained as open area.

#### Maintenance Compound

Acres	33.9	Season	All Year
Office	1,257 sq. ft.	Vehicle maintenance building	1,648 sq. ft.
Carpenter shop/meeting room	1,770 sq. ft.	Shower house	864 sq. ft.
6 Storage builds or sheds	14,109 sq. ft.	Boat ramp	1
Floating service dock	1	Secured vehicle/ equipment parking spaces	40
Employee parking spaces	36	Above ground fuel storage tanks	2
Secured materials storage yard	1 ac.	Boat tram	1
Water Supply	County		

Narrative: The maintenance compound is used by the operations and maintenance contractor to serve as a staging area for most of the routine maintenance and minor construction of USACE facilities. Approximately 50% of the area is open consisting of buildings and parking/storage areas. The remaining undeveloped area is dominantly pine. Due to the rough topography, future expansion of the area is limited. Some of the buildings date back to the construction of the dam, others have been added or renovated over the life of the Project.

#### USACE Storage Compound

Acres	2.83	Season	All Year
Open front pole barn (6 open bays and 576 sq. ft. enclosed storage)	2,300 sq. ft.	Portable storage building	200 sq. ft.
Flammable storage building	100 sq. ft.	Secured materials storage yard	1.5 ac.
Water Supply	County		

Narrative: This storage area is used to store USACE equipment and materials for routine operations. The intent is to not co-mingle USACE property and contractor's property. The area is open consisting of buildings, access road, and open storage area.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Replace aging buildings in the Maintenance Compound. Add two bays to the pole barn in the USACE Storage Compound.

## 2. Below Dam, South Carolina Day Use Area

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 384 Power Plant Road, Clarks Hill, SC

### Description and Use:

Acres	26.1	Season	All Year
Boat Ramp/Lanes	1/1	Trailer Parking Spaces	11
Single Vehicle Parking Spaces	74	Mini Shelters	5
Group Shelter	1	Picnic Sites	4
Fishing Pier	1	Wildlife Viewing Blind	1
Waterborne Restroom	1	Vault Toilet	1
Water Supply	County	Playgrounds	1
Foot Bridges	1	Fitness Trail	½ mile
Hiking Trail	1		

Narrative: Below Dam, SC is on the South Carolina side of the Savannah River immediately below the dam. The area is relatively flat and mostly open. There is a minor stream and hardwood bottom running through a portion of the area. A large powerline emanating from the power plant switchyard runs through the area. There is a ½-mile exercise trail in the area. The Below Dam, SC Wildlife Viewing Area trail begins at the edge of the area. The area is used extensively by fishermen, especially in the late winter and spring. The group shelter, picnic area, and exercise trail receive moderate to heavy use throughout the recreation season.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Improve parking and traffic flow at the boat ramp and fishing pier.

### 3. Clarks Hill Park

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 318 Clarks Hill Hwy, Clarks Hill, SC

#### **Description and Use:**

Acres	78.4	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	14
Courtesy Dock	1	Single Vehicle Parking Spaces	174
Waterborne Restroom	1	Vault Toilet	2
Fishing Dock	1	Fish Cleaning Station	1
Gate House	1	Picnic Sites	6
Group Shelters	3	Mini Shelters	7
Beach	2	Dog Beach	1
Trail	½ mile	Water Supply	County

Narrative: Clarks Hill Park is a medium size day use area that consist of two distinct areas.

Area 1 (36.3 ac.) is the main recreation area. Much of the developed area is relatively open. Extensive erosion control measures have been implemented due to the areas exposure to the prevailing west winds and steep slopes. The area receives high visitation due to its proximity to the Augusta metro area. The area offers a panoramic view of the dam and lower portion of the lake and is extensively used by bank fishermen in the spring. The turnaround at the boat ramp was improved and the trailer parking area re-sealed in 2018. This area has one of the few beaches where pets are allowed.

Area 2 (42.11) was formerly a housing area for key project employees. The houses were removed in the 1980s, however, much of the area was overrun with invasive species, mainly wisteria and privet. In 2017, work began to develop a Pollinator and Longleaf Pine Demonstration Area to showcase national and regional initiatives. Approximately 20 acres of timber was clear cut or thinned in order to treat invasive species and prepare areas to plant wildflowers and longleaf pine. Beginning in 2019, approximately 5 acres were planted in a mix of annual and perineal wildflowers. In 2020, 12 acres of longleaf pine were planted. The Longleaf Alliance assisted in development of the area. A small parking area and trail were developed. The remaining undeveloped areas are heavily wooded in a mix of pine and hardwoods. Most undeveloped areas are too steep for future recreation development unless major soil stabilization efforts are undertaken. The natural beaches in the area are heavily utilized by boaters and visitors willing to walk in.

**Resource Objective:**

Area 1: Necessary maintenance/upgrade of existing facilities. Relocate the fish cleaning station to improve traffic flow and increase boat trailer parking. Install a playground. Construct two park host sites.

Area 2: Develop an outdoor education center to include interpretative trails, a group shelter, and vault toilet. Develop additional parking.

**4. Scotts Ferry Boat Ramp**

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 560 Scotts Ferry Rd., Clarks Hill, SC

**Description and Use:**

Acres	7.7	Season	All Year
Boat Ramp/# Lanes	2/3	Trailer Parking Spaces	37
Courtesy Dock	1	Single Vehicle Parking Spaces	14
Vault Toilet	1	Water Supply	None

Narrative: Scotts Ferry is one of the larger boat ramp only areas on the lake. It is extensively used throughout the recreation season due to its proximity to the Augusta metro area. The parking lot is often overflowing on weekends. Erosion control measures have been implemented due to the area’s exposure to the prevailing west winds and steep slopes. The area is used by bank fishermen during the spring and summer, especially at night. Numerous natural beaches around the area are heavily used by boaters. Steep slopes and highly erodible soils limit future expansion of the parking area. The distance from existing water lines and power lines (>1 mile) also limits future development

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

## 5. Modoc Campground

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 296 Modoc Camp Rd., Modoc, SC

### Description and Use:

Acres	224.2	Season	Apr-Oct
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	14
Courtesy Dock	1	Single Vehicle Parking Spaces	28
Campsite w/hookups	69	Campsite w/o Hookups	1
Waterborne Shower	4	Vault Toilets	7
Gate House	1	Attendant Pad	2
RV Dump Station	1	Hiking Trail	1 mile
Water Supply	County	Playground	1
Laundry Facility	1		

Narrative: Modoc Campground has the highest utilization during weekends and holidays throughout the season. The area is forested with a mix of hardwoods and pines. Extensive erosion control measures have been implemented due to the areas exposure to the prevailing west winds and steep slopes. Development of additional waterfront facilities (campsites, beaches) is limited by the availability of suitable shoreline. Wisteria, an invasive species, is problematic along the entrance road.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Upgrade electrical hookups on sites 1 thru 10 and 12 thru 15 to 50 amps to accommodate larger RVs. Much of the older rip rap needs replenishment. Implement a program to reduce the impacts of invasive species. Re-establish a beach area.

## 6. JST Volunteer Village

**Management Agency:** USACE

**Land Classification:** Project Operations

**Location:** Three Camp Road, Modoc, SC

### Description and Use:

Acres	43.9	Season	All Year
Boat Ramp/# Lanes	1/1	Campsites with Full Hookups	12
Assembly Building	2,200 sq. ft.	Portable Storage Shed	200 sq. ft.
Water Supply	County		

Narrative: In 2011, the Volunteer Village was completed on the site of a former quasi-public lease area. The Village provides long term volunteers with a free campsite in exchange for working a minimum of 20 hours per week. The assembly building contains a kitchen, laundry, and restrooms. The area is moderately to steeply sloping and dominated by pines but was heavily thinned prior to development to encourage the conversion to hardwoods. Moderate shoreline erosion occurs along portions of the shoreline. There is a plant nursery to propagate native aquatic vegetation in the area.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Add up to 12 campsites with full hookups including sewage.

## 7. Modoc Boat Ramp

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** End of Gilcrest Ferry Rd., 1.6 miles off of Hwy 28/221 near Modoc, SC

### Description and Use:

Acres	96.6	Season	All Year
Boat Ramp/# Lanes	1/2	Trailer Parking Spaces	22
Courtesy Dock	1	Single Vehicle Parking Spaces	0
Waterborne Restroom	1	Water Supply	County

Narrative: Modoc Boat Ramp is one of the larger boat ramp only areas on the lake. The majority of the area is undeveloped and was heavily wooded in pines prior to timber harvest activities in 2019. Clear cut areas are to be replanted in loblolly pines in 2021

following site preparation in 2020. Shoreline areas are experiencing moderate erosion. The area is extensively used throughout most of the year due to its proximity to the Augusta metro area and the dissolved oxygen (DO) diffuser system, a popular fishing site. The parking lot is often overflowing on weekends during the main recreation season. The liquid oxygen storage tanks and DO system controls are located within the area. Accessible shoreline areas are extensively utilized by bank fishermen in the spring and summer, especially at night. Giant reed, an invasive species, is present in the area.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Continue periodic herbicide applications to prevent giant reed from spreading to other areas. Construct an additional parking lot with up to 40 trailer spaces and launch ramps to accommodate heavy use and future fishing tournaments. Add tournament weigh station, shelter, fish cleaning station, and larger restroom facility.

**8. Parksville Recreation Area**

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 183 Lakeview Dr., Parksville SC

**Description and Use:**

Acres	42.3	Season	All Year
Boat Ramp/# Lanes	1/2	Trailer Parking Spaces	25
Courtesy Dock	1	Single Vehicle Parking Spaces	145
Waterborne Restroom	3	Vault Toilet	1
Picnic Sites	25	Group Picnic Shelter	2
Gate House	1	Bank Fishing Area	1
Volley Ball Court	2	Baseball Field	1
Beach	2	Trails	½ mile
Water Supply	County	Playground	1

Narrative: Parksville Recreation Area is a medium size day use area. The boat ramp receives heavy usage during the spring and early summer. The parking lot is often overflowing on weekends during the main recreation season. The picnic sites, group shelters, and beaches receive moderate usage. The majority of the picnic areas and one swim beach are closed October thru March. The developed areas are moderately wooded in mixed pine hardwood. The area is gently sloping and the majority of the facilities are below the maximum surcharge elevation, 346' amsl. The access road and bank fishing area are subject to periodic flooding when the lake elevation exceeds 334' amsl. Two state listed plant species of concern, Durand oak (*Quercus sinuate*) and upland privet (*Forestiera ligustrina*), are present in the area. Future development

should avoid these plants. Two invasive species found in the area, wisteria and Chinese privet are having significant negative impacts on native vegetation in the area. Development of additional facilities is limited by adjoining development.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Implement a program to reduce the impacts of invasive plant species. Develop a disc golf course if a suitable partner is found. Add playground and utilities to shelter 2. Realign road to connect shelter 2 with ramp parking lot and expand trailer parking to accommodate fishing tournaments. Add vault toilet for the section of the park that is open year-round. Add park host site(s).

### 9. Dordon Creek Boat Ramp

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** End of Serpentine Rd., approximately 2.75 miles off of Hwy 28/221 near Plum Branch, SC (no address)

**Description and Use:**

Acres	24.2	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	27
Courtesy Dock	1	Water Supply	None
Vault Toilet	1		

Narrative: Dordon Creek Boat Ramp is a moderate size boat ramp only area. The area is frequently used by fishermen in the spring and early summer. The majority of the area is forested in pines and is undeveloped. The majority of the area is gently sloping. A significant portion of the area was impacted by pine beetles in 2016/2017 and has been replanted in pine. The boat ramp parking area was enlarged to better accommodate longer boat trailers and tow vehicles and the asphalt re-sealed in 2017. The hand pump well in the areas has been deactivated.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Add additional parking spaces at boat ramp if demand warrants.

## 10. Hawe Creek Campground

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 1505 Chamberlain Ferry Rd., McCormick, SC

### Description and Use:

Acres	156.8	Season	Apr-Sep
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	6
Courtesy Dock	1	Single Vehicle Parking Spaces	9
Campsite w/hookups	34	Campsites w/o hookups	0
Waterborne Shower	2	Vault Toilet	2
Gate House	1	Attendant Pad	1
RV Dump Station	1	Water Supply	County

Narrative: Hawe Creek is one of the smaller campgrounds on the lake, however, it is popular with campers who want to be off the beaten path. Most of the area is undeveloped and is heavily wooded dominantly in pine. A few areas of mixed pine hardwood are present. The area has moderate to steep slopes. Shoreline erosion is problematic in some developed areas as well as undeveloped areas. Pine beetles heavily impacted sites 25 through 34 in 2016. This area will be allowed to naturally regenerate. The area has potential for expansion as demand warrants.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Upgrade electrical hookups on sites 25 thru 34 to 50 amps to accommodate larger RVs. Address shoreline erosion issues in developed portions of the area. Convert campsite to second park host site. Improve traffic flow at boat ramp to accommodate larger trailers and tow vehicles.

## 11. Leroy's Ferry Campground

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** Off SC Hwy 81, approximately 4 miles south of Willington, SC at the end of Willington Academy Drive (no address)

**Description and Use:**

Acres	74.7	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	8
Campsite w/o hookups	10	Single Vehicle Parking Spaces	0
Vault Toilet	3	Water Supply	Well

Narrative: Leroy's Ferry is the smallest campground on Thurmond Project, offering 10 primitive campsites. Due to its remote location, lack of utilities, security, and a low demand for primitive sites; it receives low use. The area is designated as "Pack In/Pack Out". Volunteers are heavily utilized for routine maintenance. The area provides one of the few boat ramps in this portion of the lake. Shoreline erosion is problematic in a portion of the developed area. Most campsites are badly eroded. The area is dominantly pine and mixed pine hardwood. An invasive species, wisteria, is present in a significant portion of the area and is impacting native vegetation. The distance from existing water lines and power lines (>1 mile) also limits future development.

**Resource Objective:** Necessary maintenance of existing facilities. Renovate campsites and address shoreline erosion if funds and/or a partner become available. Implement a program to minimize impacts of invasive species.

**12. Mt. Pleasant Boat Ramp**

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** At the end of Hester's Bottom Rd., approximately 4.5 miles west of Mt. Carmel, SC (no address)

**Description and Use:**

Acres	6.1	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	10
Vault Toilet	1	Water Supply	None

Narrative: Mt. Pleasant is a small boat ramp only area. The vault toilet was closed at the end of the 2013 recreation season and the area converted to "Pack in/Pack out" in response to budget reductions. The area is utilized moderately by fishermen in the spring and early summer. It is utilized moderately by duck hunters due to its proximity to the Russell Creek Waterfowl Management Area managed by SCDNR. Most of the area is heavily wooded in pines and is moderately to gently sloping. A hardwood drain extends thru the area on the west side of the parking lot.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

### 13. Calhoun Falls Ramp

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** Less than ¼ mile below Richard B. Russell (RBR) Dam at the end of Overlook Road approximately 2.7 miles west of SC Highway 81 in McCormick County (no address).

#### **Description and Use:**

Acres	11.5	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	20
Vault Toilet	1	Single Vehicle Parking Spaces	18
Fishing Pier	1	Water Supply	None

Narrative: Calhoun Falls Ramp is a moderate size boat ramp only area providing fisherman direct access to the tailrace below RBR Dam. Due to siltation, the boat ramp is not useable below elevation 326' amsl. It also provides bank fishermen access to the fishing pier constructed on the jetty below RBR dam. A large powerline emanating from the RBR power plant switchyard runs cross the northern portion of the area. The majority of the area is undeveloped and is dominated by mixed hardwoods. Slopes in the area range from moderate to severe. Coffey Creek and a steep ravine limit future expansion of the area.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

### 14. Morrahs Boat Ramp

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** Approximately 2.5 miles downstream of RBR Dam at the end of Modock Rd. in Elbert, Co., GA, (no address).

**Description and Use:**

Acres	24.7	Season	All Year
Boat Ramp/# Lanes	2/3	Trailer Parking Spaces	25
Courtesy Dock	1	Single Vehicle Parking Spaces	10
Vault Toilet	1	Water Supply	None

Narrative: Morrahs is a moderately size boat ramp only area. It provides fisherman easy access to the tailrace below RBR Dam. The area is used extensively by fishermen and commercial bait fishermen. The developed area is fairly open with a few scattered trees. The majority of the area is undeveloped and is dominated by mixed hardwood pine. Slopes in the area range from moderate to severe. Shoreline erosion is problematic along a portion of the shoreline near the main parking lot. The road and parking lot were resurfaced in 2014.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Replace/reset rip rap along the shoreline if funds become available. Add 20 additional trailer parking spaces, potable water and new restroom facility if demand continues to increase.

**15. Gill Point Recreation Area**

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** Off Gills Point Road approximately 2.25 miles from GA Highway 79 in Lincoln, Co., GA (no address)

**Description and Use:**

Acres	17.2	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	26
Courtesy Dock	1	Single Vehicle Parking Spaces	38
Waterborne Restroom	1	Group Shelter	1
Picnic Sites	8	Beach	1
Water Supply	Well		

Narrative: Gill Point is one of the smaller day use areas on the lake. The boat ramp is heavily used by fishermen during the spring. The day use area receives moderate visitation by the local community and is closed October thru March. The area is gently sloping and is dominated by mixed pine hardwoods. The limited land base and adjoining property uses limit the development of additional facilities. A road right of way deeded to Lincoln County in the 1960s transects the area. The right of way has never been surveyed and the road has not been developed.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Add vault toilet at ramp.

## 16. Bussey Point Campground

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** End of Double Branches Rd., Lincoln County, GA (no address)

### Description and Use:

Acres (3 parcels)	209.1	Season	All Year
Boat Ramp/# Lanes	1/1	Boat Trailer Parking Spaces	8
Car/Horse Trailer Parking Spaces	33	Vault Toilets	4
Campsites (drive up)	14	Camp/Picnic Sites (hike in)	6
Adirondack Shelter (hike in)	1	Check Station/Trail Head	1
Water Supply (hand pump wells)	3	Trail	½ mile

Narrative: Bussey Point Campground provides the best access to the 2,700-acre Bussey Point Wildlife Management Unit. It consists of three parcels, two of which are within the wildlife management unit (WMU). The WMU provides 13.5 miles of trails and 12 miles of service roads that are used extensively by horseback riders, mountain bikers, and hikers. The primitive weapons managed deer and turkey hunts held in the WMU provide hunters with unique hunting opportunities. The entire area is designated as “Pack in/Pack out” and much of the maintenance is performed by volunteers. Additional information on the Bussey Point WMU can be found in Section 5.57, USACE Wildlife Management Units. There are no utilities in the area.

Area 1 (134.1 acres) contains 14 primitive, drive up campsites that can accommodate horse trailers and provide tie out posts for horses. The area was renovated in 2015 with assistance from the Georgia Horse Council. The area is also used frequently by fishermen and hunters. The boat ramp is used extensively by the local community. The check station is only used during managed hunts. The area is gently sloping and is dominated by pine forest and limited mixed pine hardwood. Moderate shoreline erosion is occurring near the boat ramp.

Area 2 (18.1 acres) contains an Adirondack shelter and 2 hike-in or boat-in camp/picnic sites. The original Adirondack shelter destroyed by fire in 2019 was rebuilt. This area is used frequently by boaters due to the natural beaches. It is located near the confluence of the Little River and Savannah River and provides a splendid view of the lower

portions of the lake. The area is moderate to gently sloping. Moderate shoreline erosion is occurring throughout the area due to the exposure to prevailing winds.

Area 3 (56.8 acres) contains 4 hike-in or boat-in camp/picnic sites and a hand pump well. It is located at the confluence of the Little River and Savannah River and provides a spectacular view of the lower portions of the lake. The area is moderately to gently sloping. Moderate to severe shoreline erosion is occurring throughout the area due to the exposure to prevailing winds.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Continue to partner with the Georgia Horse Council and others to improve the area. In Area 1; add 10 campsites, extend electricity and county water into the area, and develop a park host site. Construct additional Adirondack shelter in Area 3.

## 17. Amity Recreation Area

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 5870 Thomson Hwy, Lincolnton, GA

### Description and Use:

Acres	100.1	Season	All Year
Boat Ramp/# Lanes	1/3	Trailer Parking Spaces	70
Courtesy Dock	1	Single Vehicle Parking Spaces	368
Waterborne Restrooms	2	Vault Toilets	3
Picnic Sites	54	Picnic Shelters	3
Ball Field	1	Volleyball Courts	1
Playgrounds	4	Beaches	7
Attendant Pad	1	Gate House	1
Fishing Dock	1	Fish Cleaning Station	1
Water Supply	Well		

Narrative: Amity is one of the larger day use areas on the lake. The boat ramp is heavily used by fishermen. The day use area receives moderate visitation and is closed October thru April. The area is gently sloping and is dominated by pines with some scattered patches of hardwoods. Shoreline erosion control measures have been implemented on the point overlooking Raysville Marina. Portions of the area have experienced problems with Southern pine beetles in the past. There are two cemeteries located near the entrance and boat ramp that must be protected in accordance with state law. Potential to expand waterfront facilities is limited by GA Hwy 43 and the adjoining boat club. A fish cleaning station was added in 2010 and the boat ramp and parking area were resurfaced in 2017.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Upgrade the restroom facility at the boat ramp. Add second attendant pad and replace volleyball court.

**18. Winfield Campground**

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 7701 Winfield Rd., Appling, GA

**Description and Use:**

Acres	189.5		Season	Mar-Sep
Boat Ramp/# Lanes	1/1		Trailer Parking Spaces	6
Courtesy Dock	1		Single Vehicle Parking Spaces	21
Campsites w/hookups	80		Attendant Pad	2
Gate House	1		Playground	1
Waterborne Showers	2		Vault Toilet	1
RV Dump Station	1		Beach	1
Water Supply	County			

Narrative: Winfield is one of the largest USACE campgrounds on the lake. It is heavily used due to its proximity to the Augusta metro area. The area is gently to moderately sloping and dominated by a mix of pine and hardwoods. Shoreline stabilization measures have been implemented in select areas. Pine beetles have been problematic in the past. A major timber operation was conducted in 2011 to encourage conversion of the area to hardwoods. Maintenance of approximately 0.3 miles of Winfield Rd. leading to the campground has historically been the responsibility of the USACE since it is under an easement crossing private property. There is a cemetery located near the playground. Future expansion of the area is possible due to a land exchange which took place in 1988.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Add one waterborne shower facility to meet current demand. Construct a group camp with 10-20 campsites with hookups and a waterborne shower facility. Construct 15-20 additional individual campsites with hookups. Develop a new boat ramp area outside of the existing campground with up to 70 trailer parking spaces and a courtesy dock to accommodate non campers and relieve congestion at the existing boat ramp. Transfer the road easement to Columbia County due to subdivision development along the road.

## 19. Ridge Road Campground

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 5886 Ridge Rd., Appling, GA

### Description and Use:

Acres	129.8	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	20
Courtesy Dock	1	Single Vehicle Parking Spaces	18
Campsites w/hookups	63	Campsites w/o hookups	6
Gate House	1	Attendant Pads	2
Waterborne Showers	2	Playground	1
Beach	1	Vault Toilets	2
Volunteer/Park Host Site	1	Laundry Facility	1
Water Supply	County	RV Dump Station	1

Narrative: Ridge Road Campground is located on a peninsula at the confluence of Keg Creek and Little River. The campground is open April thru September and is heavily utilized due to its proximity to the Augusta metro area. The ramp is open all year since it is the only ramp in this portion of the lake. The area is gently to moderately sloping and dominated by a mix of pine and hardwoods. Shoreline erosion is problematic on the Little River side of the area due to the prevailing winds. Shoreline stabilization measures have been implemented in select areas. Pine beetles and windthrow have been problematic in the past. A major timber operation was conducted in 1996 and 1997 to encourage conversion of the area to hardwoods. There is a cemetery located between the gate house and the attendant pads, a single grave is located near the playground, and a single grave is located near shower building R-1. Kudzu and wisteria, invasive species, are present in the area and are somewhat problematic. Future expansion is possible due to the availability of USACE property adjoining the area.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Implement additional shoreline stabilization measures. Relocate gate house and attendant pads to accommodate the development of 20-30 additional campsites with hookups and additional waterborne shower facility. Construct an additional boat ramp and parking area with up to 70 trailer spaces outside the campground to accommodate non campers and reduce congestion at the existing boat ramp. Implement a program to reduce the impacts of invasive species.

## 20. Keg Creek Boat Ramp

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 6400 Keg Creek Dr., Appling, GA

### Description and Use:

Acres	17.4	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	34
Courtesy Dock	1	Single Vehicle Parking Spaces	12
Trail Head	1	Vault Toilet	1
Bank Fishing Area	1	Water Supply	None

Narrative: Keg Creek Boat Ramp is one of the larger boat ramp only areas on the lake. The majority of the area is heavily wooded in pines and is moderately sloping. Shoreline areas are experiencing moderate erosion. The ramp area is extensively used throughout most of the year due to its proximity to the Augusta metro area and a large neighborhood. The ramp is steep and can be difficult to use during periods of low lake levels. The bank fishing area and trail head were constructed in 2017 by GA Department of Transportation as part of an agreement to replace Keg Creek Bridge. The trail head provides access to the Keg Creek WMA portion of the Bartram Trail. Both the bank fishing area and trail head are moderately used all year.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Implement additional shoreline stabilization measures. Add additional boat trailer parking spaces and improve restroom facility. Add streetlights to bank fishing parking lot and sidewalk.

## 21. Petersburg Campground

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 3998 Petersburg Rd., Appling GA

### Description and Use:

Acres	263.9	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	26
Courtesy Dock	1	Single Vehicle Parking Spaces	41
Campsites w/hookups	90	Campsites w/o hookups	7
Gate House	1	Attendant Pad	2

Waterborne Showers	4		Playground	1
Beaches	2		Vault Toilet	1
Fishing Dock	1		Laundry Facility	1
RV Dump Stations	2		Group Shelter	2
Trail Head	1		Trail	5 miles
Water Supply	County			

Narrative: Petersburg Campground is the largest USACE campground on the lake and has the highest occupancy rate of USACE campgrounds on the lake. It is open all year; however, portions of the area are closed November thru February. The area is extensively utilized due to its proximity to the Augusta metro area. The area is gently to moderately sloping and dominated by a mix of pine and hardwood. Shoreline erosion is problematic on the Little River side of the area due to the prevailing winds. Shoreline stabilization measures have been implemented in select areas. Pine beetles and windthrow have been problematic in the past. Several minor timber salvage operations have been conducted over the years to facilitate clean up and to remove hazard trees. Future expansion of waterfront facilities is possible using undeveloped property within the area limits. A cemetery and a potentially eligible cultural resources site are located within the area limits. The trail head located just outside the main gate provides access to the central portion of the Bartram Trail. The trail head was developed through a challenge cost-share agreement with assistance from the Southern Off-Road Biking Association. It is the most heavily used access point along the Bartram Trail. Future expansion of waterfront facilities is possible using undeveloped property within the area limits.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Implement additional shoreline stabilization measures. Construct 20-30 campsites with hookups, waterborne shower facility, and park host/volunteer site(s). Construct an amphitheater with seating for approximately 75 people. Construct 10 parking spaces within the 74-80 loop. At the Bartram Trail parking area, add additional support facilities and expand the parking area if use increases.

## 22. Lake Springs Recreation Area

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 3900 Lake Springs Rd., Appling, GA

### Description and Use:

Acres	252.3	Season	All Year
Boat Ramp/# Lanes	1/3	Trailer Parking Spaces	69
Courtesy Dock	1	Single Vehicle Parking Spaces	556
Picnic Sites	151	Beaches	13
Group Shelters	4	Playgrounds	5
Gate House	1	Volleyball Courts	2
Waterborne Restrooms	6	Vault Toilet	1
Fishing Dock	1	Water Supply	County
Observation Tower	1	Paved Trail	2.8 miles

Narrative: Lake Springs is the largest USACE day use area on the lake and provides a panoramic view of the dam and lower portion of the lake. It is open all-year; however, portions of the area are closed September thru April. The area is extensively utilized during the main recreation season due to its proximity to the Augusta metro area. The boat ramp parking lot is frequently overflowing on weekends. In 2017-2018 the boat ramp and parking area were re-sealed and the parking area re-striped to improve traffic flow and support larger trucks and trailers. The area is moderate to gently sloping and dominantly mixed pine hardwood. Much of the area experiences moderate shoreline erosion due to exposure to prevailing winds and boat traffic. Extensive shoreline erosion control measures have been implemented. There is a connector trail from the fishing dock parking lot to the Lake Springs Loop Trail, which in turn connects to the Bartram Trail. Future expansion of waterfront facilities is possible using undeveloped USACE property southwest of the area limits along Lake Springs Creek.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Add park attendant/volunteer pad(s) to improve security of the area. Enlarge boat ramp parking area to increase parking. Expand amenities offered at group shelters. Upgrade the section(s) of trail from the park to the Bartram Trail. Establish a pet beach area.

### 23. West Dam Recreation Area

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** 3946 West Dam Park Rd., Appling, GA

**Description and Use:**

Acres	28.9	Season	All Year
Single Vehicle Parking Spaces	233	Picnic Sites	39
Group Shelter	1	Mini Shelters	10
Waterborne Restrooms	5	Gate House	1
Playgrounds	2	Beaches	7
Volleyball Court	2	Trail Head	1
Water Supply	Well		

Narrative: West Dam is a large USACE day use area on the lake and provides a panoramic view of the lower portion of the lake. It is open all year; however, portions of the area are closed September thru April. The area is extensively used during the main recreation season due to its proximity to the Augusta metro area. It has been the staging area for numerous triathlon events. The area is gently sloping and dominantly mixed pine hardwood. A large grass field near the dam provides space for soccer, sunbathing, etc. Much of the area experiences moderate shoreline erosion due to exposure to prevailing winds and boat traffic. Extensive shoreline erosion control measures have been implemented. The trail head located at the park entrance is the beginning of the Bartram Trail. Expansion of the area is limited due to the dam on the east side of the area and steep topography and the Augusta Sailing Club on the west side of the area.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Add park attendant/volunteer pad to improve security of the area.

### 24. Below Dam, Georgia Boat Ramp

**Management Agency:** USACE

**Land Classification:** High Density Recreation

**Location:** Off GA Hwy 221 immediately below the dam (No address)

**Description and Use:**

Acres	19.5	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	4
Vault Toilet	1	Single Vehicle Parking Spaces	12
Water Supply	None		

Narrative: The area offers an excellent view of the dam and is used extensively by bank fishermen and serves as access to the Below Dam, GA WMU. Slopes are moderate to severe. A portion of the area has been replanted in long leaf pine, but forested areas around the boat ramp are predominantly hardwoods. A large powerline beginning at the power plant switchyard crosses the area. Due to a severe drop-off at the end of the boat ramp, and shallow depth at typical river elevations, usage has been limited to canoes and kayaks and is designated as "Pack In/Pack Out". Much of the maintenance is performed by volunteers.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Improved traffic flow and parking at the boat ramp to correct straight-in approach to the river. Maintain open vistas of the dam from the upper parking area.

**25. Hamilton Branch State Park**

**Management Agency:** South Carolina Department of Parks, Recreation, and Tourism

**Land Classification:** High Density Recreation

**Location:** 111 Campground Rd., Plum Branch, SC

**Description and Use:**

Acres	727.2	Season	All Year
Boat Ramp/# Lanes	2/2	Trailer Parking Spaces	35
Courtesy Dock	1	Single Vehicle Parking Spaces	16
Picnic Sites	30	Group Picnic Shelters	3
Campsites w/hookups	173	Campsites w/ water only	11
Primitive Group Camps	4	Hiking Trails	1.8 miles
Waterborne Restroom	2	Waterborne Showers	8
Park Office	1	RV Dump Stations	2
Playground	1	Employee Residences	2
Water Supply	Wells	Maintenance Area	1
		Camp Host Sites	10

Narrative: Hamilton Branch is located on a large peninsula that extends out into the lower portion of the lake. The area is gently to moderately sloping and dominated by a

pine stand with a few stands of hardwood and mixed pine hardwood. Shoreline erosion is problematic in some areas due to the prevailing winds. Pine beetles have been problematic in the past. Minor timber salvage operations have been conducted over the years to facilitate clean up and to remove hazard trees. An invasive species, wisteria, is present in the park. The area is heavily utilized throughout the main recreation season due to its proximity to the Augusta metro area. Hamilton Branch was originally constructed by the USACE and turned over to the State. Development of additional waterfront facilities is limited by the availability of undeveloped shoreline within the park and adjoining property uses outside of the park boundary. Soil compaction is problematic in several areas due to unrestricted vehicle traffic.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

**26. Baker Creek State Park**

**Management Agency:** South Carolina Department of Parks, Recreation, and Tourism

**Land Classification:** High Density Recreation

**Location:** 863 Baker Creek Rd., McCormick, SC

**Description and Use:**

Acres	1,324.8	Season	1 Mar-30 Sep
Boat Ramp/# Lanes	2/2	Trailer Parking Spaces	75
Picnic Sites	40	Single Vehicle Parking Spaces	50
Campsites w/hookups	50	Group Picnic Shelters	2
Primitive Group Camps	1	Hiking Trails	1.5 miles
Mountain Bike Trail	10 miles	Waterborne Restrooms	3
Park Office/Pavilion	1	Waterborne Shower	1
Playground	1	RV Dump Stations	1
Water Supply	County	Employee Residences	2
Maintenance Area	1	Beach/Swim Area	1

Narrative: Baker Creek State Park is located on the Little River, SC portion of the lake and is beside a large resort community, Savannah Lakes Village. The area is moderately to steeply sloping and dominated by pine with numerous stands of hardwood and mixed pine hardwood. Shoreline erosion is problematic in some areas due to steep slopes. Pine beetles have been problematic in the past. Minor timber salvage operations have been conducted over the years to suppress infestations, facilitate clean up, and to remove hazard trees. Approximately 75 acres of land along two streams within the park are designated as wetlands. The park receives moderate

use. Only 50 of the campsites remain open. The park is operated by staff from Hickory Knob State Park.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Install a courtesy dock and paved sidewalk at Hwy 378 boat ramp. Install an ADA assessable fishing pier at picnic area.

## 27. Hickory Knob State Resort Park

**Management Agency:** South Carolina Department of Parks, Recreation, and Tourism

**Land Classification:** High Density Recreation

**Location:** 1591 Resort Dr., McCormick, SC

### Description and Use:

Acres	963.4	Season	All Year
Boat Ramp/# Lanes	1/2	Trailer Parking Spaces	40
Single Vehicle Parking Spaces	200	Courtesy Dock	1
Campsites w/hookups	44	Hiking Trails	11.4 miles
Vault Toilets	3	Waterborne Showers	1
Cabins (duplex)	16	Cabins (single)	1
Group Lodging Barrack	1	Restaurant	1
Lodge/Motel Rooms	76	Meeting Rooms/Conference Center	5
Swimming Pool	1	Tennis Court	1
Golf Course	18-hole	Pro Shop w/snack bar	1
Driving Range	1	Putting Green	1
Maintenance Area	1	RV Dump Stations	1
Playground/Basketball Court	1	Bait and Tackle Shop	1
Skeet/Archery Range	1	Employee Residences	2
Fish Cleaning Station	1	Amphitheater	1
Water Supply	County	Convention Center	1

Narrative: Hickory Knob Resort Park is the only full-service resort park and offers guest amenities not offered at most parks. It is located on the South Carolina side of the Savannah River portion of the lake midway between Thurmond Dam and RBR Dam. The area is gently to steeply sloping and dominated by a mixed pine hardwood. Shoreline erosion is problematic in some areas due to steep slopes. Pine beetles have been problematic in the past. Minor timber salvage operations have been conducted over the years to suppress infestations. Approximately 3.7 acres of land in an undeveloped portion of the park are designated as wetlands. The park is heavily used throughout the year.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Construct a new modern 100 room indoor access hotel, restaurant, and convention center. Construct ten camper cabins adjoining the campground.

**28. Bobby Brown Park**

**Management Agency:** Georgia Department of Natural Resources\Elbert County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** 2509 Bobby Brown State Park Rd., Elberton, GA

**Description and Use:**

Acres	661.8	Season	All Year
Boat Ramp/# Lanes	2/3	Trailer Parking Spaces	60
Courtesy Dock	1	Single Vehicle Parking Spaces	99
Picnic Sites	50	Group Picnic Shelters	2
Campsites w/hookups	58	Enclosed Pavilion	1
Pioneer Campground	1	Hiking Trails	1.9 miles
Waterborne Restroom	1	Waterborne Showers	2
Park Office	1	RV Dump Stations	2
Playground	3	Fishing Pier	1
Amphitheater/Chapel	1	Swinging Bridge	1
Disc Golf	9 holes	Yurts	5
3D Archery Range	1	Historical Markers	3
Water Supply	Wells	Employee Residences	3

Narrative: Bobby Brown Park is located at the confluence of the Savannah and Broad Rivers. Originally, the park was developed and operated by GADNR. In 2016, GADNR subleased the park to Elbert County. The area is moderate to steeply sloping and dominated by hardwoods with scattered stands of pine and mixed pine hardwood. Shoreline erosion is problematic in some areas due to steep slopes. Pine beetles have been problematic in the past in part to very poor soils. Minor timber salvage operations have been conducted over the years to suppress infestations. In 2008, tornado damage resulted in 48 acres of timber damage. Much of the damaged timber was salvaged and 16.3 acres were replanted in loblolly pine. The remainder was allowed to convert naturally to hardwood. Approximately 11 acres of shoreline in an undeveloped portion of the park are designated as wetlands. The area is heavily used, especially by fishermen. A strong friends group provides assistance with maintenance, new construction, and events.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. A link to the master plan developed by Elbert County is as follows: <http://www.bobbybrownpark.com/master-plan-info.html>. Additional development includes additional yurts, a fuel dock, additional boat ramp and parking, beach area, amphitheaters, 18-hole disc golf course, trails, miniature golf course, and outdoor education center.

## 29. Elijah Clark State Park

**Management Agency:** Georgia Department of Natural Resources

**Land Classification:** High Density Recreation

**Location:** 2958 McCormick Hwy., Lincolnton, GA

### Description and Use:

Acres	450.9	Season	All Year
Boat Ramp/# Lanes	4/5	Trailer Parking Spaces	20
Courtesy Dock	1	Single Vehicle Parking Spaces	70
Fishing Pier	1	Pavilions	2
Picnic Sites	12	Group Picnic Shelters	4
Campsites w/hookups	165	Walk-in Campsites	10
Primitive Group Camps	1	Hiking Trails	3.75 miles
Group Camping Shelters	8	Camp Hosts Sites	6
Cabins	20	Laundry	1
Waterborne Restroom	3	Waterborne Showers	6
Park Office	1	RV Dump Stations	1
Playground	1	Miniature Golf	18 holes
Log Cabin Museum	1	Beach	1
Maintenance Area	1	Amphitheater	1
Water Supply	Wells	Employee Residences	2
Nature Center	1		

Narrative: Elijah Clarks State Park is located on the Georgia side of the Savannah River portion of the lake midway between Thurmond Dam and RBR Dam. The area is gently to moderately sloping and dominated by mixed pine hardwood with a few stands of hardwood. Pine beetles and wind damage have been problematic in the past. Minor timber salvage operations have been conducted over the years to suppress pine beetle infestations, facilitate clean up, and to remove hazard trees. The area is heavily used throughout most of the year. The park hosts numerous events throughout the year. Elijah Clark State Park is named for a frontiersman and Georgia war hero who led pioneers during the Revolutionary War. A log cabin replica of the Clark home displays furniture, utensils, and tools circa 1780 and is open weekends April through November. Visitors can also view the graves of Clark and his wife, Hannah. GDNR Law

Enforcement maintains an enclosed boat dock to store their watercraft. The western portion of the area (100+ acres) remains available and suitable for waterfront development.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

### 30. Mistletoe State Park

**Management Agency:** Georgia Department of Natural Resources

**Land Classification:** High Density Recreation

**Location:** 13725 Mistletoe Rd., Appling, GA

**Description and Use:**

Acres	1,915.0	Season	All Year
Boat Ramp/# Lanes	3/4	Trailer Parking Spaces	50
Courtesy Dock	1	Single Vehicle Parking Spaces	150
Picnic Sites	25	Pioneer Campground	1
Campsites w/hookups	93	Walk In Campsites	4
Primitive Group Camp	1	Back Country Campsites	3
Cabins	11	Tent Cabin	1
Camp Host Sites	4	Employee Residences	2
Group Picnic Shelters	5	Pavilions	2
Waterborne Restrooms	6	Waterborne Showers	3
Amphitheater	1	Beach	1
Park Office	1	RV Dump Stations	2
Playground	4	Hiking/Biking Trails	15.5 miles
Water Supply	Wells	Nature Center	1
Maintenance Area	1		

Narrative: Mistletoe State Park is located on the Little River, GA portion of the lake and is the largest park on the lake. The area is gently to steeply sloping and dominated by pine and mixed pine-hardwood. Shoreline erosion is problematic in some areas due to steep slopes and exposure to prevailing winds. Many of the pine stands in the main portion of the park were thinned in 1997 and the park has implemented a prescribed burning program on a portion of the area. Therefore, pine beetles have not been as problematic in the park. In 2015, a major timber harvest was conducted on the undeveloped portion of the park accessible only via Ridge Road. Approximately 120 acres of pine were thinned, and 50 acres were regenerated. The area is heavily used throughout most of the year in part because of its proximity to the Augusta metro area and because the park hosts numerous events throughout the year including home school classes and a managed deer quota hunt. GDNR Law Enforcement maintains an enclosed boat dock to store their watercraft. Approximately 2 acres of shoreline in an

undeveloped portion of the park are designated as wetlands. There is ample available area suitable for additional waterfront development within the park limits.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

**31. Clarks Hill Ball Field**

**Management Agency:** McCormick County Recreation Department

**Land Classification:** High Density Recreation

**Location:** 435 Laura Grove Church Rd., Clarks Hill, SC

**Description and Use:**

Acres	9.7	Season	All Year
Baseball Field	1	Single Vehicle Parking Spaces	20
BasketBall Court	1	Group Picnic Shelters	1
Waterborne Restroom	1	Water Supply	County
Playground	1		

Narrative: The Clarks Hill Ball Field is located on property that was severed from the main project lands when Hwy 221/28 was realigned in the 1980s. The developed portion of the area is not forested. The remaining undeveloped area is steeply sloping and dominated by mixed pine hardwood. The area was developed mainly for the local citizen's use and receives moderate use. Future development is limited by topography and bordering roads.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

**32. Parksville Wayside**

**Management Agency:** McCormick County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** 10029 Hwy 28, Parksville, SC

**Description and Use:**

Acres	7.6	Season	All Year
Picnic Sites	10	Single Vehicle Parking Spaces	20
Group Picnic Shelters	1	Water Supply	None

Narrative: Parksville Wayside is located immediately adjacent to Hwy 221/28 within the town of Parksville. The area is gently sloping and dominated by an open pine stand. All of the area is below 346' amsl. The area is moderately used by bank fishermen and the local community. Future development is limited by the highway and adjoining property uses.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

### 33. William Bryant Dorn Sports Fishing and Boating Facility

**Management Agency:** McCormick County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** 272 Chamberlain Ferry Rd., McCormick, SC

**Description and Use:**

Acres	28.0	Season	All Year
Boat Ramp/# Lanes	1/6	Trailer Parking Spaces	218
Courtesy Docks	5	Single Vehicle Parking Spaces	225
Fishing Pier	1	Shelters	2
Waterborne Restroom	1	Water Supply	Well

Narrative: The Dorn Boating Facility was developed as a major fishing tournament facility in partnership with the USFWS, SCDNR, and USACE. The area is gently sloping and dominated by parking lots. The areas between the parking lots and shoreline is predominately pine. The USGS maintains a weather station on the fishing pier. The area receives moderate use.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Entrance road and parking areas need re-paving.

### 34. Broad River Campground

**Management Agency:** Lincoln County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** 8181 Elberton Hwy, Tignall, GA

**Description and Use:**

Acres	29.3	Season	All Year
Boat Ramp/# Lanes	1/2	Trailer Parking Spaces	12
Courtesy Dock	1	Single Vehicle Parking Spaces	11
Campsites w/hookups	31	Fish Cleaning Station	1
Gate House	1	Waterborne Showers	1
Vault Toilets	2	RV Dump Stations	1
Water Supply	Well	Attendant Pads	2

Narrative: Broad River is a medium size campground and is popular with anglers due to its proximity to Anthony Shoals. Of the 31 campsites, 7 are double sites and 2 are triple sites. The area is gentle to moderately sloping and dominated by mixed pine hardwoods. Shoreline erosion is problematic in some of the developed area. During periods of low lake levels, siltation limits use of the boat ramp and other water related activities. Pine beetles have impacted portions of the area. Due to the limited land base, the potential for expansion of the existing campground is limited. The area was originally developed and maintained by the USACE and leased to the County in 2014.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Develop a multi lane boat ramp, 40 car/trailer parking lot and restroom across Hwy 79.

**35. Hesters Ferry Campground**

**Management Agency:** Lincoln County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** 1880 Hester's Ferry Rd., Tignall, GA  
Plate Number 37

**Description and Use:**

Acres	187.5	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	11
Courtesy Dock	1	Single Vehicle Parking Spaces	5
Campsites w/hookups	16	Campsites w/o hookups	10
Gate House	1	Waterborne Showers	1
Vault Toilets	3	RV Dump Stations	1
Beach	1	Fish Cleaning Station	1
Water Supply	Well	Attendant Pad	2

Narrative: Hesters Ferry is one of the smaller campgrounds on the lake, however, it is popular with anglers. The area is gentle to steeply sloping and dominated by mixed pine hardwoods. Shoreline erosion is problematic in some of the developed area. Pine

beetles have impacted portions of the area. The area has the potential for expansion of water-based facilities. The area was originally developed and maintained by the USACE and leased to the County in 2014.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Possible expansion may include a mini-marina with fuel, limited wet slip storage, day use, amphitheater, expanded boat ramp parking, beach, and cabins/yurts

**36. Parkway Boat Ramp**

**Management Agency:** Lincoln County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** Hwy 378 immediately southwest of the Savannah River Bridge, Lincoln County, GA

**Description and Use:**

Acres	33.5	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	10
Single Vehicle Parking	10	Courtesy Dock	1
Water Supply	None		

Narrative: Parkway is a small boat ramp only area. The area is utilized moderately by bank fishermen in the spring and early summer and may be used periodically by the County for fireworks displays. The majority of the area is gently sloping and wooded in pines and was originally developed and maintained by the USACE and leased to the County in 2011.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Improve traffic circulation and parking at boat ramp. The area has the potential for development of a satellite marina (approximately 3 to 4 acres). Additional development may include a group shelter and/or amphitheater.

**37. Eddie Fletcher Park**

**Management Agency:** Lincoln County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** Hwy 378 immediately North East of the Soap Creek Bridge, Lincoln County, GA

**Description and Use:**

Acres	64.1	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	40
Beach	1	Single Vehicle Parking Spaces	15
Picnic Sites	11	Vault Toilet	1
Water Supply	None	Attendant Pad	1

Narrative: Eddie Fletcher is a medium size day use area. The boat ramp receives moderate use during the spring and early summer. The developed areas are moderately wooded in mixed pine hardwood. The area is gently to moderately sloping and dominated by mixed pine hardwoods. There is the potential for additional water-based recreation facilities. The area was originally developed and maintained by the USACE and outgranted to the County in 1983. Better restroom facilities area needed. Entrance road is in need or renovations/repairs. Picnic sites and beach need major maintenance.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

**38. Cherokee Recreation Area**

**Management Agency:** Lincoln County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** 5926 August Hwy., Lincolnton, GA

**Description and Use:**

Acres	219.8	Season	All Year
Boat Ramp/# Lanes	1/5	Trailer Parking Spaces	109
Courtesy Dock	1	Single Vehicle Parking Spaces	72
Picnic Sites	19	Group Picnic Shelters	2
Waterborne Restroom	2	Beach	1
Playground	1	Fish Cleaning Stations	1
Gate house	1	Water Supply	County
Gate Attendant Site	1		

Narrative: Cherokee is a medium size day use area. The boat ramp is heavily used from early spring thru Labor Day. The picnic area receives moderate use during the main recreation season and is closed during the off season. The area is gently to moderately sloping and is dominated by hardwood pine. Pine beetles have been problematic in the past due to poor, rocky soils. There is the potential for additional

water-based recreation facilities. The area was originally developed and maintained by the USACE and leased to the County in 2010.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Proposed development includes an amphitheater, additional parking, pavilion/shelter, fishing pier, mountain biking/hiking trails, campsites, cabins, and yurts

### 39. Clay Hill Campground

**Management Agency:** Lincoln County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** 5701 Clay Hill Rd, Lincolnton, GA

**Description and Use:**

Acres	68.7	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	10
Courtesy Dock	1	Single Vehicle Parking Spaces	5
Campsites w/hookups	10	Campsites w/o hookups	7
Waterborne Showers	1	Vault Toilets	2
Attendant Pad	1	RV Dump Stations	1
Water Supply	Well		

Narrative: Clay Hill is one of the smallest campgrounds on the lake, however, it is popular with anglers. The area is gentle to steeply sloping and dominated by mixed pine hardwoods. Minor shoreline erosion is noticeable in some of the developed area. Pine beetles have heavily impacted portions of the area. The boat ramp becomes difficult to use below elevation 323.5' amsl but has the potential for expansion of water-based facilities. Major expansion would require termination of the adjoining private club lease. The area was originally developed and maintained by the USACE and leased to the County in 2014.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Proposed development includes upgrade of existing campsites with water and electric hookups, additional campsites, gatehouse, camp store and boat ramp upgrades.

### 40. Holiday Park

**Management Agency:** Wilkes County

**Land Classification:** Recreation

**Location:** 1901 Holliday Park Rd., Washington GA

**Description and Use:**

Acres	316.9	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	15
Courtesy Dock	1	Single Vehicle Parking Spaces	7
Campsites w/hookups	23	Picnic Sites	3
Vault Toilets	3	Waterborne Showers	1
Water Supply	Well	Attendant Pads	1

Narrative: Holiday Park located in a remote portion of the lake and is surrounded by the Clarks Hill Wildlife Management Area (WMA). The area is moderately utilized by anglers and the local community and is gentle to moderately sloping and dominated by pines with scattered patches of hardwoods. Shoreline erosion is minimal. There is the potential for expansion of water-based facilities.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

#### 41. Raysville Campground

**Management Agency:** McDuffie County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** 6489 Lincolnton Rd. NE, Thomson, GA

**Description and Use:**

Acres	105.5	Season	All Year
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	10
Courtesy Dock	1	Single Vehicle Parking Spaces	11
Campsites w/hookups	55	Fish Cleaning Station	1
Gate House	1	Waterborne Showers	2
Vault Toilets	2	RV Dump Stations	1
Water Supply	County	Attendant Pads	1

Narrative: Raysville is a larger campground that is popular with anglers and is heavily used from early spring through Labor Day. The area is gentle to moderately sloping and dominated by mixed pine hardwoods. Shoreline erosion is problematic in some of the developed area. Wisteria is problematic in a portion of the park. The area has the potential for expansion of water-based facilities if adjoining USACE lands are added to the lease area. This site was originally developed and maintained by the USACE and leased to the County in 2014.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

## 42. Big Hart Recreation Area

**Management Agency:** McDuffie County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** 5258 Washington Rd., Thomson, GA

### Description and Use:

Acres	425.7	Season	All Year
Boat Ramp/# Lanes	1/2	Trailer Parking Spaces	25
Courtesy Dock	1	Single Vehicle Parking Spaces	60
Picnic Sites	30	Campsites w/hookups	31
Camp Sites in Group Area	7	Playgrounds	2
Waterborne Restroom	1	Vault Toilets	2
Waterborne Showers	3	Gate House	1
Fish Cleaning Station	1	RV Dump Station	1
Water Supply	3 Wells	Attendant Pad	2

Narrative: Big Hart Recreation Area is located on a peninsula at the confluence of Big Creek and Hart Creek. The area is surrounded by the Clarks Hill WMA managed by the Georgia Department of Natural Resources and consists of a campground, group campground and day use area. The campground has the closest and most direct access to the I-20 interstate corridor. Campsites were renovated in 2010. The centrally located boat ramp serves the entire area. Big Hart has the only USACE group campground on the lake and is open March thru September and is well used throughout the season. The day use area is open late April thru the Labor Day weekend and is moderately utilized. The site is gently to moderately sloping and is predominantly hardwood pine. Shoreline erosion control measures have been implemented in a few areas. Feral hogs are problematic in the area.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Continue efforts to minimize impacts of feral hogs. Consider allowing hunting on undeveloped portions of the area. Construct 15-20 additional campsites with hookups, relocate the gate house to a more centrally located area, and install dump station at group camp.

### 43. Wildwood Park

**Management Agency:** Columbia County Parks and Recreation Department

**Land Classification:** High Density Recreation

**Location:** 3780 Dogwood Lane, Appling, GA

**Description and Use:**

Acres	948.9	Season	All Year
Boat Ramp/# Lanes	3/8	Trailer Parking Spaces	231
Courtesy Dock	3	Single Vehicle Parking Spaces	80
Picnic Sites	50	Group Picnic Shelters	7
Campsites w/hookups	61	Tournament Weigh In Station	1
Primitive Group Camps	1	Hiking Trails	5 miles
Park Office	1	Horse Trails	12 miles
Waterborne Restroom	1	Waterborne Showers	2
Employee Residence	1	RV Dump Stations	1
Playground	3	Beach	1
Disc Golf	36 holes	Maintenance Facility	1
Water Supply	County	Park Host Sites	2

Narrative: Wildwood Park is the largest county park on the lake and is one of the most visited areas on the lake. Originally, the park was developed and operated by GADNR. In 1976, GADNR turned the park over to Columbia County. The area is home to the International Disc Golf Center and Hall of Fame which is under sublease. The mega ramp is used heavily for fishing tournaments. A new gate house was constructed in 2008 along with three entry lanes for faster processing of visitors during events and realignment of the entrance road intersection with Hwy 47. A heavily used portion of the Bartram Trail passes thru the park. The site is gently to moderately sloping and dominated by pines with scattered stands of mixed pine hardwood. Pine beetles have been problematic in the past. Significant timber salvage operations were conducted in 2007 to suppress pine beetle infestations. Larger clearcut areas were replanted in loblolly pine (30 acres total). From 2016 to 2018, approximately 387 acres of natural pine were thinned to improve the overall vigor of the residual timber stand and promote hardwood growth. Approximately 1 acre of shoreline in an undeveloped portion of the park is designated as wetlands.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. In 2010, a conceptual master plan for future development was approved. The plan includes a visitors center with 25 parking spaces, outdoor amphitheater with seating for 1,000 people, an equestrian campground, two acre ADA assessable super playground, relocate beach area, 100 room lodge, 24 cabins, a natural and team building area,

archery areas, 12 miles of hiking trails, 2.6 miles of mountain bike trails, 6.1 miles of equestrian trails, 8.1 miles of paved multi-use trails, and natural areas.

#### 44. Minor Boat Ramp Only Areas

**Land Classification:** High Density Recreation

Location/Name	Managing Agency	Designated Parking Spaces	Acres
Modoc Shores	McCormick County	0	0.3
Catfish Bay Subdivision.	McCormick County	10	7.9
Landam Creek	McCormick County	10	1.1
Buffalo Creek Subdivision	McCormick County	0	0.6
Long Cane Creek Park*	US Forest Service		
Hwy 28 Access*	US Forest Service		
Little River Quarry Ramp*	US Forest Service		
New Bordeaux Subdivision	McCormick County	8	1.6
Little River Subdivision	USACE	0	0.3
Hickory Knob Subdivision	USACE	0	0.5
McIntosh Bottoms	SCDNR	5	0.6
Elbert County Subdivision	USACE	0	2.8
Lakeside Estates	Lincoln County	5	4.4
Fishing Cr Ramp, Hwy 79	Lincoln County	10	9.2
Fishing Cr Ramp, Deer Run Point	USACE	10	1.0
Murry Cr WMU	USACE	5	7.0
Murry Cr Ramp	USACE	5	19.3
Montego Point Subdivision	Lincoln County	5	1.7
Soap Cr Subdivision	USACE	0	0.5
Soap Cr, Crooked Bridge	Lincoln County	12	1.8
Chamberlain Ferry, GA	USACE	0	13.7
Wells Cr Subdivision	Lincoln County	5	4.3
Maxim Village Subdivision	Lincoln County	5	5.2
Holloway Rd	Lincoln County	10	3.5
Double Branches	USACE	5	3.2
Leatherville	USACE	7	23.2
Forest Lake Estates	Lincoln County	0	0.4
Hidden Harbor Subdivision	Lincoln County	5	2.1
Little River, GA Hwy 78	GADNR	10	1.9
Rousseau Cr Subdivision	USACE	0	2.5
Winfield Sub Ramp 2	Columbia County	5	1.3
Winfield Sub Ramp 1	Columbia County	0	0.9

\* Areas owned and managed by the US Forest Service are listed for reference only and not subject to the provisions of the MP.

Narrative: Minor boat ramp only areas are scattered around the lake. Most serve nearby subdivisions and receive limited maintenance. Parking is often limited to the road shoulder. Most areas have the potential to improve traffic circulation and parking. Soil compaction is problematic in some areas due to unrestricted vehicle traffic.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Improve traffic circulation and parking as demand warrants and funds become available.

**45. Plum Branch Yacht Club**

**Management Agency:** Private Concessionaire

**Land Classification:** High Density Recreation

**Location:** 1 Yacht Club Drive, Plum Branch SC

**Description and Use:**

Acres	66.8	Season	All Year
Boat Ramp/# Lanes	1/2	Trailer Parking Spaces	35
Courtesy Dock	3	Single Vehicle Parking Spaces	20
Wet Slips	127	Dry Storage Spaces	40
Transient Slips	8	Restaurant	1
Fuel Dock	1	Employee Residence	4
Campsites w/hookups	30	Bait & Tackle Shop	1
Waterborne Showers	1	RV Dump Stations	1
Group Pavilion	1	Waterborne Restroom	1
Rental Cabins	1		
Water Supply	County		

Narrative: Plum Branch Yacht Club (formerly Clarks Hill Marina) is one of the oldest marinas on the lake. The area is extensively developed. Much of the shoreline is experiencing moderate to severe erosion.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Future development will include expansion of wet slip moorage, additional campsites, and additional dry storage.

**46. Savannah Lakes Marina**

**Management Agency:** Private Concessionaire

**Land Classification:** High Density Recreation

**Location:** 99 Village Drive, McCormick, SC

**Description and Use:**

Acres	3.5	Season	All Year
Wet Slips	30	Single Vehicle Parking Spaces	2
Fuel Dock/Ships Store	1	Waterborne Showers	1
Water Supply	County	Boat Rentals	Yes

Narrative: Savannah Lakes Marina was constructed primarily to serve Savannah Lakes Village and the associated motel complex. The marina has a very limited land base. The marina basin is near capacity.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

**47. Soap Creek Marina**

**Management Agency:** Private Concessionaire

**Land Classification:** High Density Recreation

**Location:** 3000 Soap Creek Lodge Road, Lincolnton, GA

**Description and Use:**

Acres	107.3	Season	All Year
Boat Ramp/# Lanes	1/2	Trailer Parking Spaces	20
Courtesy Dock	1	Single Vehicle Parking Spaces	5
Wet Slips	94	Dry Storage Spaces	12
Fuel Dock	1	Beach	1
Campsites w/hookups	30	Employee Residence	1
Waterborne Showers	1	Rental Cabins	5
Restaurant	1	Bait & Tackle Shop	1
Water Supply	County	RV Dump Station	1

Narrative: Soap Creek Marina is a gentle sloping site with minimal shoreline erosion. Much of the area is not forested. Shallow water and a low bridge restrict larger boats from accessing the marina.

**Resource Objective:** Necessary maintenance/renovation of existing facilities.

#### 48. Raysville Marina

**Management Agency:** Private Concessionaire

**Land Classification:** High Density Recreation

**Location:** 6584 Lincolnton Hwy, Thomson, GA

#### **Description and Use:**

Acres	22.8	Season	All Year
Boat Ramp/# Lanes	1/2	Trailer Parking Spaces	25
Fuel Dock	1	Single Vehicle Parking Spaces	15
Wet Slips	47	Dry Storage Spaces	40
Campsites w/hookups	25	Campsites w/o hookups	5
Waterborne Restroom	1	RV Dump Station	1
Bait & Tackle Shop	1	Employee Residence	1
Water Supply	County	Fish House	1

Narrative: Raysville Marina is in a high traffic portion of the lake close to Raysville Campground and Amity Recreation Area. The site is moderately to gently sloping and dominated by mixed pine and hardwoods. Shoreline erosion is problematic near the fuel dock and tackle shop.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Future development will include a waterborne shower facility and restaurant.

#### 49. Clarks Hill (Thurmond) Marina

**Management Agency:** Private Concessionaire

**Land Classification:** High Density Recreation

**Location:** 4271 Old Lincolnton Rd., Appling, GA

**Description and Use:**

Acres	100.0	Season	All Year
Boat Ramp/# Lanes	3/3	Trailer Parking Spaces	5
Courtesy Dock	1	Single Vehicle Parking Spaces	20
Wet Slips	24	Dry Storage Spaces	63
Waterborne Restroom	1	Employee Residence	1
Fuel Dock	1	Water Supply	County
Bait & Tackle Shop	1	Boat Sales/Repair	1

Narrative: Clarks Hill Marina is in a high traffic portion of the lake close to numerous recreation areas and subdivisions. Currently 23.8 acres of the site is under lease. The area is gently sloping with much of the area below 346' amsl.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Future development will include a restaurant, additional wet slips and additional dry storage.

**50. Tradewinds Marina**

**Management Agency:** Private Concessionaire

**Land Classification:** High Density Recreation

**Location:** 5577 Marina Pkwy, Appling, GA

**Description and Use:**

Acres	201.8	Season	All Year
Boat Ramp/# Lanes	2/3	Trailer Parking Spaces	15
Courtesy Docks	1	Single Vehicle Parking Spaces	20
Wet Slips	260	Dry Storage Spaces	105
Waterborne Restroom	1	Dry Stack Spaces	45
Boat Repair/Sales Building	1	Non-transient Trailers	34
Office	1	Non-Transient Trailer Courtesy Docks	2
Water Supply	Wells	Fuel Dock	1
Seasonal Food Service(Food truck)	1	Pavilion	1

Narrative: Tradewinds Marina is the largest marina on Thurmond Lake. It is in a high traffic portion of the lake close to numerous recreation areas and subdivisions. Much of the lease area is undeveloped. There is a 1/2 acre designated wetland located within the lease area.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Future development will include boat rental, a ships store, rental cabins and RV campsites with full hook-ups.

## **51. Future Marina Sites**

**Management Agency:** Private Concessionaire

**Land Classification:** High Density Recreation

**Locations:**

Hesters Bottoms Campground (former Mt. Carmel Campground (Section 52)  
Hesters Ferry Campground (Section 35)  
Parkway Boat Ramp (Section 36)  
Soap Creek (Former YWCA site) Indian Road, Lincolnton, GA

**Description and Use:** Area description for Hesters Bottoms Campground, Hesters Ferry Campground, and Parkway Boat Ramp are found in their respective sections listed above. All facilities were removed from the YWCA area when the lease expired.

**Resource Objective:** Marina facilities in Hesters Bottoms Campground and Hesters Ferry Campground have been considered for many years due to the lack of fuel sales and concessions in this portion of the lake. Marina facilities at Parkway Boat Ramp have been proposed due to the lack of parking at Savannah Lakes Marina. The Soap Creek site has been proposed tentatively by the operator of Soap Creek Marina as a satellite operation. The Highway 220 Bridge limits larger vessels from accessing the existing marina. Future development will be limited to facilities normally associated with existing marinas to include fuel sales, concessions, restaurant, boat storage (wet slips or dry storage), boat sales and service, and associated support facilities. Prior to approval of a lease and development plan, the prospective lessee must provide for approval a market and feasibility study of the proposed marina.

## **52. Hester's Bottoms Campground**

**Management Agency:** Private Concessionaire

**Land Classification:** High Density Recreation

**Location:** 3893 Main St., Mt. Carmel, SC

**Description and Use:**

Acres	161.6	Season	All Year
Boat Ramp/# Lanes	2/2	Trailer Parking Spaces	40
Courtesy Dock	1	Single Vehicle Parking Spaces	10
Campsites w/hookups	39	Campsites w/o Hookups	5
Waterborne Showers	3	Vault Toilet	8
Gate House	1	Picnic Shelter	1
Picnic Sites	8	Playground	1
Attendant Pad	1	RV Dump Station	1
General Store	1	Water Supply	County

Narrative: The campground was closed at the end of the 2013 recreation season due to budget limitations and re-opened in 2021 under lease to a private concessionaire. Topography in the area varies from gently sloping to severe. Shoreline erosion is problematic on about half of the developed area. The area is predominantly mixed pine hardwood and has been subject to numerous minor pine beetle outbreaks due to the poor soils. Initially, the area was developed as a campground only. Due to the demand for day use facilities in this portion of the lake, work began to convert a portion of the campground into a picnic area with a separate boat ramp. The boat ramp is open for public use. The day use area was not completed prior to outgranting to a private concessionaire.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Future development may include additional campsites, cabins and day use facilities.

**53. Fort Gordon Recreation Area (Points West Army Resort)**

**Management Agency:** U.S. Army, Fort Gordon

**Land Classification:** Special Use

**Location:** 6703 Washington Rd., Appling, GA 30802

**Description and Use:**

Acres	910.6	Season	All Year
Boat Ramp/# Lanes	2/4	Trailer Parking Spaces	25
Courtesy Dock	1	Single Vehicle Parking Spaces	100
Wet Slips	114	RV & Boat Storage Sheds	86
Fuel Dock	1	Rental Boat Dock	1
Campsites w/hookups & Sewage	58	Open Dry Storage Spaces	48
Primitive Tent Camping Areas	4	Picnic Sites	200
Group Picnic Shelters	7	Conference Center	1
Waterborne Showers	4	Rental Cabins	18
Rental Cottages	5	Motel Suites	12
Office / Grocery	1	Confidence Course	1
Gatehouse	1	Maintenance Area	1
Playground	2	Beach	1
Water Supply	County	RV Dump Station	1
Campsite w/electric only	20		

Narrative: Ft. Gordon Recreation Area is located on two large peninsulas extending out into the Little River portion of the lake. The site is gently to moderately sloping and dominated by pine with several stands of hardwood and mixed pine hardwood. Pine beetles have been problematic in the past in part due to soil compaction caused by unrestricted vehicle use. Major timber management activities were undertaken in 2015-2018 to release suppressed pine stands in developed and undeveloped portions of the area and regenerate selected pine stands in undeveloped portions of the area. Shoreline erosion is problematic in some areas due to the prevailing winds. The area contains 5 cemeteries and one cultural resources site that is potentially eligible for the National Register of Historic Places. Ft. Gordon Recreation Area is only open to active-duty military personnel, retired/disable military personnel, and Department of Defense employees. The main area is heavily utilized throughout the main recreation season due to its proximity to Ft. Gordon and the large number of active-duty military, retirees and civilian employees in the Augusta metro area. There are several areas adjoining the developed areas that are suited for future development of waterfront facilities. The undeveloped portion of the area known as the South Pen (approximately 350 ac.) is underutilized.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Approved future development includes constructing 11 new cottages or recreational lodging units, four additional dry storage sheds, and replacement of a bath house.

#### 54. Clarks Hill Training Site

**Management Agency:** South Carolina Army National Guard

**Land Classification:** Special Use

**Location:** 212 Kay Waldrop Way, Plum Branch, SC

**Description and Use:**

Acres – Cantonment Area	333.6	Season	All Year
Acres – Maneuver Area	534.1	Office	1
Boat Ramp/# Lanes	1/1	Trailer Parking Spaces	5
Campsites w/hookups & Sewage	0	Single Vehicle Parking Spaces	20
Campsites w/hookups	11	Group Picnic Shelters	3
Cabins	4	Running Track	1
Waterborne Showers	2	Vault Toilet	1
Ball Field	1	Conference Center	1
Helicopter Pad	1	Telecommunications Bldg	1
Maintenance Area	1	Portable Bridge Storage Area	1
Water Supply	County	Dining Facility	1
Barracks (50-man w/showers)	1	Mess Kitchen	1
Barracks (32-man quonset huts) *Future demolition	9	Cabins (quonset huts) *Future demolition	4

Narrative: The Clarks Hill Training Site is located on a large peninsula extending out into the mid-section of the Savannah River portion of the lake. The site is gently to moderately sloping and dominated by a pine with a few stands of hardwood and mixed pine hardwood. Shoreline erosion is problematic in some areas due to the prevailing winds. Pine beetles have been problematic in the past in part due to unrestricted vehicle use in the developed portion of the area. Minor timber salvage operations have been conducted over the years to facilitate clean up and to remove hazard trees. The area is extensively use for National Guard Training. The site supports training requirements for the SC Army National Guard, provides garrison and training facilities for the Multi-Role Bridge Company (MRBC), and is available for Dept. of Defense and other partner organizations. The use of recreational facilities is limited to active-duty military personnel, military retirees, military reserves, National Guard personnel, 100 percent disabled veterans, SC State Guard personnel, and civilian employees of the SC Military Department. The maneuverer area is open for public use, including hunting, when it is not used for training.

**Resource Objective:** Military training is not an authorized project purpose. In January 2016 the National Guard was notified in writing that only the facilities approved in the July 2015 development plan would be approved. Future development of the area beyond what is approved in the current development plan will be limited to minor alterations, replacement, and O&M of existing and approved structures.

## 55. Quasi-Public Lease Areas

**Management Agency:** Various Groups

**Land Classification:** High Density Recreation – Quasi Public Leases

**Location:** See below

### Description:

Lessee	Acres	Location
St. Johns United Methodist Church	34.3	12553 St. Johns Rd. Clarks Hill, SC
Grace United Methodist Church	30.0	Hwy 28 S., Clarks Hill, SC
Veterans Administration (Special Use Land Classification)	27.8	Gilchrist Ferry Rd., Modoc, SC
Aldersgate United Methodist Church	15.7	468 Gilchrist Ferry Rd., Modoc, SC
Fairview Presbyterian Church	13.8	Reese Baqui Rd., Modoc, SC
Aiken Baptist Association	29.5	Reese Baqui Rd., Modoc, SC
St. Mary's Church	26.7	Dordon Cr. Rd., Parksville, SC
Lutheran Churches	63.0	Luther Point Rd., Plum Brach, SC
Boys Scouts of America - Camp Knox	219.2	Camp Knox Rd, Lincolnton, Ga
Boys Scouts of America - Camp Danial Marshall	89.2	Danial Marshall Rd., Lincolnton, GA
Family "Y"	114.7	1238 Dogwood Dr., Lincolnton, GA
McDuffie County Board of Education	23.1	6640 Lincolnton Hwy., Thomson, GA
Gracewood School and Hospital	82.0	6187 Ridge Rd., Appling, GA
First Presbyterian Church	94.3	6143 Ridge Rd., Appling, GA
Central Christian Church	26.8	6042 Ridge Rd., Appling, GA
St. James Methodist Church	49.0	6071 Ridge Rd., Appling, GA

Narrative: In the 1960s, the USACE leased areas to numerous quasi-public organizations to increase utilization of the lake. These organizations are open to a large cross section of the public. As a condition of most of the leases, they are required to make their lease areas available to other organizations. In general, development consist of an activities building, restrooms, a beach area, campsites, and picnic sites. A few areas have group dormitories. Due to their unique development, the following three quasi-public areas are worth noting:

The Family "Y" in partnership with The Children's Hospital of Georgia have developed facilities to serve a large number of the region's youth. Existing development consists

of a multipurpose gym, one double cabin w/bathrooms, medical building, 9 small cabins, activity building, office, beach, boat ramp with dock, sports field and ball court, well house, maintenance and storage area, and hiking trails. The development plan approved in 2014 calls for the addition of 10 single and 9 double cabins with bathrooms, a welcome center, swimming pool complex, playground, staff quarters, director's and caretaker's cabins, administrative building, media center, fishing house, covered pavilion, chapel, amphitheater and associated infrastructure, and recreation facilities. The Family Y 2014 Conceptual Master Plan provides facility details and locations. The area is extensively used during the recreation season.

The Georgia Carolina Council of the Boy Scouts of America lease two areas that are in close proximity to each other. The majority of the development at Camp Knox is located on property transferred by the USACE to the Boy Scouts in 1963. Project lands between the boundary line and shoreline and five islands have been leased to the Boy Scouts for development of a beach, boat ramp, boat house, multi-slip docks, courtesy dock, amphitheater, trails, and campsites. Development at Camp Daniel Marshall consists of 2 dormitory-style cabins, mess hall, bath house, chapel, campsites, a boat ramp, swim platform, and a beach. Both areas receive low to moderate usage.

Gracewood School and Hospital is a state agency that operates Ollerich Memorial Park. The area primarily serves handicapped individuals and their families. Trails, playgrounds, observation platforms, campsites, and buildings are designed specifically for individuals with mobility concerns in order to provide them with an outdoor recreational experience not available in most other areas.

**Resource Objective:** Necessary maintenance/renovation of existing facilities. Future development within these areas will be permitted in accordance with ER 405-1-12, Chapter 8, Real Property Management. Existing leases will be honored and renewed to these organizations provided they are in compliance with the terms of the lease. Lessees are encouraged to partner with other organizations; however, the lease may not be reassigned to another organization.

## **56. Pine Point Club**

**Management Agency:** Private Club

**Land Classification:** High Density Recreation – Private Club Leases

**Location:** End of Clay Hill Rd., Lincoln Co., GA

**Description and Use:**

Acres	25.3	Season	All Year
Boat Ramp/# Lanes	1/1	Campsites w/hookups & Sewage	55
Courtesy Dock	1	Playground	1
Waterborne Shower	1	Vault toilet	1
Activity Center w/ Pavilion	1		
Water Supply	Wells		

Narrative: Pine Point Club is the only remaining private club lease entirely on USACE property. Forty-seven private leased club sites were sold in the 1980s as authorized by Public Law 84-99, the Cottage Site Act. This area was not sold due to its proximity to Clay Hill Campground. The area is gently sloping and dominated by a relatively open pine stand. Pine beetles have been problematic in the past.

**Resource Objective:** Necessary maintenance of existing facilities. The area will continue to be leased to the club until the area is needed for expansion of Clay Hill Campground provided the lessee remains in compliance with the terms of the lease. The lease is non-transferable and no new development will be authorized in this lease area

**57. Other Private Club Minor Lease Areas**

**Management Agency:** Private Club

**Land Classification:** High Density Recreation – Private Club Leases

**Location:** See below

**Description:**

Lessee	Acres	Location
Elbert County Key Club	0.11	End of Key Club Rd., Elbert Co., GA
Nick Evans	0.27	End of Cherokee Cr. Country Club Rd., Lincoln Co., GA

Narrative: These small areas are encumbered by permanent structures but are located below the 346' amsl, the maximum surcharge elevation. Therefore, these areas have remained under lease.

**Resource Objective:** Necessary maintenance of existing facilities. These areas will continue to be leased to the club. The lease is non-transferable, and no new development will be authorized in these lease areas.

## 58. USACE Wildlife Management Units

**Management Agency:** USACE

**Land Classification:** Wildlife Management

**Location/Description and Use:**

Area Name	Acres	# Wildlife Openings	Openings Acreage	Issues/Comments
Below Dam, SC	452.3	9	5.15	Wildlife viewing area
Scotts Ferry	635.0	9	5.0	
Modoc	361.2	0	0	
Modoc Shores	209.7	0	0	Longleaf habitat restoration
Catfish Peninsula	1,335.1	8	5.94	
Dordon Creek	1,524.0	9	9.92	Lack of public access to portions of the area. Includes SC Army Nation Guard maneuver area
Hawe Creek	1,516.0	16	10.15	
Coody Creek	432.0	4	7.84	Lack of public access.
Pistol Creek	1,235.0	3	1.07	
Newford Creek	893.0	2	0.34	
Hester's Ferry (2 areas)	461.1	1	0.40	Public access issues
Murry Creek	1,705.0	17	17.10	Public access issues
Mill Creek	735.0	0	0	Lack of public access
Bethany Church Road	652.2	0	0	
Soap Creek (3 areas)	396.0	2	44.5 (Pastures)	Lack of public access to one of area
Dry Fork Creek	580.0	9	41.76 (Pastures)	Lack of public access.
Wells Creek	765.0	1	0.77	
Shriver Creek	683.6	12	15.40	Longleaf habitat restoration
Holloway Landing	460.6	4	7.30	
Bussey Point	2,550.0	19	30.19	Longleaf habitat restoration
Cherokee Creek (3 areas)	499.0	3	3.2	Lack of public access to 2 areas
Cherokee Quarry	105.4	0	0	Strip quarry/wetlands
Greys Creek	629.3	7	5.59	
Dozier Branch	383.1	6	1.09	
Arimathea Rd	192.0	3	1.39	Lack of public access
Lloyd Creek	1,252.6	4	1.25	Lack of public access
Gresham Park Rd	181.8	0	0	

Rousseau Creek	664.6	0	0	
Ridge Road West	692.3	8	3.42	
Lake Springs	239.1	16	7.62	
Below Dam, GA	328.7	14	11.18	Quail habitat demonstration area. Longleaf habitat restoration.
Total	22,749.7	186	232.92	

Narrative: Thurmond Project's has one of the largest wildlife management programs within the USACE. Wildlife management units provide a wide variety of habitats for game and non-game species varying from early successional pine stands to mature hardwoods. Most wildlife management units provide small parking areas and informational bulletin boards for visitors. Habitat diversity is maintained through the maintenance of wildlife openings and silvicultural practices including timber thinning, pine stand regeneration, prescribed burning, and the salvage of downed and insect infested timber. Forest roads provide access within many areas for hunters and hikers. However, some areas are only accessible to the public by boat due to the lack of public roads leading to these areas. Partnerships with Quail Unlimited and the National Wild Turkey Federation have provided additional wildlife openings and permanent fire breaks in areas including Below Dam, GA, Shriver Creek, Murry Creek, and Catfish Peninsula. Invasive species such as feral hogs, wisteria, kudzu, and tallow trees are problematic in some areas. Due to lack of major ground disturbing activities in many of these areas, there are numerous wetlands that must be protected. Rare, threatened and endangered species surveys are performed prior to conducting any ground disturbing activities including timber management activities. Impacts to these species are avoided and their locations documented. If impacts to wetlands cannot be avoided, the respective state Best Management Practices are followed.

The Bussey Point Management Unit is unique in that it has been managed under the "wilderness" concept since implementation of the original master plan. Timber management activities have been limited to insect and wildfire suppression to allow natural forest succession to take place. Hunting is limited to managed hunts for deer and turkey to keep these populations within the carrying capacity of the area. In a partnership with the Georgia Horse Council, 13.6 miles of trails have been developed. In addition, the 12.5 miles of forest roads are used extensively by horseback riders, hikers, and mountain bike riders. There are remnant stands of longleaf pine in the area. Application of the "wilderness" concept has become increasingly difficult due to increased public use of the area, poor soils, and increasing pine beetle infestations. The high pine tree mortality has created safety hazards and maintenance issues along the trails and forest roads. As the pine and hardwood trees have grown larger, wind throw and storm damage has increased in part, due to the shallow, rocky soils that dominate the area.

**Resource Objective:** Continue maintenance of wildlife openings and implementation of silvicultural practices to maintain diverse habitats including the restoration of longleaf pine habitats were practical. Maintain and improve forest roads to provide public

access and facilitate forest management activities including prescribed burning and insect infestation suppression. Develop additional permanent fire breaks to facilitate prescribed burning, wildfire suppression, and serve as wildlife openings. Continue to pursue public access to management units where needed. Resolve access issues where needed. Continue to treat invasive plant species with herbicides to minimize impacts. When possible, this will be done in conjunction with other forest management activities. Continue to issue permits to take feral hogs outside of normal hunting seasons. Develop additional primitive boat in/hike in, picnic/campsites at various natural beaches and islands. Develop seasonal hunt camps.

Bussey Point will continue to be managed differently than most management units. Where practical, longleaf pine habitats will be restored. In other areas, stands of loblolly and shortleaf pine may be thinned to reduce mortality and facilitate the gradual conversion to hardwoods. Select areas may be regenerated to maintain some early succession habitat needed by many wildlife species. Managed hunts will continue, as will the partnership with the Georgia Horse Council.

More detailed management plans for these wildlife management areas are available in the OMP

## 59. SCDNR Wildlife Management Areas

**Management Agency:** SCDNR

**Land Classification:** Wildlife Management

**Location/Description and Use:**

Area Name	Land Acres	Water Acres	RBR Mitigation Land Acres	Issues/Comments
Parksville Dove Fields	55.3	0	0	
Benningsfield Creek/ Plum Branch Dove Fields	2,056.7	0	0	Includes law enforcement boat storage area
Bordeaux	2,161.9	0	3,569.9	
Russell Creek	1,745.8	302.4	591.9	
Total	6,019.7	302.4	4,161.8	

Narrative: Wildlife management areas provide a wide variety of habitats for game and non-game species varying from early successional pine stands to mature hardwoods. Habitat diversity is maintained through the maintenance of wildlife openings and silvicultural practices including timber thinning, pine stand regeneration, prescribed burning, and the salvage of downed and insect infested timber. Forest roads provide access within many areas for hunters and hikers. Invasive species such as feral hogs,

wisteria, kudzu, and tallow tree are problematic in some areas. Rare, threatened and endangered species surveys are performed prior to conducting any ground disturbing activities including timber management activities. Impacts to such species are avoided and their locations documented.

**Resource Objective:** Continue maintenance of wildlife openings and implementation of silvicultural practices to maintain diverse habitats. Maintain and improve forest roads to provide public access and facilitate forest management activities including prescribed burning and insect infestation suppression.

## 60. GADNR Wildlife Management Areas

**Management Agency:** GADNR

**Land Classification:** Wildlife Management

**Location/Description and Use:**

Area Name	Land Acres	Water Acres	RBR Mitigation Land Acres	Issues/Comments
Broad River	0	0	1,498.0	
Fishing Creek	2,462.7	0	340.0	
Soap Creek	1,174.6	0	0	
Clarks Hill WMA	12,609.8	4,083.7	0	
Germany Creek	1,192.0	264.2	0	
Keg Creek	0	0	883.0	
Total	17,439.1	4,347.9	2,721.0	

Narrative: Wildlife management areas provide a wide variety of habitats for game and non-game species varying from early successional pine stands to mature hardwoods. Habitat diversity is maintained through the maintenance of wildlife openings and silvicultural practices including timber thinning, pine stand regeneration, prescribed burning, and the salvage of downed and insect infested timber. Forest roads provide access within many areas for hunters and hikers. Invasive species such as feral hogs, wisteria, kudzu, and tallow trees are problematic in some areas. Rare, threatened and endangered species surveys are performed prior to conducting any ground disturbing activities including timber management activities. Impacts to such species are avoided and their locations documented.

**Resource Objective:** Continue maintenance of wildlife openings and implementation of silvicultural practices to maintain diverse habitats. Maintain and improve forest roads to provide public access and facilitate forest management activities including prescribed burning and insect infestation suppression.

## **APPENDIX E**

### **COMMENTS RECEIVED AND RESPONSES**

Date Received	Commenter	Comment	Response
12/6/2021	Erin Leach	There is no justification whatsoever for spending even one more dime of federal tax dollars on projects named after virulent white supremacists. It is a dishonor to the millions of American citizens who deserved dignity and equal representation in government, and instead they got segregation and the likes of Strom Thurmond. Why is a federal agency continuing to participate in this disgrace?	Federal projects like these two lakes are named by Congress, which means it takes an act of Congress to change the official name. To change the name, the community has to first get the support of a Senator or Congressman willing to sponsor federal legislation to make the change. I encourage you to contact them with your concerns.
12/8/2021	Greg-Bobby Brown Park	The plan looks great and I know a lot of work went into the plan by many different people. The plan for Bobby Brown Park looks accurate and we can't think of any other additions to the plan for our park at this time.	Thank you for your support.
12/12/2021	2. Mr. Selfridge	1. Do I need to be concerned about the 10% limitations like those shown below about the limitations on the potential growth of PBYC? Where can I find the "original footprint" of PBYC. Draft appears not to have a PBYC map. Table 16: Potential Recreational Facilities Development Public Marinas: Facilities approved on the lease development plan. Replacement, relocation, and/or modernization of existing facilities not to exceed 10 percent of the original facility's footprint. 2. On Page 43, the Table list Hester's Bottom as being operated by Lincoln County, SC v. the Stewarts and Jones. 3. On Page 44, the Table lists that there are four (4) sites set aside for New Marinas. Where are these sites located?	See response to the previous comment regarding exceeding 10% expansion. Page 43 does not reference Hesters Bottoms as Lincoln Co. but by a private concessionaire. The Master Plan (MP) accurately reflects that Hesters Bottoms in South Carolina was leased to a private concessionaire in 2021 and that Hesters Ferry is a campground managed by Lincoln County Georgia. Appendix C of the MP has been revised to provide additional information regarding Future Marina Sites.
12/26/2021	1. Mr. Selfridge	I require clarification about this Rule verses Projects that are approved by the District. I am working on plans for approximately twenty (20) new campground sites and a bathhouse on Harbour Point. At present, PBYC has 56 campground sites. According to the Master Plan, PBYC is allowed to have ONLY six (6) more campground sites. The development of Harbour Point cannot be justified based upon only six (6) new sites. I will be working with SCDNR, SCDHEC and a Licensed Engineer to develop an overall plan for Harbour Point.	Table 16 of the Master Plan (MP) and Table 1 of the Environmental Assessment (EA) addresses a 10% expansion; it was determined that this level of expansion could be approved under this EA upon review and approval by the project office. This MP provides our stakeholders with the benefit of possible expansion and other uses without the time and cost of completing a new EA. Requests exceeding the defined expansion limits in the MP

			and EA will be considered but could require additional documentation including a separate analysis under the National Environmental Policy Act.
12/27/2021	3. Mr. Selfridge	How "picky" do you want me to be?? On Pages 21 -22, the MP is using 2019 data when the 2020 Census data is available! Contrary to the data shown in these Tables, McCormick has actually GROWN these past two (2) years. In 2021, 107 new houses were built in SLV alone!! This is why all the County Council Districts are being redrawn.	U.S. Census data from April 1, 2010 indicates a population of 10,233 for McCormick County. The most recent April 1, 2020 census data indicates that the population decreased to 9,526. However, a year-to-year comparison that you reference regarding increased population is not available in the census data. We utilized the best available data when we completed the MP which was 2010-2019.
12/14/2021	Donna Faulkner	Regarding the Lake Thurmond Master Plan, I want to tell you how happy we are to see that there is a proposal to add a marina for those of us at the north end of the lake. My family has had a property on Newford Creek since 1983, and the addition of a marina would be so welcome. We saw the map of the proposed spots and they seem convenient for many. Thank you for the good work you do.	Thank you for your support.

1/10/2022	Lindsey Jones	<p>I have reviewed the Master Plan and there are a few things that I have considered for expansion opportunities that have not come up in the past. Now that I am open, I have some new ideas that I would love for the board to consider for Hester's Bottoms. I am not sure if this is the appropriate forum to mention them, so please let me know if I need to develop a formal proposal and request. As mentioned in my original plan, I would like to add more RV sites (approximately 15), some of which would be full hook-ups with sewage. I would also like to add cabins or tiny houses to the park, as well as 4 covered group pavilions for activities and events. I have considered dry storage as well as extra vehicle parking for day passes. Another thing that would be more of a long-term addition is a marina style dock with wet and transient slips. Finally, I would love to expand the amenities of the park to include another playground (and/or expand the current one), golf cart trails (which were in the original plan, and I hope to do very soon) and a splash pad. Thank you for including me in the process and let me know if I need to do anything else for these to be included for long term consideration.</p>	<p>Most of your requests can be accommodated under this EA as part of your existing development plan. The marina facility, playground, and golf cart trails are covered under this Master Plan (Appendix C). However, the approval of the dry storage will depend on the location. Please submit a separate proposal for dry storage.</p>
12/7/2021	Tom McCoy USFWS (SC Field office)	<p>The U.S. Fish and Wildlife Service has reviewed the J. Strom Thurmond Lake Master Plan and have no comments to provide. Thank you for the opportunity to review.</p>	<p>Thank you for your response.</p>

1/20/2022	Pete Maholland USFWS (GA Field office)	<p>The U.S. Fish and Wildlife Service (Service) has reviewed the proposed update to the J Strom Thurmond Lake Master Plan and the accompanying draft environmental analysis. The Master Plan provides a programmatic approach to the management of all the lands included within the J Strom Thurmond Project boundary. We submit the following comments under provisions of the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661 et. seq.), Migratory Bird Treaty Act (16 U.S.C. 703, et seq.), The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), and the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). Based on the information provided, the Corps has determined that the update to the master plan will have no adverse impacts on federally listed Threatened or Endangered species or critical habitat because recreation area development will not occur in critical habitats or if a TES is present. The Corps proposes to conduct surveys for protected species prior to the construction of any new facilities to ensure no adverse effects to any Federally listed threatened for endangered species in accordance with the Memorandum of Agreement between the U.S. Army Corps of Engineers, Savannah District and the U.S. Fish and Wildlife Service, May 28, 2010. If protected species are discovered during these surveys the Corps will then consult with the Service. The Service agrees with this approach and does not anticipate impacts to protected species or critical habitat as a result of the update to the J Strom Thurmond Lake Master Plan. The Service would like to bring it to the attention of the Corps that the Monarch Butterfly (<i>Danaus plexippus</i>) also may occur within the boundaries of the J Strom Thurmond Project. In December 2020, after an extensive status assessment of the monarch butterfly, USFWS determined that listing the monarch under the Endangered Species Act is warranted but precluded at this time by higher priority listing actions. With this finding, the</p>	<p>We appreciate your comments and have created an area near the dam focused on pollinators with milkweed planted for Monarch butterflies. We added monarch butterfly to Table 3 of the MP as a Candidate species. Flow regimes and water releases are not within the purview of the Master Plan; however, the Corps will coordinate closely, and consult as necessary, with the Service(s) on any updates to manuals or plans affecting water management.</p>
-----------	---	--	--

		<p>monarch butterfly becomes a candidate for listing; we will review its status each year until we are able to begin developing a proposal to list the monarch. There are generally no section 7 requirements for candidate species (see our Section 7 Questions and Answers on the monarch here <a href="https://www.fws.gov/savethemonarch/FAQ-Section7.html">https://www.fws.gov/savethemonarch/FAQ-Section7.html</a>), but we encourage all agencies to take advantage of any opportunity they may have to help conserve the species. Letter lists habitat requirements for the monarch and interest in working with the Corps on any future updates to any Corps project operations that impact water management (e.g. timing, duration, and volume of flows) in the Savannah River to conserve and enhance populations of rare and protected species in the lower Savannah River.</p>	
1/28/2022	David Bernhart, NMFS	<p>We have no comments on the proposed changes to these aspects of the master plan. However, we maintain our long-standing concern over the ecological impacts of the current peaking-flow releases from J. Strom Thurmond Dam on NOAA trust resources downstream of the dam. We believe ecological impacts could be diminished if, in lieu of pulsed releases, the same daily flow volumes were released more consistently throughout the course of the day. We recognize managing these flows is complex and requires balancing the competing needs of multiple stakeholders and interests, while still meeting the power generation needs of the region. With those complexities in mind, we wish to start a dialog with the Savannah District, and other downstream users and stakeholders, to identify challenges and opportunities for addressing peaking flow operations. We would like to begin the conversation by speaking with the appropriate Savannah District staff to understand the processes and requirements for making changes to flow management regimes. We are also interested in discussing other potential means for functionally smoothing downstream flows to mitigate</p>	<p>Flow releases at Thurmond dam are not within the purview of the Master Plan. The Savannah River Basin Water Control Manual, 1996 and the Drought Management Plan, 2012 provide information regarding flows at Thurmond dam. Any changes to flow regimes would be closely coordinated with NMFS and other agencies.</p>

		impacts, if flow management changes at J. Strom Thurmond Dam are not possible. We appreciate your continued coordination on this project and look forward to future conversations.	
1/13/2022	Elizabeth Johnson, SC-SHPO	Our office does not have any comments or questions at this time. The EA notes that the cultural resources at the Project will continue to be managed under the existing Programmatic Agreement for the project dated 2003, and Historic Properties Management Plan updated in April 2001. It also provides a useful summary of the cultural resources surveys that have been carried out at the Project. Our office would concur with the finding in the EA that there would be no adverse effect to cultural resources with the implementation of the proposed action.	Thank you for your letter.
2/4/2022	Jennifer Dixon, GA-SHPO	Based on the information contained in the plan, HPD concurs that there are multiple historic properties within and adjacent to Lake J. Strom Thurmond, including both archaeological and historic resources such as cemeteries, parks, campsites, marinas, buildings, and similar. However, HPD finds that the updating of the master plan will have no adverse effect to historic properties within its area of potential effect (APE), as defined in 36 CFR Part 800.5(d)(1), due to the nature of the planning-only activity. HPD notes that the Historic Properties Management Plan (HPMP, 2001) and the related Programmatic Agreement (PA) remain the guiding documents related to cultural resources within the proposed project's APE. As such, due to the age of the current HPMP and given that no annual reports or updates to the HPMP have been received/reviewed in accordance with Section 14.1. and 14.2 of the HPMP since the document was adopted, HPD recommends updating the HPMP simultaneously with the Master Plan and in accordance with Stipulations 3 and 8 of the PA and Section 14 of the HPMP.	Thank you for your comment. We have requested funding for this effort and will initiate a review and update of the project's HPMP as funding allows.

1/19/2022	Tom Daniel Inland Project Manager, SCDNR	The SCDNR generally supports the efforts to revise the 1995 MP as many of the described revisions would likely result in improved public access to the lake and its natural resources. However, some clarification is needed in order to satisfactorily evaluate the potential for the proposed action to impact aquatic resources/wetlands, fish and wildlife habitat, water quality, and navigation.	Thank you. The Corps looks forward to continuing to work together.
1	MP related	The Public Notice states “The guidance also includes requirements for an interdisciplinary team approach for the development, re-evaluation, and supplementation or updating of the MP.” The SCDNR requests that this guidance be provided and included in the MP.	Master Plan Guidance - ER 1130-2-550 is publicly available at: <a href="https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1130-2-550.pdf">https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1130-2-550.pdf</a> ; and EP 1130-2-550 is publicly available at: <a href="https://www.publications.usace.army.mil/Portals/76/Publications/EngineerPamphlets/EP_1130-2-550.pdf">https://www.publications.usace.army.mil/Portals/76/Publications/EngineerPamphlets/EP_1130-2-550.pdf</a> . Both are incorporated by reference into the NEPA documentation. Regarding your specific question, the interdisciplinary team approach was used in developing this document with planners, biologists, foresters, recreation specialists, and compliance coordinators.
2		Page 2. The SCDNR submits that policies and regulations concerning the development practices of the parties mentioned in the MP appear to be missing from this MP. Without explicit guidance or Best Management Practices (BMPs), the MP does not regulate the types of activities allowed on project lands by parties that are not otherwise regulated under the Shoreline Management Plan (SMP) (e.g., public entities and private concessionaires). Therefore, the impacts of said development practices on aquatic resources/wetlands, fish and wildlife habitat, water quality, and navigation cannot be determined with the information provided. SCDNR requests that language explicitly subjecting development activities to the provisions in the SMP be included in the MP (see section 4.4.5.a. for an example)	The Shoreline Management Plan (SMP) is a standalone document that has been through NEPA review and guides all regulations related to private individual docks, permits, and any environmental impacts associated with the implementation of the shoreline management program. Requirements for private docks are not within the purview of this MP guidance. Public entities and commercial concessionaires are not subject to the SMP, but instead are addressed by individual development plans. Although the Corps does not have BMPs specific to public entities and concessionaires, they must submit an individual development plan that is reviewed for navigation safety and to ensure appropriate

	<p>and/or that the following BMPs are explicitly incorporated into the MP:</p> <p>Docks</p> <ul style="list-style-type: none"> <li>•The area considered for a new floating facility must provide a 50-foot buffer between the proposed facility and any existing facility or mooring buoy at 330 feet mean sea level (msl) elevation. This buffer is defined as the distance between the two closest points on adjacent facilities. This spacing is to provide safe navigational access between facilities and provide sufficient area for boat maneuverability, water level fluctuations and public safety.</li> <li>•The entire dock and walkway must not extend over one third the distance across a cove, measured from the 330 feet msl elevation on the shoreline of both sides. The length of any dock, including any moored vessel, must not interfere with the navigation channel at any time. Approved new docks shall be placed so as to have the least impact on navigation.</li> <li>•The flotation material for all docks shall be fabricated of materials manufactured for marine use. The float and its flotation material shall be 100% warranted for a minimum of eight years against sinking, becoming waterlogged, cracking, and peeling, fragmenting or losing beads. All floats shall resist puncture and penetration and shall not be subject to damage by animals under normal conditions for the area.</li> <li>•Wood treated with creosote may not be used in construction. Bank Stabilization</li> <li>•Vegetative shoreline enhancements are the preferred method to prevent erosion, followed by enhanced or sloping rip rap, with vertical bulkheads used only as an alternative when the aforementioned methods have proven to be ineffective.</li> <li>•Backfill and riprap must consist of clean earthen material and stone free of all potential sources of pollution.</li> <li>•Bulkheads/seawalls and revetments should be constructed abutting the existing erosional scarp. Where such structures are</li> </ul>	<p>safety measures or size restrictions are incorporated. The acceptable distance between commercial marina facilities may vary depending upon the size of dock, the marina basin and the size of vessels being moored. Establishing a set distance or specific BMP in the MP, such as 50', may not be adequate in all commercial situations. Each specific site and situation is evaluated separately. Additionally, marinas are typically located in basins where private dock facilities are not present. The requirement to restrict marina facilities to a specific portion of the cove may not be applicable if other facilities will not be installed on the opposite side of the cove. Navigation impacts and safety will be reviewed as part of the approval process. Additionally, impacts to resources will be evaluated on a case-by-case basis and measures to minimize impacts incorporated into the individual development plans at that time. Added to MP Introduction -The MP does not preclude the requirement for submittal and approval of individual development plans for public entities and private concessionaires. All potential improvements, as well as natural resource management actions, will be reviewed for compliance with the Endangered Species Act, the Fish and Wildlife Coordination Act, the National Historic Preservation Act (NHPA), the Clean Water Act, in accordance with ER 200-2-2, Procedures for Implementing NEPA, and will be addressed by the appropriate categorical exclusion at the time of implementation.</p>
--	--	--

		<p>permissible, they should be constructed so that wave energy does not scour stable bottoms or constitute safety hazards</p> <ul style="list-style-type: none"> <li>•Bulkhead construction should avoid sharp angle turns that may collect trash or cause shoaling or flushing problems.</li> <li>•Bulkheads that require significant backfill and are for the purpose of creating developable high ground will not be permitted.</li> </ul>	
3		<p>Page 10. "Emergency procedures for handling oil spills and hazardous substances are contained in the project Spill Prevention, Control and Countermeasures Plan." Where is this plan available?</p>	<p>The Project Spill Prevention, Control, and Countermeasures Plan is available as a hard copy at the Thurmond Project office.</p>
4		<p>Page 13. Protected Species. Please include State-listed species in this section, including the State-Endangered Webster's Salamander (<i>Plethodon websteri</i>). For a current list of state listed species visit <a href="http://www.dnr.sc.gov/species/">www.dnr.sc.gov/species/</a>.</p> <p>Page 15. Table 3. Please include State-listed species in this table.</p>	<p>Because state lists are more extensive and updates are sporadic between Georgia and South Carolina, we have chosen for our operational documents not to include state-listed species. Additionally, because we cover Georgia and South Carolina, each state has some differences in how state-listed species are defined which has changed over time. For example, currently, the Georgia list is more extensive than the South Carolina list; however, in previous years the South Carolina list was much more extensive than the Georgia list. While state-listed species are not listed specifically in the MP, these species, determined from current lists provided by Georgia and South Carolina, are considered in all protected species surveys and avoided when possible. Section 2.8.3, MP and added to 4.6.2 of EA.</p>
5		<p>Page 34. Land Classification. Please include definitions of the land-use classifications and descriptions of which lands are being reclassified.</p> <p>Page 35. Environmentally Sensitive Areas. There appears to be a decrease in the total lands classified as Environmental compared to the 1995 MP (See Table 1 in the 1995</p>	<p>Definitions are found in section 4.2 of the Master Plan for land classifications. There were no lands reclassified except those classified under environmentally sensitive. Those reclassified under environmentally sensitive were only reclassified under the subjective 1995 classification of aesthetics. All</p>

		MP). What is the reason for the discrepancy?	lands classified as wetland, protected species, cultural resources, and other significant features continue to be protected as environmentally sensitive. Other minor adjustments to acreages are a result of more technologically advanced mapping techniques.
6		Page 37. Table 14. Please include the changes to classification acreages being proposed. Page 5. Table 2. Please include the changes to classification acreages being proposed.	There were very few changes to acreages and only affected the environmentally sensitive and multiple resource categories; therefore, we provided a detailed explanation of those changes in section 4.2.4 of the Master Plan.
7		Page 19. Protected species. Please note that the Atlantic Pigtoe and the Brother Spike are also State-Endangered species in SC. Please include SC State-listed species in this section.	See response 4. above regarding state-listed species
8		Page 20. Table 4. Please include State-listed species in this table.	See response 4. above regarding state-listed species
9		Page 40. Section 4.1.2. Please clarify which state agency's BMPs will be applicable.	Clarification has been added to 4.1.2. The state BMP will be used for the state where the activity occurs.
10		Page 42. Section 4.5.2. Please clarify which BMPs will be applicable. BMPs for this activity were not described in the MP.	Clarification has been added. Each state's forestry BMP will be used within the state where the activity occurs. Forestry BMPs for Georgia are "Georgia's Best Management Practices for Forestry", 1999 and for South Carolina, "South Carolina's Best Management Practices for Forestry", 2021, section 4.2.2.
11		Page 42. Section 4.7.2. Please mention State-listed protected species in this section.	See response 4. above regarding state-listed species
12		Page 43. Section 4.8.2. Which erosion control measures and BMPs will be required? The SCDNR finds that more information regarding the BMPs applicable to parties that are not otherwise regulated under the Shoreline Management Plan (e.g., public entities and private concessionaires) is needed to allow for a comprehensive review of the potential environmental consequences of the proposed action.	Public facilities are addressed by individual development plans. Those facilities listed are already covered by the SMP and are not within the purview of the Master Plan. Impacts to resources will be evaluated on a case-by-case basis. Added to MP Introduction -The MP does not preclude the requirement for submittal and approval of individual development plans for public entities

			<p>and private concessionaires. All potential improvements, as well as natural resource management actions, will be reviewed for compliance with the Endangered Species Act, the Fish and Wildlife Coordination Act, the National Historic Preservation Act (NHPA), the Clean Water Act, in accordance with ER 200-2-2, Procedures for Implementing NEPA, and will be addressed by the appropriate categorical exclusion at the time of implementation. Statement added to 4.13.2 regarding stormwater, NPDES permits, section 404 permits and forestry BMPs.</p>
13		<p>Page 45. Section 4.15.2. Will all “natural resources management activities that may impact water quality” be subject to BMPs? Which state agency’s BMPs will be applicable? Please incorporate explicit mention of this requirement into the MP. The SCDNR finds that more information regarding these BMPs is needed to allow for a comprehensive review of the potential environmental consequences of the proposed action.</p>	<p>Statements regarding BMPs added to sections 4.1.2, 4.2.2, and 4.13.2. Forestry BMPs will apply to the state where the activity occurs. Also, see response to 2. And 12. above. Added to Section 4.0 Environmental Consequences - In addition, Erosion control measures will be implemented during proposed recreation area development. Construction activities are required to follow state regulations for stormwater and erosion control measures, as well as National Pollution Discharge Elimination System (NPDES) permitting and Section 404 permitting as required. Natural resources management activities that may impact waterbodies will be conducted in accordance with the appropriate Georgia or South Carolina BMPs for stormwater and sediment control, as well as each state’s respective forestry BMP manuals.</p>
14		<p>Page 51. Table 14. The SCDNR is concerned with activities which do not appear to be subject to explicit guidance or BMPs in the proposed MP. Without explicit guidance on shoreline stabilization and construction methods, the SCDNR finds that it is</p>	<p>Shoreline stabilization, construction, and docks are not within the purview of this Master Plan.</p>

		premature to claim insignificant impacts to the following categories in Table 14: aquatic resources/wetlands, fish and wildlife habitat, and water quality. Without explicit guidance on dock spacing and sizing, the SCDNR finds that it is premature to claim insignificant impacts to navigation.	
15	Appendices comments	Appendix C. The species name for Warmouth should be changed to <i>Lepomis gulosus</i> , and there appears to be a typo in the common name for Chain Pickerel. Also, the term "rough fish" can be viewed as an antiquated, pejorative term; it may be more appropriate to categorize these groups into 'game fish' and 'non-game fish' (see Section 50-13 of the South Carolina Code of Laws). American Alligator should be listed as Crocodylian	Changes made as requested
16		Appendix D Under Item 49. Future Marina Sites: "Area description for Mt. Carmel Campground, Hesters Ferry Campground, and Parkway Boat Ramp are found in their respective sections listed above." Please note that the sections provided do not appear to match any sections in the MP, EA or in the appendices. Where can these area descriptions be found?	Descriptions are included in Appendix D - Resource plans; additional information has been provided in para. 51.
17	FONSI comments	As described above, without explicit guidance on shoreline stabilization and construction methods, the SCDNR finds that it is premature to claim insignificant impacts to the following categories: aquatic resources/wetlands, fish and wildlife habitat, and water quality. Without explicit guidance on dock spacing and sizing, the SCDNR finds that it is premature to claim insignificant impacts to navigation.	Thank you for your comments, we have updated the effects analysis in Section 4 of the EA. The changes being considered from the 1995 MP to this MP to recreation facilities and natural resources management practices as detailed in the MP are consistent with current regulations and policies. All individually proposed improvements, as well as natural resource management actions, will be reviewed for compliance with the Endangered Species Act, the Fish and Wildlife Coordination Act, the National Historic Preservation Act, the Clean Water Act, etc., in accordance with ER 200-2-2, Procedures for Implementing NEPA, and will be addressed by the appropriate NEPA

			<p>compliance, generally a categorical exclusion when in accordance with this MP. Significant impacts will not be approved through our categorical exclusion process.</p>
<p>1/20/2022</p>	<p>John Bowers, GA DNR Wildlife Resources Division</p>	<p>GA DNR WRD appreciates the opportunity to provide comments on the Draft MP, EA, and FONSI. We support Alternative 2 - Preferred Alternative - Update Master Plan and have several comments on the Draft MP and the Draft EA as follows: Regarding the Draft MP in Section 2.3 relating to Sedimentation and Shoreline Erosion (Page 7), the sedimentation reports are from 22 years ago (1999). We would expect significant changes since then, especially in the Broad River and potentially GA Little River. The "nuisance and aesthetic loss" to "residents and recreationalists in shoal areas" documented in 1999 are likely worse now and potentially affect the important springtime fish habitat the shoals provide. We would like to see a plan to resurvey sedimentation to reflect present day conditions more accurately. Additionally, in Section 2,4, relating to Water Quality and Supply (Page 8), the MP states, "water quality in Thurmond Lake is measured by Georgia and South Carolina natural resource State agencies." However, Figure 2 lists only USACE sampling sites as indicated on the figure. The section goes on to describe the water quality monitoring conducted by the USACE. In Section 3.2.12 of the EA (Page 33), this paragraph is slightly different but specifies that these same sampling sites are SCDHEC sites; therefore, it is unclear who is responsible for conducting sampling at these sites. In Section 2.8.4, relating to Invasive Species (Page 16), the table indicates "significant to major" hydrilla occurrence but the note at the bottom of the table references that no hydrilla was observed in a cursory study conducted in the fall of 2019. This concurs with our observations and measurements on the Project. We suggest that the table be updated to reflect that condition. Finally, in</p>	<p>A whole lake bathymetry survey was conducted in 2017 and compared to the pre-impoundment survey from 1954. The comparison revealed a 2.9% decrease in reservoir storage in the JST Lake pool between elevation 330 and 305 due to sedimentation. The survey results were not analyzed for specific tributaries. The 2017 dredge information has been added to section 2.3. We have previously evaluated, along with representatives from both states, the potential for dredging Broad River below the shoals as you suggest. One of the primary issues was locating an adjacent site for dewatering and disposal. The majority of the area has steep topography, with the exception of the campground area. The north side of the Broad River includes mitigation for Richard B. Russell and several archeological sites. We will explore the dredging potential again, but the site has some significant limitations. We have made changes as requested to clarify surface water sampling in section 2.4 of the MP and 3.2.12 of the EA. Both figures reflect USACE sampling locations. Regarding invasive species in section 2.8.4 and Table 4, the 2019 hydrilla survey was not a formal survey and covered only a fraction of the area covered by previous surveys. Based on those results, we did not identify hydrilla at any of those locations; however, in 2022 we will conduct a lake-wide survey assessing all points previously surveyed in 2010 and 2015. At that time, we can</p>

Section 2.13,3, relating to Recreational Analysis (Page 28), the MP states, "while there are an ample number of boat ramps around the lake, parking is insufficient at many boat ramps especially on the lower end of the lake." It seems to us that the Master Plan should clearly allow for boat ramp parking lot expansion. Also, Table 16 (Section 5.2, Page 41), "Potential Recreational Facilities Development", states "Designated parking lot(s) not to exceed 100 spaces". We are unclear why there is a cap at 100 parking lot spaces. We believe this statement should be rephrased, particularly if additional spaces are, or might be, warranted and feasible. Concerning the Draft EA, we offer several editorial comments to Section 3.2.2, relating to Aquatic Resources/Fisheries, as follows: Add Spotted Bass and Blue Catfish to the list of popular sportfish and note that they are non-native species. Add Gizzard Shad to the list of important forage fish. The second paragraph begins with another list of sport fish. This list should be edited to match the other sport fish list. The description of Marone sp. stockings only includes Georgia. A more general statement, "Both Georgia DNR and SCDNR produce striped bass and hybrid bass to stock into Thurmond Lake as fingerlings", would be more accurate.

provide you with aquatic plant data that can be compared to previous surveys. Section 5.2 and Table 16 of the Master Plan provide expansion limits that are covered by this EA. While 100 designated parking spaces is listed as the capacity at a boat ramp, additional capacity will be considered on a case-by-case basis but may require additional environmental documentation including a new analysis under the NEPA. We concur with fisheries changes in section 3.2.2 and have made changes as recommended.

**From:** Erin Leach <[erin.h.leach@gmail.com](mailto:erin.h.leach@gmail.com)>

**Sent:** Monday, December 6, 2021 11:23 AM

**To:** CESAS-Planning <[CESAS-Planning@usace.army.mil](mailto:CESAS-Planning@usace.army.mil)>

**Subject:** [Non-DoD Source] Public comment on "J. Strom Thurmond" project

There is no justification whatsoever for spending even one more dime of federal tax dollars on projects named after virulent white supremacists. It is a dishonor to the millions of American citizens who deserved dignity and equal representation in government, and instead they got segregation and the likes of Strom Thurmond.

Why is a federal agency continuing to participate in this disgrace?

Sincerely,

Erin Leach  
Charleston, SC

-----Original Message-----

From: [office@bobbybrownpark.com](mailto:office@bobbybrownpark.com) <[office@bobbybrownpark.com](mailto:office@bobbybrownpark.com)>

Sent: Wednesday, December 8, 2021 12:56 PM

To: Boyd, Susan R CIV USARMY CESAS (USA) <[Susan.R.Boyd@usace.army.mil](mailto:Susan.R.Boyd@usace.army.mil)>

Subject: [Non-DoD Source] Re: J. Strom Thurmond Project Master Plan - Public Comment

Susan,

The plan looks great and I know a lot of work went into the plan by many different people. The plan for Bobby Brown Park looks accurate and we can't think of any other additions to the plan for our park at this time.

Thanks,

Greg

On 2021-12-07 08:46, Boyd, Susan R CIV USARMY CESAS (USA) wrote:

> Good Morning All,

>

> I am pleased to announce that the Thurmond Project draft Master Plan  
> is available on the Savannah District website for review and comment.  
> The comment period will run 45 days, closing on January 20, 2022. The  
> master plan was last updated in 1995 and no longer reflects current  
> development and resource management objectives at the lake. The draft  
> plan is the culmination of multiple years of work and planning and  
> attempts to consider future development and resource management for at  
> least the next twenty years.

>

> Please review the plan and provide any comments or input regarding  
> future development at the lake or within your specific recreation  
> areas. The attached public notice contains links to the plan and an  
> environmental assessment on our website.

>

> Please don't hesitate to reach out to me if you have any questions  
> about the plan.

Respectfully,

Susan R. Boyd  
Natural Resources Manager  
J. Strom Thurmond Project  
510 Clarks Hill Highway  
Clarks Hill, SC 29821  
864-333-1102

**From:** George Selfridge <[gcsjr@alum.mit.edu](mailto:gcsjr@alum.mit.edu)>  
**Sent:** Sunday, December 12, 2021 1:56 PM  
**To:** Boyd, Susan R CIV USARMY CESAS (USA) <[Susan.R.Boyd@usace.army.mil](mailto:Susan.R.Boyd@usace.army.mil)>;  
Hyatt, Scott M CIV USARMY CESAS (USA) <[Scott.M.Hyatt2@usace.army.mil](mailto:Scott.M.Hyatt2@usace.army.mil)>  
**Cc:** Bea McClain <[bea@plumbranch.com](mailto:bea@plumbranch.com)>; Janet Hollenbeck  
<[janethollenbeck@yahoo.com](mailto:janethollenbeck@yahoo.com)>  
**Subject:** [Non-DoD Source] NEW MASTER PLAN

Dear Susan,

1. Do I need to be concerned about the 10% limitations like those shown below about the limitations on the potential growth of PBYC? Where can I find the "original footprint" of PBYC. Draft appears not to have a PBYC map.

Table 16: Potential Recreational Facilities Development

Public Marinas: Facilities approved on the lease development plan.

Replacement, relocation, and/or modernization of existing facilities not to exceed 10 percent of the original facility's footprint.

2. On Page 43, the Table list Hester's Bottom as being operated by Lincoln County, SC v. the Stewarts and Jones.
3. On Page 44, the Table lists that there are four (4) sites set aside for New Marinas. Where are these sites located?

I will keep reading the document.

Please note, Bea and I will be leaving January 3, 2022 until March 1 , 2022.

GCS, Jr.

**From:** George Selfridge <[gcsjr@alum.mit.edu](mailto:gcsjr@alum.mit.edu)>  
**Sent:** Sunday, December 26, 2021 12:44 PM  
**To:** Boyd, Susan R CIV USARMY CESAS (USA) <[Susan.R.Boyd@usace.army.mil](mailto:Susan.R.Boyd@usace.army.mil)>; Hyatt, Scott M CIV USARMY CESAS (USA) <[Scott.M.Hyatt2@usace.army.mil](mailto:Scott.M.Hyatt2@usace.army.mil)>  
**Cc:** Bea McClain <[bea@plumbranch.com](mailto:bea@plumbranch.com)>; Eddie Wilson <[wilsonedward420@gmail.com](mailto:wilsonedward420@gmail.com)>; Buatte, Carla J CIV USARMY CESAS (USA) <[Carla.J.Buatte@usace.army.mil](mailto:Carla.J.Buatte@usace.army.mil)>  
**Subject:** [Non-DoD Source] MASTER PLAN - 10% RULE

Susan & Scott,

I require clarification about this Rule verses Projects that are approved by the District.

I am working on plans for approximately twenty (20) new campground sites and a bathhouse on Harbour Point. At present, PBYC has 56 camp ground sites. According to the Master Plan, PBYC is allowed to have ONLY six (6) more camp ground sites.

The development of Harbour Point cannot be justified based upon only six (6) new sites. I will be working with SCDNR, SCDHEC and a Licensed Engineer to develop an overall plan for Harbour Point. Hopefully by mid-2022, I will be able to present this plan to you.

GCS, Jr.

**From:** George Selfridge <[gcsjr@alum.mit.edu](mailto:gcsjr@alum.mit.edu)>  
**Sent:** Monday, December 27, 2021 4:10 PM  
**To:** Boyd, Susan R CIV USARMY CESAS (USA) <[Susan.R.Boyd@usace.army.mil](mailto:Susan.R.Boyd@usace.army.mil)>; Hyatt, Scott M CIV USARMY CESAS (USA) <[Scott.M.Hyatt2@usace.army.mil](mailto:Scott.M.Hyatt2@usace.army.mil)>  
**Subject:** [Non-DoD Source] MASTER PLAN POPULATION DATA

Susan,

How "picky" do you want me to be?? On Pages 21 -22, the MP is using 2019 data when the 2020 Census data is available!

Contrary to the data shown in these Tables, McCormick has actually GROWN these past two (2) years. In 2021, 107 new houses were built in SLV alone!! This is why all the County Council Districts are being redrawn.

GCS, Jr.

**From:** Donna Faulkner <dbfaulkner@hotmail.com>  
**Sent:** Tuesday, December 14, 2021 11:23 AM  
**To:** CESAS-Planning <CESAS-Planning@usace.army.mil>  
**Subject:** [Non-DoD Source] Comment about the Lake Thurmond Master Plan

Dear Planning Branch,

Regarding the Lake Thurmond Master Plan, I want to tell you how happy we are to see that there is a proposal to add a marina for those of us at the north end of the lake. My family has had a property on Newford Creek since 1983, and the addition of a marina would be so welcome. We saw the map of the proposed spots and they seem convenient for many. Thank you for the good work you do.

Sincerely,  
Donna Faulkner  
1075 Doe Run Road  
Tignall, GA 30668

**From:** Lindsey Jones <[lindseyjotucker@hotmail.com](mailto:lindseyjotucker@hotmail.com)>  
**Sent:** Monday, January 10, 2022 2:56 PM  
**To:** Boyd, Susan R CIV USARMY CESAS (USA) <[Susan.R.Boyd@usace.army.mil](mailto:Susan.R.Boyd@usace.army.mil)>  
**Subject:** [Non-DoD Source] ACOE Master Plan

Hi Susan,

I have reviewed the Master Plan and there are a few things that I have considered for expansion opportunities that have not come up in the past. Now that I am open, I have some new ideas that I would love for the board to consider for Hester's Bottoms. I am not sure if this is the appropriate forum to mention them, so please let me know if I need to develop a formal proposal and request.

As mentioned in my original plan, I would like to add more RV sites (approximately 15), some of which would be full hook-ups with sewage. I would also like to add cabins or tiny houses to the park, as well as 4 covered group pavilions for activities and events. I have considered dry storage as well as extra vehicle parking for day passes. Another thing that would be more of a long-term addition is a marina style dock with wet and transient slips. Finally, I would love to expand the amenities of the park to include another playground (and/or expand the current one), golf cart trails (which were in the original plan, and I hope to do very soon) and a splash pad.

Thank you for including me in the process and let me know if I need to do anything else for these to be included for long term consideration,  
Lindsey

**From:** McCoy, Thomas <thomas\_mccoy@fws.gov>

**Sent:** Tuesday, December 7, 2021 8:20 AM

**To:** Gose, Cynthia A CIV USARMY CESAS (USA) <Cynthia.A.Gose@usace.army.mil>

**Cc:** Faustini, John <john\_faustini@fws.gov>; Olds, Melanie J <melanie\_old@fws.gov>

**Subject:** [Non-DoD Source] RE: [EXTERNAL] RE: Thurmond Master Plan, Environmental Assessment and FONSI available for Public Review

Hello.

The U.S. Fish and Wildlife Service has reviewed the J. Strom Thurmond Lake Master Plan and have no comments to provide.

Thank you for the opportunity to review.

*Tom*

Thomas (**Tom**) D. McCoy, Field Supervisor for Ecological Services

Department of the Interior - U.S. Fish and Wildlife Service

South Atlantic - Gulf Region (Region 2)

South Carolina Ecological Services Field Office

176 Croghan Spur Road, Suite 200

Charleston, South Carolina 29407

Main Phone Line: 843.727.4707

Direct Phone Line: 843.300.0431

Cell Phone: 843.576.9862

Fax Line: 843.300.0204

Email: [thomas\\_mccoy@fws.gov](mailto:thomas_mccoy@fws.gov)

Visit our Web Site for more information about our office:

<https://www.fws.gov/southeast/charleston>



## United States Department of the Interior

Fish and Wildlife Service  
Georgia Ecological Services  
355 East Hancock Ave, Room 320, Box 7  
Athens, Georgia 30601  
Phone: (706) 613-9493  
Fax: (706) 613-6059



West Georgia Sub-Office  
P.O. Box 52560  
Ft. Benning, Georgia 31995-2560  
Phone: (706) 544-6428  
Fax: (706) 544-6419

Coastal Georgia Sub-Office  
4980 Wildlife Drive  
Townsend, Georgia 31331  
Phone: (912) 832-8739  
Fax: (912) 832-8744

January 19, 2022

Kimberly L. Garvey, Planning Branch Chief  
Department of the Army  
U.S. Army Corps of Engineers, Savannah District  
100 W. Oglethorpe Avenue  
Savannah, Georgia 31401-3604  
ATTN: Mrs. Cynthia Gose

Re: J Strom Thurmond Lake Master Plan; FWS Log Number CG-22-066

Dear Mrs. Garvey:

Thank you for your December 6, 2021 requesting a review of the United States Army Corps of Engineers' (Corps) proposed update to the J Strom Thurmond Lake Master Plan. The U.S. Fish and Wildlife Service (Service) has reviewed the proposed update to the J Strom Thurmond Lake Master Plan and the accompanying draft environmental analysis. The proposed actions are located in the vicinity of J Strom Thurmond Lake in Columbia, Lincoln, and Elbert counties of Georgia and McCormick county of South Carolina. The Master Plan provides a programmatic approach to the management of all the lands included within the J Strom Thurmond Project boundary. We submit the following comments under provisions of the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), Migratory Bird Treaty Act (16 U.S.C. 703, et seq.), The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), and the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.).

Based on the information provided, the Corps has determined that the update to the master plan will have no adverse impacts on federally listed Threatened or Endangered species or critical habitat because recreation area development will not occur in critical habitats or if a TES is present. The Corps proposes to conduct surveys for protected species prior to the construction of any new facilities to ensure no adverse effects to any Federally listed threatened for endangered species in accordance with the Memorandum of Agreement between the U.S. Army Corps of Engineers, Savannah District and the U.S. Fish and Wildlife Service, May 28, 2010. If protected species are discovered during these surveys the Corps will then consult with the Service. The Service agrees with this approach and does not anticipate impacts to protected species or critical habitat as a result of the update to the J Strom Thurmond Lake Master Plan.

The Service would like to bring it to the attention of the Corps that the Monarch Butterfly (*Danaus plexippus*) also may occur within the boundaries of the J Strom Thurmond Project. In December 2020, after an extensive status assessment of the monarch butterfly, USFWS determined that listing the monarch under the Endangered Species Act is warranted but precluded at this time by higher priority listing actions. With this finding, the monarch butterfly becomes a candidate for listing; we will review its status each year until we are able to begin developing a proposal to list the monarch. There are generally no section 7 requirements for candidate species (see our Section 7 Questions and Answers on the monarch here - <https://www.fws.gov/savethemonarch/FAQ-Section7.html>), but we encourage all agencies to take advantage of any opportunity they may have to help conserve the species.

The monarch is found in open habitats state-wide in Georgia and relies heavily on a variety of native milkweed species and nectar producing plants. Recommended but voluntary conservation measures include: (1) planting (recommended) or seeding of native milkweed and native nectar plants (organically grown Georgia sourced plants are best; note that *Asclepias syriaca* is not native to Georgia and is an invasive concern) with an aim for diversity of species and bloom timing; (2) brush removal to promote habitat for native milkweed and native nectar-producing plants; (3) targeted hardwood control when thinning woodlands on timber lands and selecting herbicides that preserve the herbaceous layer of plants when doing soil prep; (4) prescribed burning (outside the growing season for native milkweeds; in patches or smaller units is recommended) to promote suitable habitat on a 2-3 year rotation in the Piedmont, 2 year rotation on the coastal plain, and 3-5 year rotation in the mountains; (5) creating or preserving suitable habitat on idle lands or set-asides (see link below for additional guidance); (6) conservation mowing (i.e. mowing only November – March) to enhance native floral resource habitat; (7) targeted herbicide treatments (outside the growing season of native milkweeds) to restore suitable habitat; and (8) invasive species management. Information on milkweed plants native to Georgia and links to additional resources can be found at <https://botgarden.uga.edu/wp-content/uploads/2018/03/milkweedinformation.pdf>.

The Service would also like to express its interest in working with the Corps on any future updates to any Corps project operations that impact water management (e.g. timing, duration, and volume of flows) in the Savannah River to conserve and enhance populations of rare and protected species in the lower Savannah River. The Service notes that there are important spawning grounds in the lower Savannah River below the New Savannah Bluff Lock and Dam for endangered shortnose (*Acipenser brevirostrum*) and Atlantic (*Acipenser oxyrinchus oxyrinchus*) sturgeons as well as Georgia State endangered robust redhorse (*Moxostoma robustum*). Thus, water management at all Corps projects on the Savannah River is important for the conservation of these species. In particular, discharge from the J Strom Thurmond Dam accounts for the majority (70-90%) of flow in the lower Savannah River at baseflow conditions (July-December) and accounts for 22-48% of the variations in lower river discharges (Duncan and Cantrell, 2014). Duncan and Cantrell (2014) hypothesized that discharge from Thurmond Dam, reregulation, and the operation of the New Savannah Bluff Lock and Dam gates accounted for water level and flow fluctuations at these sensitive spawning areas. Observed, daily and hourly fluctuations in flow at these spawning sites were noted to cause conditions unsuitable to spawning for robust redhorse and these fluctuations could reduce egg and fry survival (Cantrell et al., 2014). Thus, proper flow management is crucial to the conservation and recovery of these species in the lower Savannah River.

Obligations of section 7(a)(2) of the Act have been satisfied, and formal consultation is not required. However, obligations under the Act must be reconsidered if: (1) the project is modified in a manner not considered by this assessment; (2) a new species is listed or critical habitat is determined that may be affected by the project; or (3) new information indicates that the project may affect listed species or critical habitat in a manner not previously considered.

Thank you for the opportunity to provide comments on the updated Master Plan for the J Strom Thurmond Project. If you need additional assistance, please contact staff biologist Eric Bauer at our North Georgia Office at 706-208-7519, or [eric\\_bauer@fws.gov](mailto:eric_bauer@fws.gov).

Sincerely,

Peter Maholland  
Acting Field Supervisor

**References:**

Duncan, W.W. and M.A. Cantrell. 2014. A hydrological foundation for evaluating effects of low flows on river and oxbow habitats and biota. USFWS report to the U.S. Army Corps of Engineers, Part I of “A compendium of Savannah River studies conducted by the U.S. Fish and Wildlife Service intended to inform flow management.”

Cantrell, M.A., W.W. Duncan, and E. Krueger. 2014. Evaluation of low discharge effects on Savannah River mid-channel gravel bars, with an emphasis on habitat suitability for spawning Robust Redhorse (*Moxostoma robustum*). USFWS Report to the U.S. Army Corps of Engineers, Part II of “A compendium of Savannah River studies conducted by the U.S. Fish and Wildlife Service intended to inform flow management.”



**UNITED STATES DEPARTMENT OF COMMERCE**  
National Oceanic and Atmospheric Administration  
**NATIONAL MARINE FISHERIES SERVICE**  
Southeast Regional Office  
263 13<sup>th</sup> Avenue South  
St. Petersburg, Florida 33701-5505  
<https://www.fisheries.noaa.gov/region/southeast>

F/SER 31:AH

01/28/2022

Colonel Joseph R. Geary, District Commander  
Savannah District, Corps of Engineers  
100 W. Oglethorpe Avenue  
Savannah, Georgia 31401-3640

Re: J. Strom Thurmond Lake Master Plan

Attention: Ms. Gose and Ms. Garvey

Dear Colonel Geary:

NOAA's National Marine Fisheries Service received your December 6, 2021, request for comment on the Environmental Assessment and Finding of No Significant Impact for the updated J. Strom Thurmond Lake Master Plan. The proposed management plan updates policies and regulations regarding the management, and future development, of the Thurmond Project; provides responses to regional needs, resource capabilities and suitability, and expressed public interests and desires consistent with authorized project purposes; addresses changes in land uses, recreational uses, and natural resources management; provides for the development of recreation facilities by lessees and the Corps; and ensures that program management actions are based on current information and regulations via collaboration with stakeholders. We have no comments on the proposed changes to these aspects of the master plan.

However, we maintain our long-standing concern over the ecological impacts of the current peaking-flow releases from J. Strom Thurmond Dam on NOAA trust resources downstream of the dam. We believe ecological impacts could be diminished if, in lieu of pulsed releases, the same daily flow volumes were released more consistently throughout the course of the day. We recognize managing these flows is complex and requires balancing the competing needs of multiple stakeholders and interests, while still meeting the power generation needs of the region.

With those complexities in mind, we wish to start a dialog with the Savannah District, and other downstream users and stakeholders, to identify challenges and opportunities for addressing peaking flow operations. We would like to begin the conversation by speaking with the appropriate Savannah District staff to understand the processes and requirements for making changes to flow management regimes. We are also interested in discussing other potential means for functionally smoothing downstream flows to mitigate impacts, if flow management changes at J. Strom Thurmond Dam are not possible.





January 13, 2022

Andrea Farmer  
Savannah District  
Corps of Engineers  
[Andrea.Adams.Farmer@usace.army.mil](mailto:Andrea.Adams.Farmer@usace.army.mil)

Re: Updated Master Plan for Thurmond Dam and Lake Project  
Environmental Assessment and Finding of No Significant Impact  
Abbeville and McCormick Counties, South Carolina  
SHPO Project No. 16-ED0081

Dear Andrea Farmer:

Our office has received the letter dated December 6, 2021 that you submitted as part of your agency's National Environmental Policy Act (NEPA) process for the documents referenced above to update the J. Strom Thurmond Project Master Plan. As requested, the State Historic Preservation Office (SHPO) is also providing comments to the Corps of Engineers pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes including those with state recognition, local governments, or the public.

Thank you for providing the draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for our review. Our office does not have any comments or questions at this time. The EA notes that the cultural resources at the Project will continue to be managed under the existing Programmatic Agreement for the project dated 2003, and Historic Properties Management Plan updated in April 2001. It also provides a useful summary of the cultural resources surveys that have been carried out at the Project. Our office would concur with the finding in the EA that there would be no adverse effect to cultural resources with the implementation of the proposed action.

Please refer to SHPO Project Number 16-ED0081 in any future correspondence regarding this project. If you have any questions, please contact me at (803) 896-6168 or at [ejohnson@scdah.sc.gov](mailto:ejohnson@scdah.sc.gov).

Sincerely,

Elizabeth M. Johnson  
Director, Historical Services  
State Historic Preservation Office

February 4, 2022

Kimberly Garvey  
Chief, Planning Branch  
U.S. Army Corps of Engineers, Savannah District  
100 West Oglethorpe Avenue  
Savannah, Georgia 31401-3604  
**Attn: Andrea Farmer, Archaeologist, Planning Branch**

**Re: Lake J. Strom Thurmond/Clarks Hill Lake Master Plan  
Columbia, Elbert, Lincoln, McDuffie, Warren, Wilkes Counties, Georgia  
HP-220106-003**

Dear Ms. Garvey:

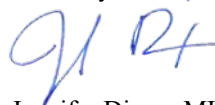
The Historic Preservation Division (HPD) has received the report entitled, *J. Strom Thurmond Lake Master Plan*, dated November 2021. Our comments are offered to assist the US Army Corps of Engineers (USACE) in complying with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Based on the information contained in the plan, HPD concurs that there are multiple historic properties within and adjacent to Lake J. Strom Thurmond, including both archaeological and historic resources such as cemeteries, parks, campsites, marinas, buildings, and similar. However, HPD finds that the updating of the master plan will have **no adverse effect** to historic properties within its area of potential effect (APE), as defined in 36 CFR Part 800.5(d)(1), due to the nature of the planning-only activity. HPD notes that the Historic Properties Management Plan (HPMP, 2001) and the related Programmatic Agreement (PA) remain the guiding documents related to cultural resources within the proposed project's APE. As such, due to the age of the current HPMP and given that no annual reports or updates to the HPMP have been received/reviewed in accordance with Section 14.1. and 14.2 of the HPMP since the document was adopted, HPD recommends updating the HPMP simultaneously with the Master Plan and in accordance with Stipulations 3 and 8 of the PA and Section 14 of the HPMP.

As projects present themselves, HPD should be given the opportunity to review and comment on any plans, reports or other documents related to Lake J. Strom Thurmond, as they become available, and in accordance with the HPMP and PA. HPD looks forward to continued collaboration in the preservation of this important resource.

Please refer to project number **HP-220106-003** in any future correspondence regarding this project. If we may be of further assistance, please contact Stacy Rieke, Environmental Review Historian, at [Stacy.Rieke@dca.ga.gov](mailto:Stacy.Rieke@dca.ga.gov) or by telephone at (404) 486-6434 or Aspen Kemmerlin, Compliance Archaeologist, at [aspen.kemmerlin@dca.ga.gov](mailto:aspen.kemmerlin@dca.ga.gov) or by telephone at (404) 486-6396.

Sincerely,

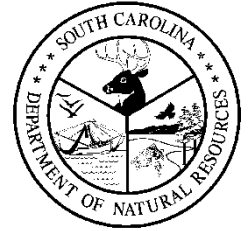


Jennifer Dixon, MHP, LEED Green Associate  
Program Manager  
Environmental Review & Preservation Planning

JAD/smr

cc: Anne Floyd, Central Savannah River Area Regional Commission  
Lydia Joffray, Northeast Georgia Regional Commission

# South Carolina Department of Natural Resources



PO Box 167  
Columbia, SC 29202  
(803) 734-3766  
daniel@dnr.sc.gov

Robert H. Boyles, Jr  
Director  
Lorianne Riffin  
Director, Office of  
Environmental Programs

January 19, 2022

Mrs. Cynthia Gose  
U.S. Army Corps of Engineers  
100 W Oglethorpe Avenue  
Savannah, GA 30643

## *Electronic submission*

RE: Proposed Draft Master Plan (MP), Draft Environmental Assessment (EA), and Draft Finding of No Significant Impact (FONSI) for J. Strom Thurmond Project

Dear Mrs. Gose,

Personnel with the South Carolina Department of Natural Resources (SCDNR) have reviewed the proposed Draft Master Plan (MP), Draft Environmental Assessment (EA), and Draft Finding of No Significant Impact (FONSI) for J. Strom Thurmond Project and offer the following comments.

The proposed action consists of updating the MP which is required for Civil Works projects and other fee-owned lands which USACE has administrative responsibility for management of natural and manmade resources. The current MP, completed in 1995, provides a programmatic approach to the management of all the lands included within the Thurmond Project boundary and serves as the basic document guiding USACE responsibilities pursuant to Federal laws to preserve, conserve, maintain, manage, and develop Thurmond Projects' lands, waters, and associated resources. The purpose of the proposed action to update the MP would update the prescribed overall land and water management plan, resource objectives, and associated design and management concept. The MP guidance also includes revised categories of Land Classifications used to define project lands.

The SCDNR generally supports the efforts to revise the 1995 MP as many of the described revisions would likely result in improved public access to the lake and its natural resources. However, some clarification is needed in order to satisfactorily evaluate the potential for the proposed action to impact aquatic resources/wetlands, fish and wildlife habitat, water quality, and navigation. The SCDNR respectfully submits the following comments for consideration.

### **JST Draft Master Plan**

1. The Public Notice states *"The guidance also includes requirements for an interdisciplinary team approach for the development, re-evaluation, and supplementation or updating of the MP."* The SCDNR requests that this guidance be provided and included in the MP.

2. Page 2. *“The proposed MP update meets the following goals: incorporates updates to policies and regulations pertaining to the management and future development of Thurmond Project.”* The SCDNR submits that policies and regulations concerning the development practices of the parties mentioned in the MP appear to be missing from this MP. Without explicit guidance or Best Management Practices (BMPs), the MP does not regulate the types of activities allowed on project lands by parties that are not otherwise regulated under the Shoreline Management Plan (SMP) (e.g., public entities and private concessionaires). Therefore, the impacts of said development practices on aquatic resources/wetlands, fish and wildlife habitat, water quality, and navigation cannot be determined with the information provided. SCDNR requests that language explicitly subjecting development activities to the provisions in the SMP be included in the MP (see section 4.4.5.a. for an example) and/or that the following BMPs are explicitly incorporated into the MP:

#### Docks

- The area considered for a new floating facility must provide a 50-foot buffer between the proposed facility and any existing facility or mooring buoy at 330 feet mean sea level (msl) elevation. This buffer is defined as the distance between the two closest points on adjacent facilities. This spacing is to provide safe navigational access between facilities and provide sufficient area for boat maneuverability, water level fluctuations and public safety.
- The entire dock and walkway must not extend over one third the distance across a cove, measured from the 330 feet msl elevation on the shoreline of both sides. The length of any dock, including any moored vessel, must not interfere with the navigation channel at any time. Approved new docks shall be placed so as to have the least impact on navigation.
- The flotation material for all docks shall be fabricated of materials manufactured for marine use. The float and its flotation material shall be 100% warranted for a minimum of eight years against sinking, becoming waterlogged, cracking, and peeling, fragmenting or losing beads. All floats shall resist puncture and penetration and shall not be subject to damage by animals under normal conditions for the area.
- Wood treated with creosote may not be used in construction.

#### Bank Stabilization

- Vegetative shoreline enhancements are the preferred method to prevent erosion, followed by enhanced or sloping rip rap, with vertical bulkheads used only as an alternative when the aforementioned methods have proven to be ineffective.
  - Backfill and riprap must consist of clean earthen material and stone free of all potential sources of pollution.
  - Bulkheads/seawalls and revetments should be constructed abutting the existing erosional scarp. Where such structures are permissible, they should be constructed so that wave energy does not scour stable bottoms or constitute safety hazards
  - Bulkhead construction should avoid sharp angle turns that may collect trash or cause shoaling or flushing problems.
  - Bulkheads that require significant backfill and are for the purpose of creating developable high ground will not be permitted.
3. Page 10. *“Emergency procedures for handling oil spills and hazardous substances are contained in the project Spill Prevention, Control and Countermeasures Plan.”* Where is this plan available?
4. Page 13. Protected Species. Please include State-listed species in this section, including the State-Endangered Webster's Salamander (*Plethodon websteri*). For a current list of state listed species visit [www.dnr.sc.gov/species/](http://www.dnr.sc.gov/species/).
5. Page 15. Table 3. Please include State-listed species in this table.

6. Page 34. Land Classification. Please include definitions of the land-use classifications and descriptions of which lands are being reclassified.
7. Page 35. Environmentally Sensitive Areas. There appears to be a decrease in the total lands classified as Environmental compared to the 1995 MP (See Table 1 in the 1995 MP). What is the reason for the discrepancy?
8. Page 37. Table 14. Please include the changes to classification acreages being proposed.

#### **JST Draft Environmental Assessment**

9. Page 5. Table 2. Please include the changes to classification acreages being proposed.
10. Page 19. Protected species. Please note that the Atlantic Pigtoe and the Brother Spike are also State-Endangered species in SC. Please include SC State-listed species in this section.
11. Page 20. Table 4. Please include State-listed species in this table.
12. Page 40. Section 4.1.2. Please clarify which state agency's BMPs will be applicable.
13. Page 42. Section 4.5.2. Please clarify which BMPs will be applicable. BMPs for this activity were not described in the MP.
14. Page 42. Section 4.7.2. Please mention State-listed protected species in this section.
15. Page 43. Section 4.8.2. Which erosion control measures and BMPs will be required? The SCDNR finds that more information regarding the BMPs applicable to parties that are not otherwise regulated under the Shoreline Management Plan (e.g., public entities and private concessionaires) is needed to allow for a comprehensive review of the potential environmental consequences of the proposed action.
16. Page 45. Section 4.15.2. Will all "natural resources management activities that may impact water quality" be subject to BMPs? Which state agency's BMPs will be applicable? Please incorporate explicit mention of this requirement into the MP. The SCDNR finds that more information regarding these BMPs is needed to allow for a comprehensive review of the potential environmental consequences of the proposed action.
17. Page 51. Table 14. The SCDNR is concerned with activities which do not appear to be subject to explicit guidance or BMPs in the proposed MP. Without explicit guidance on shoreline stabilization and construction methods, the SCDNR finds that it is premature to claim insignificant impacts to the following categories in Table 14: aquatic resources/wetlands, fish and wildlife habitat, and water quality. Without explicit guidance on dock spacing and sizing, the SCDNR finds that it is premature to claim insignificant impacts to navigation.

#### **Appendices Thurmond MP and Thurmond EA**

18. Appendix C. The species name for Warmouth should be changed to *Lepomis gulosus*, and there appears to be a typo in the common name for Chain Pickerel. Also, the term "rough fish" can be viewed as an antiquated, pejorative term; it may be more appropriate to categorize these groups into 'game fish' and 'non-game fish' (see Section 50-13 of the South Carolina Code of Laws). American Alligator should be reclassified as a crocodilian and not a 'lizard.' Lastly, the SCDNR suggests adding mollusks to this list.

#### **Appendix D of JST MP – Resource Plans**

19. Under Item 49. Future Marina Sites: *"Area description for Mt. Carmel Campground, Hesters Ferry Campground, and Parkway Boat Ramp are found in their respective sections listed above."* Please note that the sections provided do not appear to match any sections in the MP, EA or in the appendices. Where can these area descriptions be found?

**Finding of No Significant Impact (FONSI)**

20. As described above, without explicit guidance on shoreline stabilization and construction methods, the SCDNR finds that it is premature to claim insignificant impacts to the following categories: aquatic resources/wetlands, fish and wildlife habitat, and water quality. Without explicit guidance on dock spacing and sizing, the SCDNR finds that it is premature to claim insignificant impacts to navigation.

Thank you for the opportunity to review this project and provide comments. Should you have any questions or need more information, please do not hesitate to contact me by email at DanielT@dnr.sc.gov or by phone at 803.734.3766.

Sincerely,

A handwritten signature in blue ink that reads "Tom Daniel". The signature is written in a cursive style with a large, sweeping initial "T".

Tom Daniel  
Office of Environmental Programs

We appreciate your continued coordination on this project and look forward to future conversations. Please contact Mr. Andrew Herndon ([Andrew.Herndon@noaa.gov](mailto:Andrew.Herndon@noaa.gov)) directly with any questions.

Sincerely,

David Bernhart  
Assistant Regional Administrator  
for Protected Resources

File: 1514-22.F.3

cc: F/SER3, Bernhart, Farmer, Herndon  
F/SER4, Rohde, Wilber, Cheatwood  
F/HC2, Lake



## WILDLIFE RESOURCES DIVISION

MARK WILLIAMS  
COMMISSIONER

TED WILL  
DIRECTOR

January 20, 2022

U.S. Army Corps of Engineers  
100 W. Oglethorpe Ave.  
Savannah, Georgia 30643  
ATTN: PM-P-Gose

**RE: Proposed Draft Master Plan J. Strom Thurmond Project**

Dear Mrs. Gose:

This letter is responsive to the Proposed Draft Master Plan (MP), Draft Environmental Assessment (EA), and Draft Finding of No Significant Impact (FONSI) for the U.S. Army Corps of Engineers (USACE) J. Strom Thurmond Project (hereinafter, Project). The Georgia Department of Natural Resources, Wildlife Resources Division (WRD), appreciates the opportunity to provide comments on the Draft MP, EA, and FONSI. Our staff have reviewed the Draft MP and its supporting documents.

WRD is the entity with primary authority for the science-based management and regulation of fish and wildlife, especially State Trust species, in Georgia. WRD's mission is to conserve Georgia's wildlife resources and habitats, and promote fishing, hunting and wildlife conservation through management, education, and scientific research. We support Alternative 2 – Preferred Alternative – Update Master Plan and have several comments on the Draft MP and the Draft EA as follows.

Regarding the Draft MP in Section 2.3 relating to Sedimentation and Shoreline Erosion (Page 7), the sedimentation reports are from 22 years ago (1999). We would expect significant changes since then, especially in the Broad River and potentially GA Little River. The “nuisance and aesthetic loss” to “residents and recreationalists in shoal areas” documented in 1999 are likely worse now and potentially affect the important springtime fish habitat the shoals provide. We would like to see a plan to resurvey sedimentation to reflect present day conditions more accurately.

Additionally, in Section 2.4, relating to Water Quality and Supply (Page 8), the MP states, “water quality in Thurmond Lake is measured by Georgia and South Carolina natural resource State agencies.” However, Figure 2 lists only USACE sampling sites as indicated on the figure. The section goes on to describe the water quality monitoring conducted by the USACE. In Section 3.2.12 of the EA (Page 33), this paragraph is slightly different but specifies that these same sampling sites are SCDHEC sites; therefore, it is unclear who is responsible for conducting sampling at these sites.

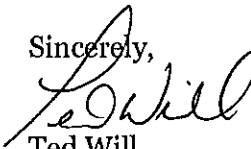
In Section 2.8.4, relating to Invasive Species (Page 16), the table indicates “significant to major” hydrilla occurrence but the note at the bottom of the table references that no hydrilla was observed in a cursory study conducted in the fall of 2019. This concurs with our observations and measurements on the Project. We suggest that the table be updated to reflect that condition.

Finally, in Section 2.13.3, relating to Recreational Analysis (Page 28), the MP states, “while there are an ample number of boat ramps around the lake, parking is insufficient at many boat ramps especially on the lower end of the lake.” It seems to us that the Master Plan should clearly allow for boat ramp parking lot expansion. Also, Table 16 (Section 5.2, Page 41), “Potential Recreational Facilities Development”, states “Designated parking lot(s) not to exceed 100 spaces”. We are unclear why there is a cap at 100 parking lot spaces. We believe this statement should be rephrased, particularly if additional spaces are, or might be, warranted and feasible.

Concerning the Draft EA, we offer several editorial comments to Section 3.2.2, relating to Aquatic Resources/Fisheries, as follows:

- Add Spotted Bass and Blue Catfish to the list of popular sportfish and note that they are non-native species.
- Add Gizzard Shad to the list of important forage fish.
- The second paragraph begins with another list of sport fish. This list should be edited to match the other sport fish list.
- The description of *Morone* sp. stockings only includes Georgia. A more general statement, “Both Georgia DNR and SCDNR produce striped bass and hybrid bass to stock into Thurmond Lake as fingerlings”, would be more accurate.

Again, thank you for the opportunity to provide comment and input for your thoughtful consideration on this important effort. If you have any questions or wish to discuss further, please feel free to contact Scott Robinson, Chief of Fisheries Management, at [scott.robinson@dnr.ga.gov](mailto:scott.robinson@dnr.ga.gov) or (706) 557-3236.

Sincerely,  
  
Ted Will

TW/jwb

cc: Thom Litts  
John Bowers  
Scott Robinson  
Jon Ambrose  
Alan Isler