

**Alcoa Power Generating Inc.  
Yadkin Division**

**Yadkin Project Relicensing (FERC No. 2197)**

# **Regional Recreation Evaluation**

## **Final Study Report**

**April 2005**

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## SUMMARY

The Regional Recreation Evaluation Report presents the results of a study of the recreational opportunities provided by the Yadkin Project reservoirs in a regional context. The study was conducted as part of the FERC relicensing process for the Yadkin Project, in accordance with the Final Study Plan that was developed by Yadkin in consultation with the Recreation, Aesthetics and Shoreline Management Issue Advisory Group (IAG). The primary purpose of the study was to provide a general characterization of the recreation opportunities and experiences available in the region and to examine how they compare to those available at the Yadkin Project. For the study, twenty-three (23) different reservoirs located within 100 miles of the Yadkin Project were examined in terms of recreational opportunities, recreational experience, and tourism. Several other important recreation destinations located within 100 miles of the Yadkin Project, including several national forests and state parks, were also evaluated as part of the study.

The study results show that residents and visitors have ample opportunities to enjoy water-based public recreation activities within the study region. The Yadkin Project has about 40 public access recreation areas that provide opportunities for boating, pier and bank fishing, swimming, picnicking, and camping. In addition, the four reservoirs located within the Yadkin Project provide some unique opportunities for recreational users to enjoy the central North Carolina region's natural surroundings. It includes one undeveloped reservoir (Falls) that provides a "natural" recreation experience and two reservoirs (Narrows and Falls) located adjacent to the Uwharrie National Forest. The proximity of the National Forest ensures a large amount of natural shoreline, a feature most other reservoirs in the region cannot offer to recreational users.

The recreational opportunities available within the Yadkin Project are comparable with those offered at other reservoirs. Federally-owned reservoirs, such as the four U.S. Army Corps of Engineers (USACE) reservoirs, generally provide more opportunities for camping and swimming than power-related reservoirs (including the Yadkin Project reservoirs). However, local, state and federal parks in the region offer a wider range of activities, including land-based recreation opportunities such as rock climbing, hiking, and mountain biking.

Generally within the region, reservoir-related tourism is more actively promoted for the larger reservoirs offering more recreational opportunities. The larger reservoirs receive a combination of resident and visitor use; whereas the smaller reservoirs generally receive mainly local use. The smaller reservoirs with more limited recreation opportunities generally receive little promotion as tourist destinations.



## 1.0 Introduction

Alcoa Power Generating Inc. (APGI) is the licensee for the Yadkin Hydroelectric Project (Yadkin Project or Project). The Yadkin Project is managed and operated by APGI's Yadkin Division and is currently licensed by the Federal Energy Regulatory Commission (FERC) as Project No. 2197. This license expires in 2008 and APGI must file a new license application with FERC on or before April 30, 2006.

As part of the relicensing process, APGI prepared and distributed, in September 2002, an Initial Consultation Document (ICD), which provides a general overview of the Project. Agencies, municipalities, non-governmental organizations, and members of the public were given an opportunity to review the ICD and identify information and studies that were needed to address relicensing issues. To assist in the identification of issues and data or study needs, APGI formed several Issue Advisory Groups (IAGs) to advise APGI on resource issues throughout the relicensing process.

In January 2003, relicensing participants identified an issue and study request specific to this study:

Issue/Comment	Study Request
Yadkin Project recreation facilities/opportunities may not be adequate from a regional perspective	Evaluate regional recreation

This study request was initially discussed with the Recreation, Aesthetics and Shoreline Management (RASM) IAG at a March 13, 2003 meeting. A Draft Study Plan was distributed for review and comment in April 2004. On May 5, 2004, Yadkin met with the RASM IAG to discuss comments received on the Draft Study Plan. The study plan was revised based on comments received and finalized in July 2004 (see Appendix A). As a result, a Draft Study Report was developed in response to comments on the ICD and through discussions with the RASM IAG, to provide additional necessary information for consideration in the relicensing process. Upon completion, the Draft was distributed to the RASM IAG on January 13, 2005. Comments were received at a February 2, 2005 RASM IAG meeting. Additionally, participants were given until March 4, 2005 to prepare additional comments. This Final Report reflects the comments received (see Appendix B).

In addition to this regional recreation evaluation, two other studies related to recreation were conducted to address relicensing issues: the Recreation Facility Inventory and Condition Assessment (APGI Yadkin Division, 2005) and the Draft Recreational Use Assessment (ERM, 2004). The information collected by each study will be used alone and in combination with information collected during the other recreation studies to evaluate the adequacy of existing Project public recreation areas to accommodate current use and future demand.

## **1.1 Study Purpose**

Based on the recommendations of the RASM IAG, the purpose of this study is to compare the outdoor recreational opportunities and experiences afforded by the Yadkin Project reservoirs to those afforded by other regional reservoir related recreation sites. The specific objectives for the study are:

- Identify and inventory the publicly available (governmental and private) recreation sites/facilities at other reservoirs in the study region
- Provide a general characterization of the recreational opportunities and experiences available at these reservoirs and sites
- Evaluate how recreation opportunities available at the Yadkin Project compare with those available elsewhere within the study region.

## **1.2 Study Methods**

### **1.2.1 Data Collection**

The information used for this study was obtained from existing information and consultation with regional recreation site managers. Information used in this study includes:

- Tourist guides
- Maps
- Brochures
- The Internet
- Recreation and tourism studies
- Literature from recreation providers
- Public documents
- Interviews with regional recreation providers, site managers and local officials

### **1.2.2 Regional Recreation Review**

Existing recreation information was reviewed and compiled to create a general inventory of major regional recreation sites found at the Yadkin Project and at other locations within the “study region”. For purposes of this study, the “study region” is defined as the area within a 100-mile radius of the Yadkin Project (see Figure 1). The inventory focuses on the major outdoor water-based recreational opportunities afforded by other reservoirs and lakes within the study region. Twenty-three large reservoirs were identified within the study region (Table 1). The majority of the reservoirs are used for hydroelectric power generation. Two reservoirs are used as cooling reservoirs for power plants and four reservoirs were built for various purposes such as flood control.

**Table 1: Summary of Reservoirs Included in the Study**

<i><b>Reservoir Name</b></i>	<i><b>Owner</b></i>	<i><b>Purpose</b></i>	<i><b>Surface Area (acres)</b></i>	<i><b>Shoreline Miles</b></i>
High Rock Reservoir	APGI	Hydroelectric	15,180	360
Tuckertown Reservoir	APGI	Hydroelectric	2,560	75
Narrows Reservoir	APGI	Hydroelectric	5,355	115
Falls Reservoir	APGI	Hydroelectric	204	6
Lake Tillery	Progress Energy	Hydroelectric	5,700	118
Blewett Falls Lake	Progress Energy	Hydroelectric	2,900	46.9
Harris Lake	Progress Energy	Cooling reservoir (nuclear)	4,150	40
Hyc0 Lake	Progress Energy	Cooling reservoir (steam electric)	3,750	160
Lake James	Duke Power	Hydroelectric	6,500	151.1
Lake Rhodhiss	Duke Power	Hydroelectric	3,000	103.9
Lake Hickory	Duke Power	Hydroelectric	3,900	110.6
Lookout Shoals Lake	Duke Power	Hydroelectric	1,200	36.3
Lake Norman	Duke Power	Hydroelectric	32,000	591.6
Mountain Island Lake	Duke Power	Hydroelectric	2,900	86.5
Lake Wylie	Duke Power	Hydroelectric	12,100	327.51
Fishing Creek Lake	Duke Power	Hydroelectric	3,200	67.1
Great Falls and Rocky Creek Lakes	Duke Power	Hydroelectric	1,020	37
Lake Wateree	Duke Power	Hydroelectric	13,864	213.1
W. Kerr Scott Reservoir	U.S. Army Corps of Engineers (USACE)	Various	1,500	55
John H. Kerr Reservoir <sup>1</sup>	USACE	Various	48,900	800
Falls Lake	USACE	Various	12,400	175
B. Everett Jordan Lake	USACE	Various	14,000	200

<sup>1</sup> Although John H. Kerr Reservoir is located just outside the 100-mile radius used to define the study region, it was identified as a reservoir for inclusion in this study by the study plan discussed with the RASM IAG.

The inventory of reservoir recreation sites includes all pertinent information on each of the reservoirs to the extent the information was readily available, including reservoir owner/operator/manager, reservoir location, reservoir setting, size, reservoir operating regime (including seasonal water level changes) and the general character of the reservoir shoreline.

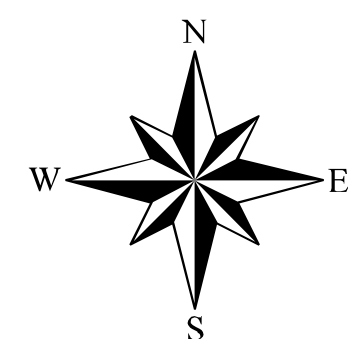
For each reservoir, each recreation site that provides direct reservoir access was inventoried. The inventory of each recreation site includes the site name, owner/operator, and supporting facilities for the predominant reservoir-based recreation activities: boating, fishing, camping, and swimming. While the primary focus of the evaluation is public water-based recreation opportunities associated with regional reservoirs, the study also considered (to a lesser extent) commercial recreation associated with each reservoir and other major recreation facilities or sites in the study region that provide other (non-reservoir-related) types of outdoor recreation opportunities. Specifically, state parks/forests/recreation areas, national forests, nature preserves, game lands, and trail and highway systems were inventoried.



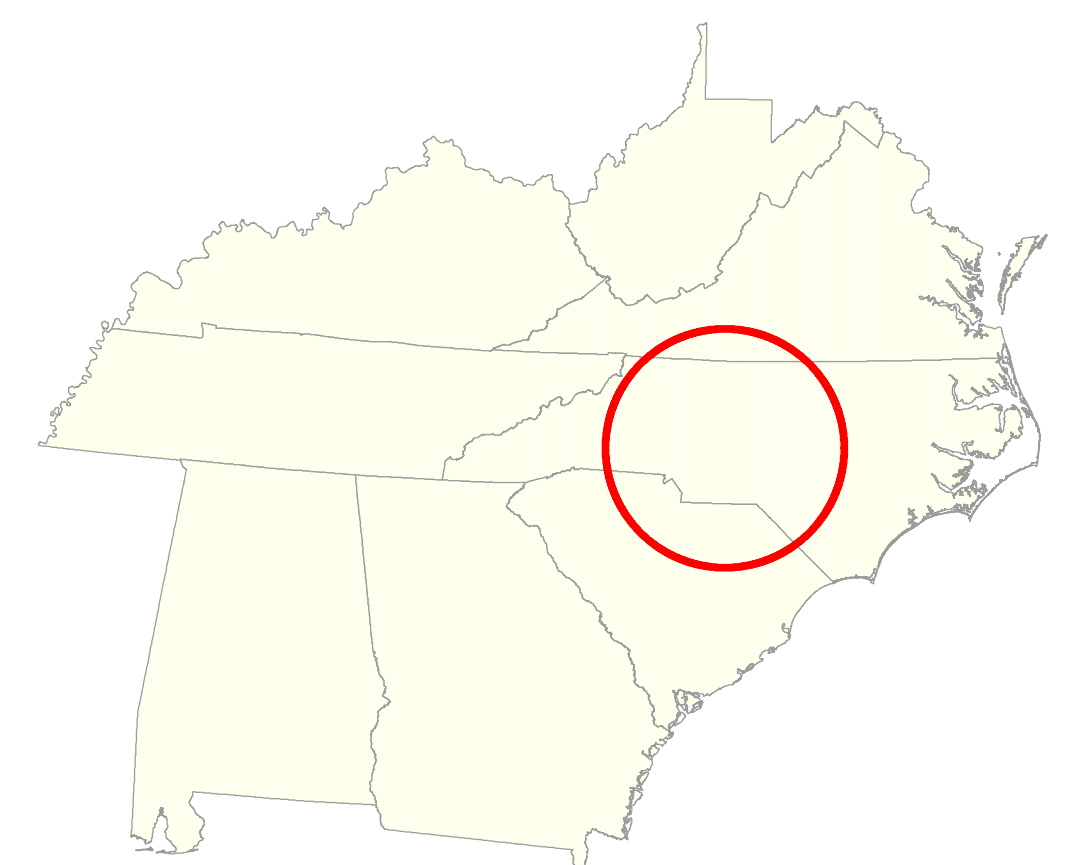


- Highways
- Major Roads
- State Boundaries
- Counties
- Streams
- Urban Areas
- Lakes

## Regional Recreation Evaluation Study Region



0 10 20 40 60 80 Miles



December 2004

Figure 1



### 1.2.3 Characterization of Regional Recreation Resources

Each recreation site inventory provides a general characterization of the major types of activities available at each site.

#### 1.2.3.1 Types of Activities

Reservoir-related recreation sites in the study region were generally characterized by four major recreational activities associated with reservoirs: boating, fishing, camping, and swimming. Other activities associated with each reservoir recreation site were also characterized to the extent such information was available. A broad range of recreational opportunities, including opportunities not available at reservoir-related recreation sites, were found within the study region at recreation sites not associated with reservoirs.

#### 1.2.3.2 Recreational Experience

Each of the major reservoirs in the study region is characterized according to the recreational experience offered by that site. To the extent such information was available, a reservoir's experience was predominantly characterized by the reservoir's setting and the volume and types of use. Specifically, information was obtained through public documents and through phone interviews with reservoir officials on the amount of development, the type of development, project operations, the carrying capacity of the reservoir, and the volume and type of use the reservoirs receive.

Each reservoir or reservoir group had a different classification system for shoreline development. Because these classifications were unique for each project, their respective classifications were simplified into three categories: Undeveloped, Limited Development, and Developed.

For percentages of shoreline development, the Yadkin Project Shoreline Management Plan (SMP) uses five different shoreline classifications: Forested, Residential, Agricultural, Commercial/ Industrial, and Recreation (Yadkin Inc., 1999). For purposes of this study, the Yadkin classifications have been simplified as follows:

**Table 2: Yadkin Project SMP Shoreline Development Classifications**

<b><i>Yadkin Classification</i></b>	<b><i>Regional Recreation Classification</i></b>
Forested	Undeveloped
Residential	Developed
Agricultural	Limited Development
Commercial/Industrial	Developed
Recreation	Limited Development

For percentages of shoreline development, the Lake Tillery SMP uses eight different shoreline classifications: Commercial, Residential, Agricultural, Project Operations, Public Infrastructure, Developed Public Recreation, Undeveloped Public Recreation, and Undeveloped Lands

(Progress Energy, 2001). For purposes of this study, the Lake Tillery classifications have been simplified as follows:

**Table 3: Lake Tillery SMP Shoreline Development Classifications**

<i><b>Lake Tillery Classification</b></i>	<i><b>Regional Recreation Classification</b></i>
Commercial	Developed
Residential	Developed
Agricultural	Limited Development
Project Operations	Developed
Public Infrastructure	Developed
Developed Public Recreation	Limited Development
Undeveloped Public Recreation	Undeveloped
Undeveloped Lands	Undeveloped

For percentages of shoreline development, the Catawba-Wateree SMP uses 14 different shoreline classifications<sup>1</sup> (Duke Power, 2001). The classifications are as follows: Commercial/Non-Residential, Commercial/Residential, Residential, Business Industrial, Public Recreation, Public Infrastructure, Project Operations, Future Commercial/Non-Residential, Future Residential, Future Commercial/Residential, Future Public Recreation, Impact Minimization Zones, Environmental Area, and Natural Area. For purposes of this study, the Catawba-Wateree classifications have been simplified as follows:

**Table 4: Catawba-Wateree Project SMP Shoreline Development Classifications**

<i><b>Catawba-Wateree Classification</b></i>	<i><b>Regional Recreation Classification</b></i>
Commercial/Non-Residential	Developed
Commercial/Residential	Developed
Residential	Developed
Business Industrial	Developed
Public Recreation	Limited Development
Public Infrastructure	Developed
Project Operations	Developed
Future Commercial/Non-Residential	Undeveloped
Future Commercial/Residential	Undeveloped
Future Residential	Undeveloped
Future Public Recreation	Undeveloped
Impact Minimization Zones	Undeveloped
Environmental Area	Undeveloped
Natural Area	Undeveloped

For percentages of shoreline development, the John H. Kerr SMP uses four different shoreline classifications: Limited Development, Public Recreation, Protected, and Prohibited Access

<sup>1</sup> Duke Power is currently updating its shoreline development classifications through its FERC relicensing process. These new classifications are not yet available and therefore have not been included in this report (Edward Bruce, Duke Power, personal communication). The shoreline classifications used in this report for Catawba-Wateree reservoirs are based solely on the 2001 Catawba-Wateree SMP.

USACE, 1993). For purposes of this study, the John H. Kerr classifications have been simplified as follows:

**Table 5: John H. Kerr SMP Shoreline Development Classifications**

<i><b>John H. Kerr Classification</b></i>	<i><b>Regional Recreation Classification</b></i>
Limited Development	Developed
Public Recreation	Limited Development
Protected	Undeveloped
Prohibited Access	Developed

After the shoreline development data were reclassified into three simplified categories, the information was reviewed in conjunction with all other available information including carrying capacity, type and volume of use, and recreational data. Based on a qualitative assessment of all available data, each reservoir was classified in one of three recreation experience categories: Natural, Limited Development, or Developed. Table 6, below, summarizes the type of experience that was considered to occur at reservoirs in each of the three categories used in this report.

**Table 6: Summary of Recreation Experience Categories**

Developed	A considerable amount of the reservoir shoreline is developed with either private or commercial structures. The reservoir is accessible through many public and commercial access sites. Use of the reservoir by recreationists is high. A person recreating on this reservoir is very likely to encounter other people and signs of development whenever the reservoir is used.
Limited Development	Some of the reservoir shoreline is developed with private residences and small commercial establishments. The reservoir is accessible through public access sites or small commercial developments. Use of the reservoir by recreationists is moderate. A person recreating on this reservoir is somewhat likely to encounter other people using the reservoir and will have views of some man-made structures along portions of the reservoir shoreline.
Natural	There is little or no visible development along the reservoir shoreline. The reservoir is accessible only from modest public recreation access sites. There is no commercial development along the reservoir shoreline. A person recreating on this reservoir may encounter others using the reservoir, but those encounters would be relatively infrequent. Views of the shoreline from the reservoir would appear almost completely free from structures and other man-made influences.

### **1.2.3.3 Tourism**

In addition to specific recreation opportunities and experiences available, each reservoir is characterized using existing information with respect to tourism. Tourism has been evaluated in terms of the amount of tourism generated by the recreation site(s) and opportunities available at each reservoir. Local officials and recreation site owners or operators were contacted and asked to provide a general characterization of tourism at each reservoir. The information sought from requisite officials includes general tourism information such as any estimates on type of use, volume of use, and seasonal use patterns and activities by tourists at each reservoir. Local

officials were also asked if they actively promote reservoir-related tourism, and whether they have information or data that suggests that their promotional efforts have increased tourism use.

#### **1.2.4 Comparison of Yadkin Project Recreation Resources with Other Regional Resources**

After the inventory and characterization of the regional recreation sites, the types of recreation facilities, recreation opportunities and recreation experiences afforded by the Yadkin Project reservoirs is compared to the other recreation sites in the study region. The comparison generally characterizes the similarities and differences in the recreational opportunities and experiences provided at the Yadkin Project to those available elsewhere in the region.

#### **1.2.5 Review of Yadkin Area Recreation Plans and Future Opportunities**

Each of the five counties surrounding the Yadkin Project (Davie, Rowan, Davidson, Stanly, and Montgomery counties) have been interviewed to determine what plans the counties have for adding recreational sites or facilities to the five county region over the next 10-20 years. The counties have also been queried about their assessment of recreational needs that exist in the region that are not currently being met at the Yadkin Project or elsewhere within the five county region. Information obtained from the counties concerning recreation facility plans and needs have been incorporated into the overall regional recreation assessment.

### **2.0 Yadkin Project Recreation Resources**

Alcoa Power Generating Inc. (APGI) Yadkin Division's Hydroelectric Project (FERC No. 2197) consists of four dams and powerhouses that create High Rock, Tuckertown, Narrows, and Falls reservoirs. The four reservoirs fall within a 38-mile stretch of the Yadkin River (mile 272 to mile 234) in south-central North Carolina and encompass a drainage area of 4,200 square miles. All four developments are used for hydroelectric power generation.

Available information for determining reservoir experience at APGI's Yadkin Project includes amount of shoreline development, number of private piers, visitation data, carrying capacity, and recreation use data. This information was obtained from the Yadkin Shoreline Management Plan (Yadkin Inc., 1999), the relicensing Initial Consultation Document (APGI Yadkin Division, 2002), and the Draft Recreational Use Assessment (ERM, 2004).

#### **2.1 High Rock Reservoir**

High Rock Reservoir is managed and operated by APGI's Yadkin Division. The reservoir is located southeast of Salisbury in Rowan, Davidson, and Davie counties, North Carolina. High Rock Reservoir has a surface area of about 15,180 acres and 360 shoreline miles at a full pond elevation of 623.9 feet (Yadkin Inc., 1999).

High Rock is the uppermost and largest of the four reservoirs and is operated as a storage reservoir on a seasonal basis. High Rock is operated according to operating guides. Under these



guides, the reservoir is typically maintained at a relatively high water level during the recreation season (May 15 – September 15) and then drawn down during the fall and winter. Typically, winter drawdown at High Rock is between 12 and 15 feet (APGI Yadkin Division, 2002).

## 2.1.1 Inventory of Recreation Resources

### *Public Recreation Sites*

High Rock Reservoir has 10<sup>2</sup> public recreation sites that provide direct reservoir access. Among the 10 sites, there are 11 boat ramps and two swimming beaches (APGI Yadkin Division, 2005).

**Table 7: Public Recreation Sites and Opportunities at High Rock Reservoir**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Highway 601	APGI/Davie County	1	0	N	N
Rowan County Pump Station	Rowan County	1	0	N	N
York Hill	APGI	2	0	N	N
Little Crane Creek	APGI	2	0	N	N
Southmont	APGI	2	0	N	N
Highway 47	APGI	0	0	N	N
Buddle Creek	APGI	1	0	Y	N
Dutch Second Creek	APGI/NCWRC	1	0	N	N
Flat Swamp	APGI	1	0	Y	N
High Rock Dam Canoe Portage Trail	APGI	0	0	N	N

Source: Recreation Facility Inventory and Assessment, APGI Yadkin Division, 2005.

### *Eagle Point Nature Preserve*

The Eagle Point Nature Preserve, located on High Rock Reservoir in Rowan County, is managed by Rowan County Parks and Recreation. The preserve consists of approximately 100 acres of public land owned by Rowan County and another 80 acres on lease from Alcoa's Yadkin Division (APGI Yadkin Division, 2005). The preserve is open daily and hours vary according to the season. The preserve's facilities include hiking trails, a canoe access, and wildlife observation sites. The preserve's canoe access is only accessible when High Rock Reservoir water levels are relatively high and requires a 100-yard portage. The shoreline has "no trespassing" signs posted to prevent unauthorized uses of the preserve, including hunting and vegetation removal. According to Bob Pendergrass, Nature Center Supervisor, the "no trespassing" signs are not intended to exclude access to the park via boat. Boat-in access is allowed but must be done via paddling or electric motors only.

<sup>2</sup>Recreation sites currently considered closed were not included in this study.

The preserve's network of trails covers approximately five miles (Rowan County, Eagle Point Nature Preserve website). There are three main trails: the Plant ID Loop Trail, the Goldeneye Cove Trail, and the Point Loop Trail. Located along the trails are three vernal pools (one with an interpretive display), three homesites, one upland depression, and two official observation blinds. The Plant ID Loop Trail is an interpretive loop with species signs beside various trees and plants. Certain trail sections run along the lakeshore and provide access to the reservoir for bank fishing.

### ***Commercial Recreation Opportunities***

High Rock Lake Marina and Campground is located on the Abbotts Creek arm of High Rock Reservoir in Davidson County. The Marina and Campground facilities include tent sites, RV hookups, cabins, a boat ramp, a fishing pier, a marina, a snack bar, and a variety of other recreational facilities (APGI Yadkin Division, 2005). High Rock Lake Marina and Campground has 93 total RV sites. Of these 93 sites, 80 have full service hookups and 13 offer water and electric. The site also has five tent sites and availability for group camping. The Campground also offers eight rental cabins of several types and sizes. The marina consists of a dock with eight slips and additional docking facilities for its numerous pontoon boats and fiberglass fishing boats. Gas and propane are available at the marina. There is no swimming access at High Rock Lake Marina and Campground. Other amenities provided by the Campground include a swimming pool, a laundry, a basketball court, horseshoe pits, a playground, a pavilion, a recreation field, a store, a game room, and a snack bar. Sanitation facilities include a large bathhouse and two large dump stations. Pay phones are located next to the pool and the bathhouse. The facilities are open throughout the year.

Tamarac Marina is located on the Second Creek arm of High Rock Reservoir in Rowan County. Tamarac Marina has approximately 1,500 feet of shoreline and facilities include a boat launch, boat docks, gas, a restaurant, a general/convenience store and other day-use facilities (APGI Yadkin Division, 2005). The marina's waterfront facilities consist of a concrete boat launch ramp, two floating wooden boat docks, and a large outdoor picnic area with a sheltered pavilion. The convenience store carries snacks, sodas, beer, and fishing and outdoor supplies. Adjacent to the store is a restaurant that carries grill-type fare with an outdoor patio overlooking the reservoir. Within the store/restaurant are men's and women's restrooms.

High Rock Boat Dock Marina is a full service marina and boat dealer located on the Abbotts Creek arm of High Rock Reservoir in Davidson County. The marina's facilities include boat slips (approximately 30-boat capacity), gas pumps, a private boat ramp, boat rentals, a convenience store, dry boat storage facilities, and a beach club. The marina also offers full service mechanical repair for all types of boats. The marina's convenience store carries gas, oil, ice, beverages, food items, and fishing supplies.

The High Rock Boat and Ski Club is a private restaurant and club located near the Crane Creek Arm of High Rock Lake in Rowan County. The private club requires annual membership dues of \$20 and is open year-round for members. The waterfront facilities include a boat dock with approximately 10 slips and a private boat ramp that is only available for members. The restaurant serves dinner nightly and the club offers live music and DJs.

### 2.1.2 Recreational Experience

High Rock Reservoir is generally a residential reservoir with more than 2,700 private piers. Of the reservoir's approximately 360 miles of shoreline, nearly 57% remain undeveloped while 35% has been fully developed (APGI Yadkin Division, 2002).

**Table 8: Percent Development by Category at High Rock Reservoir**

<i><b>Development Classification</b></i>	<i><b>Percentage</b></i>
Undeveloped	57%
Limited Development	8%
Developed	35%

Recreational use data for High Rock Reservoir for the period May 10, 2003 through May 9, 2004 shows the greatest number of recreation use from May through September. Use levels from May to September 2003 range from approximately 164,000 to 244,000 recreation days (ERM, 2004). The carrying capacity at High Rock Reservoir is estimated at approximately 1,012 to 1,301 total boats.

On High Rock Reservoir, the predominant activities are boating and fishing. The table below shows each major recreation activity and the percentage of visitors participating in each activity (ERM, 2004).

**Table 9: Percentage of Visitors Participating in Major Activities at High Rock Reservoir**

<i><b>Type of Activity</b></i>	<i><b>Estimated Percentage</b></i>
Motor Boating	23%
Boat Fishing	51%
Bank/Pier Fishing	24%
Swimming	34%
Canoeing/Kayaking	0%
Picnicking	5%
Camping	5%
Other uses	23%

Based largely on the amount of shoreline development, the number of private piers, and the amount of boating usage, High Rock Reservoir is classified as a "Developed" reservoir.

### 2.1.3 Tourism

According to Judy Newman, Director of the Rowan County Convention and Visitors Bureau (CVB), visitors to High Rock Lake are predominantly "day trippers" due to a lack of overnight, lakefront accommodations. Visitors to the reservoir usually live within the region and predominantly use the reservoir for boating and fishing. The county does not have specific numbers on how many tourists the reservoir draws, but believes that spring and fall are the major seasons for fishermen. Although Ms. Newman believes that the majority of visitors are local, the county has participated in numerous regional and national fishing tournaments. Large events, such as fishing tournaments, bring in the majority of out of town tourists to High Rock

Reservoir. In addition to hosting fishing tournaments, the county distributes a “Lure Brochure” which promotes fishing on High Rock Reservoir.

The *Davidson County Tourism and Recreation Master Plan* (Master Plan) is in the early stages of development and is scheduled to be completed by June 2005. The purpose of the Master Plan is “to serve as a guide to protect and enhance the natural, cultural, and historic resources of Davidson County” and the Master Plan “balances the needs and concerns of the public as well as the realities of Davidson County’s current and projected economic condition” (PTCOG, 2004). According to Paul Kron, Regional Planning Director for the Piedmont Triad Council of Governments, public involvement has been very important to the planning process for the plan. Ideas that have been raised to promote tourism and enhance recreation in Davidson County include a park at High Rock Lake or the Yadkin River, lodging and restaurants on High Rock Reservoir, and connecting Boones Cave Park (discussed in Section 4.3) to other recreation sites in Davidson County.

According to Jo Ellen Edwards with the Tourism Development Partnership of Davidson County, High Rock Reservoir has “limited public access” on the Davidson County side. Several national bass fishing tournaments have been held on High Rock Reservoir and she believes if some of these tournaments were conducted on the Davidson County side of the reservoir, they would draw more tourists to Davidson County. The reservoir is used for boating, fishing, and water skiing mainly by either residents around the reservoir or local visitors. Although the reservoir has not been promoted as a tourist destination in the past, Davidson County will be promoting it in the future.

Since only a small portion of Davie County is adjacent to the Yadkin Project, Davie County does not promote tourism on High Rock Reservoir, but focuses on other attractions within the county.

## **2.2 Tuckertown Reservoir**

Tuckertown Reservoir is managed and operated by APCI’s Yadkin Division. The reservoir is located downstream of High Rock Reservoir in Rowan, Davidson, Stanly, and Montgomery counties, North Carolina. Tuckertown Reservoir has a surface area of about 2,560 acres and 75 shoreline miles at a full pond elevation of 564.7 feet (Yadkin Inc., 1999).

Tuckertown Reservoir has limited storage capacity and is operated with a daily pondage and a normal fluctuation of zero to three feet (APCI Yadkin Division, 2002).

### **2.2.1 Inventory of Recreation Resources**

#### ***Public Recreation Sites***

Tuckertown Reservoir has 11 public recreation sites that provide direct reservoir access. Among the 11 sites, there are seven boat launch ramps (APCI Yadkin Division, 2005).

**Table 10: Public Recreation Sites and Opportunities at Tuckertown Reservoir**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
High Rock Dam Tailrace (Rowan)	APGI	0	0	N	N
High Rock Dam Tailrace (Davidson)	APGI	0	0	N	N
Bringle Ferry	APGI/NCWRC	1	0	N	N
Cedar Creek	APGI	0	0	N	N
Flat Creek Boat	APGI/NCWRC	2	0	N	N
Flat Creek Fishing	APGI/NCWRC	0	0	N	N
Newsome Road	APGI	2	0	N	N
Riles Creek	APGI	0	0	N	N
Highway 49	APGI	2	0	N	N
Tuckertown Road Pull-off Fishing	APGI	0	0	N	N
Tuckertown Dam Canoe Portage Trail	APGI	0	0	0	0

Source: Recreation Facility Inventory and Assessment, APGI Yadkin Division, 2005.

### ***Commercial Recreation Opportunities***

There are no commercial recreation opportunities available at Tuckertown Reservoir.

### **2.2.2 Recreational Experience**

Tuckertown Reservoir is generally an undeveloped reservoir. Of the reservoir's approximately 75 miles of shoreline, nearly 81% remain undeveloped while 3% has been fully developed (APGI Yadkin Division, 2002).

**Table 11: Percent Development by Category at Tuckertown Reservoir**

<i>Development Classification</i>	<i>Percentage</i>
Undeveloped	81%
Limited Development	16%
Developed	3%

Recreational use data from Tuckertown Reservoir for the period May 10, 2003 through May 9, 2004 shows the greatest amount of recreation use from April through August. Use levels from April to August range from approximately 6,600 to 11,500 recreation days (ERM, 2004). The carrying capacity at Tuckertown Reservoir is estimated at approximately 284 to 365 total boats.

On Tuckertown Reservoir, the predominant activities are boating and fishing. The table below shows each major recreation activity and the percentage of visitors participating in each activity (ERM, 2004).

**Table 12: Percentage of Visitors Participating in Major Activities at Tuckertown Reservoir**

<b><i>Type of Activity</i></b>	<b><i>Estimated Percentage</i></b>
Motor Boating	9%
Boat Fishing	36%
Bank/Pier Fishing	59%
Swimming	8%
Canoeing/Kayaking	3%
Picnicking	12%
Camping	4%
Other uses	18%

Based largely on the amount of shoreline development and the types of usage, Tuckertown Reservoir is classified as a “Limited Development” reservoir.

### **2.2.3 Tourism**

According to Judy Newman, Director of the Rowan County Convention and Visitors Bureau, Tuckertown Reservoir does not draw many tourists to the area. She believes that Tuckertown Reservoir is used for boating and fishing by local fisherman. The county does not actively promote tourism on Tuckertown Reservoir, but focuses its efforts on High Rock Reservoir.

According to Jo Ellen Edwards with the Tourism Development Partnership of Davidson County, Tuckertown Reservoir is not actively promoted by Davidson County. Davidson County focuses its efforts on High Rock Reservoir.

Officials responsible for tourism with Montgomery and Stanly counties do not actively promote tourism on Tuckertown Reservoir and believe it receives use almost exclusively from locals.

## **2.3 Narrows Reservoir**

Narrows Reservoir (Badin Lake) is managed and operated by APCI's Yadkin Division. The reservoir is located northeast of Albemarle in Stanly, Montgomery, and Davidson counties, North Carolina. Narrows Reservoir has a surface area of about 5,355 acres and 115 shoreline miles at a full pond elevation of 509.8 feet (Yadkin Inc., 1999).

Narrows Reservoir has storage capabilities and a maximum drawdown capacity of 30 feet. However, Narrows is generally operated with fluctuation within a three-foot range that is only exceeded in periods of very low inflow (APCI Yadkin Division, 2002).

### **2.3.1 Inventory of Recreation Resources**

#### ***Public Recreation Sites***

Narrows Reservoir has 10 public recreation sites that provide direct reservoir access. Among the 10 sites, there are 10 boat launch ramps, one fishing pier, and one swimming beach (APCI

Yadkin Division, 2005). The U.S. Forest Service's Uwharrie National Forest (UNF) is adjacent to the reservoir's eastern shoreline. Recreation sites located within the UNF are discussed in Section 4.1.1 and are not included in Table 13.

**Table 13: Public Recreation Sites and Opportunities at Narrows Reservoir**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Tuckertown Dam Tailrace	APGI	0	0	N	N
Garr Creek	APGI	2	0	N	N
Old Whitney Fishing	APGI/NCWRC	0	1	N	N
Old Whitney Boat	APGI	1	0	N	N
Circle Drive	APGI/NCWRC	3	0	N	N
Lakemont	NCWRC	2	0	N	N
Palmerville	NA	1	0	N	N
Badin Lake Swim and Picnic Area	APGI	0	0	Y	N
Badin Lake Boat	APGI	1	0	N	N
Narrows Dam Canoe Portage Trail	APGI	0	0	0	0

\* NA – denotes information that was not available.

Source: Recreation Facility Inventory and Assessment, APGI Yadkin Division, 2005.

### ***Commercial Recreation Opportunities***

Fish Tales Marina and Lake Forest Campground is located on the Reynolds Creek arm of Narrows Reservoir in Montgomery County. Fish Tales Marina has approximately 325 feet of shoreline and facilities include parking, a boat dock, a launch ramp, a restaurant, a trailer campground, and other amenities. The marina has a paved boat launch ramp and a 10-slip floating wooden boat dock with a sheltered gas pump and an additional pump located in the paved parking area. The restaurant, Fish Tales Marina Grille, offers breakfast and lunch and also houses a game room and restrooms. The restaurant is open on weekends only in April through May and mid-August through September and open Thursdays through Mondays from June through mid-August. The campground is adjacent to the marina and consists of approximately 52-55 trailers (many include constructed wooden additions). Trailer sites are leased at annual rates and are therefore semi-permanent.

### **2.3.2 Recreational Experience**

Narrows Reservoir is generally a residential reservoir with more than 1,000 private piers. Of the reservoir's approximately 115 miles of shoreline, nearly 48% remain undeveloped while 44% has been fully developed (APGI Yadkin Division, 2002).

**Table 14: Percent Development by Category at Narrows Reservoir**

<i>Development Classification</i>	<i>Percentage</i>
Undeveloped	48%
Limited Development	8%
Developed	44%

Recreation use data from Narrows Reservoir for the period May 10, 2003 through May 9, 2004 shows the greatest number of recreation use from June through September. Use levels from June to September range from approximately 42,300 to 74,000 recreation days (ERM, 2004). The carrying capacity at Narrows Reservoir is estimated at approximately 595 to 765 total boats.

On Narrows Reservoir, the predominant activities are boating and fishing. The table below shows each major recreation activity and the percentage of visitors participating in each activity (ERM, 2004).

**Table 15: Percentage of Visitors Participating in Major Activities at Narrows Reservoir**

<i>Type of Activity</i>	<i>Estimated Percentage</i>
Motor Boating	9%
Boat Fishing	36%
Bank/Pier Fishing	59%
Swimming	8%
Canoeing/Kayaking	3%
Picnicking	12%
Camping	4%
Other uses	18%

Based largely in part on the amount of shoreline development, the number of private piers, and the amount of boating usage, Narrows Reservoir is classified as a “Developed” reservoir.

### **2.3.3 Tourism**

The Stanly County Convention and Visitors Bureau is responsible for promoting recreational activities on Narrows Reservoir. Melissa Blaylock, the Executive Director of the CVB, stated that Stanly County promotes tourism on Narrows Reservoir through both large-scale events and in a way that appeals to eco-tourists and focuses on the area’s rural aspects. Working in conjunction with the Yadkin-Pee Dee Lakes Project, Stanly County aims to promote the natural history and environment of the area to draw tourists from the larger metropolitan areas of central North Carolina. Stanly County also has hosted several large fishing tournaments that draw large numbers of tourists to the county. The Stanly County CVB promotes the reservoir through a lake guide, a website, and informational brochures mailed out in response to inquiries.

The tourism in Montgomery County focuses on promoting the Uwharrie National Forest and the reservoirs in the region (predominantly Narrows and Tillery). According to Judy Stevens, the Executive Director of the Montgomery County Economic Development Corporation, Narrows Reservoir is a very important resource for bringing tourists to the region. She believes that the county’s relationship with the UNF and the access to the reservoir that the UNF provides is



integral to maintaining Montgomery County as a tourist destination. Boating, fishing, and camping are the predominant activities for which tourists use the reservoir. In Ms. Stevens' experience, the summer and fall seasons and large events held in the UNF bring in the greatest number of visitors to the county. Montgomery promotes tourism mostly through mail-out brochures and through its website.

## 2.4 Falls Reservoir

Falls Reservoir is managed and operated by APCI's Yadkin Division. The reservoir is located northeast of Albemarle in Stanly and Montgomery counties, North Carolina. Falls Reservoir has a surface area of about 204 acres and six shoreline miles at a full pond elevation of 332.8 feet (Yadkin Inc., 1999).

Falls Reservoir has very limited storage capacity and is operated with a daily pondage and a normal fluctuation of zero to three feet (APCI Yadkin Division, 2002).

### 2.4.1 Inventory of Recreation Resources

#### *Public Recreation Sites*

Falls Reservoir has two public recreation site that provide direct reservoir access. Among these two access sites, there is one boat launch ramp (APCI Yadkin Division, 2005). The U.S. Forest Service's Uwharrie National Forest is adjacent to the reservoir's eastern shoreline. Recreation sites located within the UNF are discussed in Section 4.1.1 and are not included in Table 16.

**Table 16: Public Recreation Sites and Opportunities at Falls Reservoir**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Falls Boat Access	APCI	1	0	N	N
Falls Dam Canoe Portage Trail	APCI	0	0	0	0

Source: Recreation Facility Inventory and Assessment, APCI Yadkin Division, 2005.

#### *Commercial Recreation Opportunities*

There are no commercial recreation opportunities available at Falls Reservoir.

### 2.4.2 Recreational Experience

Adjacent to the Uwharrie National Forest, Falls Reservoir is essentially free of development. Of the reservoir's approximately six miles of shoreline, nearly 94% remains undeveloped while 2% has been developed (APCI Yadkin Division, 2002).

**Table 17: Percent Development by Category at Falls Reservoir**

<i><b>Development Classification</b></i>	<i><b>Percentage</b></i>
Undeveloped	94%
Limited Development	4%
Developed	2%

Recreation use data from Falls Reservoir for the period May 10, 2003 through May 9, 2004 shows the greatest number of recreation use from May through August 2003. Use levels from May to August range from approximately 530 to 670 recreation days (ERM, 2004). The carrying capacity at Falls Reservoir is estimated at approximately 23 to 29 total boats. On Falls Reservoir, the predominant activities are camping, boating, and fishing (ERM, 2004). The table below shows each major recreation activity and the percentage of visitors participating in each activity.

**Table 18: Percentage of Visitors Participating in Major Activities at Falls Reservoir**

<i><b>Type of Activity</b></i>	<i><b>Estimated Percentage</b></i>
Motor Boating	12%
Boat Fishing	41%
Bank/Pier Fishing	47%
Swimming	29%
Canoeing/Kayaking	18%
Picnicking	29%
Camping	47%
Other uses	79%

Based largely on the setting (adjacent to the Uwharrie National Forest) and the amount of shoreline development, Falls Reservoir is classified as a “Natural” reservoir.

### **2.4.3 Tourism**

Officials responsible for tourism within Montgomery and Stanly counties do not actively promote tourism on Falls Reservoir and believe it receives use almost exclusively from locals.

## **3.0 Other Regional Reservoir Recreation Resources**

### **3.1 Yadkin-Pee Dee River Project**

Progress Energy’s Yadkin-Pee Dee River Project (FERC No. 2206) consists of the Tillery Dam and Reservoir and the Blewett Falls Dam and Reservoir. The project is located downstream of APGI’s Yadkin Project on the Yadkin and Pee Dee rivers in central North Carolina.

Available information for determining reservoir experience at Progress Energy’s Yadkin-Pee Dee River Project includes amount of shoreline development, visitation data, and carrying capacity. Data for Blewett Falls Lake was unavailable. This information was obtained from the Lake Tillery Shoreline Management Plan (Progress Energy, 2001) and the Yadkin-Pee Dee River Project relicensing Initial Consultation Document (Progress Energy, 2003).

### 3.1.1 Lake Tillery

Lake Tillery is a Progress Energy-owned and operated reservoir within the Yadkin-Pee Dee River Hydroelectric Project. The reservoir is located southeast of Albemarle in Stanly and Montgomery counties, North Carolina. Lake Tillery has a surface area of about 5,700 acres and 118 shoreline miles at the normal maximum operating level of 277.3 feet.

Progress Energy operates Lake Tillery within a range of four feet during normal conditions (Progress Energy, 2003). Much of the time, Tillery is operated within a range of two feet, except during times of maintenance. Maintenance periods require drawdowns of approximately 12 feet and the Project's FERC license allows drawdowns of up to 22 feet below full pond. From April 15 to May 15, Tillery is operated within one-foot of full pond for fish spawning.

#### 3.1.1.1 Inventory of Recreation Resources

##### *Public Recreation Sites*

Lake Tillery has five public recreation sites that provide direct reservoir access. Among these five sites, there are eight boat launch ramps and two fishing piers (Progress Energy, 2003).

**Table 19: Public Recreation Sites and Opportunities at Lake Tillery**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Swift Island	Progress/NCWRC	2	0	N	N
Lilly's Bridge	Progress/NCWRC	2	0	N	N
Lilly's Bridge Fishing	Progress/NCWRC	0	2	N	N
Stony Mountain	Progress/NCWRC	2	0	N	N
Norwood	Progress/NCWRC	2	0	N	N

Source: Yadkin-Pee Dee River Project Initial Consultation Document, Progress Energy, 2003.

##### *Morrow Mountain State Park*

Morrow Mountain State Park is a 4,742-acre state park located west of Albemarle in Stanly County, North Carolina. Operated by the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Parks and Recreation, the park provides opportunities for boating, fishing, camping, hiking, horseback riding, swimming, and picnicking (NCDENR, Division of Parks and Recreation website). Adjacent to the Pee Dee River and Lake Tillery, the park has a boat ramp available for launching private boats. The park also offers rowboat and canoe rentals throughout the summer. Fishing is permitted throughout the park with a valid state license and the park has an accessible fishing pier on Lake Tillery.

Morrow Mountain has approximately 36 miles of trails throughout the park. The park has 11 trails specifically designated for hiking that cover nearly 20 miles, while a long bridle trail of 16 miles is available for both horseback riding and hiking.

**Table 20: Trail Summary for Morrow Mountain State Park**

<b><i>Trail Name</i></b>	<b><i>Difficulty</i></b>	<b><i>Distance (miles)</i></b>
Backpack	Easy	2.0
Bridle	Moderate	16.0
Campground/Pool	Easy	0.8
Fall Mountain	Moderate	4.1
Hathaway Mountain	Strenuous	2.0
Laurel	Easy	0.6
Morrow Mountain	Moderate	3.0
Mountain Loop	Easy	0.8
Quarry	Easy	0.6
Rocks	Easy	2.6
Sugarloaf Mountain	Strenuous	2.8
Three Rivers	Easy	0.6

The park offers opportunities for family camping, group camping, primitive camping, and vacation cabins. The family campground has 106 campsites for tents and trailers. There is group camping area located near the river with six sites that includes picnic tables, a grill, and a fire circle. A primitive campground is available by permit only. Six fully-equipped vacation cabins accommodate up to six people each.

The park has two picnic areas available for day use: one on Morrow Mountain and one near the swimming pool. The Morrow Mountain picnic area has a small four-table shelter and the swimming pool picnic area has a six-table shelter. Each picnic area has picnic tables and grills available.

### ***Commercial Recreation Opportunities***

There are four marinas located on Lake Tillery: Ken's Marina, Family Boat Center, Cook's Marina, and Dock-N-Shop. Among the four marinas, there are boat rentals, repairs, and storage. Each marina also has fueling facilities.

#### **3.1.1.2 Recreational Experience**

Lake Tillery is generally a residential reservoir with significant development. Of the reservoir's approximately 118 miles of shoreline, nearly 57% has been developed while 38% remains undeveloped (Progress Energy, 2001).

**Table 21: Percent Development by Category at Lake Tillery**

<b><i>Development Classification</i></b>	<b><i>Percentage</i></b>
Undeveloped	38%
Limited Development	5%
Developed	57%

Recreation use data from Lake Tillery estimates a total annual total recreation use of approximately 620,000 recreations days with a peak weekend average of approximately 18,000 recreation days. The carrying capacity at Lake Tillery is estimated at approximately 503 total boats.

Based largely on the residential nature of the reservoir and amount of shoreline development, Lake Tillery is classified as a “Developed” reservoir.

### **3.1.1.3 Tourism**

The Stanly County Convention and Visitors Bureau (CVB) is responsible for promoting recreational activities on Lake Tillery. Melissa Blaylock, the Executive Director of the CVB, stated that Stanly County promotes tourism on Lake Tillery through both large-scale events and in a way that appeals to eco-tourists and focuses on the area’s rural aspects. Working in conjunction with the Yadkin-Pee Dee Lakes Project, Stanly County aims to promote the natural history and environment of the area to draw tourists from the larger metropolitan areas of central North Carolina. Stanly County also has hosted several large fishing tournaments on Lake Tillery that draw large numbers of tourists to the county. The CVB promotes the reservoir through a lake guide, a website, and informational brochures mailed out in response to inquiries.

Montgomery County actively promotes tourism to Lake Tillery. According to Judy Stevens, the Executive Director of the Montgomery County Economic Development Corporation, Lake Tillery is a very important resource for bringing tourists to the region. Boating, fishing, and camping are the predominant activities for which tourists use the reservoir. In Ms. Stevens’ experience, the summer and fall seasons and large events held in the Uwharrie National Forest bring in the greatest number of visitors to the county. Montgomery promotes tourism mostly through mail-out brochures and through their website.

### **3.1.2 Blewett Falls Lake**

Blewett Falls Lake is a Progress Energy-owned and operated reservoir within the Yadkin-Pee Dee River Hydroelectric Project. The reservoir is located northwest of Rockingham in Richmond and Anson counties, North Carolina. Blewett Falls Lake has a surface area of about 2,900 acres and 46.9 shoreline miles at the normal maximum operating level of 177.2 feet.

Blewett Falls Lake is operated in coordination with Lake Tillery upstream. There are daily drawdowns of two to three feet below the normal maximum operating level, and the reservoir is refilled overnight (Progress Energy, 2003).

#### **3.1.2.1 Inventory of Recreation Resources**

##### ***Public Recreation Sites***

Blewett Falls Lake has four public recreation sites that provide direct reservoir access. Among these four sites, there are four boat launch ramps and one fishing pier (Progress Energy, 2003).

**Table 22: Public Recreation Sites and Opportunities at Blewett Falls Lake**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Mountain Creek	Progress/NCWRC	1	0	N	N
Pee Dee	Progress/NCWRC	2	0	N	N
Grassy Island	Progress	1	0	N	N
Blewett Falls	Progress/NCWRC	0	1	N	N

Source: Yadkin-Pee Dee River Project Initial Consultation Document, Progress Energy, 2003.

### ***Commercial Recreation Opportunities***

There are no commercial recreation opportunities available at Blewett Falls Lake.

#### **3.1.2.2 Recreational Experience**

According to the Yadkin-Pee Dee River Project Initial Consultation Document (Progress Energy, 2003), the Blewett Falls Lake shoreline has “only a few homes or seasonal dwellings” and remains “largely undeveloped.” Based on this information and the limited number of public access sites to the reservoir, Blewett Falls Lake is classified as a “Natural” reservoir.

#### **3.1.2.3 Tourism**

The Richmond County Chamber of Commerce’s Tourism Department is responsible for promoting tourism on Blewett Falls Lake. According to Bennett Dean, President of the Chamber of Commerce, Blewett Falls Lake is predominantly a local-use reservoir because of limited access to the reservoir. Day trippers from the region will visit the reservoir for boating and fishing, and occasionally visitors will come to the reservoir for primitive camping. The county does promote tourism by supporting local events held on the reservoir, but Mr. Dean thought that there have been no significant increases in the number of tourists to the reservoir in recent years. He also stated that the majority of visitors come to the area during the spring through the fall.

### **3.2 Harris Lake**

Harris Lake (Shearon Harris Reservoir) is owned and operated by Progress Energy as a cooling reservoir for the Harris Nuclear Plant. The reservoir is located southwest of Raleigh in Wake and Chatham counties, North Carolina. Harris Lake has a surface area of about 4,150 acres and 40 shoreline miles at a normal elevation of 220 feet (Wake County, Department of Parks, Recreation, and Open Space website).

### 3.2.1 Inventory of Recreation Resources

#### *Public Recreation Sites*

Harris Lake has two public recreation sites that provide direct reservoir access. Among these two sites, there are two boat launch ramps (Wake County, Department of Parks, Recreation, and Open Space website).

**Table 23: Public Recreation Sites and Opportunities at Harris Lake**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Dam Site	Progress/NCWRC	1	0	N	N
Holleman's Crossing	Progress/NCWRC	1	0	N	N

#### *Harris Lake County Park*

Harris Lake County Park is a 680-acre state park located southwest of Raleigh in Wake County, North Carolina (Wake County, Department of Parks, Recreation, and Open Space website). Operated by the Wake County Department of Parks, Recreation and Open Space, the park provides opportunities for non-motorized boating, fishing, camping, hiking, mountain biking, and picnicking. The park has a launch site available for launching canoes and kayaks. Fishing is permitted throughout the park on the shoreline of Harris Lake and along the park's man-made pond with a valid North Carolina fishing license. Also available is a fishing pier along the shoreline of Harris Lake.

Harris Lake County Park has two trails available within the park. One trail is specifically designated for hiking and the other is a mountain biking trail.

**Table 24: Trail Summary for Harris Lake County Park**

<i>Trail Name</i>	<i>Difficulty</i>	<i>Distance (miles)</i>
Hog Run Mountain Bike Trail	Easy to Moderate	7
Peninsula Hiking Trail	Moderate to Difficult	7.5

The park offers opportunities for primitive group camping. There is one group camp with limited facilities available for a group of up to 50 people.

The park has one picnic area available for day use and three picnic shelters available for groups. Two of the picnic shelters have a capacity of 50 people and one has a 100-person capacity. The park also has a playground area and a disc golf course.

#### *Commercial Recreation Opportunities*

There are no commercial recreation opportunities available at Harris Lake.

### **3.2.2 Recreational Experience**

Tim Bevacqua with Progress Energy stated that development of the Harris Lake shoreline is not currently allowed and that there are no private homes with reservoir access adjacent to the shoreline. Progress Energy maintains a natural buffer around the entire shoreline and Mr. Bevacqua estimates that 90-95% of the shoreline is undeveloped. Based on this information and the limited number of public access sites to the reservoir, Harris Lake is classified as a “Natural” reservoir.

### **3.2.3 Tourism**

According to Coley Houser, Park Technician with Harris Lake County Park, Wake County actively promotes the county-wide park system, including Harris Lake County Park. He believes that most visitors to the reservoir and park are from Wake County or other surrounding counties. Boating, fishing, and fishing tournaments are popular activities on Harris Lake. The reservoir receives heavy use during the summer even though swimming is not allowed on the reservoir.

Martin Armes, the Director of Communications and Marketing with the Greater Raleigh Convention and Visitors Bureau, does not believe Harris Lake is a major attraction for visitors to the Raleigh area. The Greater Raleigh CVB provides limited promotion of Harris Lake through publications and its website. The website, more specifically, promotes Harris County Lake Park (discussed in Section 3.2.1).

According to Neha Shah, Director of Tourism at the Pittsboro-Siler City Convention and Visitors Bureau in Chatham County, Chatham County does not promote tourism at Harris Reservoir.

## **3.3 Hyco Lake**

Hyco Lake is owned and operated Progress Energy as a cooling reservoir for their Roxboro Steam Plant (Progress Energy, Power Plants website). The Person-Caswell Lake Authority is responsible for governing the shoreline and recreation around the reservoir. The reservoir is located northwest of Roxboro in Person and Caswell counties, North Carolina. Hyco Lake has a surface area of about 3,750 acres and 160 shoreline miles at a full pond elevation of 420 feet (Person-Caswell Lake Authority, Visit Carolina Power Lake brochure).

The reservoir is operated with an after bay system that allows water levels to be maintained at a consistent level. The reservoir is maintained at the 420 feet full pond elevation and fluctuates little depending on climatic conditions (Barker, Person-Caswell Lake Authority, 2004).

### **3.3.1 Inventory of Recreation Resources**

#### ***Public Recreation Sites***

The Person-Caswell Lake Authority manages and operates one large park for public access to the reservoir.



### *Hyco Lake Park*

Hyco Lake Park is a 65-acre state park located northwest of Roxboro in Person County, North Carolina. Operated by the Person-Caswell Lake Authority, the park provides opportunities for boating, fishing, camping, hiking, swimming, and picnicking (Person-Caswell Lake Authority, Hyco Lake brochure).

The park has four concrete boat launch ramps for motorized and non-motorized boats. The park also has on-site facilities for boat storage. Fishing is allowed along the park's shoreline and on the reservoir via boat with a valid North Carolina fishing license. Fishing piers are also available within the park.

The park offers opportunities for family camping, primitive camping, and cabin rental. There are 66 tent/trailer campsites in the campground. Each campsite has a picnic table, a grill, water, and electricity. There are also 10 primitive campsites without facilities. The park also has four family cabins available for rent.

Picnic tables and grills are scattered throughout the park. There are three large picnic shelters available for groups. The park also has a designated area for swimming. In addition to water-based recreation facilities, the park has a playground, concessions, an observation deck, and tennis courts.

### ***Commercial Recreation Opportunities***

Adjacent to Hyco Lake Park is Hyco Lake Boats 'N' Boards. Boats 'N' Boards is a full-service commercial marina, offering three gas pumps and a multi-slip loading dock. The marina has retail ski and pontoon boats for sale as well as a full-service repair shop.

### **3.3.2 Recreational Experience**

According to William Barker, a commissioner with the Person-Caswell Lake Authority, there are approximately 1,000 homes along the 160-mile shoreline of Hyco Lake. He estimates that 65% of these homes are permanent while the rest are vacation homes for summer and weekend use. He also stated that Progress Energy maintains a shoreline tract of land as undeveloped. By his estimation, the majority of visitors come to Hyco Lake during the summer months. However, Hyco maintains steady use during the winter due to its warm water. Based on this interview, Hyco Lake is classified as a "Developed" reservoir.

### **3.3.3 Tourism**

According to William Barker with the Person-Caswell Lake Authority, the majority of visitors to Hyco Lake are from out of town, especially from the Raleigh/Durham area. Although the volume of tourists is greatest during the summer months and during weekends, Hyco Lake brings in tourists year-round due to warm water temperatures. Specifically, the reservoir often hosts fishing tournaments, drawing large amounts of tourists to the area. The Person-Caswell Lake

Authority is solely responsible for promoting tourism and does so by providing free maps and brochures and through its website

### **3.4 Catawba-Wateree Project**

The Catawba-Wateree Hydroelectric Project (FERC No. 2232) is located on the Catawba River, which begins in western North Carolina and flows south into South Carolina, where it joins Big Wateree Creek to form the Wateree River. Owned and operated by Duke Power, the Catawba-Wateree Project is comprised of 13 hydropower plants and 11 developments, including the James, Rhodhiss, Hickory, Lookout Shoals, Norman, Mountain Island, Wylie, Fishing Creek, Great Falls, Rocky Creek, and Wateree reservoirs. The Catawba-Wateree Project spans over 200 river miles and encompasses approximately 1,700 miles of shoreline (Duke Power, 2001). Likewise, the Catawba-Wateree Project system drains an area of 4,750 square miles and contains more than 78,896 total acres of reservoir surface area.

Available information for determining reservoir experience at Duke Power's Catawba-Wateree Project includes amount of shoreline development, number of private piers, visitation data, carrying capacity, and recreation use data. This information was obtained from the Catawba-Wateree Shoreline Management Plan (Duke Power, 2001).

#### **3.4.1 Lake James**

Lake James is a Duke Power-owned and operated reservoir within the Catawba-Wateree Hydroelectric Project. The reservoir is located northwest of Morganton in Burke and McDowell counties, North Carolina. Lake James has a surface area of about 6,500 acres and 151.1 shoreline miles at a full pond elevation of 1,200 feet (Duke Power, 2001).

Under normal operating conditions, Lake James maintains a level of two feet below full pond elevation from May 31 to September 1 of each year (Duke Power, 2003). Water levels are then dropped two feet during September as part of a Stage 1 drawdown. From September 31 to December 31 the normal elevation stays at the Stage 1 drawdown level of 1,196 feet. From January 1 to March 1 Stage 2 drawdown drops the reservoir levels and additional four feet (to 1192.1 feet). On March 1, refilling begins as the reservoir level increases to reach normal maximum elevation by May 31. The actual operating range can vary from two feet above to two feet below the normal operating range at any given time.

##### **3.4.1.1 Inventory of Recreation Resources**

###### ***Public Recreation Sites***

Lake James has five public recreation sites that provide direct reservoir access. Among these five sites, there are 13 boat launch ramps and one fishing pier (Duke Power, 2001).

**Table 25: Public Recreation Sites and Opportunities at Lake James**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Black Bear	Duke Power/NCWRC	6	0	N	N
Hidden Cove	Duke Power/NC State Parks	2	0	N	N
Canal Bridge	Duke Power/NC State Parks	3	0	N	N
Linville	Duke Power/NCWRC	2	0	N	N
Bridgewater Fishing Area	Duke Power/NCWRC	0	1	N	N

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

### *Lake James State Park*

Lake James State Park is a 565-acre state park located northwest of Morganton in McDowell County, North Carolina. Operated by the NCDENR Division of Parks and Recreation, the park provides opportunities for boating, fishing, camping, hiking, swimming, and picnicking (NCDENR, Division of Parks and Recreation website). Combined, Hidden Cove and Canal Bridge have five boat ramps providing direct access to Lake James. Fishing is permitted along the park's shoreline and via the park's fishing pier with a valid North Carolina fishing license.

Lake James State Park has approximately 4.5 miles of trails within the park.

**Table 26: Trail Summary for Lake James State Park**

<i>Trail Name</i>	<i>Difficulty</i>	<i>Distance (miles)</i>
Sandy Cliff Overlook Trail	Moderate	0.5
Lake Channel Overlook Trail	Moderate	1.5
Fishing Pier Trail	Easy	0.3
Fox Den Loop Trail	Moderate	2.2

The park also offers opportunities for backpack camping. The campground has 20 backpack campsites each with tent space, a picnic table, and a fire pit.

The park offers one picnic area for day use. The picnic area has 20 picnic tables, outdoor grills, and a large 12-table picnic shelter for groups. Swimming is permitted at the park's one designated swimming beach.

### *Commercial Recreation Opportunities*

There are four commercial public marinas located on Lake James.

### 3.4.1.2 Recreational Experience

Lake James is generally a semi-residential reservoir with 285 private piers (Duke Power, 2001). Of the reservoir's approximately 137 miles of shoreline, nearly 83% remain undeveloped while 16% has been developed. The Pisgah National Forest is adjacent to the northern edge of the reservoir although there are no specifically designated sites from which the reservoir can be accessed.

**Table 27: Percent Development by Category at Lake James**

<i><b>Development Classification</b></i>	<i><b>Percentage</b></i>
Undeveloped	83%
Limited Development	1%
Developed	16%

Visitation at Lake James shows the greatest number of visitors during May through September. Based on traffic data, monthly visitation from May to September ranges from 24,000 to 33,000 visitors per month. The carrying capacity at Lake James is estimated at approximately 912 total boats. It is also estimated that during weekdays, weekends and holidays, Lake James is at approximately 19%, 24%, and 42% of its capacity.

On Lake James, the predominant activities are boating and fishing. The table below shows each major recreation activity and the percentage of total use each activity receives.

**Table 28: Percentage of Total Use by Recreation Activity at Lake James**

<i><b>Type of Activity</b></i>	<i><b>Estimated Percentage</b></i>
Motor Boating	12%
Boat Fishing	26%
Bank/Pier Fishing	24%
Swimming	11%
Canoeing/Kayaking	2%
Picnicking	4%
Camping	2%
Other uses	19%

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

Based largely on the amount of shoreline development, Lake James is classified as a "Limited Development" reservoir.

### 3.4.1.3 Tourism

According to Carol Price, Director of McDowell County Tourism Department, Lake James is predominantly a residential use reservoir. McDowell County promotes the reservoir as a tourist destination through its website, but the majority of its use comes from owners of first and second-homes adjacent to the reservoir. Ms. Price asserted that boating and fishing are the most popular activities on the reservoir, but that swimming, canoeing, and jet skiing are also popular

activities. The reservoir receives the most use April through October and recreation use decreases during the winter months. McDowell County Tourism Department has recently added information on Lake James to its website and hopes that this information will help attract more tourists.

### **3.4.2 Lake Rhodhiss**

Lake Rhodhiss is a Duke Power-owned and operated reservoir within the Catawba-Wateree Hydroelectric Project. The reservoir is located northeast of Morganton in Burke and Caldwell counties, North Carolina. Lake Rhodhiss has a surface area of about 3,000 acres and 103.9 shoreline miles at a full pond elevation of 995.1 feet (Duke Power, 2001).

Under normal operating conditions, Lake Rhodhiss maintains an elevation within two feet of a 992.1 feet elevation (Duke Power, 2003). Full pond elevation is 995.1 feet.

#### **3.4.2.1 Inventory of Recreation Resources**

##### ***Public Recreation Sites***

Lake Rhodhiss has five public recreation sites that provide direct reservoir access. Among these five sites, there are 11 boat launch ramps (Duke Power, 2001).

**Table 29: Public Recreation Sites and Opportunities at Lake Rhodhiss**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Johns River	Duke Power/NCWRC	1	0	N	N
Huffman Bridge	Duke Power/NCWRC	0	0	N	N
Castle Bridge	Duke Power/NCWRC	6	0	N	N
Conley Creek	Duke Power/NCWRC	2	0	N	N
Rhodhiss	Duke Power/NCWRC	2	0	N	N

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

##### ***Commercial Recreation Opportunities***

The only commercial marina on Lake Rhodhiss is the Castle Bridge Marina. This is a full-service marina with gas pumps, a boat launching ramp, fishing access, and a grocery store.

### 3.4.2.2 Recreational Experience

Lake Rhodhiss is generally an undeveloped, non-residential reservoir. Of the reservoir's approximately 104 miles of shoreline, nearly 97% remain undeveloped (Duke Power, 2001). Likewise, there are only five private piers on the reservoir.

**Table 30: Percent Development by Category at Lake Rhodhiss**

<i><b>Development Classification</b></i>	<i><b>Percentage</b></i>
Undeveloped	96.5%
Limited Development	0%
Developed	3.5%

Visitation at Lake Rhodhiss shows the greatest number of visitors during April through August. Based on traffic data, monthly visitation from April to August ranges from 23,000 to 32,000 visitors per month. The carrying capacity at Lake Rhodhiss is estimated at approximately 455 total boats. It is also estimated that during weekdays, weekends and holidays, Lake Rhodhiss rarely exceeds 20% of its capacity.

On Lake Rhodhiss, the predominant activities are boating and fishing. The table below shows each major recreation activity and the percentage of total use each activity receives.

**Table 31: Percentage of Total Use by Recreation Activity at Lake Rhodhiss**

<i><b>Type of Activity</b></i>	<i><b>Estimated Percentage</b></i>
Motor Boating	4%
Boat Fishing	55%
Bank/Pier Fishing	38%
Swimming	1%
Canoeing/Kayaking	1%
Picnicking	1%
Camping	0%
Other uses	>1%

Source: Catawba-Wataree Project Shoreline Management Plan, Duke Power, 2001.

Based largely on the scarce shoreline development, and the low percentages of total carrying capacity the reservoir receives, Lake Rhodhiss is classified as a "Natural" reservoir.

### 3.4.2.3 Tourism

According to Cathy Rhuberg, Program/Communications Director with the Caldwell County Chamber of Commerce, Lake Rhodhiss is not promoted as a tourist destination. Caldwell County promotes recreation based on the surrounding mountains rather than promoting the local reservoirs. Also, Caldwell County does not believe that Lake Rhodhiss has the infrastructure to support tourism.

### 3.4.3 Lake Hickory

Lake Hickory is a Duke Power-owned and operated reservoir within the Catawba-Wataree Hydroelectric Project. The reservoir is located northeast of Hickory in Caldwell, Burke, Catawba and Alexander counties, North Carolina. Lake Hickory has a surface area of about 3,900 acres and 110.6 shoreline miles at a full pond elevation of 935 feet (Duke Power, 2001).

The normal annual operating elevation for Lake Hickory is between one and three and one-half feet below full pond elevation at any given time during normal operations (Duke Power, 2003).

#### 3.4.3.1 Inventory of Recreation Resources

##### *Public Recreation Sites*

Lake Hickory has nine public recreation sites that provide direct reservoir access. Among these nine sites, there are 17 boat launch ramps and four fishing piers (Duke Power, 2001).

**Table 32: Public Recreation Sites and Opportunities at Lake Hickory**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Gunpowder	Duke Power/NCWRC	2	0	N	N
Lovelady	Duke Power/NCWRC	2	0	N	N
Wittenburg	Duke Power/NCWRC	6	3	N	N
Dusty Ridge	Duke Power, Dusty Ridge Rec. Parks, Inc./ NCWRC	2	0	N	N
Oxford	Duke Power	4	0	N	N
Long Shoals	Duke Power	NA	NA	N	N
Glen C. Hilton Park	City of Hickory	0	0	N	N
John Geitner Park	City of Hickory	1	0	N	N
River Bend Park	Duke Power/ Catawba County	0	1	N	N

\* NA – denotes information that was not available.

Source: Catawba-Wataree Project Shoreline Management Plan, Duke Power, 2001.

##### *Commercial Recreation Opportunities*

There are seven commercial marinas on Lake Hickory. R&N, Lakeside, Rink Dam, and Taylorsville marinas offer gas pumps, a boat launch ramp, and a grocery store<sup>3</sup>. 321 Marina has fishing access in addition to gas pumps, a boat launching ramp, and a grocery store.

<sup>3</sup> No information on the other marinas were located. The Catawba-Wataree Project Shoreline Management Plan refers to seven but only discusses the five discussed herein (Duke Power, 2001).

### 3.4.3.2 Recreational Experience

Lake Hickory is generally a well-developed, residential reservoir. Of the reservoir's approximately 110 miles of shoreline, 54.1% is developed, while 45.1% remains undeveloped. As a residential reservoir, there are approximately 2,200 private piers along the reservoir's shoreline (Duke Power, 2001).

**Table 33: Percent Development by Category at Lake Hickory**

<i><b>Development Classification</b></i>	<i><b>Percentage</b></i>
Undeveloped	45.1%
Limited Development	0.6%
Developed	54.1%

Visitation at Hickory shows the greatest number of visitors April through August. Based on traffic data, monthly visitation from April to August ranges from 24,000 to 32,000 visitors per month. The carrying capacity at Lake Hickory is estimated at approximately 442 total boats. It is also estimated that during weekdays, weekends and holidays, Lake Hickory approaches 38%, 55%, and 71% of its capacity.

On Lake Hickory, the predominant activities are boating and fishing. The table below shows each major recreation activity and the percentage of total use each activity receives.

**Table 34: Percentage of Total Use by Recreation Activity at Lake Hickory**

<i><b>Type of Activity</b></i>	<i><b>Estimated Percentage</b></i>
Motor Boating	9%
Boat Fishing	21%
Bank/Pier Fishing	46%
Swimming	5%
Canoeing/Kayaking	2%
Picnicking	2%
Other uses	15%

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

Based largely on the amount of development around the reservoir, the residential nature of the development, and the high percentages of carrying capacity the reservoir receives, Lake Hickory is classified as a "Developed" reservoir.

### 3.4.3.3 Tourism

According to Cathy Rhuberg, Program/Communications Director with the Caldwell County Chamber of Commerce, Lake Hickory is not promoted as a tourist destination by Caldwell County. Ms. Rhuberg asserted that tourism of Lake Hickory is promoted by the Hickory Metro Convention and Visitors Bureau.

The Hickory Metro Convention and Visitors Bureau, according to Leda Isenhour, does not specifically promote tourism to Lake Hickory since the reservoir is not a major attraction in the



area. The reservoir is used mainly by local residents for boating and fishing from spring through fall.

### 3.4.4 Lookout Shoals Lake

Lookout Shoals Lake is a Duke Power-owned and operated reservoir within the Catawba-Wateree Hydroelectric Project. The reservoir is located west of Statesville in Alexander, Catawba, and Iredell counties, North Carolina. Lookout Shoals Lake has a surface area of about 1,200 acres and 36.3 shoreline miles at a full pond elevation of 838.1 feet (Duke Power, 2001).

The normal annual operating elevation for Lookout Shoals Lake is between one and two and one-half feet below full pond elevation at any given time during normal operations (Duke Power, 2003).

#### 3.4.4.1 Inventory of Recreation Resources

##### *Public Recreation Sites*

Lookout Shoals Lake has two public recreation sites that provide direct reservoir access. Among these two sites, there are three boat launch ramps (Duke Power, 2001).

**Table 35: Public Recreation Sites and Opportunities at Lookout Shoals Lake**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Lookout Shoals	Duke Power/NCWRC	2	0	N	N
Sharon	Duke Power/NCWRC	1	0	N	N

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

##### *Commercial Recreation Opportunities*

There are no commercial recreation opportunities available at Lookout Shoals Lake.

#### 3.4.4.2 Recreational Experience

Lookout Shoals Lake is generally a semi-residential reservoir with 250 private piers. Of the reservoir's approximately 36 miles of shoreline, nearly 71% remain undeveloped while 29% has been developed (Duke Power, 2001).

**Table 36: Percent Development by Category at Lookout Shoals Lake**

<i>Development Classification</i>	<i>Percentage</i>
Undeveloped	71%
Limited Development	0%
Developed	29%

Visitation at Lookout Shoals Lake shows the greatest number of visitors during May through August. Based on traffic data, monthly visitation from May to August ranges from 5,500 to 7,500 visitors per month. The carrying capacity at Lookout Shoals Lake is estimated at approximately 152 total boats. It is also estimated that during weekdays, weekends and holidays, Lookout Shoals Lake is at approximately 21%, 16%, and 44% of its capacity.

On Lookout Shoals Lake, the predominant activity is fishing. The table below shows each major recreation activity and the percentage of total use each activity receives.

**Table 37: Percentage of Total Use by Recreation Activity at Lookout Shoals Lake**

<i>Type of Activity</i>	<i>Estimated Percentage</i>
Motor Boating	0%
Boat Fishing	11%
Bank/Pier Fishing	81%
Swimming	3%
Canoeing/Kayaking	0%
Picnicking	0%
Camping	0%
Other uses	5%

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

Based in part on the amount of development, the amount of private piers as compared to the amount of shoreline, and the low percentages of total motor boating usages, Lookout Shoals Lake is classified as a “Limited Development” reservoir.

#### **3.4.4.3 Tourism**

Wendy Shuping, Executive Director of the Mooresville Convention and Visitors Bureau, stated that Lookout Shoals Lake is not promoted by Iredell County as a tourist destination. The reservoir is predominantly used for boating and fishing by locals and shoreline residents.

#### **3.4.5 Lake Norman**

Lake Norman is the largest Duke Power-owned and operated reservoir within the Catawba-Wateree Hydroelectric Project. The reservoir is located northwest of Charlotte in Mecklenberg, Iredell, Catawba, and Lincoln counties, North Carolina. Lake Norman has a surface area of about 32,000 acres and 591.6 shoreline miles at a full pond elevation of 760 feet (Duke Power, 2001).

Under normal operating conditions, Lake Norman maintains a level of two feet below full pond elevation from May 31 to September 5 of each year (Duke Power, 2003). Water levels are then dropped one foot from September 5 to December 1 as part of a Stage 1 drawdown. From December 1 to February 28, Stage 2 drawdown drops the reservoir levels an additional five feet (to 752 feet). On February 28, refilling begins as the reservoir level increases to reach normal maximum elevation by May 31.

### 3.4.5.1 Inventory of Recreation Resources

#### *Public Recreation Sites*

Lake Norman has 15 public recreation sites that provide direct reservoir access. Among these 15 sites, there are 30 boat launch ramps, two fishing piers, and two swimming areas (Duke Power, 2001).

**Table 38: Public Recreation Sites and Opportunities at Lake Norman**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Long Island	Duke Power/ NCWRC	2	0	N	N
Pinnacle	Duke Power/NCWRC	5	0	N	N
McCrary Creek	Duke Power/NCWRC	2	0	N	N
Marshall Fish Area	Duke Power/NCWRC	0	0	N	N
Hager Creek	Duke Power/NCWRC	4	0	N	N
Little Creek	Duke Power/NCWRC	1	0	N	N
Beatties Ford	Duke Power/NCWRC	4	0	N	N
McGuire Fish Area	Duke Power/NCWRC	0	1	N	N
Buffalo Shoals*	Duke Power	NA	NA	NA	NA
Island Point*	Duke Power	NA	NA	NA	NA
Slanting Bridge*	Duke Power	NA	NA	NA	NA
Jetton Park	Mecklenburg County	0	0	Y	N
Blythe Landing	Mecklenburg County	6	0	N	N
Ramsey Creek Park	Duke/Mecklenburg County	4	1	Y	N
Stumpy Creek Access	Duke/Iredell County	2	0	N	N

\* Denotes proposed recreation area.

NA – denotes information that was not available.

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

#### *Lake Norman State Park*

Lake Norman State Park is a 1,328-acre state park located northwest of Charlotte in Iredell County, North Carolina. Operated by the NCDENR Division of Parks and Recreation, the park provides opportunities for boating, fishing, camping, hiking, mountain biking, swimming, and

picnicking (NCDENR, Division of Parks and Recreation website). Thirteen miles of Lake Norman's shoreline are located in the park and the park has a boat ramp available for launching private boats. The park also has a 33-acre lake and offers paddle boat and canoe rentals throughout the summer. Fishing is permitted throughout the park with a valid North Carolina fishing license.

Lake Norman State Park has approximately 12 miles of trails within the park. The park's main trail, the Lake Shore Trail runs along the shoreline of Lake Norman for approximately 5 miles. The Itusi Trail is specifically designated as a mountain biking trail.

**Table 39: Trail Summary for Lake Norman State Park**

<i><b>Trail Name</b></i>	<i><b>Difficulty</b></i>	<i><b>Distance (miles)</b></i>
Alder Trail	Easy	0.8
Lake Shore Trail	Moderate	6.7
Itusi Trail	NA	4.2

\* NA – denotes information that was not available.

The park offers opportunities for family camping and group camping. The family campground has 33 campsites for tents and trailers. There is a group camping area with space available for up to 25 people at each site.

The park has two picnic areas available. Each picnic area has a shelter area and picnic table and grills are available. One picnic area is located near the park entrance and the other is located near a designated lakefront swimming area.

### ***Commercial Recreation Opportunities***

There are 15 commercial public marinas located on Lake Norman. These marinas offer services such as boat launching ramps, gas pumps, grocery stores, fishing access, and picnic areas.

### **3.4.5.2 Recreational Experience**

Lake Norman is generally a highly residential reservoir with 8,100 private piers. Of the reservoir's approximately 592 miles of shoreline, nearly 36% have been developed while 62% remains undeveloped (Duke Power, 2001).

**Table 40: Percent Development by Category at Lake Norman**

<i><b>Development Classification</b></i>	<i><b>Percentage</b></i>
Undeveloped	62%
Limited Development	0.4%
Developed	36%

Visitation at Lake Norman shows the greatest number of visitors during April through August. Based on traffic data, monthly visitation from April to August ranges from 39,000 to 45,000 visitors per month. The carrying capacity at Lake Norman is estimated at approximately 4,700 total boats. It is also estimated that during weekdays, weekends and holidays, Lake Norman is at approximately 14%, 21%, and 25% of its capacity.

On Lake Norman, the predominant activities are boating and fishing. The table below shows each major recreation activity and the percentage of total use each activity receives.

**Table 41: Percentage of Total Use by Recreation Activity at Lake Norman**

<i>Type of Activity</i>	<i>Estimated Percentage</i>
Motor Boating	22%
Boat Fishing	17%
Bank/Pier Fishing	13%
Swimming	12%
Canoeing/Kayaking	3%
Picnicking	4%
Camping	1%
Other uses	28%

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

Based in part on the amount of development, the amount of private piers, and the high percentages of motor boating usage, Lake Norman is classified as a “Developed” reservoir.

### **3.4.5.3 Tourism**

Lake Norman is promoted as a tourist destination by a number of localities. The Mooresville Convention and Visitors Bureau actively promotes tourism through its website, print advertisements, mail-out brochures, and videos. Wendy Shuping, Executive Director of the Mooresville CVB believes that boating, yachting, and fishing some of the most popular activities on the reservoir. She also believes that Lake Norman State Park draws large numbers of tourists for camping, hiking, and reservoir-based recreation. Lake Norman also receives heavy use by locals as it is a residential reservoir with many year-round residents. As far as tourism, Ms. Shuping stated that spring and summer draw the greatest number of visitors and the winter receives little use solely by locals.

The Lake Norman Chamber of Commerce in Mecklenburg County promotes tourism for the county and the greater Lake Norman area. According to the Chamber’s Executive Director, Sally Asheworth, Lake Norman is a popular location for tourists, especially during special events. Fishing tournaments, triathlons, retreats, NASCAR events, and a Fourth of July celebration are some of the major events that bring tourists to Lake Norman. Ms. Asheworth believes that boating and fishing are major activities on the reservoir with May and October drawing the greatest number of tourists. The Lake Norman Chamber of Commerce promotes tourism through hotel and mail-out brochures, a website, and by targeting specific sporting events in the area.

According to Jackie Jacoby, Call Center Supervisor with the Charlotte Convention and Visitors Bureau, her office receives numerous calls inquiring about recreation on Lake Norman. Charlotte does not actively promote Lake Norman, but will send a 70-page visitors guide in response to inquiries and will direct potential visitors to the Lake Norman Chamber of Commerce.

### 3.4.6 Mountain Island Lake

Mountain Island Lake is a Duke Power-owned and operated reservoir within the Catawba-Wateree Hydroelectric Project. The reservoir is located northwest of Charlotte in Lincoln, Mecklenburg, and Gaston counties, North Carolina. Mountain Island Lake has a surface area of about 2,900 acres and 86.5 shoreline miles at a full pond elevation of 647.5 feet (Duke Power, 2001).

The normal annual operating elevation for Mountain Island Lake is between two and four and one-half feet below full pond elevation at any given time during normal operations (Duke Power, 2003).

#### 3.4.6.1 Inventory of Recreation Resources

##### *Public Recreation Sites*

Mountain Island Lake has five public recreation sites that provide direct reservoir access. Among these five sites, there are six boat launch ramps, three fishing piers, and one swimming area (Duke Power, 2001).

**Table 42: Public Recreation Sites and Opportunities at Mountain Island Lake**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Neck Road	Duke Power/ NCWRC	2	0	N	N
River Bend	Duke Power/NCWRC	4	0	N	N
Mountain Island Tailrace	Duke Power/NCWRC	0	2	N	N
Latta Plantation Nature Preserve	Mecklenburg County	0	1	Y	N
Cowan's Ford Wildlife Refuge	Mecklenburg County	0	0	N	N

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

##### *Mountain Island Educational State Forest*

Currently under construction by the North Carolina Division of Forest Resources, the Mountain Island Educational State Forest will offer opportunities for hiking, picnicking, and educational programs (NCDENR, Division of Forest Resources website). The educational forest is located on an easement adjacent to Mountain Island Lake in Lincoln and Gaston counties, North Carolina.

The forest will offer a large picnic area with picnic tables and grills and a shelter will be available for large groups through reservation only. The forest will also offer trails for hiking and viewing interpretive exhibits. The forest will offer an amphitheater for educational programs and an educational cabin for various exhibits.

### ***Commercial Recreation Opportunities***

There are no commercial recreation opportunities available at Mountain Island Lake.

#### **3.4.6.2 Recreational Experience**

Mountain Island Lake is generally a semi-residential reservoir with 315 private piers. Of the reservoir's approximately 87 miles of shoreline, nearly 74% remain undeveloped while 26% has been developed (Duke Power, 2001).

**Table 43: Percent Development by Category at Mountain Island Lake**

<b><i>Development Classification</i></b>	<b><i>Percentage</i></b>
Undeveloped	74%
Limited Development	0%
Developed	26%

Visitation at Mountain Island Lake shows the greatest number of visitors during May through August. Based on traffic data, monthly visitation from May to August ranges from 11,500 to 14,000 visitors per month. The carrying capacity at Mountain Island Lake is estimated at approximately 428 total boats. It is also estimated that during weekdays, weekends and holidays, Mountain Island Lake is at approximately 20%, 36%, and 25% of its capacity.

On Mountain Island Lake, the predominant activity is fishing. The table below shows each major recreation activity and the percentage of total use each activity receives.

**Table 44: Percentage of Total Use by Recreation Activity at Mountain Island Lake**

<b><i>Type of Activity</i></b>	<b><i>Estimated Percentage</i></b>
Motor Boating	2%
Boat Fishing	18%
Bank/Pier Fishing	78%
Swimming	1%
Canoeing/Kayaking	1%
Picnicking	0%
Camping	0%
Other uses	<1%

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

Based in part on the amount of development, the amount of private piers as compared to the amount of shoreline, and the low percentages of total motor boating usage, Mountain Island Lake is classified as a "Limited Development" reservoir.

#### **3.4.6.3 Tourism**

According to Vicky Riddel, the Director of Tourism for Gaston County, Mountain Island Lake, is not promoted as a tourist destination. The reservoir is predominantly used for boating and fishing by locals and shoreline residents.

### 3.4.7 Lake Wylie

Lake Wylie is a Duke Power-owned and operated reservoir within the Catawba-Wateree Hydroelectric Project. The reservoir is located southwest of Charlotte in Gaston and Mecklenberg counties, North Carolina and York County, South Carolina. Lake Wylie has a surface area of about 12,100 acres and 327.51 shoreline miles at a full pond elevation of 569.4 feet (Duke Power, 2001).

The normal annual operating elevation for Lake Wylie is between one and four feet below full pond elevation at any given time during normal operations (Duke Power, 2003).

#### 3.4.7.1 Inventory of Recreation Resources

##### *Public Recreation Sites*

Lake Wylie has 13 public recreation sites that provide direct reservoir access. Among these 13 sites, there are 25 boat launch ramps, four fishing piers, two swimming beaches, and a campground (Duke Power, 2001).

**Table 45: Public Recreation Sites and Opportunities at Lake Wylie**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Allen Fish Area	Duke Power/ NCWRC	NA	0	N	N
South Point	Duke Power/NCWRC	6	0	N	N
Copperhead	Duke Power/ Mecklenburg Co.	4	2	N	N
Buster Boyd	Duke Power/SCDNR	4	0	N	N
Allison Creek	Duke Power/SCDNR	4	1	N	N
Indian Ground	Duke Power/City of Rock Hill	0	1	N	N
Nivens Creek	Duke Power/SCDNR	2	0	N	N
Ebenezer	Duke Power/SCDNR	3	0	Y	N
Fort Mill	Duke Power/SCDNR	1	0	N	N
McDowell County Park	McDowell County	0	0	N	Y
River Street Park	City of Lake Wylie	0	0	N	N
Wind Jammer Beach Park	City of Lake Wylie	0	0	Y	N
Pitcarin Cove Park	City of Lake Wylie	1	0	N	N

\* NA – denotes information that was not available.

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.



### ***Commercial Recreation Opportunities***

There are 11 commercial public marinas located on Lake Wylie. These marinas offer services such as boat launch ramps, gas pumps, grocery stores, fishing access, and picnic areas.

#### **3.4.7.2 Recreational Experience**

Lake Wylie is generally a residential reservoir with 3,108 private piers. Of the reservoir's approximately 327 miles of shoreline, nearly 50% has been developed while 48% remains undeveloped (Duke Power, 2001).

**Table 46: Percent Development by Category at Lake Wylie**

<b><i>Development Classification</i></b>	<b><i>Percentage</i></b>
Undeveloped	48%
Limited Development	1%
Developed	50%

Visitation at Lake Wylie shows the greatest number of visitors during April through August. Based on traffic data, monthly visitation from April to August ranges from 90,000 to 110,000 visitors per month. The carrying capacity at Lake Wylie is estimated at approximately 1,389 total boats. It is also estimated that during weekdays, weekends and holidays, Lake Wylie is at approximately 19%, 36%, and 64% of its capacity.

On Lake Wylie, the predominant activities are boating and fishing. The table below shows each major recreation activity and the percentage of total use each activity receives.

**Table 47: Percentage of Total Use by Recreation Activity at Lake Wylie**

<b><i>Type of Activity</i></b>	<b><i>Estimated Percentage</i></b>
Motor Boating	18%
Boat Fishing	16%
Bank/Pier Fishing	26%
Swimming	8%
Canoeing/Kayaking	3%
Picnicking	4%
Camping	25%
Other uses	<1%

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

Based in part on the amount of development, the amount of private piers, and the percentages of carrying capacity the reservoir receives, Lake Wylie is classified as a "Developed" reservoir.

#### **3.4.7.3 Tourism**

According to Robert Thomas, Sports Marketing Coordinator with the Rock Hill-York County Convention and Visitors Bureau, York County aggressively promotes tourism on Lake Wylie. The county predominantly markets the reservoir as a first-rate fishing destination for both casual

and competitive fishermen. The county has recently hosted a Bassmasters fishing tournament and has been using its success to increase the tourist base to the area. Mr. Thomas believes that Lake Wylie is used extensively by locals and tourists alike and that the summer recreation season draws the greatest volume of tourists.

Vicky Riddel, the Director of Tourism for Gaston County, believes that Lake Wylie draws most of its visitors from the local area and the greater Charlotte regional area. In her assessment, fishing and boating are the predominant activities that bring visitors year-round, but the reservoir becomes especially crowded during the summer months. The county actively promotes tourism through mail-out brochures via request and through their website. The county also distributes a visitor's guide with a section designated for sports and recreation.

### **3.4.8 Fishing Creek Lake**

Fishing Creek Lake is a Duke Power-owned and operated reservoir within the Catawba-Wateree Hydroelectric Project. The reservoir is located southeast of Rock Hill in Lancaster and Chester counties, South Carolina. Fishing Creek Lake has a surface area of about 3,200 acres and 67.1 shoreline miles at a full pond elevation of 417.2 feet (Duke Power, 2001).

The normal annual operating elevation for Fishing Creek is between one and five feet below full pond elevation at any given time during normal operations (Duke Power, 2003).

#### **3.4.8.1 Inventory of Recreation Resources**

##### ***Public Recreation Sites***

Fishing Creek Lake has two public recreation sites that provide direct reservoir access. Among these two sites, there are two boat launch ramps (Duke Power, 2001).

**Table 48: Public Recreation Sites and Opportunities at Fishing Creek Lake**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Cane Creek	Duke Power/SCDNR	1	0	N	N
Fishing Creek	Duke Power/SCDNR	1	0	N	N

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

##### ***Commercial Recreation Opportunities***

There are no commercial recreation providers for Fishing Creek Lake.

### 3.4.8.2 Recreational Experience

Fishing Creek Lake is generally an undeveloped reservoir. Of the reservoir's approximately 67 miles of shoreline, nearly 92% remain undeveloped while only 8.3% has been developed (Duke Power, 2001). Likewise, Fishing Creek Lake has 100 private piers.

**Table 49: Percent Development by Category at Fishing Creek Lake**

<i><b>Development Classification</b></i>	<i><b>Percentage</b></i>
Undeveloped	91.4%
Limited Development	0.3%
Developed	8.3%

Visitation at Fishing Creek Lake shows the greatest number of visitors during April through July. Based on traffic data, monthly visitation from April to July ranges from 6,500 to 9,500 visitors per month. The carrying capacity at Fishing Creek Lake is estimated at approximately 460 total boats. It is also estimated that during weekdays, weekends and holidays, Fishing Creek Lake is at approximately 1%, 4%, and 5% of its capacity.

On Fishing Creek Lake, the predominant activity is fishing. The table below shows each major recreation activity and the percentage of total use each activity receives.

**Table 50: Percentage of Total Use by Recreation Activity at Fishing Creek Lake**

<i><b>Type of Activity</b></i>	<i><b>Estimated Percentage</b></i>
Motor Boating	6%
Boat Fishing	11%
Bank/Pier Fishing	72%
Swimming	1%
Canoeing/Kayaking	2%
Picnicking	2%
Camping	0%
Other uses	6%

Source: Catawba-Wataree Project Shoreline Management Plan, Duke Power, 2001.

Based in part on the amount of development, the low percentages of total carrying capacity the reservoir receives, and the low percentages of total motor boating usage, Fishing Creek Lake is classified as a "Natural" reservoir.

### 3.4.8.3 Tourism

Tom White, Director of Lancaster County Chamber of Commerce, stated that Lancaster County only semi-actively promotes tourism on Fishing Creek Lake. The Chamber has brochures that mention the reservoir, but generally promotes other attractions in the county. Because the reservoir has limited access and is predominantly used by locals, Lancaster County does not use it as a selling point to tourists.

### 3.4.9 Great Falls/Rocky Creek Lakes

Great Falls and Rocky Creek lakes are Duke Power-owned and operated reservoirs within the Catawba-Wateree Hydroelectric Project. The reservoirs are located southeast of Rock Hill in Chester, Lancaster, and Fairfield counties, South Carolina. Great Falls and Rocky Creek lakes have a combined surface area of about 1,020 acres and 37 shoreline miles at a full pond elevation of 355.8 feet (Great Falls) and 284.4 feet (Rocky Creek) (Duke Power, 2001).

The normal annual operating elevation for Great Falls is between one-half and six feet below full pond elevation at any given time during normal operations (Duke Power, 2003). The normal annual operating elevation for Rocky Creek is between one-half and four feet below full pond elevation at any given time during normal operations.

#### 3.4.9.1 Inventory of Recreation Resources

##### *Public Recreation Sites*

Great Falls and Rocky Creek lakes have one public recreation site each that provide direct reservoir access (Duke Power, 2001). Among these two sites, there are two boat launch ramps.

**Table 51: Public Recreation Sites and Opportunities at Great Falls and Rocky Creek Lakes**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Stumpy Pond	Duke Power/SCDNR	1	0	N	N
Debutory Creek	Duke Power/SCDNR	1	0	N	N

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

##### *Commercial Recreation Opportunities*

There are no commercial recreation providers for Great Falls and Rocky Creek lakes.

#### 3.4.9.2 Recreational Experience

Great Falls and Rocky Creek lakes are generally undeveloped reservoirs with no private piers. Of the reservoirs' approximately 37 combined miles of shoreline, nearly 77% remain undeveloped while 23% has been developed as part of project operations (Duke Power, 2001).

**Table 52: Percent Development by Category at Great Falls and Rocky Creek Lakes**

<i>Development Classification</i>	<i>Percentage</i>
Undeveloped	77%
Limited Development	0%
Developed	23%

Visitation at Great Falls and Rocky Creek lakes shows the greatest number of visitors during April. Based on traffic data, monthly visitation during April is approximately 5,500 visitors.

The carrying capacity at Great Falls and Rocky Creek lakes is estimated at approximately 125 total boats. It is also estimated that during weekdays, weekends and holidays, Great Falls and Rocky Creek lakes are at approximately 2%, 6%, and 8% of their capacity.

On Great Falls and Rocky Creek lakes, the predominant activity is fishing. The table below shows each major recreation activity and the percentage of total use each activity receives.

**Table 53: Percentage of Total Use by Recreation Activity at Great Falls and Rocky Creek Lakes**

<i>Type of Activity</i>	<i>Estimated Percentage</i>
Motor Boating	15%
Boat Fishing	44%
Bank/Pier Fishing	37%
Swimming	4%
Canoeing/Kayaking	0%
Picnicking	0%
Camping	0%
Other uses	0%

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

Based in part on the amount of development and the low percentages of total carrying capacity the reservoirs receive, Great Falls and Rocky Creek lakes are classified as “Natural” reservoirs.

### **3.4.9.3 Tourism**

Tom White, Director of Lancaster County Chamber of Commerce, stated that Lancaster County only semi-actively promotes tourism on Great Falls and Rocky Creek lakes. The Chamber has brochures that mention the reservoirs, but generally promotes other attractions in the county. Because the reservoirs have limited access and are predominantly used by locals, Lancaster County does not use them as a selling point to tourists.

### **3.4.10 Lake Wateree**

Lake Wateree is a Duke Power-owned and operated reservoir within the Catawba-Wateree Hydroelectric Project. The reservoir is located northeast of Columbia, South Carolina in Lancaster, Kershaw, and Fairfield counties. Lake Wateree has a surface area of about 13,900 acres and 213.1 shoreline miles at a full pond elevation of 225.5 feet (Duke Power, 2001).

Under normal operating conditions, Lake Wateree maintains a level of three feet below full pond elevation from February 16 to November 1 of each year (Duke Power, 2003). Water levels are then dropped two feet from November 1 to December 13 as part of a Stage 1 drawdown. From December 13 to January 24 a level of 220.5 feet is maintained. On January 24, refilling begins as the reservoir level increases to reach normal maximum elevation by February 16.

### 3.4.10.1 Inventory of Recreation Resources

#### *Public Recreation Sites*

Lake Wateree has nine public recreation sites that provide direct reservoir access. Among these nine sites, there are 18 boat launch ramps and one fishing pier (Duke Power, 2001).

**Table 54: Public Recreation Sites and Opportunities at Lake Wateree**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Cedar Creek	Duke Power/ NCWRC	2	0	N	N
Wateree Creek	Duke Power/NCWRC	1	0	N	N
Taylor Creek	Duke Power/ Mecklenburg Co.	2	0	N	N
June Creek	Duke Power/SCDNR	2	0	N	N
Colonel's Creek	Duke Power/SCDNR	3	0	N	N
White Oak Creek	Duke Power/City of Rock Hill	4	1	N	N
Buck Hill	Duke Power/SCDNR	2	0	N	N
Lugoff	Duke Power/SCDNR	1	0	N	N
Beaver Creek	SCDNR	1	0	N	N

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

#### *Lake Wateree State Recreation Area*

Lake Wateree State Recreation Area is a 238-acre state park located northeast of Columbia in Fairfield County, South Carolina. Operated by the South Carolina Department of Parks, Recreation and Tourism, the park provides opportunities for boating, fishing, camping, hiking, and picnicking (South Carolina State Parks website). The park has two boat ramps that provide direct access to Lake Wateree. Fishing is permitted throughout the park with a valid North Carolina fishing license.

The Lake Wateree State Recreation Area has one trail, the Desportes Nature Trail.

**Table 55: Trail Summary for Lake Wateree State Recreation Area**

<i>Trail Name</i>	<i>Difficulty</i>	<i>Distance (miles)</i>
Desportes Nature Trail	Moderate	0.7

The park offers opportunities for family camping. The family campground has 50 campsites for tents and trailers. Adjacent to the campground is a large picnic area with picnic tables and outdoor grills.

### ***Commercial Recreation Opportunities***

There are six commercial public marinas located on Lake Wateree. These marinas offer services such as boat launch ramps, gas pumps, grocery stores, fishing access, and picnic areas.

#### **3.4.10.2 Recreational Experience**

Lake Wateree is generally a residential reservoir having approximately 2,083 private piers. Of the reservoir's approximately 213 miles of shoreline, nearly 58% remain undeveloped while 41% has been developed (Duke Power, 2001).

**Table 56: Percent Development by Category at Lake Wateree**

<b><i>Development Classification</i></b>	<b><i>Percentage</i></b>
Undeveloped	58%
Limited Development	0%
Developed	41%

Visitation at Lake Wateree shows the greatest number of visitors during April and May. Based on traffic data, monthly visitation during April and May is approximately 52,000 and 43,000 visitors per month. The carrying capacity at Lake Wateree is estimated at approximately 2,166 total boats. It is also estimated that during weekdays, weekends and holidays, Lake Wateree is at approximately 10%, 12%, and 18% of its capacity.

On Lake Wateree, the predominant activity is fishing. The table below shows each major recreation activity and the percentage of total use each activity receives.

**Table 57: Percentage of Total Use by Recreation Activity at Lake Wateree**

<b><i>Type of Activity</i></b>	<b><i>Estimated Percentage</i></b>
Motor Boating	3%
Boat Fishing	10%
Bank/Pier Fishing	81%
Swimming	2%
Canoeing/Kayaking	0%
Picnicking	1%
Camping	0%
Other uses	3%

Source: Catawba-Wateree Project Shoreline Management Plan, Duke Power, 2001.

Based in part on the amount of development, the amount of private piers, the low percentages of total carrying capacity the reservoir receives, and the low percentages of total motor boating usage, Lake Wateree is classified as a "Limited Development" reservoir.

### **3.4.10.3 Tourism**

Lake Wateree is promoted in part by the Kershaw County Chamber of Commerce. According to Walter B. Clark, Executive Director of the Chamber, Kershaw County aggressively promotes Lake Wateree through its website, mail-out brochures, advertisements in *Southern Living*, and advertisements in the northeastern United States. He has data that suggests that out of 14,000 mail-out information packages that are mailed each year, 25% of the people who requested them actually come to visit. Nonetheless, Mr. Clark believes the reservoir receives the majority of its use from visitors within a 50-mile radius. Large events, such as fishing tournaments, bring in the largest number of people from outside the area to visit the reservoir. The predominant activities are boating and fishing and the reservoir is relatively uncrowded, but receives the most visitors during weekends and holidays.

The Fairfield County Chamber of Commerce also promotes tourism at Lake Wateree via a website and mail-out brochures. According to Susan Yenner, an administrative assistant with the Chamber, fishing tournaments and the state recreation area bring the largest number of tourists to the reservoir. The reservoir receives much local use; but during the summer, numerous tourists visit the reservoir for boating and fishing.

## **3.5 U.S. Army Corps of Engineers Projects**

The U. S. Army Corps of Engineers (USACE) is a federal agency that manages five reservoirs within the study region. With more than 300 reservoir projects, the USACE is the largest owner/operator of dams and reservoirs in the country and the fourth largest provider of hydroelectric power in the United States (USACE, Who We Are website). The USACE generally manages reservoirs for hydroelectric power generation, flood control, water supply, and recreational uses.

### **3.5.1 W. Kerr Scott Reservoir**

The W. Kerr Scott Reservoir is a U.S. Army Corps of Engineers reservoir built on the Yadkin River for flood control, water supply, conservation of fish and wildlife, and recreational purposes. The reservoir is located west of Wilkesboro in Wilkes County, North Carolina. W. Kerr Scott Reservoir has a surface area of about 1,500 acres and 55 shoreline miles at a full pond elevation of 1,030 feet (USACE, Wilmington District, Water Management Unit website).

Operation of W. Kerr Scott Reservoir aims to maintain a 1,030 feet elevation according to an established guide curve (USACE, Wilmington District, Water Management Unit website). Depending on climatic conditions, actual elevations may fluctuate higher or lower than the intended guide curve.



### 3.5.1.1 Inventory of Recreation Resources

#### *Public Recreation Sites*

W. Kerr Scott Reservoir has 12 public recreation sites that provide direct reservoir access. Among these 12 sites, there are seven boat launch ramps, three fishing piers, five swimming beaches, and three campgrounds (USACE, W. Kerr Scott Dam and Reservoir website).

**Table 58: Recreation Sites and Opportunities at W. Kerr Scott Reservoir**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Bandits Roost	USACE	1	0	Y	Y
Berry Mountain	USACE	0	0	Y	N
Blood Creek	USACE	0	1	N	N
Boomer	USACE	1	0	Y	N
Dam Site	USACE	1	0	N	N
Dark Mountain	USACE	0	0	N	N
Fish Dam Creek	USACE	0	0	N	N
Fort Hamby Park	USACE	1	0	Y	Y
Keowee	USACE	1	1	N	N
Smithys Creek	USACE	1	0	N	N
Tailwater Access	USACE	0	1	N	N
Warrior Creek	USACE	1	0	Y	Y

Source: USACE, W. Kerr Scott Dam and Reservoir website.

#### *Commercial Recreation Opportunities*

The Wilkes Skyline Marina is the only commercial marina located on W. Kerr Scott Reservoir. The Skyline Marina offers services such as boat launch ramps, gas pumps, and a grocery store.

### 3.5.1.2 Recreational Experience

According to Shiloh Wiles of the USACE's W. Kerr Scott Reservoir, there is little to no development along the reservoir shoreline. In her estimates, there are approximately 150-200 residential homes that are barely visible from the water due to a 50-foot buffer zone. Similarly, she estimates that there are approximately 100 private piers on the reservoir. From April to November, she estimates that there are approximately 30-40 boaters per day, with nearly no visitors at all during the winter months. Based on this interview, W. Kerr Scott Reservoir is classified as a "Limited Development" reservoir.

### 3.5.1.3 Tourism

According to Linda Cheek, President of the Wilkes County Chamber of Commerce, Wilkes County actively promotes W. Kerr Scott Reservoir since it is the only nearby reservoir in

northwestern North Carolina. She believes these efforts have increased tourism since the visitor center at the dam receives large numbers of visitors and the campgrounds around the reservoir are often filled to capacity. Spring through fall are the most popular seasons for reservoir recreational use, including fishing, boating, canoeing, bird watching, camping, swimming, and water skiing.

### 3.5.2 John H. Kerr Reservoir

The John H. Kerr Reservoir (also known as Buggs Island Lake and Kerr Lake) is a U.S. Army Corps of Engineers reservoir built on the Roanoke River for flood control, recreation, hydroelectric power generation, water supply, and conservation of fish and wildlife. The reservoir is located north of Henderson, North Carolina in Granville, Vance, and Warren counties, North Carolina and Mecklenburg, Charlotte, and Halifax counties, Virginia. John H. Kerr Reservoir has a surface area of about 48,900 acres and 800 shoreline miles at a full pond elevation of 302 feet (USACE, Wilmington District, Water Management Unit website).

Operating under an established guide curve, John H. Kerr Reservoir maintains a level at full pond elevation (302 feet) from April 15 to May 31 of each year (USACE, Wilmington District, Water Management Unit website). Water levels are then dropped two and one-half feet from May 31 to June 15. This new elevation of 299.5 feet is maintained until September 30. From October 1 to November 30, water levels are then dropped four feet to 295.5 feet. On March 1, refilling begins as the reservoir level increases to reach normal maximum elevation by April 15. Depending on climatic conditions, actual elevations may fluctuate higher or lower than the intended guide curve.

#### 3.5.2.1 Inventory of Recreation Resources

##### *Public Recreation Sites*

John H. Kerr Reservoir has 19 public recreation sites that provide direct reservoir access. Among these 19 sites, there are 16 boat launch ramps, one fishing pier, six swimming beaches, and five campgrounds (USACE, John H. Kerr Dam and Reservoir website).

**Table 59: Recreation Sites and Opportunities at John H. Kerr Reservoir**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Bluestone Access	USACE	1	0	N	N
Buffalo Park	USACE	1	0	Y	Y
Buffalo Springs	USACE	0	0	N	N
Clover Landing	USACE/VADGIF	1	0	N	N
Eagle Point Landing	USACE	1	0	N	N
Eastland Creek Park	USACE	1	0	N	N
Flemingtown Road Landing	USACE/NCWRC	1	0	N	N
Grassy Creek Park	USACE	1	0	Y	N

Hyco Landing	VADGIF	1	0	N	N
Island Creek Park	USACE	1	0	N	N
Ivy Hill Park	USACE	1	0	Y	Y
Longwood Park	USACE	1	0	N	Y
North Bend Park	USACE	1	1	Y	Y
Palmer Point	USACE	1	0	Y	N
Rudds Creek Recreation Area	USACE	1	0	Y	Y
Staunton View Park	USACE	1	0	N	N
Tailrace Park	USACE	1	0	N	N
Tanner Center and Liberty Hill	USACE	0	0	N	N
Williamsboro Wayside	NA	0	0	N	N

\* NA – denotes information that was not available.

Source: USACE, John H. Kerr Dam and Reservoir website.

### *Kerr Lake State Recreation Area*

Kerr Lake State Recreation Area consists of eight separate recreation sites in Vance and Warren counties, North Carolina. Operated by the NCDENR Division of Parks and Recreation, the recreation sites provide opportunities for boating, fishing, camping, hiking, swimming, and picnicking (NCDENR, Division of Parks and Recreation website). Among the eight recreation sites, there are two fishing piers, seven boat ramps, one swimming beach, and eight campgrounds. Bank fishing is allowed throughout the recreation area and on Kerr Lake via boat. The Bullocksville and Henderson Point sites also offer fishing piers.

**Table 60: Recreation Sites and Opportunities at Kerr Lake State Recreation Area**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Bullocksville	NCDENR	1	1	N	Y
County Line	NCDENR	1	0	N	Y
Henderson Point	NCDENR	1	1	N	Y
Hibernia	NCDENR	1	0	N	Y
Kimball Point	NCDENR	1	0	N	Y
Nutbush Bridge	NCDENR	1	0	N	Y
Satterwhite Point	NCDENR	0	0	Y	Y
JC Cooper Campground	NCDENR	1	0	N	Y

The recreation sites offer opportunities for family camping and group camping. Combined, the eight family campgrounds have approximately 700 campsites. Hibernia, Henderson Point, and Satterwhite Point all have group sites available by reservation only. Bullocksville, Satterwhite Point, and Hibernia have short nature trails for hiking and wildlife observation.

Seven of the recreation sites provide picnicking areas. Each picnic area has picnic tables and grills and there are a total of 11 picnic shelters which vary in size and can accommodate up to 50 people.

### *Occoneechee State Park*

Occoneechee State Park is a 2,698-acre state park located east of South Boston in Mecklenburg County, Virginia. Operated by the Virginia Department of Recreation and Conservation (VA DCR), the park provides opportunities for boating, fishing, camping, hiking, mountain biking, horseback riding, and picnicking (VA DCR, Virginia State Parks website). Adjacent to the shoreline of Kerr Lake, the park has three boat ramps available for launching private boats (motorized and non-motorized). Fishing is permitted throughout the park with a valid Virginia fishing license.

Occoneechee State Park has approximately 18 miles of trails within the park. Three miles of trails are designated for hiking only and a 15-mile multi-purpose trail can be used for hiking, mountain biking, or horseback riding.

**Table 61: Trail Summary for Occoneechee State Park**

<i><b>Trail Name</b></i>	<i><b>Difficulty</b></i>	<i><b>Distance (miles)</b></i>
Old Plantation Interpretive Trail	NA	1.2
Mossey Creek Nature Trail	NA	0.7
Warriors Path Nature Trail	NA	0.4
Big Oak Nature Trail	NA	0.8
Campground B Connection Trail	NA	0.2
Panhandle Multi-use Trail	NA	15 (out and back)

\* NA – denotes information that was not available.

The park offers opportunities for family camping. There are two family campgrounds for tents, trailers, and RVs: one has 51 campsites and the other has 37. Each campsite has a tent pad and a fire grill.

The park has two picnic areas available. Each picnic area has a shelter area and picnic table and grills are available. One shelter can accommodate up to 50 people and the other can accommodate up to 125.

### *Staunton River State Park*

Staunton River State Park is a 1,597-acre state park located east of South Boston in Halifax County, Virginia. Operated by VA DCR, the park provides opportunities for boating, fishing, camping, hiking, mountain biking, horseback riding, swimming, and picnicking (VA DCR, Virginia State Parks website). Adjacent to the shoreline of Kerr Lake, the park has one boat ramp available for launching private boats (motorized and non-motorized). Fishing is permitted throughout the park with a valid Virginia license.

Staunton River State Park has approximately 10 miles of trails within the park. Three miles of trails are designated for hiking only and a 7.5 mile multi-purpose trail can be used for hiking, mountain biking, or horseback riding.

**Table 62: Trail Summary for Staunton River State Park**

<i><b>Trail Name</b></i>	<i><b>Difficulty</b></i>	<i><b>Distance (miles)</b></i>
River Bank Trail	NA	7.5
Tutelo Trail	NA	0.1
Crow's Nest Trail	NA	0.5
Robin's Roost Trail	NA	0.5
Loblolly Trail	NA	0.7
Captain Staunton's Trail	NA	0.6

\* NA – denotes information that was not available.

The park offers opportunities for family camping and vacation cabins. The family campground has 48 campsites available for tents, trailers, and RVs. The park also has four one-bedroom cabins and three two-bedroom cabins.

The park has two picnic areas available. Each picnic area has a shelter area and picnic table and grills are available. Each shelter can accommodate up to 60 people. The park also provides a wading pool and a larger swimming pool for guests.

### ***Commercial Recreation Opportunities***

There are three major commercial marinas on Kerr Lake: Satterwhite Point Marina, Clarksville Marina, and Steele Creek Marina and Campground. Facilities at Satterwhite Point Marina include rental cabins, boat storage, wet slips, boat launch ramps, a fuel dock, and a grocery store.

Steele Creek Marina and Campground is a full-service marina and campground. The marina offers boat launch ramps, gas pumps, fishing access, boat mooring and docking facilities, and a snack bar. The campground has facilities for tent and trailer camping, as well as a group camping area. The marina also has boats available for sale and a public picnic area.

### **3.5.2.2 Recreational Experience**

John H. Kerr Reservoir is generally a semi-residential reservoir having more than 1,700 private recreation facilities (USACE, 1993). Of the reservoir's approximately 800 miles of shoreline, nearly 31% remain undeveloped while 31% has been developed.

**Table 63: Percent Development by Category at John H. Kerr Reservoir**

<i><b>Development Classification</b></i>	<i><b>Percentage</b></i>
Undeveloped	31%
Limited Development	38%
Developed	31%

Based in part on the amount of development and the amount of private piers, John H. Kerr Reservoir is classified as a “Limited Development” reservoir.

### **3.5.2.3 Tourism**

Tourism on John H. Kerr Reservoir is promoted by various localities in both Virginia and North Carolina. The Clarksville (Virginia) Chamber of Commerce is one of the most aggressive promoters of tourism as it is the only town located directly on the reservoir. According to Linda Williams, Director of the Clarksville Chamber, Clarksville and Mecklenburg County promote tourism through their website and by mailing out vacation packages to prospective visitors. Recently, Clarksville has added hydroglow lights near bridge overpasses to help create a new tourism niche for night fisherman. Fishing and boating are the predominant activities that attract tourists to the reservoir. Mecklenburg County hosts numerous fishing tournaments each year and has recently found success with its Hydroplane Challenge competition. The Town of Clarksville also promotes its sailing clubs, jet skiing, and water skiing as popular activities. Ms. Williams believes that thousands of tourists come through Clarksville every summer (the most popular season) to visit the reservoir. She also says that the reservoir is very popular in spring and fall.

The Vance County (North Carolina) Tourism Department also heavily promotes the John H. Kerr reservoir through its website. According to Norman Dickerson with the Vance County Tourism Department, the reservoir offers a number of recreation opportunities, including fishing, boating, sailing, and various water sports in addition to hiking trails, camping, and picnic areas found in the parks surrounding the reservoir. He believes that most of the reservoir’s visitors are from out-of-town with spring through fall being the most popular seasons.

### **3.5.3 Falls Lake**

Falls Lake is a U.S. Army Corps of Engineers reservoir built on the Neuse River for flood control, water supply, water quality, and recreational purposes. The reservoir is located north of Raleigh and west of Durham in Wake, Durham, and Granville counties, North Carolina. Falls Lake has a surface area of about 12,400 acres and 175 shoreline miles at a full pond elevation of 251.5 feet (USACE, Wilmington District, Water Management Unit website).

Operation of Falls Lake aims to maintain a 251.5 feet elevation according to an established guide curve (USACE, Wilmington District, Water Management Unit website). Depending on climatic conditions, actual elevations may fluctuate higher or lower than the intended guide curve.

#### **3.5.3.1 Inventory of Recreation Resources**

##### ***Public Recreation Sites***

Falls Lake has six public recreation sites that provide direct reservoir access. Among these six sites, there are four boat launch ramps (USACE, Falls Lake website).

**Table 64: Recreation Sites and Opportunities at Falls Lake**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Tailrace Fishing Area	USACE	0	0	N	N
Blue Jay Point	Wake County	0	0	N	N
Upper Barton	NCWRC	1	0	N	N
Ledge Rock	NCWRC	1	0	N	N
Hickory Hill	NCWRC	1	0	N	N
Eno River	NCWRC	1	0	N	N

Source: USACE, Falls Lake website.

### *Falls Lake State Recreation Area*

Falls Lake State Recreation Area consists of seven separate recreation sites in Durham and Wake counties, North Carolina. Operated by the NCDENR Division of Parks and Recreation, the recreation sites provide opportunities for boating, fishing, camping, hiking, mountain biking, swimming, and picnicking (NCDENR, Division of Parks and Recreation website). Among the seven recreation sites, there is a fishing pier, four boat ramps, four swimming beaches, and four campgrounds.

Four of the recreation sites offer boat launching facilities. Highway 50, Rolling View, and Beaverdam offer facilities for launching motorized boats and B.W. Wells has a ramp for non-motorized boaters. Bank fishing is allowed throughout the recreation area and on Falls Lake via boat.

**Table 65: Recreation Sites and Opportunities at Falls Lake State Recreation Area**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Beaverdam	NCDENR	0	1	Y	N
B.W. Wells	NCDENR	1	0	N	Y
Highway 50	NCDENR	1	0	N	N
Holly Point	NCDENR	1	0	Y	Y
Rolling View	NCDENR	1	0	Y	Y
Sandling Beach	NCDENR	0	0	Y	N
Shinleaf	NCDENR	0	0	N	Y

The recreation sites offer opportunities for family camping, group camping, and backpack camping. There are two family campgrounds, one at the Holly Point Area and one at the Rolling View area. The Holly Point campground offers 153 campsites for tents and trailers and the Rolling View campground has 80 sites. Rolling View and B.W. Wells have a total of 18 group camping sites suitable for 30 to 35 people each. The Shinleaf area offers hike-in tent camping.

Thirteen miles of single-track mountain biking trails are located in the Beaverdam area. For hiking, the Falls Lake Trail is currently under construction and will eventually travel the entire

south shore of the reservoir. A section of the Mountains-to-Sea Trail (Section 4.10.1) has been completed through two of the recreation sites and backpack camping areas have been planned.

All seven of the recreation sites provide picnicking areas. Each picnic area has picnic tables and grills and Sandling Beach, Rolling View, and Beaverdam have picnic shelters available. These three areas also provide public swimming beaches, while Holly Point's swimming beach is available to campers only.

### ***Commercial Recreation Opportunities***

Rolling View Marina, located adjacent to the Rolling View Recreation Area, is a full-service marina with boat launch ramps, gas pumps, and a grocery store.

#### **3.5.3.2 Recreational Experience**

According to Jennifer Waldrop, a park ranger at Falls Lake, development is not allowed on the reservoir. There are a limited number of houses around the reservoir based on its proximity to the Raleigh-Durham area. However, new development is not allowed nor are private piers of any kind. Based on this interview, Falls Lake is classified as a "Natural" reservoir.

#### **3.5.3.3 Tourism**

According to Shelly Green, Executive Director with the Durham County Convention and Visitors Bureau, Durham County promotes tourism for Falls Lake, particularly the Rolling View Recreation Area. She believes that boating, fishing and camping are the predominant activities on Falls Lake. She asserted that visitors come to the reservoir year-round but that the summer months are far more crowded than others. Additionally, Reyn Bowman, President of the Durham County CVB, believes that sailing, water skiing, and swimming are popular activities on the reservoir.

#### **3.5.4 B. Everett Jordan Lake**

B. Everett Jordan Lake (Jordan Lake) is a U.S. Army Corps of Engineers reservoir built on the Haw River for flood control, water supply, water quality, fish and wildlife conservation, and recreational purposes. The reservoir is located south of Chapel Hill in Chatham County, North Carolina. Jordan Lake has a surface area of about 14,000 acres and 200 shoreline miles at a full pond elevation of 216 feet (USACE, Wilmington District, Water Management Unit website).

Operation of B. Everett Jordan Lake aims to maintain a 216 feet elevation according to an established guide curve (USACE, Wilmington District, Water Management Unit website). Depending on climatic conditions, actual elevations may fluctuate higher or lower than the intended guide curve.



### 3.5.4.1 Inventory of Recreation Resources

#### *Public Recreation Sites*

B. Everett Jordan Lake has three public recreation sites that provide direct reservoir access. Among these three sites, there are two boat launch ramps (USACE, B. Everett Jordan Lake website).

**Table 66: Recreation Sites and Opportunities at B. Everett Jordan Lake**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Poes Ridge	USACE	1	0	N	N
Tailrace	USACE	NA	NA	NA	NA
Farrington Point	NCWRC	1	0	N	N

\* NA – denotes information that was not available.

Source: USACE, B. Everett Jordan Lake website.

#### *Jordan Lake State Recreation Area*

Jordan Lake State Recreation Area consists of eight separate recreation sites adjacent to the reservoir in Chatham County, North Carolina. Operated by the NCDENR Division of Parks and Recreation, the recreation sites provide opportunities for boating, fishing, camping, hiking, swimming, and picnicking (NCDENR, Division of Parks and Recreation website). Among the eight recreation sites, there are 20 boat ramps, six swimming beaches, and five campgrounds.

All of the recreation sites offer boat launching facilities for public use. The Crosswinds Campground and Poplar Point boat ramps are available for campers only. Bank fishing is allowed throughout the recreation area and on Jordan Lake via boat.

**Table 67: Recreation Sites and Opportunities at Jordan Lake State Recreation Area**

<i>Site Name</i>	<i>Owner/ Operator</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
New Hope Overlook	NCDENR	1	0	N	Y
Ebenezer	NCDENR	1	0	Y	N
Poplar Point	NCDENR	4	0	Y	Y
Crosswinds Campground	NCDENR	2	0	Y	Y
Robeson Creek	NCDENR	1	0	N	N
Seaforth	NCDENR	6	0	Y	N
Parkers Creek	NCDENR	1	0	Y	Y
Vista Point	NCDENR	4	0	Y	Y

The recreation sites offer opportunities for family camping, group camping, and backpack and canoe camping. There are three family campgrounds: one at the Crosswinds Campground, one

at Parkers Creek, and one at Poplar Point. Crosswinds Campground offers 129 campsites for tents and trailers, Parkers Creek has 250 sites, and the Poplar Point campground has 361 sites. Parkers Creek and Vista Point have a total of 11 group camping sites. New Hope Overlook offers 24 hike-in or canoe-in tent camping sites.

Six of the recreation sites (Crosswinds Campground, Ebenezer, Parkers Creek, Poplar Point, Seaforth, and Vista Point) have short hiking and interpretive trails. These six sites also offer swimming beaches.

All of the recreation sites provide picnicking areas. Each picnic area has picnic tables, grills, and picnic shelters.

#### *Jordan Lake State Educational Forest*

Operated by the North Carolina Division of Forest Resources, the Jordan Lake Educational State Forest offers opportunities for hiking, picnicking, and educational programs (NCDENR, Division of Forest Resources website). The educational forest is located on Jordan Lake in Chatham County, North Carolina.

The forest offers a large picnic area with picnic tables and grills, in addition to a shelter available for large groups through reservation only. The forest has numerous trails for hiking and viewing interpretive exhibits. The trails include a Talking Tree trail, a Forest Demonstration trail, a Wetlands trail, and a Wildlife trail. The forest also offers an amphitheater for educational programs and an educational cabin for various exhibits.

#### ***Commercial Recreation Opportunities***

Crosswinds Marina is the only commercial marina providing access to B. Everett Jordan Lake. The marina offers wet/dry storage, gas pumps, a public launch ramp, a bait and tackle shop, and boat rentals.

#### **3.5.4.2 Recreational Experience**

According to R.C. Ducksen with the U.S. Army Corps of Engineers, no development of any kind is allowed on the shoreline of Jordan Lake and there are no private piers or homes on the reservoir. Similarly, the USACE maintains a buffer of varying width around the entire shoreline. Based on this information, Jordan Lake is classified as a “Natural” reservoir.

#### **3.5.4.3 Tourism**

According to Neha Shah, Director of Tourism at the Pittsboro-Siler City Convention and Visitors Bureau in Chatham County, Jordan Lake is consistently listed as one of the top 10 attractions in North Carolina. The reservoir is strategically located for both tourists and residents and the Jordan Lake State Recreation Area draws approximately 1.1 million visitors per year. Ms. Shah believes that all outdoor activities are popular, especially camping, hiking, picnicking, wildlife

viewing, sailing, boating, and fishing. The summer and fall months receive the heaviest use, but there are events that draw large numbers of visitors throughout the year. The Pittsboro-Siler City CVB is responsible for promoting tourism in Chatham County and at Jordan Lake and does so through brochures, listings in the North Carolina Travel Guide, a website, and advertisements. The CVB primarily targets the Tri-Cities area to bring tourists to the reservoir.

### 3.6 Additional Smaller Reservoirs

As part of the site review conducted for this study, several smaller reservoirs were recently identified within the study region (within 100 miles of the Yadkin Project) (Table 68). Very general, limited information is readily available for these reservoirs. However, Philpott, Belews, and Lake H. B. Robinson appear to be similar to some of the reservoirs already discussed in the study since they are associated with power production. Philpott Reservoir is operated by the USACE, while Belews (Duke Power) and Lake H.B. Robinson (Progress Energy) are used as cooling water supplies for steam and nuclear generating stations, respectively. The others are local water supplies and appear to offer more limited recreation opportunities.

Since the primary focus of this study was the larger regional reservoirs that provide recreational opportunities, no detailed information was collected for these small reservoirs. However, it should be recognized that these reservoirs do provide some recreational opportunities within the region.

**Table 68: Additional Smaller Reservoirs Identified**

<i><b>Reservoir</b></i>	<i><b>Location (County, State)</b></i>	<i><b>Owner</b></i>	<i><b>Description</b></i>
Philpott Reservoir	Franklin, Henry and Patrick counties, VA	U.S. Army Corps of Engineers	Reservoir is located on the Smith River and used for recreation, flood control, hydroelectric power, conservation of fish/wildlife, and water supply. Reservoir surface area is about 2,880 acres with 110 shoreline miles. Recreation opportunities include boating, picnicking, camping, and nature trails. <sup>1</sup>
Belews Lake	Forsyth, Stokes, and Rockingham counties, NC	Duke Power	Reservoir is a cooling water supply for steam station. Reservoir surface area is about 3,863 acres with approximately 88 miles of shoreline. Duke Power provides two public access sites on the reservoir and camping is allowed only in designated areas. <sup>2</sup>
Lake H.B. Robinson	Chesterfield and Darlington counties, SC	Progress Energy	Reservoir is a cooling water supply for a nuclear generating station. There is at least one public fishing pier and public access to the reservoir, which has a surface area of approximately 2,250 acres. <sup>3</sup>

Lake Townsend	Guilford County, NC	City of Greensboro	Reservoir is approximately 1,500 acres and is used for a local water supply. Recreation opportunities include small craft boating, sailing, fishing and hiking trails (several are incorporated in the Mountains-to-Sea Trail discussed in Section 4.10.1). The reservoir is adjacent to the Bryan Park complex which offers golf, tennis, and picnicking areas. Swimming, sailboards and water skiing are not permitted. <sup>4</sup>
Lake Michie	Durham County, NC	City of Durham	Reservoir is used for local water supply. Recreation opportunities include fishing, boating, primitive camping by permit, two group camping sites, picnic areas, and hiking trails. <sup>5</sup>
Little River Lake	Durham County, NC	City of Durham	Reservoir is the primary water supply for City of Durham. Durham limits and controls recreational activities at the reservoir. Recreation opportunities include boat rentals (privately owned boats are not permitted) and bank fishing, both by permit only. <sup>5</sup>
Moss Lake (Kings Mountain Reservoir)	Cleveland County, NC	City of Kings Mountain	Reservoir is used for local water supply and has 57 miles of shoreline. Recreation opportunities include boating, swimming, fishing, and camping. <sup>6</sup>

<sup>1</sup> USACE, Wilmington District, Philpott Reservoir Recreation website.

<sup>2</sup> Duke Power, Lake Facts and Maps website.

<sup>3</sup> South Carolina Lakes Network, Lake H.B. Robinson website.

<sup>4</sup> North Carolina Outdoors, Greensboro Watershed Trails and Lake Townsend Yacht Club websites.

<sup>5</sup> Durham County, Parks and Recreation Department website.

<sup>6</sup> Cleveland County Chamber of Commerce, Entertainment and Recreation website.

## 4.0 Other Recreation Resources

Other types of recreation sites within the Yadkin Project region provide users with significant additional opportunities for outdoor recreation. Some of the major recreational destinations within the study region, including national forests and state parks are discussed briefly in the following sections.

### 4.1 National and State Forests

National Forest System lands are managed under a variety of Federal Regulations to include the National Forest Management Act of 1976 (NFMA). NFMA established Land and Resource Management Plans (Forest Plans) that guide how the U.S. Forest Service (USFS) will fulfill its stewardship of natural resources. Forest Plans establish management areas that are similar to zones of a city plan. Each management area is developed to achieve different desired conditions, emphasize different activities, permit different uses of the forest, and emphasize differing wildlife species and landscape features (APGI Tapoco Division, 2004). One aspect described by a management area is the Recreation Opportunity Spectrum (ROS), which was developed by the USFS to integrate recreation and tourism with non-recreational land use. The ROS

classification system characterizes the level of development and the desired recreation experiences on national forest lands while providing a context for recreation planning which considers the activity, setting, and recreation experience of the user (USFS, 2001).

#### 4.1.1 Uwharrie National Forest

The Uwharrie National Forest (UNF) is a 50,189-acre national forest located east of Albemarle in Montgomery and Randolph counties, North Carolina. Operated by the USFS, the park provides opportunities for boating, fishing, camping, hiking, mountain biking, horseback riding, OHV use, hunting, and picnicking (USFS, Uwharrie National Forest, Recreation Guide website). Adjacent to the shorelines of Narrows Reservoir, Falls Reservoir, and the Uwharrie River, the forest has 13 designated recreation sites. Fishing is allowed throughout the forest with a valid North Carolina fishing license.

**Table 69: Summary of Recreation Sites in the Uwharrie National Forest**

<i>Site Name</i>	<i>Number of Boat Launch Ramps</i>	<i>Number of Fishing Piers</i>	<i>Swim Beach (Y/N)</i>	<i>Camping Available (Y/N)</i>
Arrowhead Campground	0	0	N	Y
Badin Group Camp	0	0	N	Y
Badin Horse Camp	0	0	N	Y
Badin Lake Campground	0	0	N	Y
Canebrake Horse Camp	0	0	N	Y
Cove Boat Ramp	1	0	N	N
East Morris Mountain	0	0	N	Y
Holts Cabin	0	0	N	N
King's Mountain Point	0	1	N	N
Uwharrie Hunt Camp	0	0	N	Y
West Morris Mountain	0	0	N	Y
Yates Place	0	0	N	Y
Deep Water Trail Camp	1	0	N	Y

The Uwharrie National Forest offers opportunities for family camping, primitive camping, group camping, horse camping, and hunt camping. Arrowhead, Badin Lake Campground, West Morris Mountain, and Yates Place have opportunities for tent, RV, and trailer camping. The Badin Group Camp has three sites with 15 to 35-person capacity each. Deep Water Trail offers primitive hike-in camping. Also available are two horse camps and two hunt camps.

Several recreation sites offer direct access to the Yadkin Project reservoirs (all except the Deep Water Trail offer access to Narrows Reservoir). Holt's Cabin picnic area offers opportunities for picnicking and shoreline fishing. Cove Boat Ramp, located along the Narrows Reservoir shoreline has a boat ramp with a courtesy pier as well as a picnic area. King's Mountain Point, managed cooperatively with North Carolina Wildlife Resources Commission (NCWRC), has a walk-in fishing pier available. The Deep Water Trail recreation site offers opportunities for shoreline fishing and carry-in boat launching on Falls Reservoir.

The Uwharrie National Forest has more than 80 miles divided among nine major trails. Sixteen miles of trails are designated for OHV use and there are three trails specifically designated for mountain bikes. The remaining trails are for hikers only.

**Table 70: Trail Summary for Uwharrie National Forest**

<b><i>Trail Name</i></b>	<b><i>Difficulty</i></b>	<b><i>Distance (miles)</i></b>
Badin Lake	NA	6.5
Badin OHV	NA	16
Uwharrie National Recreation Trail	NA	20.4
Dutchman's Creek	NA	9.8
Supertree Loop	NA	7.7
Keyauwee Loop	NA	8.9
Denson's Creek	NA	2.3
Uwharrie Fitness	NA	0.25
Birkhead Mountains	NA	8.8

\* NA – denotes information that was not available.

#### *Birkhead Mountains Wilderness Area*

Within the Uwharrie National Forest system is the Birkhead Mountains Wilderness Area. Covering approximately 5,160 acres at the northern end of the Uwharrie Mountains, the wilderness area is designated for foot travel only. Mountain bikes, horses, and motorized vehicles of any kind are not permitted in the wilderness area. This area offers numerous trails for hiking, most notably the Birkhead Mountains Trail. The Birkhead Mountains Trail is a circuit trail of 8.8 miles that crosses the wilderness.

#### **4.1.2 Pisgah National Forest**

The Pisgah National Forest is a 1,076,711-acre national forest located in western North Carolina in Caldwell, Burke, Watauga, Avery, Mitchell, McDowell, Yancey, Madison, Buncombe and Haywood counties (USFS, Outdoor Recreation Opportunities website). Operated by USFS, the majority of the Pisgah National Forest is located outside of the study region, with the exception of its western edge. Within the study region, the forest provides opportunities for fishing, camping, hiking, rock climbing, mountain biking, horseback riding, OHV use, hunting, and picnicking.

Specifically, there are seven main recreation sites within the study region. Two of these sites, Mortimer and Boone Fork, provide facilities for both family camping and group camping. Mortimer Campground has 23 sites available for tent and trailer camping. Boone Fork campground has 48 sites for tent and trailer camping and facilities for group camping. Both campgrounds have picnic areas available, access to hiking trails, and access to fishing streams.

The largest recreation area of the Pisgah National Forest within the study region is the Linville Gorge area. A 12,000-acre designated wilderness area, Linville Gorge has an information center and offers opportunities for primitive camping, hunting, fishing, rock climbing, and camping. There are 11 designated climbing areas and 17 hiking trails covering more than 20 miles. Primitive camping, hunting, and fishing, are allowed by permit only.

Also within the study region is the Brown Mountain OHV Area. This area offers 12 trails covering 34 miles with difficulty ranging from easy to strenuous. All trails allow mountain and motor bikes, nine trails allow ATVs, and two trails allow 4-wheel drive vehicles. Three of the areas, Table Rock, Barkhouse, and Mulberry, are picnic areas. Table Rock is a picnic area with scenic views of the Linville Gorge, an interpretive trail, and access to other hiking trails. Barkhouse is strictly a picnic area, while Mulberry also has fishing access. The eastern edge of the Pisgah National Forest also borders a section of Lake James although there are no specifically designated recreation sites that provide access to the reservoir through the forest.

#### **4.1.3 Sumter National Forest**

The Sumter National Forest is a 360,115-acre national forest located in northwestern South Carolina in Oconee, Laurens, Union, Newberry, Chester, Fairfield, Abbeville, Greenwood, McCormick, Saluda, and Edgefield counties (USFS, Francis Marion and Sumter National Forests website). Operated by the USFS, the majority of the Sumter is located outside of the study region, with the exception of the Enoree District of the forest. Within the Enoree District, the forest provides opportunities for fishing, camping, hiking, canoeing, mountain biking, horseback riding, OHV use, hunting and picnicking.

Specifically, there are six main recreation sites of the Enoree District within the study region. Two of these sites, Woods Ferry and Brick House, provide facilities for family and group camping. The Woods Ferry recreation site has 28 campsites including two group camping areas and the Brick House campground has 23 campsites for tent/trailer camping. Both campgrounds have picnic areas available, access to hiking and horse trails, and access to fishing streams. The Enoree District also has nine primitive, seasonal camping areas available by permit only.

Johns Creek Lake and Pittman Lake are two recreation sites that provide fishing access to small lakes within the forest. Non-motorized boating is allowed on Pittman Lake and both sites provide access to nearby hiking trails. Molly's Rock picnic area also provides fishing access to a small pond and has an interpretive hiking trail. The Broad River runs 32 miles through the Enoree District and five access points to the river constitute the sixth recreation site. The river is used primarily by canoeists, but small boats with motors are allowed on certain sections. Primitive camping is allowed along the river by permit only.

The Enoree District also has six major trails. Table 71 below summarizes these six trails.

**Table 71: Trail Summary for the Enoree District of Sumter National Forest**

<i><b>Trail Name</b></i>	<i><b>Length</b></i>	<i><b>Uses</b></i>
Buncombe Horse Trail	31.5 miles	Horseback riding, hiking, mountain biking
Enoree OHV Trail	14.4 miles	OHV use, hiking, mountain biking
Enoree River Canoe Trail	36 miles	Canoeing, flat-bottomed boats less than 14 feet long
Jew's Harp Spring Hiking Trail	0.7 miles	Hiking
Tyger River Canoe Trail	24 miles	Canoeing, flat-bottomed boats less than 14 feet long
Wood's Ferry Horse Trail	9 miles	Horseback riding, hiking, mountain biking

#### **4.1.4 Sand Hills State Forest**

The Sand Hills State Forest is a 46,000-acre state forest located in Chesterfield and Darlington counties, South Carolina (South Carolina Forestry Commission, Sand Hills State Forest website). The forest is managed by the South Carolina Forestry Commission. Open year-round, the forest provides opportunities for bird watching, camping, primitive camping, hiking, off-road bicycling (with a permit), horseback riding (with a permit), hunting (seasons and limits may be different from those statewide), and fishing with a valid South Carolina fishing license. Sugar Loaf Mountain is maintained at the Sand Hills State Forest as a family recreational area and includes picnic shelters, a fishing lake, and a nature trail.

#### **4.1.5 Educational State Forests**

The North Carolina Division of Forest Resources operates the educational state forest program as a teaching program for the public. There are six educational forests in the system, four of which are within the study region: Jordan Lake Educational State Forest, Tuttle Educational State Forest, Rendezvous Mountain Educational State Forest, and Mountain Island Educational State Forest (NCDENR, Division of Forest Resources website). Two of these educational state forests are directly adjacent to reservoirs and are discussed under the appropriate reservoir (Jordan Lake in Section 3.5.4 and Mountain Island Lake in Section 3.4.6). The remaining two are discussed in this section.

##### **4.1.5.1 Tuttle Educational State Forest**

Operated by the North Carolina Division of Forest Resources, the Tuttle Educational State Forest offers opportunities for hiking, picnicking, and educational programs. The educational forest is located Caldwell County, North Carolina.

The forest offers a large picnic area with picnic tables and grills and a shelter is available for large groups through reservation only (NCDENR, Division of Forest Resources website). The forest has several trails for hiking and viewing interpretive exhibits. The trails include a Talking



Tree trail and a Forest Demonstration trail. The forest also offers an amphitheater for educational programs and an educational cabin for various exhibits.

#### **4.1.5.2 Rendezvous Mountain Educational State Forest**

Operated by the North Carolina Division of Forest Resources, the Rendezvous Mountain Educational State Forest offers opportunities for hiking, picnicking, and educational programs. The educational forest is located in Wilkes County, North Carolina.

The forest offers a large picnic area with picnic tables and grills and a shelter is available for large groups through reservation only (NCDENR, Division of Forest Resources website). The forest has approximately five trails for hiking and viewing interpretive exhibits. The trails include a Talking Tree trail, a Forest Demonstration trail, and a Logging History Demonstration trail. The forest also offers an amphitheater for educational programs and an educational cabin for various exhibits.

## **4.2 State Parks and State Recreation Areas**

A total of 16 state parks (SP) and state recreation areas (SRA) have been identified within the study region. Two of these parks are in Virginia, one is in South Carolina, and the remaining 13 are in North Carolina. Parks and state recreation areas adjacent to or providing direct access to reservoirs are inventoried with the corresponding reservoir and the remaining seven parks are discussed in this section.

**Table 72: State Parks and State Recreation Areas Inventoried in the Regional Recreation Evaluation**

<b><i>Park Name</i></b>	<b><i>State</i></b>	<b><i>County</i></b>	<b><i>Associated Reservoir/Section</i></b>
Morrow Mountain SP	North Carolina	Stanly	Lake Tillery/Section 3.1.1
Lake James SP	North Carolina	McDowell	Lake James/Section 3.4.1
Lake Norman SP	North Carolina	Iredell	Lake Norman/Section 3.4.5
Lake Wateree SRA	South Carolina	Fairfield	Lake Wateree/Section 3.4.10
Kerr Lake SRA	North Carolina	Vance, Warren	John H. Kerr Reservoir/Section 3.5.2
Oconeechee SP	Virginia	Mecklenburg	John H. Kerr Reservoir/Section 3.5.2
Staunton River SP	Virginia	Halifax	John H. Kerr Reservoir/Section 3.5.2
Falls Lake SRA	North Carolina	Durham, Wake	Falls Lake/Section 3.5.3
Jordan Lake SRA	North Carolina	Chatham	B. Everett Jordan Lake/Section 3.5.4
South Mountains SP	North Carolina	Burke	Section 4.2.1
Crowders Mountain SP	North Carolina	Gaston	Section 4.2.2
Pilot Mountain SP	North Carolina	Surry	Section 4.2.3
Hanging Rock SP	North Carolina	Stokes	Section 4.2.4
Eno River SP	North Carolina	Orange	Section 4.2.5
Raven Rock SP	North Carolina	Harnett	Section 4.2.6
William B. Umstead SP	North Carolina	Wake	Section 4.2.7

#### 4.2.1 South Mountains State Park

South Mountains State Park<sup>4</sup> is a 16,664-acre state park located south of Morganton in Burke County, North Carolina (NCDENR, Division of Parks and Recreation website). Open year-round, the park provides opportunities for fishing, camping, hiking, horseback riding, biking, and picnicking. Fishing is allowed throughout the year on the park's many miles of streams. A special trout license is required to fish in the park's streams.

The park has approximately 40 miles of trails that are used for hiking, mountain biking, and horseback riding. All 40 miles of trails allow hiking while 30 miles are available for bridle and 14 miles are available for mountain biking.

**Table 73: Trail Summary for South Mountains State Park**

<i><b>Trail Name</b></i>	<i><b>Difficulty</b></i>	<i><b>Distance (miles)</b></i>
Benn Knob Trail	NA	3.0
Chestnut Knob Trail	NA	2.1
Dogwood Trail	NA	2.6
Fox Trail	NA	3.6
H.Q. Trail	NA	4.3
Hemlock Nature Trail	NA	0.3
High Shoals Falls Loop	NA	1.2
Horseridge Trail	NA	3.3
Jacob Branch Trail	NA	1.1
Jacob Fork River Trail	NA	0.5
Little River Trail	NA	2.0
Lower CCC Trail/Road	NA	2.5
Possum Trail	NA	1.5
Raven Rock Trail	NA	1.9
Sawtooth Trail	NA	2.5
Shinny Trail	NA	2.2
Short Trail	NA	0.7
Turkey Ridge Trail	NA	1.7
Upper CCC Trail/Road	NA	1.6
Upper Falls Trail	NA	1.8

\* NA – denotes information that was not available.

The park offers opportunities for family camping, group camping, backpack camping, and equestrian camping. There are eight group campsites with picnic tables and fire circles at each site. Twenty backpacking campsites are located in six different sections of the park. There is also an equestrian campground that has 15 campsites with a 37-stall barn.

The park offers two picnic areas and one picnic shelter. One picnic area has 10 tables, two grills, and a fireplace and the other area has four tables and three grills.

<sup>4</sup> Note: South Mountains State Park is currently closed due to damage from the remnants of Hurricane Frances. No reopening date has been established.

#### 4.2.2 Crowders Mountain State Park

Crowders Mountain State Park is located southwest of Gastonia in Gaston County, North Carolina. Open year-round, the park provides opportunities for canoeing, fishing, camping, hiking, rock climbing, and picnicking (NCDENR, Division of Parks and Recreation website). Fishing is permitted with a valid North Carolina fishing license from either the shoreline or via rented canoe on a nine-acre man-made lake. Rock climbing is allowed in specified areas only and climbers must obtain a permit.

Crowders Mountain offers 10 trails specifically designated for hiking that cover 12 miles throughout the park.

**Table 74: Trail Summary for Crowders Mountain State Park**

<i><b>Trail Name</b></i>	<i><b>Difficulty</b></i>	<i><b>Distance (miles)</b></i>
Backside Trail	Strenuous	0.9
Camping Trail (Group)	Moderate	0.4
Camping Trail (Family)	Moderate	0.2
Crowders Trail	Strenuous	2.5
Fern Trail	Easy	1.0
Lake Trail	Easy	0.8
Pinnacle Trail	Strenuous	1.7
Rocktop Trail	Strenuous	1.5
Tower Trail	Strenuous	2.0
Turnback Trail	Moderate	0.9

The park offers opportunities for backcountry family camping and group camping. The family campground campsites offer a tent pad and grill. There are six group campsites that can accommodate up to 15 people each.

The park has a large picnic area and two picnic shelters available for group use. The picnic area has 28 tables and eight grills.

#### 4.2.3 Pilot Mountain State Park

Pilot Mountain State Park is a 3,703-acre state park located northwest of Winston-Salem in Surry County, North Carolina (NCDENR, Division of Parks and Recreation website). Open year-round, the park provides opportunities for canoeing, fishing, camping, hiking, rock climbing, and picnicking. The park is divided into two separate sections: a mountain section and river section. The river section is located on the Yadkin River and offers opportunities for bank fishing and canoeing. Fishing is permitted throughout the park with a valid North Carolina fishing license. The river section of the park provides a canoe launch and is part of the Yadkin-Pee Dee River Canoe Trail (see Section 4.10.2).

Pilot Mountain has approximately 24 miles of trails throughout the park. The park has 11 trails specifically designated for hiking that cover nearly 14 miles, while two trails totaling 10.5 miles

are available for both horseback riding and hiking. A 5.5-mile corridor trail connects the two sections of the park.

**Table 75: Trail Summary for Pilot Mountain State Park**

<i><b>Trail Name</b></i>	<i><b>Difficulty</b></i>	<i><b>Distance (miles)</b></i>
Canal	Easy	0.5
Corridor (bridle/hiking)	Moderate to Strenuous	5.5
Grassy Ridge	Moderate	1.5
Grindstone	Moderate to Strenuous	2.0
Horne Creek	Moderate	1.0
Jomeokee	Moderate	0.8
Ledge Spring	Strenuous	2.0
Little Pinnacle Overlook	Easy	0.1
Mountain Trail	Strenuous	2.5
Sassafras	Moderate	0.5
Yadkin River	Moderate	1.2
Yadkin Islands (bridle/hiking)	Moderate	5.0
Ivy Bluff	Moderate	1.3

The park offers opportunities for family camping, group camping, and canoe camping. The family campground has 49 campsites for tents and trailers. There is group camping area for youth groups that includes picnic tables and a fire circle. There are two wilderness campsites available along the river for canoeists.

Rock climbing is available in the park by permit only. Climbing is allowed in specified areas only within the mountain section of the park.

The park has three picnic areas available for day use: one in the mountain section and two in the river section. Each picnic area has picnic tables and grills available. The mountain section also has a large picnic shelter suitable for up to 35 people.

#### **4.2.4 Hanging Rock State Park**

Hanging Rock State Park is a 6,921-acre state park located north of Winston-Salem in Stokes County, North Carolina (NCDENR, Division of Parks and Recreation website). Open year-round, the park provides opportunities for boating, fishing, camping, hiking, rock climbing, swimming, and picnicking. A small lake offers opportunities for bank fishing, rowing, and canoeing. Private boats are not allowed, but rowboat and canoe rentals are available during the summer.

Hanging Rock has 12 trails that offer more than 20 miles of hiking throughout the park.

**Table 76: Trail Summary for Hanging Rock State Park**

<i><b>Trail Name</b></i>	<i><b>Difficulty</b></i>	<i><b>Distance (miles)</b></i>
Chestnut Oak Nature Trail	Easy	0.7
Cooks Wall Trail	Moderate	2.2
Hanging Rock Trail	Moderate	1.2

Indian Creek Trail	Moderate	3.7
Hidden Falls	Easy	0.4
Window Falls	Moderate	0.6
Lower Cascades trail	Easy	0.3
Moore's Wall Loop Trail	Strenuous	4.2
Sauratown Loop Trail	Moderate	4
Tory's Den Trail	Moderate	4.2
Upper Cascades trail	Easy	0.2
Wolf Rock Loop Trail	Moderate	1.9

The park offers opportunities for family camping, group camping, and vacation cabins. The family campground has 73 campsites for tents and trailers. There are eight group campsites with picnic tables and fire circles at each site. The park also houses six family vacation cabins.

Rock climbing is available in the park by permit only. There are two designated climbing areas: Cook's Wall and Moore's Wall. Combined, the climbing areas have cliffs up to 400 feet high and extend for almost two miles.

The park offers two large picnic areas. Each picnic area has 60 tables, 15 grills and group shelters. The visitor center houses an exhibit hall with interactive displays.

#### 4.2.5 Eno River State Park

Eno River State Park is a 2,600-acre state park located northwest of Durham in Orange County, North Carolina (NCDENR, Division of Parks and Recreation website). Created along the Eno River, the park provides opportunities for camping, hiking, canoeing, fishing, and picnicking. The park has five different access sites: Cabe Lands, Cole Mill, Few's Ford, Pleasant Green, and Pump Station. Bank fishing is allowed throughout the park with a valid North Carolina fishing license. The park provides three access points for canoeists.

Eno River State Park has 15 hiking trails throughout the park covering approximately 20 miles.

**Table 77: Trail Summary for Eno River State Park**

<i><b>Trail Name</b></i>	<i><b>Difficulty</b></i>	<i><b>Distance (miles)</b></i>
Bobbitt's Hole	Moderate	1.65
Buckquarter Creek	Moderate	1.5
Cabe Lands	Moderate	1.2
Cole Mill	Moderate	1.2
Cox Mountain	Strenuous	3.75
Dunnagan's	Moderate	1.8
Eno Trace	Easy	0.5
Fanny's Ford	Easy	1.01
Knight	Moderate	0.34
Holden's Mill	Moderate	2.6
Pea Creek	Moderate	1.3
Piedmont	Easy	0.18
Pump Station	Moderate	1.5

Ridge	Strenuous	1.27
Shakori	Strenuous	1.04

The park offers opportunities for family camping, group camping, and primitive camping. The family campground has five tent sites, the group camp accommodates up to 26 people, and primitive backpack camping sites are also available within the park.

The park has two picnic areas: one in the Few's Ford section and one in the Cole Mill section. The Few's Ford picnic area offers 20 tables in addition to 12-table shelter. The Cole Mill picnic area offers 10 tables and four grills with a group area containing three tables. The Cole Mill picnic area also has a picnic shelter with eight tables and a grill.

#### 4.2.6 Raven Rock State Park

Raven Rock is a 4,667-acre state park located southwest of Raleigh in Harnett County, North Carolina (NCDENR, Division of Parks and Recreation website). Open year-round, the park provides opportunities for canoeing, horseback riding, camping, hiking, fishing, and picnicking. Created along the Cape Fear River, fishing is allowed throughout the park with a valid North Carolina fishing license. Although no canoe access points are located within the park, one is located along the 56-mile Cape Fear River Trail.

Raven Rock has approximately 19 miles of trails throughout the park. Eight trails covering 12 miles are specifically designated for hiking, while two 3.5-mile loop trails are available for horseback riding.

**Table 78: Trail Summary for Raven Rock State Park**

<i><b>Trail Name</b></i>	<i><b>Difficulty</b></i>	<i><b>Distance (miles)</b></i>
American Beech Trail	Easy	0.5
Campbell Creek Loop	Moderate	5.0
East Loop Horse Trail	Easy	3.5
Fish Traps Trail	Easy	0.6
Group Camp Trail	Easy	0.4
Lanier Falls Trail	Easy	0.2
Northington Ferry Trail	Easy	0.9
Little Creek Loop	Easy	1.5
Raven Rock Loop	Easy	2.6
West Loop Horse Trail	Easy	3.5

The park offers opportunities for family camping, group camping, canoe camping, and backpack camping. The family campground has five tent sites; the group camp accommodates up to 20 people per campsite, and the park offers six campsites for canoeists along the river. Primitive backpack camping sites are also available within the park.

The park has one large picnicking area on the south side of the river and a smaller area on the north side. The large picnic area offers 27 tables and eight grills with a restroom and a refreshment stand nearby.

#### 4.2.7 William B. Umstead State Park

William B. Umstead is a 5,439-acre state park located west of Raleigh in Wake County, North Carolina (NCDENR, Division of Parks and Recreation website). Open year-round, the park provides opportunities for boating, horseback riding, camping, hiking, fishing, picnicking and biking. The park has three man-made lakes (Big Lake, Sycamore Lake, and Reedy Creek Lake) covering a total area of 105 acres. Fishing is allowed on all three lakes and their connecting streams although private boats are not permitted. Rowboat and canoe rentals are available on Big Lake throughout the summer.

William B. Umstead has nearly 30 miles of trails interconnecting throughout the park. Eight trails covering 20 miles are specifically designated for hiking, while an 11.5 mile trail is designated for horseback and mountain biking.

**Table 79: Trail Summary for William B. Umstead State Park**

<i><b>Trail Name</b></i>	<i><b>Difficulty</b></i>	<i><b>Distance (miles)</b></i>
Bridle and Bike Trail	Moderate	11.5
Campground Spur	Easy	0.4
Company Mill Trail	Moderate	5.8
Inspiration Trail	Easy	0.5
Loblolly Trail	Moderate	2.7
Oak Rock Trail	Easy	0.6
Pott's Branch Trail	Easy	1.25
Sal's Branch Trail	Moderate	2.75
Sycamore Trail	Moderate	6.6

The park offers one family campground, two primitive campgrounds, and three group camps. The family campground offers 28 campsites for tents and trailers. The primitive campgrounds are open year round for the use of groups and nonprofit organizations. The group camps are open April through October and accommodate between 27 and 120 people.

The park has three large picnic shelters with other picnic tables and grills scattered throughout. William B. Umstead also has an exhibit hall in the visitor center with interactive displays.

#### 4.3 Boones Cave Park

Boones Cave Park is a 110-acre park is located in Davidson County, North Carolina. Previously part of the North Carolina Parks System, the park was transferred to Davidson County in March 2003 (Davidson County Department of Parks and Recreation, Boones Cave Park website). Boones Cave Park is an important cultural and natural resource of Davidson County. Many believe this to be the site of the Daniel Boone family homestead and the park has a small cave facing the Yadkin River.

Open year-round, the park has never been intensely developed. It is strictly a day-use facility that provides limited recreation opportunities with a half mile nature trail, a picnic shelter, and a few picnic tables.

#### 4.4 Dan Nicholas Park

Dan Nicholas Park, located in Rowan County, is managed by Rowan County Parks and Recreation. The park consists of approximately 435 acres of public land (Rowan County, Dan Nicholas Park website). The park's facilities include bank fishing on a 10-acre lake and three trails, including a two-mile trail and a ¼-mile guided nature trail. Additionally, the park provides sports recreational opportunities including tennis courts, miniature golf, softball fields, volleyball courts, paddleboats, and a playground.

The park has a family campground with 75 campsites, 50 of which have electrical and water hook-ups. A small store provides camping supplies such as firewood and ice. Group camping is allowed in a separate area of the park. In addition to camping, the park has nine picnic shelters, including one large shelter that seats up to 500 people.

#### 4.5 Wildlife Refuges and Nature Preserves

##### 4.5.1 Weymouth Woods Sandhills Nature Preserve

Weymouth Woods Sandhills Nature Preserve is an 898-acre state preserve located southeast of Southern Pines in Moore County, North Carolina (NCDENR, Division of Parks and Recreation website). Open year-round, the park provides opportunities for horseback riding, hiking, and wildlife observation.

Weymouth Woods has nearly five miles of hiking trails interconnecting throughout the park. The preserve also has a large loop trail available for horseback riding.

**Table 80: Trail Summary for Weymouth Woods Sandhills Nature Preserve**

<i><b>Trail Name</b></i>	<i><b>Difficulty</b></i>	<i><b>Distance (miles)</b></i>
Holly Road Trail	Easy	1.8
Gum Swamp Trail	Easy	0.5
Pine Barrens Trail	Easy	1.0
Bower's Bog Trail	Easy	0.3
Lighter Stump Trail	Easy	0.5
Pine Island Trail	Easy	0.5

The park also offers interpretive programs on the significance of Weymouth Woods' longleaf pine forest. In addition, the visitor's center houses an exhibit hall and an auditorium for special programs.

##### 4.5.2 Pee Dee National Wildlife Refuge

The Pee Dee National Wildlife Refuge is an 8,443-acre national wildlife refuge located north of Wadesboro in Anson and Richmond counties, North Carolina (UFWS, Pee Dee National Wildlife Refuge website). Open year-round, the refuge provides opportunities for wildlife observation, fishing (May 15-October 15 with a valid North Carolina fishing license), hiking,



hunting (by permit only during specific season), an interpretive wildlife drive, and interpretive and educational programs

The Pee Dee National Wildlife Refuge has a three-mile nature trail, a three-mile auto tour with interpretive kiosks, a ¼-mile handicapped-accessible nature trail, and two wildlife observation blinds (GORP, Parks website).

#### **4.6 Fishing Access Areas**

The North Carolina Wildlife Resources Commission maintains fishing access areas throughout the state. Fishing access areas are managed and operated in two different approaches: Public Fishing Access Areas and Community Fishing Programs (NCWRC, Fishing website).

Public Fishing Access Areas provide free fishing opportunities at lakes, rivers, streams, and reservoirs. To accommodate fishing, these sites provide facilities such as cleared shorelines, fishing piers, parking lots, and/or fish attractors.

Community Fishing Program Areas are primarily located in city or county-owned parks to provide fishing opportunities in developed areas. To accommodate fishing, these areas are intensively managed and offer facilities such as fishing piers, fish feeders, and stocked fish.

Within the study region, there are 26 Community Fishing Program Areas and 19 Public Fishing Access Areas. Most of the Public Fishing Access Areas are located on large reservoirs and are further discussed in Sections 2.0 and 3.0. Table 81 summarizes each of the NCWRC-managed fishing areas in the study region.

**Table 81: Summary of NCWRC-Managed Fishing Access Areas within the Study Region**

<i><b>Body of Water</b></i>	<i><b>County</b></i>	<i><b>Number of Sites</b></i>	<i><b>Type of Access</b></i>
Hamlet City Lake	Richmond	1	Community Fishing Program
Indian Camp Lake	Richmond	1	Public Fishing Access Area
Blewett Falls Lake	Anson	1	Public Fishing Access Area
Lake Tillery	Montgomery	1	Public Fishing Access Area
Lake Luke Marion	Moore	1	Community Fishing Program
San Lee Park Pond	Lee	1	Community Fishing Program
Rock Creek	Alamance	1	Community Fishing Program
Lake Michael	Alamance	1	Community Fishing Program
Rabbit Shuffle Pond	Caswell	1	Public Fishing Access Area
Anderson Community Park Pond	Orange	1	Community Fishing Program
Lake Michael	Orange	1	Community Fishing Program
Crowders Mountain State Park Lake	Gaston	1	Public Fishing Access Area
Lake Hickory	Alexander	1	Public Fishing Access Area
Lake James Tailrace	Burke	1	Public Fishing Access Area

Falls of the Neuse Reservoir	Wake	3	Public Fishing Access Area
Apex Community Park Lake	Wake	1	Community Fishing Program
Fred G. Bond Metro Park Lake	Wake	1	Community Fishing Program
Harris County Park Pond	Wake	1	Community Fishing Program
Shelley Lake	Wake	1	Community Fishing Program
Simpkins Pond	Wake	1	Community Fishing Program
Lake Crabtree	Wake	1	Community Fishing Program
B. Everett Jordan Lake	Chatham	3	Public Fishing Access Area
Frank Liske Park Lake	Cabarrus	1	Community Fishing Program
Badin Lake (Narrows Reservoir)	Montgomery/ Stanly	3	Public Fishing Access Area
Tuckertown Reservoir	Rowan	1	Public Fishing Access Area
Hagan-Stone Park Lake	Guilford	1	Community Fishing Program
Oka T. Hester Park Lake	Guilford	1	Community Fishing Program
South Buffalo Creek	Guilford	1	Community Fishing Program
Bur-Mil Pond	Guilford	1	Community Fishing Program
Duck Pond	Mecklenburg	1	Community Fishing Program
McAlpine Creek	Mecklenburg	1	Community Fishing Program
Park Road Park Lake	Mecklenburg	1	Community Fishing Program
Reedy Creek Park Lake	Mecklenburg	1	Community Fishing Program
Winston Pond	Forsyth	1	Community Fishing Program
C. G. Hill Memorial Lake	Forsyth	1	Community Fishing Program
Kernersville Lake	Forsyth	1	Community Fishing Program
Big Elkin Creek	Forsyth	1	Community Fishing Program
John H. Kerr Reservoir	Vance	2	Public Fishing Access Area

#### 4.7 Boating Access Areas

The North Carolina Wildlife Resources Commission maintains boating access areas throughout North Carolina. All boating access areas have boat launch ramps for access to major bodies of water (NCWRC, Boating/Waterways website). Within the study region, there are 55 public boating access areas on 23 different bodies of water.

Most of the public boating access areas are located on large reservoirs and are further discussed in Sections 2.0 and 3.0. Table 82 summarizes each of the NCWRC-managed boating areas in the study region.

**Table 82: Summary of NCWRC-Managed Boating Access Areas within the Study Region**

<i>Site Name</i>	<i>Body of Water</i>	<i>County</i>
Black Bear	Lake James	McDowell
Linville River	Lake James	Burke
John's River	Lake Rhodhiss	Burke
Rhodhiss	Lake Rhodhiss	Burke
Castle Bridge	Lake Rhodhiss	Caldwell

Conley Creek	Lake Rhodhiss	Caldwell
Dusty Ridge	Lake Hickory	Alexander
Whittenburg	Lake Hickory	Alexander
Gunpowder	Lake Hickory	Caldwell
Lovelady	Lake Hickory	Caldwell
Oxford	Lake Hickory	Catawba
Lookout Shoals	Lookout Shoals Lake	Catawba
Sharon	Lookout Shoals Lake	Iredell
Long Island	Lake Norman	Catawba
Pinnacle	Lake Norman	Iredell
McCrary Creek	Lake Norman	Iredell
Hager Creek	Lake Norman	Iredell
Little Creek	Lake Norman	Lincoln
Beatties Ford	Lake Norman	Lincoln
Davidson Creek	Mountain Island Lake	Gaston
Neck Road	Mountain Island Lake	Mecklenburg
South Point	Lake Wylie	Gaston
Milton	Dan River	Caswell
Leaksville	Dan River	Rockingham
Dutch Second	High Rock Reservoir	Rowan
Bringles Ferry	Tuckertown Reservoir	Davidson
Flat Creek	Tuckertown Reservoir	Rowan
Circle Drive	Narrows Reservoir	Montgomery
Lakemont	Narrows Reservoir	Montgomery
Lilly's Bridge	Lake Tillery	Montgomery
Swift Island	Lake Tillery	Montgomery
Norwood	Lake Tillery	Stanly
Stony Mountain	Lake Tillery	Stanly
Troy	Little River	Montgomery
Red Hill	Pee Dee River	Anson
Blewett's Grave	Pee Dee River	Richmond
Rockingham	Pee Dee River	Richmond
Pee Dee	Blewett Falls Lake	Anson
Grassy Island	Blewett Falls Lake	Richmond
Carbonton	Deep River	Moore
Ramseur	Deep River	Randolph
Triple Springs	Mayo Reservoir	Person
Farrington Point	B.E. Jordan Lake	Chatham
Avent's Ferry Bridge	Cape Fear River	Chatham
Dam Site	Harris Lake	Chatham
Holleman's Crossing	Harris Lake	Wake
Eno River	Falls Lake	Durham
Hickory Hill	Falls Lake	Durham
Ledge Rock	Falls Lake	Wake

Upper Barton Creek	Falls Lake	Wake
Flemingtown Landing	John H. Kerr Reservoir	Vance
Henderson Point	John H. Kerr Reservoir	Vance
Hibernia	John H. Kerr Reservoir	Vance
County Line	John H. Kerr Reservoir	Warren
Lillington	Cape Fear River	Harnett

#### **4.8 Whitewater Boating**

Whitewater boating opportunities within the study region are limited, in part, due to the physiographic regions of the study region. Since the study region encompasses some parts of the Fall Line and mountainous region of North Carolina, whitewater areas for canoeing and kayaking do exist. Although whitewater boating is not specifically associated with reservoir recreation sites, whitewater boating areas are found in the study region and some are in the vicinity of reservoirs discussed in this study.

According to the American Whitewater website, unverified rapids exist in the vicinity of the Yadkin Project. Parts of the Yadkin River below the W. Kerr Scott Reservoir and above High Rock Reservoir near Lexington are listed to have unverified class I-II rapids (American Whitewater, River Tools website). The Uwharrie River above Morrow Mountain State Park is also listed as having similar unverified rapids.

In the eastern part of the study region, whitewater boating areas can be found north and east of Durham on the Eno (verified class I-III rapids), Little (unverified class I-IV rapids), and Flat (unverified class I-III rapids) rivers (American Whitewater, River Tools website). The Haw River just above B. Everett Jordan Lake has verified class II-III whitewater rapids.

In the western part of the study region, Wilson Creek located in the Pisgah National Forest in the vicinity of Lake James and Lake Rhodhiss has verified whitewater with class III-V rapids (American Whitewater, River Tools website). Also, whitewater areas can be found on the Catawba River above Lake James (unverified class I-II rapids) and Henry Fork (unverified class I-III rapids) near Lake Rhodhiss.

#### **4.9 Game Lands**

The North Carolina Wildlife Resources Commission manages its Game Land Program to provide tracts of land for hunters, trappers, and fishermen (NCWRC, Hunting/Trapping website). The game lands in the program are generally large tracts of private lands made available for hunting and trapping.

NCWRC identifies four types of game lands: dove, 3-day, 6-day, and special permit. Dove lands are lands on which only dove hunting is allowed. Three-day game lands are game lands open to hunting for all game species (with a few exceptions) on Mondays, Wednesdays, and Saturdays. Six-day game lands are those available six days a week (Sunday excluded) for hunting of all

game species (with a few exceptions). Special permit lands are game lands on which a special permit is required.

There are 17 game lands areas covering more than 280,000 acres within the study region. Many of these areas are near or directly adjacent to some of the reservoirs discussed in Sections 2.0 and 3.0. Table 83 summarizes each of the NCWRC-managed game lands in the study region.

**Table 83: Summary of NCWRC-Managed Game Lands within the Study Region**

<i>Area Name</i>	<i>Type</i>	<i>County</i>	<i>Number of Acres</i>
South Mountains	6-day	Burke, Rutherford, Cleveland	20,697
Catawba*	3-day	Catawba	1,189
Perkins	3-day	Davie	960
Linwood*	6-day	Davidson	126
Alcoa*	6-day	Davie, Rowan, Davidson, Montgomery, Stanly	8,372
Lee	6-day	Lee	2,421
Pee Dee River*	6-day	Anson, Montgomery, Richmond, Stanly	6,829
Uwharrie*	6-day	Davidson, Montgomery, Randolph	50,189
Sandhills	3-day	Hoke, Moore, Richmond, Scotland	59,498
Jordan*	6-day	Chatham, Durham, Orange, Wake	41,213
Shearon Harris*	6-day	Chatham, Harnett, Wake	13,227
Chatham*	6-day	Chatham	2,794
Butner-Falls	6-day	Durham, Granville, Wake	43,959
Caswell	3-day	Caswell	16,704
Hyco*	6-day	Person	4,229
Mayo	6-day	Person	6,831
Vance*	6-day	Vance	841

\* Denotes game land is adjacent to a reservoir discussed in Section 2.0 or 3.0.

## **4.10 Trail Systems**

### **4.10.1 Mountains-to-Sea Trail**

The Mountains-to-Sea Trail (MST) is a 900-mile trail crossing North Carolina from Clingman's Dome in the Great Smoky Mountains to Jockey's Ridge State Park on the Outer Banks (NCDENR, Division of Parks and Recreation website). The trail passes through the Great Smoky Mountains National Park, three national forests, numerous state parks and state recreation areas, and 36 different counties. Although the trail has not been completed, several sections within the study region have been completed. Specifically, two segments near Greensboro and Falls Lake are currently open for hiking (Friends of the Mountains-to-Sea Trail website). The Greensboro segment spans 20 miles from Bur-Mil Park to Bryan Park and is rated as strenuous. The Falls Lake segment is divided into two sections of 7 and 13 miles, respectively, and is rated

as moderate to strenuous. Although there are only two major sections of the trail within the study region that are open, the footbeds and planned routes for the entire trail have been designated and construction is ongoing. Currently 400 miles of the trail are open, although most of the open segments are located in the mountain and coastal regions of the state.

#### **4.10.2 Yadkin-Pee Dee River Canoe Trail**

The Yadkin-Pee Dee River Canoe Trail is a 230-mile river trail on the Yadkin and Pee Dee Rivers from Wilkesboro, North Carolina to the South Carolina border. The 230-mile trail has 41 access points and passes through six reservoirs within the study region (Yadkin-Pee Dee Lakes Project, 1999). The trail passes through High Rock Reservoir, Tuckertown Reservoir, Narrows Reservoir, Falls Reservoir, Lake Tillery, and Blewett Falls Lake as well as free-flowing sections of the Yadkin and Pee Dee Rivers. At each impoundment, there is a portage trail.

#### **4.10.3 Blue Ridge Parkway**

The Blue Ridge Parkway is a 469-mile scenic highway in the Appalachian Mountains from Shenandoah National Park in northwestern Virginia to the Great Smoky Mountains National Park in western North Carolina (National Park Service, Blue Ridge Parkway website). Stops along the Parkway provide opportunities for hiking, mountain biking, camping, and wildlife and scenic observation. The Parkway is also a popular route for cyclists. More than 100 miles of the Parkway fall within the northwestern section of the study region from southwestern Virginia into western North Carolina and through the Pisgah National Forest.

### **5.0 Yadkin Area Plans and Future Opportunities**

#### **5.1 Davie County**

Davie County maintains that it is not connected to High Rock Reservoir and therefore does not have any future plans for recreational sites or facilities on or around the reservoir.

#### **5.2 Rowan County**

According to Jim Foltz, Director of Parks and Recreation with Rowan County, Rowan County would like to expand the Eagle Point Nature Preserve although it currently does not have specific plans. Similarly, Rowan County has been talking with two shoreline landowners about acquiring land near Persimmon Branch for a future park/recreation area. He also believes that there should be more access sites to Yadkin reservoirs because it is difficult to find a place to fish. Specifically, he feels that Rowan County does not have enough recreation sites to access the reservoirs.

Ed Muire, Planning Manager for Rowan County, also stated that Rowan County would like to expand Eagle Point Nature Preserve, although there have been no specific discussions or plans about adding new recreation sites. Mr. Muire believes that Rowan County does not have enough reservoir access sites, especially swimming areas.

Carl Doby, a Zoning Officer with Rowan County, stated that Rowan County is currently developing a land use plan but it will not include plans for adding new recreational sites. He believes that the region needs more public camping facilities and more boat ramps to access the reservoirs.

### **5.3 Davidson County**

As discussed in Section 2.1.3, the *Davidson County Tourism and Recreation Master Plan* (Master Plan) is in the early stages of development and is scheduled to be completed by June 2005. According to Paul Kron, Regional Planning Director for the Piedmont Triad Council of Governments, ideas for promoting tourism and recreation in Davidson County include a park at High Rock Lake or the Yadkin River, lodging and restaurants on High Rock Reservoir, and connecting Boones Cave Park (discussed in Section 4.3) to other recreation sites in Davidson County. Both Mr. Kron and Jo Ellen Edwards with the Tourism Development Partnership of Davidson County stated that High Rock Reservoir has “limited public access” on the Davidson County side.

According to Charles Parnell, Director of Parks and Recreation for Davidson County, Davidson County will probably wait until the Master Plan is complete before making any plans for recreational opportunities.

### **5.4 Stanly County**

According to Melissa Blaylock, Executive Director of the Stanly County Convention and Visitors Bureau, Stanly County does not have plans to add new recreational sites. She believes that some of the needs in the area include more lodging facilities and a marina. Michael Sandy, Planning Director with Stanly County, also stated that Stanly County had no current plans for adding recreation sites in the future. He believes, however that the area needs more access to Yadkin reservoirs, specifically more fishing access sites.

### **5.5 Montgomery County**

Judy Stevens, the Executive Director of the Montgomery County Economic Development Corporation, stated that Montgomery County has no current plans for adding new recreational facilities. She believes that the area needs more public access for canoes, more overnight accommodations, and more restaurants to support recreational tourists who come to the area. She also stated that winter drawdown of Yadkin reservoirs is a problem because recreational sites become unusable.

## **6.0 Comparison of Yadkin Project Recreation Resources with Other Regional Resources**

Within the study region, there are 182 recreation sites along 23 different reservoirs. Table 84 below provides a summary of the larger reservoirs within the study region and their recreational

opportunities. For each reservoir in Table 84, all public recreation sites are counted in the total number of recreation sites, including local, state, and federal parks and state recreation areas.

**Table 84: Summary of Recreational Opportunities at Reservoirs within the Study Region**

<i><b>Reservoir Name</b></i>	<i><b>Surface Areas</b></i>	<i><b>Shore-line Miles</b></i>	<i><b>Recreation Sites<sup>1</sup></b></i>	<i><b>Boat Ramps</b></i>	<i><b>Fishing Piers</b></i>	<i><b>Swim Beaches</b></i>	<i><b>Camp-grounds</b></i>
High Rock Reservoir	15,180	360	10	11	0	2	0
Tuckertown Reservoir	2,560	75	11	7	0	0	0
Narrows Reservoir <sup>2</sup>	5,355	115	17	10	2	1	3
Falls Reservoir <sup>2</sup>	204	6	3	2	0	0	0
Lake Tillery	5,700	118	6	9	2	0	1
Blewett Falls Lake	2,900	46.9	4	4	1	0	0
Harris Lake	4,150	40	3	3	1	0	1
Hyco Lake	3,750	160	1	4	1+	1	1
Lake James	6,500	151.1	6	13	2	1	1
Lake Rhodhiss	3,000	103.9	5	11	0	0	0
Lake Hickory	3,900	110.6	9	17	4	0	0
Lookout Shoals Lake	1,200	36.3	2	3	0	0	0
Lake Norman	32,000	591.6	15	31	2	3	2
Mountain Island Lake	2,900	86.5	5	6	3	1	0
Lake Wylie	12,100	327.51	13	25	4	2	1
Fishing Creek Lake	3,200	67.1	2	2	0	0	0
Great Falls and Rocky Creek lakes	1,020	37	2	2	0	0	0
Lake Wateree	13,864	213.1	10	20	1	0	1
W. Kerr Scott	1,500	55	12	7	3	5	3
John H. Kerr Reservoir	48,900	800	22	27	3	7	16
Falls Lake	12,400	175	13	8	1	4	4
B. Everett Jordan Lake	14,000	200	11	22	0	6	5
<i>Average</i>	8,534.04	174.03	7.91	10.61	1.30	1.43	1.70

<sup>1</sup> Commercial recreation sites provide additional opportunities that are not summarized in this table. Additional information on commercial recreation sites on Yadkin Project reservoirs can be found in the Recreation Facility Inventory and Condition Assessment Report.

<sup>2</sup> Includes sites in the Uwharrie National Forest directly adjacent to the reservoirs.



Compared to other hydroelectric or power-related projects, the Yadkin Project provides similar recreational opportunities. Specifically, the predominant type of recreation provided is boating access. The four Yadkin Project reservoirs provide a total of 41 recreation sites and 30 boat ramps. To a lesser extent, fishing piers, campgrounds, and swimming beaches are also available. Similar distribution of recreation facilities can be found among all power-related reservoirs. Federally-owned reservoirs, such as the four U.S. Army Corps of Engineers (USACE) reservoirs, generally provide more opportunities for camping and swimming than power-related reservoirs (including the Yadkin Project reservoirs). The four USACE reservoirs provide a total of 22 swimming beaches and 28 campgrounds, whereas the 19 power-related reservoirs provide a total of 11 swimming beaches and 11 campgrounds. As a whole, recreation sites at USACE reservoirs tend to provide more comprehensive recreational opportunities than the power-related reservoirs. Public recreation facilities at the 19 power-related reservoirs predominantly provide day-use recreational facilities, whereas the USACE recreation sites provide more facilities that enable extended stay recreational opportunities.

Among the seven reservoirs of the largest size, in surface area, (High Rock, Lake Norman, Lake Wylie, Lake Wateree, John H. Kerr Reservoir, Falls Lake, and B. Everett Jordan Lake), the recreation opportunities and experiences provided at each are generally similar. High Rock and Lake Wateree have the fewest number of total public recreation sites with ten each, but High Rock still provides all of the same recreation opportunities as the other large reservoirs in the study region. Lake Wateree provides similar recreation opportunities but does not provide any swimming beaches.

Because a large majority of all recreation sites are managed by governmental agencies, there is a general uniformity among all recreation sites at reservoirs within the study region. Generally, more than 75% of all recreation sites within the study region are managed by a governmental agency (federal, state, or local).

**Table 85: Percentage of Recreation Sites at Each Reservoir Managed by a Governmental Agency**

<i><b>Reservoir</b></i>	<i><b>Percentage of Recreation Sites Managed by a Governmental Agency</b></i>	<i><b>Predominant Governmental Managing Authority</b></i>
High Rock Reservoir	33%	NCWRC
Tuckertown Reservoir	30%	NCWRC
Narrows Reservoir <sup>1</sup>	56%	USFS
Falls Reservoir <sup>1</sup>	50%	USFS
Lake Tillery	100%	NCWRC
Blewett Falls Lake	75%	NCWRC
Harris Lake	100%	NCWRC
Hycos Lake	100%	Person-Caswell Lake Authority
Lake James	100%	NCWRC
Lake Rhodhiss	100%	NCWRC
Lake Hickory	78%	NCWRC
Lookout Shoals Lake	100%	NCWRC
Lake Norman	79%	NCWRC

Mountain Island Lake	100%	NCWRC
Lake Wylie	100%	SCDNR
Fishing Creek Lake	100%	SCDNR
Great Falls and Rocky Creek lakes	100%	SCDNR
Lake Wateree	100%	SCDNR
W. Kerr Scott	100%	USACE
John H. Kerr Reservoir <sup>2</sup>	100%	USACE
Falls Lake <sup>3</sup>	100%	NCDENR
B. Everett Jordan Lake <sup>4</sup>	100%	NCDENR

<sup>1</sup> Includes sites in the Uwharrie National Forest directly adjacent to the reservoirs.

<sup>2</sup> Includes sites in the Kerr Lake State Recreation Area.

<sup>3</sup> Includes sites in the Falls Lake State Recreation Area.

<sup>4</sup> Includes sites in the Jordan Lake State Recreation Area.

To an extent, the similarities and differences among recreational opportunities at different reservoirs depends on the predominant managing agency. Recreation sites managed by state wildlife agencies such as the North Carolina Wildlife Resources Commission (NCWRC) and the South Carolina Department of Natural Resources (SCDNR), as well as sites managed exclusively by APGI, tend to be highly similar in the opportunities they provide. USACE-managed recreation sites (and State Recreation Areas on USACE-operated reservoirs) tend to provide a greater volume of recreational facilities than the power-related reservoirs although the types of facilities they provide are comparable.

Of the 23 reservoirs within the study region, nine reservoirs have been classified as “Natural,” seven as “Limited Development,” and seven as “Developed.” Generally, there is an even distribution of all three types of reservoir experiences within the study region. Similarly, there is a fairly even dispersion of all three types of reservoirs throughout the study region.

**Table 86: Summary of Experience Classifications for Reservoirs within the Study Region**

<i><b>Reservoir</b></i>	<i><b>Shoreline Miles</b></i>	<i><b>Percentage of Undeveloped Shoreline</b></i>	<i><b>Experience Classification</b></i>
High Rock Reservoir	360	57%	Developed
Tuckertown Reservoir	75	81%	Limited Development
Narrows Reservoir	115	48%	Developed
Falls Reservoir	6	94%	Natural
Lake Tillery	118	38%	Developed
Blewett Falls Lake	46.9	NA	Natural
Harris Lake	40	90-95%	Natural
Hycow Lake	160	NA	Developed
Lake James	151.1	83%	Limited Development
Lake Rhodhiss	103.9	96.5%	Natural
Lake Hickory	110.6	45.1	Developed
Lookout Shoals Lake	36.3	71%	Limited Development
Lake Norman	591.6	62%	Developed
Mountain Island Lake	86.5	74%	Limited Development
Lake Wylie	327.51	48%	Developed

Fishing Creek Lake	67.1	91.4%	Natural
Great Falls and Rocky Creek Lakes	37	77%	Natural
Lake Wateree	213.1	58%	Limited Development
W. Kerr Scott	55	NA	Limited Development
John H. Kerr Reservoir	800	31%	Limited Development
Falls Lake	175	NA	Natural
B. Everett Jordan Lake	200	NA	Natural

\* NA – denotes information that was not available.

Although the distribution of all experience classifications is fairly even in terms of number of reservoirs, when the size of each reservoir is compared (in terms of shoreline miles and surface area) with the type of experience, disproportion becomes evident. The reservoirs with a “Natural” experience classification average two to three times smaller than reservoirs characterized as “Limited Development” and “Developed”. Although there are nine reservoirs characterized as “Natural” (compared to seven for both “Developed” and “Limited Development”) “Natural” reservoirs cover approximately 35,000 less acres than either “Developed” or “Limited Development” reservoirs. These nine reservoirs also generally have fewer access sites than most of the larger, more developed reservoirs. In general, the smaller size of the “Natural” reservoirs and the limited access is likely the reason that these reservoirs remain largely undeveloped. Of the seven largest reservoirs, five are classified as “Developed” or “Limited Development”. Only Falls and B. Everett Jordan lakes, located in the Raleigh-Durham area, are classified as providing a “Natural” experience.

**Table 87: Type of Shoreline Experience Compared with Number of Shoreline Miles and Surface Area**

<i>Type of Experience</i>	<i>Number of Reservoirs</i>	<i>Total Number of Shoreline Miles</i>	<i>Avg. Number of Shoreline Miles Per Reservoir</i>	<i>Total Reservoir Surface Area (acres)</i>	<i>Avg. Surface Area Per Reservoir</i>
Developed	7	1,782.7	254.7	77,985	11,140.7
Limited Development	7	1,417	202.4	77,424	11,060.6
Natural	9	675.9	75.1	40,874	4,541.6

## 7.0 Conclusions

Within the study region as a whole, there are ample opportunities for reservoir and water-based recreation. Generally, reservoir recreation sites provide shoreline fishing access and boat launching facilities. A majority of these sites also provide picnicking opportunities. A few offer fishing piers, swimming beaches, and campgrounds. Beyond these five major activities, reservoir access sites not associated with large state or regional parks provide few other recreational opportunities. Local, federal, and state-operated parks adjacent to reservoirs generally cover a much larger area than a reservoir access area and therefore, tend to provide a wider range of activities that are not all directly reservoir-related, including land-based activities.

Generally, activities such as rock climbing, hiking, mountain biking, and whitewater boating are available within the study region, but opportunities for these activities in conjunction specifically with reservoir-based recreation are limited.

Compared to other hydroelectric or power-related projects, the Yadkin Project provides very similar recreational opportunities. Like the other reservoirs in the region, opportunities at the Yadkin Project reservoirs for boating, fishing, swimming, and picnicking are the most abundant. Camping is also available at the Yadkin Project, with several large campgrounds associated with the Uwharrie National Forest.

The availability of reservoir-based recreation opportunities within the region is dependent on the number and type of recreation sites adjacent to the reservoirs. Several of the reservoirs within the study region have state parks located along their shorelines, and these parks often provide a wide array of recreational opportunities and facilities, many of which are for reservoir-based recreation activities. Two of the Yadkin Project reservoirs, Narrows and Falls, are adjacent to a national forest, a feature that most other reservoirs (with the exception of Lake Tillery, classified as “Developed” and Lake James, classified as a “Limited Development”) do not have. The location of the Uwharrie National Forest adjacent to Narrows and Falls reservoirs and the fully natural character of the shoreline in these areas is unique within central North Carolina. Recreation users seeking a “Natural” reservoir experience, especially in central North Carolina, have far fewer opportunities than recreation users who are unconcerned with a reservoir’s overall setting. Although Pisgah National Forest is adjacent to Lake James, this “Limited Development” reservoir is located closer to the mountains of North Carolina. Parts of the Sumter National Forest fall within the study region but the forest is not adjacent to any of the recreational reservoirs in the region.

Another distinctive aspect of the recreational opportunities at the Yadkin Project reservoirs is location. The U. S. Army Corps of Engineers reservoirs, Hyco Lake, and Harris Lake, tend to be concentrated at the eastern and northern edges of the study region, while the Catawba-Wateree reservoirs are concentrated at the western and southern edges. The USACE reservoirs (Falls and B. Everett Jordan) are close to Triad region and Raleigh-Durham metropolitan areas and the Catawba-Wateree reservoirs are close to the Charlotte metropolitan area. The Yadkin and Yadkin-Pee Dee Project reservoirs, however, are centrally located to all of the major metropolitan areas. This location puts the Yadkin reservoirs within a day-trip distance to all of the metropolitan areas including Charlotte, the Triad region, Raleigh-Durham, and Fayetteville, but is not immediately proximate to any large urban center.

## 8.0 References

Alcoa Power Generating Inc. (APGI), Tapoco Division, Tapoco Project Shoreline Management Plan, October 2004.

Alcoa Power Generating Inc. (APGI), Yadkin Division, Recreation Facility Inventory and Condition Assessment Final Study Report, February 2005.

Alcoa Power Generating Inc. (APGI), Yadkin Division, Yadkin Hydroelectric Project, FERC No. 2197 NC, Initial Consultation Document, September 2002.

American Whitewater, River Tools website: <http://www.americanwhitewater.org/rivers/>.

Blue Ridge Parkway Association website: <http://www.blueridgeparkway.org/>.

Caldwell County Chamber of Commerce, phone interview with Program/Communications Director Cathy Rhuberg, re: tourism, December 2004.

Charlotte Convention and Visitors Bureau, phone interview with Supervisor Jackie Jacoby, re: tourism, August 2004.

Clarksville Chamber of Commerce, phone interview with Director Linda Williams, re: tourism, October 2004.

Cleveland County Chamber of Commerce, Entertainment and Recreation website: <http://clevelcc.wliinc3.com/about/entertainment.asp>.

Davidson County Department of Parks and Recreation, Boones Cave Park website: <http://www.co.davidson.nc.us/recreation/1739.asp>.

Davidson County Department of Parks and Recreation, phone interview with Director of Parks and Recreation, Charles Parnell, re: future plans and recreation, December 2004.

DeLorme, North Carolina Atlas & Gazetteer. Yarmouth, Maine, 2003.

Duke Power, Catawba Wateree Project, FERC No. 2232, First Stage Consultation Document, 2003.

Duke Power, Catawba-Wateree Project, FERC No. 2232, Shoreline Management Plan, July 31, 2001.

Duke Power, Catawba-Wateree Hydroelectric Project, FERC No. 2232, Shoreline Management Plan (SMP) revision Final Study Plan, revised March 11, 2004.

Duke Power, Lake Facts and Maps website:

<http://www.dukepower.com/community/lakes/lakefacts/belews.asp>.

Duke Power, personal communication with Senior Engineer, Edward D. Bruce, re: shoreline classifications, March 2005.

Durham County Convention and Visitors Bureau, phone interview with Executive Director Shelly Green, re: tourism, November 2004.

Durham County Convention and Visitors Bureau, phone interview with President Reyn Bowman, re: tourism, December 2004.

Durham County, Parks and Recreation Department website:

<http://www.ci.durham.nc.us/departments/parks/lakes.cfm>.

Environmental Resources Management Inc. (ERM), Draft Recreational Use Assessment, Yadkin Hydroelectric Project, FERC No. 2197, September 2004.

Fairfield County Chamber of Commerce, phone interview with Administrative Assistant Susan Yenner, re: tourism, August 2004.

Friends of the Mountains to Sea Trail website: <http://www.ncmst.org/>.

Gaston County Department of Tourism, phone interview with Director Vicky Riddel, re: tourism, August 2004.

Great Outdoor Recreation Pages (GORP), Parks website:

[http://gorp.away.com/gorp/resource/us\\_nwr/nc\\_peede.htm](http://gorp.away.com/gorp/resource/us_nwr/nc_peede.htm).

Greater Raleigh Convention and Visitors Bureau, phone interview with Director of Communications and Marketing, Martin Armes, re: tourism, December 2004.

Harris Lake County Park, phone interview with Park Technician Coley Houser, re: tourism, December 2004.

Hickory Metro Convention and Visitors Bureau, phone interview with Leda Isenhour, re: tourism, December 2004.

Kershaw County Chamber of Commerce, phone interview with Executive Director Walter B. Clark, re: tourism, October 2004.

Lake Norman Chamber of Commerce, phone interview with Director Sally Asheworth, re: tourism, September 2004.

Lake Townsend Yacht Club website: <http://www.greensboro.com/ltyc/aboutlt.htm>.

Lancaster County Chamber of Commerce, phone interview with Director Tom White, re: tourism, September 2004.

McDowell County Tourism Department, phone interview with Director Carol Price, re: tourism, December 2004.

Montgomery County Economic Development Corporation, phone interview with Executive Director Judy Stevens, re: tourism, October 2004.

Mooresville Convention and Visitors Bureau, phone interview with Executive Director Wendy Shuping, re: tourism, October 2004.

National Park Service (NPS), Blue Ridge Parkway website: <http://www.nps.gov/blri/>.

North Carolina Department of Environment and Natural Resources (NCDENR), Division of Forest Resources website: <http://www.dfr.state.nc.us/>.

North Carolina Department of Environment and Natural Resources (NCDENR), Division of Parks and Recreation website: <http://ils.unc.edu/parkproject/ncparks.html>.

North Carolina Outdoors, Greensboro Watershed Trails website:  
<http://www.northcarolinaoutdoors.com/places/piedmont/gsostrails.html>

North Carolina Wildlife Resources Commission (NCWRC), Boating/Waterways website:  
[http://www.ncwildlife.org/fs\\_index\\_05\\_boating.htm](http://www.ncwildlife.org/fs_index_05_boating.htm).

North Carolina Wildlife Resources Commission (NCWRC), Fishing website:  
[http://www.ncwildlife.org/fs\\_index\\_03\\_fishing.htm](http://www.ncwildlife.org/fs_index_03_fishing.htm).

North Carolina Wildlife Resources Commission (NCWRC), Hunting/Trapping website:  
[http://www.ncwildlife.org/fs\\_index\\_04\\_hunting.htm](http://www.ncwildlife.org/fs_index_04_hunting.htm).

Person-Caswell Lake Authority, Hyco Lake brochure, undated.

Person-Caswell Lake Authority, Hyco Lake website: <http://www.hycolake.com/>.

Person-Caswell Lake Authority, phone interview with Commissioner William Barker, re: Hyco Lake, July 2004.

Person-Caswell Lake Authority, Visit Carolina Power Lake brochure, undated.

Piedmont Triad Council of Governments (PTCOG), Current Conditions Report (Draft #1B), September 20, 2004.

Piedmont Triad Council of Governments (PTCOG), phone interview with Regional Planning Director Paul Kron, re: tourism, November 2004.

Pittsboro-Siler City Convention and Visitors Bureau, phone interview with Director of Tourism Neha Shah, re: tourism, November 2004.

Progress Energy, phone interview with John Crutchfield, re: Blewett Falls Lake shoreline miles, March 2005.

Progress Energy, phone interview with Tim Bevacqua, re: shoreline development at Harris Lake, December 2004.

Progress Energy, Power Plants website: <http://www.progress-energy.com/aboutenergy/powerplants/index.asp>.

Progress Energy, Tillery Hydroelectric Project, FERC No. 2206, Draft Shoreline Management Plan, December 31, 2001.

Progress Energy, Yadkin-Pee Dee River Project, FERC No. 2206, Initial Consultation Document, February 2003.

Richmond County Chamber of Commerce, phone interview with President Bennett Dean, re: tourism, September 2004.

Rock Hill-York County Convention and Visitors Bureau, phone interview with Sports Marketing Coordinator Robert Thomas, re: tourism, September 2004.

Rowan County Convention and Visitors Bureau, phone interview with Director Judy Newman, re: tourism, October 2004.

Rowan County, Dan Nicholas Park website: <http://www.co.rowan.nc.us/parks/dnp/index.html>.

Rowan County Department of Parks and Recreation, phone interview with Director Jim Foltz, re: future plans, October 2004.

Rowan County Department of Parks and Recreation, phone interview with Nature Center Supervisor Bob Pendergrass, re: water access to Eagle Point Nature Preserve, March 2005.

Rowan County Department of Planning, phone interview with Planning Manager Ed Muire, re: future plans, October 2004.

Rowan County Department of Planning, phone interview with Zoning Officer Carl Doby, re: future plans, October 2004.

Rowan County, Eagle Point Nature Preserve website: [http://www.co.rowan.nc.us/parks/eagle\\_point/eagle\\_point\\_nature\\_preserve.htm](http://www.co.rowan.nc.us/parks/eagle_point/eagle_point_nature_preserve.htm).



South Carolina Lakes Network, Lake H.B. Robinson website:  
[http://www.southcarolinallakes.net/hb\\_robinson.htm](http://www.southcarolinallakes.net/hb_robinson.htm).

South Carolina Forestry Commission, Sand Hills State Forest website:  
<http://www.state.sc.us/forest/refshill.htm>.

South Carolina State Parks website: <http://www.discoversouthcarolina.com/stateparks/>.

Stanly County Convention and Visitors Bureau, phone interview with Executive Director Melissa Blaylock, re: tourism, October 2004.

Stanly County, phone interview with Planning Director Michael Sandy, re: future plans, October 2004.

Tourism Development Partnership of Davidson County, phone interview with Jo Ellen Edwards, re: tourism, November 2004.

U.S. Army Corps of Engineers (USACE), B. Everett Jordan Lake, interview with R.C. Ducksen, re: shoreline development on Jordan Lake, December 2004.

U. S. Army Corps of Engineers (USACE), B. Everett Jordan Lake website:  
<http://www.saw.usace.army.mil/jordan/index.htm>.

U. S. Army Corps of Engineers (USACE), Falls Lake, interview with Park Ranger Jennifer Waldrop, re: Falls Lake shoreline development and recreation use, October 2004.

U. S. Army Corps of Engineers (USACE), Falls Lake website:  
<http://www.saw.usace.army.mil/falls/index.htm>.

U. S. Army Corps of Engineers (USACE), John H. Kerr Dam and Reservoir, Shoreline Management Plan, 1993.

U. S. Army Corps of Engineers (USACE), John H. Kerr Dam and Reservoir website:  
<http://www.saw.usace.army.mil/jhkerr/index.htm>.

U. S. Army Corps of Engineers (USACE), Who We Are website:  
<http://www.saw.usace.army.mil/whatwedo>.

U. S. Army Corps of Engineers (USACE), Wilmington District, Philpott Reservoir Recreation website: <http://www.saw.usace.army.mil/philpott/index.htm>.

U. S. Army Corps of Engineers (USACE), Wilmington District, Water Management Unit website: <http://epec.saw.usace.army.mil/>.

U. S. Army Corps of Engineers (USACE), W. Kerr Scott Dam and Reservoir, phone interview with Computer Specialist Shiloh Wiles, re: W. Kerr Scott Reservoir shoreline development, August 2004.

U. S. Army Corps of Engineers (USACE), W. Kerr Scott Dam and Reservoir website:  
<http://www.saw.usace.army.mil/wkscott/index.htm>.

U. S. Fish and Wildlife Service (USFWS), Pee Dee National Wildlife Refuge website:  
<http://peedee.fws.gov/>.

U. S. Forest Service (USFS), The Built Environment Image Guide for the National Forests and Grasslands (FS-710), September 2001.

U.S. Forest Service (USFS), Francis Marion and Sumter National Forests website:  
<http://www.fs.fed.us/r8/fms/>.

U.S. Forest Service (USFS), Outdoor Recreation Opportunities website:  
<http://www.cs.unca.edu/nfsnc/recreation/recreate.htm>.

U. S. Forest Service (USFS), Uwharrie National Forest, Recreation Guide website:  
<http://www.cs.unca.edu/nfsnc/recreation/uwharrie/>.

Vance County Tourism Department, phone interview with Norman Dickerson, re: tourism, November 2004.

Virginia Department of Conservation and Recreation (VA DCR), Virginia State Parks website:  
<http://www.dcr.state.va.us/parks/index.htm>.

Wake County, Department of Parks, Recreation, and Open Space website:  
<http://www.wakegov.com/county/parks/default.htm>.

Wilkes County Chamber of Commerce, phone interview with President Linda Cheek, re: tourism, November 2004.

Yadkin Inc., Yadkin Hydroelectric Project, FERC Project No. 2197, Shoreline Management Plan, July 1, 1999.

Yadkin-Pee Dee Lakes Project, Yadkin-Pee Dee River Trail Map booklet, 1999.

## **Appendix A: Final Study Plan**

**Alcoa Power Generating Inc.  
Yadkin Hydroelectric Project (FERC No. 2197)**

**Regional Recreation Evaluation Final Study Plan  
July 2004**

## **Background**

Alcoa Power Generating Inc. (APGI) is the licensee for the Yadkin Hydroelectric Project. The Yadkin Project is currently licensed by the Federal Energy Regulatory Commission (FERC) as Project No. 2197. This license expires in 2008 and APGI must file a new license application with FERC on or before April 30, 2006 to continue operation of the Project.

The Yadkin Project consists of four reservoirs, dams, and powerhouses (High Rock, Tuckertown, Narrows, and Falls) located on a 38-mile stretch of the Yadkin River in central North Carolina. The Project generates electricity to support the power needs of Alcoa's Badin Works, to support its other aluminum operations, or is sold on the open market.

As part of the relicensing process, APGI prepared and distributed, in September 2002, an Initial Consultation Document (ICD), which provides a general overview of the Project. Agencies, municipalities, non-governmental organizations and members of the public were given an opportunity to review the ICD and identify information and studies that are needed to address relicensing issues. To further assist in the identification of issues and data/study needs, APGI has formed several Issue Advisory Groups (IAGs) to advise APGI on resource issues throughout the relicensing process. IAGs also have the opportunity to review and comment on draft study plans. A draft study plan was developed to provide additional necessary information for consideration in the relicensing process. On April 22, 2004, Yadkin distributed a copy of the Regional Recreation Evaluation Draft Study Plan. On May 5, 2004, Yadkin met with the Recreation, Aesthetics, and Shoreline Management (RASM) IAG to review and discuss the draft study plan. Yadkin received several comments on the draft study plan at the May 5 meeting, and written comments were accepted on the draft study plan through May 21, 2004. The Final Study Plan has been revised to address the received comments.

### **1.0 Study Objectives**

Based on the recommendations of the Recreation, Aesthetics, and Shoreline Management IAG, the purpose of this study is to compare the outdoor recreational opportunities and experiences afforded by the Yadkin Project reservoirs to those afforded by other regional reservoir related recreation sites. The specific objectives for the study are:

- Identify and inventory the publicly available (governmental and private) recreation sites/facilities at other reservoirs in the study region

- Provide a general characterization of the recreational opportunities and experiences available at these reservoirs and sites
- Evaluate how recreation opportunities available at the Yadkin Project compare with those available elsewhere within the study region

## **2.0 Technical Approach**

### ***2.1 Data Collection***

The information used for this study (to the extent available) will rely entirely on existing information and consultation with regional recreation site managers. Information that is to be used in this study includes:

- Tourist guides
- Maps
- Brochures
- The Internet
- Recreation and tourism studies
- Literature from recreation providers
- Direct consultation with regional recreation providers, site managers and local officials

### ***2.2 Regional Recreation Review***

Existing recreation information will be reviewed to compile a general inventory of major regional recreation sites found at the Yadkin Project and at other locations within the “study region”. For purposes of this study, the “study region” is defined as the area within a 100-mile radius of the Yadkin Project. The inventory will focus on the outdoor water-based recreational opportunities afforded by other reservoirs and lakes within the study region. Currently, the major reservoirs/lakes to be evaluated are listed below:

- Yadkin Project (High Rock, Tuckertown, Narrows, and Falls)
- Tillery Project (Tillery and Blewett Falls)
- Harris Lake
- Hyco Lake
- Catawba-Wateree Project (James, Rhodiss, Hickory, Lookout Shoals, Norman, Mountain Island, Wylie)
- Corps of Engineers Projects (W. Kerr Scott, John H. Kerr, Falls Lake, B Everett Jordan)

The inventory of reservoir recreation sites will include all pertinent information on each of the reservoirs, including reservoir owner/operator/manager, reservoir location, reservoir setting, size, reservoir operating regime (including seasonal water level changes) and the general character of the reservoir shoreline.

While the primary focus of the evaluation will be water-based recreation opportunities associated with regional reservoirs, the study will also consider (to a lesser extent) any other **major** recreation facilities or sites in the study region that provide other types of outdoor recreation opportunities. Types of outdoor recreation sites to be included in the inventory are listed in the following categories:

- National and state forests
- National, state, and local parks
- Wildlife refuges and nature preserves
- Game lands
- Designated recreation areas
- Major rivers and streams
- Wilderness areas
- Trail systems
- Other notable outdoor recreation sites

The inventory of recreation sites within the study region will include information such as location, type of recreation area, and managing agency.

### ***2.3 Characterization of Regional Recreation Sites and Opportunities***

After inventorying the major recreation sites in the study region, a characterization of the types of recreational opportunities available at each site will be made using existing information.

#### ***2.3.1 Types of Activities***

Each site will be characterized by the types of recreational activities afforded by that site. The characterization will focus on traditional categories of outdoor recreation.

Types of recreational activities to be characterized for each site include:

- |                     |                        |                 |
|---------------------|------------------------|-----------------|
| ○ Fishing           | ○ Wildlife observation | ○ Rock Climbing |
| ○ Boating           | ○ Bicycling            | ○ OHV use       |
| ○ Canoeing/Kayaking | ○ Hiking/Backpacking   | ○ Horseback     |
| ○ Swimming          | ○ Camping              | Riding/Trails   |
| ○ Hunting           | ○ Picnicking           |                 |

The characterization of each activity type will include activities available and their supporting facilities, trends in use, and other available information.

#### ***2.3.2 Recreational Experience***

Each of the major reservoirs in the study region will also be characterized according to the recreational experience offered by that site. The “experience” of a reservoir will be characterized by a number of factors. To the extent such information is available, a

reservoir's experience will be predominantly characterized by the reservoir's setting and the volume and types of use. Specifically, information will be sought on the amount of development, the type of development, project operations, the carrying capacity of the reservoir, and the volume and type of use the reservoirs receive. After all available information has been compiled and a qualitative assessment of the data has been completed, each reservoir will be classified in one of three recreation experience categories: Natural, Limited Development, or Developed. An initial determination of the recreational experience provided by each of the reservoirs will be made initially by LVA based on data and information collected during the study, and will be provided in the draft study report. During review of the draft study report, input will be solicited from Recreation, Aesthetics, and Shoreline Management IAG members regarding a final determination of the experience provided at these reservoirs.

### ***2.3.3 Tourism***

In addition to specific recreation opportunities and experiences available, each reservoir will be characterized using existing information with respect to tourism. Tourism will be generally evaluated in terms of the amount of tourism generated by the recreation site(s) and opportunities available at each reservoir. For purposes of this study, tourism will generally be distinguished from local use by considering multi-day visits as "tourism", and single day use as "local use". Local officials (i.e. county planners) and recreation site owners or operators will be contacted and asked to provide a general characterization of tourism at each reservoir. The information sought from requisite officials will be standardized to include general tourism information such as any estimates they may have on type of use, volume of use, and seasonal use patterns and activities by tourists at each reservoir. Local officials will also be asked if they actively promote reservoir related tourism, and whether they have information or data that suggests that their promotional efforts have increased tourism use.

## ***2.4 Comparison of Yadkin Recreational Opportunities and Experiences with Other Regional Sites***

After the inventory and characterization of the regional recreation sites is completed, the types of recreation facilities, recreation opportunities and recreation experiences afforded by the Yadkin Project reservoirs will be compared to the other recreation sites in the study region. The comparison will generally characterize the similarities and differences in the recreational opportunities and experiences provided at the Yadkin Project to those available elsewhere in the region.

## ***2.5 Review of Yadkin Area Recreation Plans and Future Opportunities Reporting***

An inventory of recreational facilities at the Yadkin Project is being completed as part of a separate study. However, as part of the regional recreation evaluation, additional information on future recreational sites and facilities planned for the Yadkin Project area will be gathered and reviewed. Specifically, each of the 5 Counties surrounding the Yadkin Project and will be interviewed to determine what plans the Counties have for adding recreational sites or facilities to the 5 county region over the next 10-20 years. The Counties will also be queried about their assessment of recreational needs that exist in the region, that are not currently being met at the Yadkin Project or elsewhere within the 5 County region. Information obtained from the Counties concerning recreation facility plans and needs will be incorporated into the overall regional recreation assessment.

### **3.0 Study Reports and IAG Meetings**

#### ***3.1 Reporting***

A Draft Study Report will be prepared and distributed to the IAG for review and comment. After meeting with the IAG to review and discuss the draft report a final study report will be prepared.

### **4.0 Proposed Study Schedule**

It is anticipated that the draft study report will be completed in the 3<sup>rd</sup> quarter of 2004.



## Appendix B: Comment Summary

Copies of the Regional Recreation Evaluation Draft Study Report were distributed to all Recreation, Aesthetics and Shoreline Management (RASM) Issue Advisory Group (IAG) members on January 13, 2005. Results of the Draft were then presented at a RASM IAG meeting in Badin, North Carolina on February 2, 2005. Comments on the Draft were received at this meeting. Additionally, participants were given until March 4, 2005 to prepare additional comments. Table 1 below is a summary of the comments received and responses to the comments.

**Table 1: Summary of Comments and Responses**

<b>Source of Comment</b>	<b>Comment</b>	<b>Response</b>
U. S. Forest Service (USFS): 2/2/05 Recreation, Aesthetics, and Shoreline Management IAG Meeting (2/2 RASM)	Table 87 on page 84 probably understates the issue of “natural” experiences in the region. USFS also suggested that the report look at the total number of acres in each experience category rather than simply looking at number of reservoirs and shoreline miles.	Table 87 and the corresponding discussion (in Section 6.0) have been amended to reflect this comment.
North Carolina Wildlife Resources Commission (NCWRC): 2/2 RASM	Progress Energy may have an estimate of shoreline miles for Blewett Falls Lake (this information was not included in the Draft Report).	Blewett Falls Lake has 46.9 miles of shoreline. Tables 1 (Section 1.2.2), 84, 86, and 87 (Section 6.0) have been updated to include this information. Section 3.1.2 has been updated to include this information also.
NCWRC: 2/2 RASM	The land classification data for Catawba-Wateree reservoirs (2001 data used in the Draft Report) only considers development on the water side of the project boundary.	Duke Power is currently revising its shoreline classifications as part of its FERC relicensing process. The new classifications will not be finalized until May 2006 and therefore could not be included in the Regional Recreation Evaluation. A footnote has been added to the discussion of Catawba-Wateree shoreline classifications in section 1.2.3.2 to reflect this comment.

High Rock Lake Association: 2/2 RASM	The entire shoreline along the Eagle Point Nature Preserve is posted as “no trespassing.” Is it Rowan County’s intention to exclude water access to the Park?	The discussion of Eagle Point Nature Preserve (in Section 2.1.1) has been amended to clarify Rowan County’s policies regarding access to the preserve via boat.
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