

APPENDIX B

CATAWBA-WATEREE RELICENSING RECREATION USE AND NEEDS STUDY

STUDY PLAN

Catawba-Wateree Hydro Project (FERC 2232)

Study Plan Name: Recreation Use and Needs Study (RUNS) **Study Plan Designation:** Recreation 01

Study Short Description: Evaluate project-related water and land-based recreation use and needs, update the 1999 RUNS study as needed, and identify opportunities to expand the Access Area Improvement Initiative.

Applicable Hydro Projects/Developments: All hydro developments within the Project, and the regulated river sections affected by Project operations

Prerequisite Study Designation: N/A

The purpose of this document is to describe the study scope, basic methodology, and uses for the results. Previous versions of the study scope document have been reviewed and discussed by the resources agencies and other members of the Recreation and Shoreline Management Resource Committee or Study Team and based on these discussions appropriate methodologies have been added. This document is intended to be the final Study Plan for Recreation 01.

I. Study Objectives

1. To provide data and analysis sufficient to characterize present public recreation use and experience levels on project reservoirs, tailwaters, and related downstream riverine areas.
2. To provide data and analysis sufficient to estimate future demand for public recreation on project reservoirs, tailwaters, and related downstream riverine areas.
3. To provide data and analysis sufficient to estimate present and future capacity of project reservoirs, tailwaters, and related downstream riverine areas to support present and future demand for public recreation (Carrying Capacity).
4. To provide data and analysis sufficient to determine present and future public recreation facility requirements for project reservoirs, tailwaters, and related downstream riverine areas.
5. To identify opportunities to enhance and expand the current Access Area Improvement Initiative.
6. To provide data and analysis sufficient to characterize the economic value of recreation at the project.

Note: The study will evaluate both water and land-based, and night as well as day-time recreation use and needs. Land-based recreation includes camping, hiking, picnicking, wildlife viewing, bank fishing, etc.

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II. Basis

The basis for the study is 18 C.F.R. 2.7 - Recreational Development at Licensed Projects.

III. Geographic and Temporal Scope

The study area will include the Catawba-Wateree reservoirs from Lake James through Lake Wateree and lands and waters affected by operation of the Project. Specifically, the study area includes the Project reservoirs (including Duke-owned islands), tailwaters, and downstream riverine areas contained within the FERC Project Boundary immediately downstream of Catawba-Wateree hydroelectric stations, regulated river sections outside the FERC Project Boundary, existing developed and undeveloped Duke Power Access Areas, and related governmental and commercial facilities located adjacent to the project that provide or affect water and land-based recreation opportunities for the general public. The study will consider data on recreation use gathered over a one-year period.

IV. Summary of Existing Data

The following existing data will support the study:

1. Shoreline Management Plan for the Catawba-Wateree Hydro Project (2001 Update), Appendix B - Recreation Use and Needs Study
2. North Carolina State Outdoor Recreation Plan, (2003)
3. North Carolina State Park Plans (NCDPR)
4. South Carolina State Outdoor Recreation Plan (2002)
5. South Carolina Recreation Participation and Preference Study (SCPRT, 1999)
6. The Vision for the 21st Century – SC State Park Service (SCPRT, 2003)
7. Existing plans for adjacent local, regional, and national parks, trails, greenways, open space, forests, refuges, etc.
8. 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (U.S. Fish & Wildlife Service and U.S. Census Bureau)
9. Guidelines for Understanding and Determining Optimum Recreation Carrying Capacity (Bureau of Outdoor Recreation, 1997)
10. Management of Aquatic Recreation Resources (Warren and Rea, 1989)
11. Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends (Cordell, et al, 1999)
12. Emerging Markets for Outdoor Recreation in the United States: Based on the National Survey on Recreation and the Environment (Cordell, et al, 1999)
13. "Expanding the Experience, Trails for South Carolina, the 2002 South Carolina State Trails Plan (SCPRT & PCF 2002).
14. Duke Power and State Creel Survey Data

V. Methodology

The Study Team (including study consultant) will review the 1999 Recreation Use and Needs Study to determine what types of existing data and analysis requires updating, as well as new data and analysis requirements. In addition, the team will review the recent 2003 North Carolina State

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Outdoor Recreation Plan, the 2002 South Carolina State Outdoor Recreation Plan, and other existing data to support the study. These initial steps will capitalize on the technical expertise of the Study Team to refine the scope and focus of the Study.

The Study Team will develop the specific methodology, including survey techniques, survey forms, data analysis requirements, etc. to gather input from a cross section of reservoir and riverine recreation users. Study participants will include Duke public access area users; Federal, State, and local agencies and planners; public park users and managers; lake front residents and property owners; commercial recreation facility customers and managers; and the general public within the study area. Special population groups such as Lake Wateree bridge fishermen, hydro station tailrace fishermen, the Catawba Indian Tribe and children will receive consideration in survey design and implementation. The study will gather sufficient seasonal data to allow for statistical analysis. The various user segments will not be combined unless statistically similar.

Specifically, the consultant will focus on nine tasks:

Task 1: Present Recreation Use and Experience Levels

The consultant will use several approaches to collect existing and potential (future) recreational visitor and shoreline homeowner use data for the Catawba-Wateree reservoirs from Lake James through Lake Wateree and lands and waters affected by operation of the Project. The study area includes the Project reservoirs (including Duke-owned islands), tailwaters, and downstream riverine areas contained within the FERC Project Boundary immediately downstream of Catawba-Wateree hydroelectric stations, regulated river sections outside the FERC Project Boundary, existing developed and undeveloped Duke Power Access Areas, and related governmental and commercial facilities located adjacent to the Project that provide or affect water and land-based recreation opportunities for the general public. The following are descriptions of each approach for collecting data.

Existing public use, including visitors of all ages to public recreation sites will be investigated with the use of traffic counters, spot counts, and/or visitor interviews. Public recreation sites includes existing developed and undeveloped Duke Power access areas, open space, game lands, state and county parks, state boat ramps, public commercial facilities, tailrace areas, bridges and informal recreation sites throughout the vicinity of the reservoirs, tailraces, downstream river segments, and Duke-owned islands),

Shoreline resident use, including residents that own land adjacent to the project boundary and residents that have access to the Catawba-Wateree lakes via a common access lot (off-water subdivision or condominium), will be investigated using a mailed questionnaire.

Potential visitors from the surrounding communities will be surveyed with a mailed questionnaire. This will include people living in the counties where the Catawba-Wateree Project is located, including members of the Catawba Indian tribe.

Recreation providers; agency representatives and planners; and representatives of other stakeholders will be surveyed with a mailed questionnaire. Recreation providers include commercial recreation facility managers and public park managers. Agency representatives and planners include individuals from federal, state, and local resource and planning agencies. Representatives of other stakeholder groups include representatives for the Catawba Indian tribe, canoe/paddling groups or clubs, hunting groups or clubs, fishing groups or clubs, water ski

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groups or clubs, the Catawba Riverkeeper Foundation, Ducks Unlimited, Trout Unlimited, and conservancy groups.

Sub-task 1.1: Existing Use Information

The consultant will work with the study team to gather existing reports and data sources. The consultant will review these reports and data sources for information on existing recreational uses, facilities, opportunities, and needs. The consultant will include relevant information from this review in its analysis of the Catawba-Wateree Project. These sources include but are not limited to the following items:

Shoreline Management Plan for the Catawba-Wateree Hydro Project (2001 Update), Appendix B - Recreation Use and Needs Study

North Carolina State Outdoor Recreation Plan, (2003)

North Carolina State Park Plans (NCDPR)

South Carolina State Outdoor Recreation Plan (2002)

South Carolina Recreation Participation and Preference Study (SCPRT, 1999)

The Vision for the 21st Century – SC State Park Service (SCPRT, 2003)

Existing plans for adjacent local, regional, and national parks, trails, greenways, open space, forests, refuges, etc.

2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (U.S. Fish & Wildlife Service and U.S. Census Bureau)

Guidelines for Understanding and Determining Optimum Recreation Carrying Capacity (Bureau of Outdoor Recreation, 1997)

Management of Aquatic Recreation Resources (Warren and Rea, 1989)

Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends (Cordell, et al, 1999)

Emerging Markets for Outdoor Recreation in the United States: Based on the National Survey on Recreation and the Environment (Cordell, et al, 1999)

“Expanding the Experience, Trails for South Carolina, the 2002 South Carolina State Trails Plan (SCPRT & PCF 2002).

Duke Power and State Creel Survey Data

Sub-task 1.2: Existing Public Access Sites

The consultant will gather recreation information from existing public recreation sites with traffic counters, spot counts, and visitor interviews. The consultant will use these methods to collect recreation use data and information about the existing visitors to the Catawba-Wateree for a complete calendar year (March 2004 – February 2005). The consultant will identify sites where the managing entity collects use information to reduce duplication of effort. The criteria for choosing recreation sites for the study are to include all Duke Power Access Areas, and other State and local public recreation sites within the study area.

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The consultant will install traffic counters at sites that are conducive to this form of data collection. The consultant uses highly sophisticated counters that electronically record traffic 24 hours per day and can store data for up to four weeks. Traffic counters are conducive at sites where there is a clearly designated entrance and exit to the recreation site. The consultant will assess all of the Catawba-Wateree Project recreation sites to determine which sites are best for traffic counters. The consultant will use spot counts at the sites that are not suited for traffic counters. It is possible that certain recreation sites could be used as surrogates for other sites. The consultant will work with Duke and the study team to determine if the use of such surrogates is appropriate and which areas are most suited to this approach.

The consultant will conduct spot counts at recreation sites where they are collecting traffic counter data and at public sites where traffic counters are not effective. The consultant will not conduct spot counts at sites where they will rely on data from secondary sources such as commercial marinas. For example, the consultant will interview marina owners and ask them to record use or estimate use at their facility. The consultant staff will count and record the number of vehicles, boat trailers, jet-ski trailers, campers, anglers, swimmers, picnickers, and other recreation users. The consultant will utilize the Palm Pilot™ technology described below to enter spot count information into a standard form.

The consultant will conduct a visitor survey to collect data on people's use of recreation sites that are adjacent to and/or provide access to the Catawba-Wateree Project, their attitudes concerning recreation needs and opportunities, safety-related issues and respondent's demographic information. The consultant will ask the visitors about items such as satisfaction, spending, and conflicts with other visitors. The consultant will use the questionnaire as an exit interview to accurately capture the visitors' perceptions of their experience. Interviews will be conducted at formal and informal public recreation areas at each of the project reservoirs, tailraces, and riverine areas. The consultant will schedule visits to recreation sites based on a stratified random sample that will include all seasons and times of day, including night use. This stratified random sampling scheme will enable the consultant to gain representative responses from the visitors, while ensuring interview coverage during key times (i.e. weekend days). The consultant will work with the study team to ensure the highest quality recreation survey that will not be biased or overly burdensome for respondents. The consultant's data collection efforts will vary according to season with the greatest effort occurring during the peak summer use time of Memorial Day weekend through Labor Day.

The consultant will conduct the surveys using Palm Pilot™ technology. The Palm Pilots™ will be programmed with the questionnaire form, which will aid in the collection of data and allow for a high number of responses per day. The Palm Pilot™ survey application system uses Palm OS Operating System and Techneos Data entry software. To develop the questionnaire, the consultant will create a master list of all questions that will be collected in the field, including any logic decisions that must be made. One advantage of the Palm Pilots is the ability to pre-program the survey form to ensure that appropriate questions are asked. For example, questions specific to boating will only be prompted for those individuals that have participated in some form of boating.

The consultant will collect the data on the Palm Pilot™ in the field using the custom-developed form application. The form allows the use of pen-based character recognition and virtual keyboard entry for text, memo, combo box, radio box, check box, and date/time stamp form elements for quick and easy entry. Once the data specified on the screen have been entered, the data collector taps a button to go to the next screen. The data are automatically saved, and when complete, the data collector inserts a new record and collects a new set of data.

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The consultant will download the data daily to a secure Master Database. Using a high-speed Universal Serial Bus (USB) connection, this process will only take seconds to download. Once all of the new records have been transferred, they will be removed from the Palm Pilot™ for the next collection cycle.

The consultant's data input time is reduced to near zero because the responses are easily downloaded for analysis. With the use of electronic traffic counter and Palm Pilot™ technology, the consultant is able to drastically reduce error and labor hours.

Sub-Task 1.3: Shoreline Resident Use

The consultant will use a mailed questionnaire to survey shoreline residents and residents that have access via a common dock about their uses and needs of the Catawba-Wateree Project area. The consultant will conduct the survey of shoreline residents during the late summer and early fall of 2004. The survey will be used to collect information about desired facility improvements, new recreational opportunities, and overall recreational activities in the area. The consultant's mailed questionnaire methods have been very effective in the past, with response rates ranging from 50 to 70 percent. Based upon the number of adjacent lots and prevalence of shoreline improvements, the consultant proposes utilizing a database of shoreline permit holders for the Shoreline Resident questionnaire, from Duke Power's shoreline permitting database. The greatest advantage of this database is the ease of sampling. The second option for a mailing list would be to develop a system to randomly select shoreline residents from each adjacent county's tax information. To ensure statistical accuracy, the consultant estimates that the survey will include approximately 2,000 residents stratified by reservoir. The actual number of surveys will be determined through an analysis of the approximate number of residents along the shoreline of each reservoir.

In addition to individuals that own land along the shoreline of the Project, back lot and condominium owners contribute a significant amount of recreation to the Catawba-Wateree Project. The consultant will develop a system to randomly select shoreline residents from county tax information. To ensure statistical accuracy, the consultant estimates that the survey will include approximately 1,000 of these condo/back lot residents stratified by reservoir.

Sub-Task 1.4: Potential Visitors

The consultant will use a mailed questionnaire to survey potential visitors about their potential uses and needs of the Catawba-Wateree Project area. To ensure statistical accuracy, the consultant estimates that a random sample of 2,000 residences in counties where the Catawba-Wateree Project is located will be required. The actual number of surveys mailed to each county will be determined by an analysis of the total population of the surrounding counties. The consultant will stratify the 2,000 potential visitor questionnaires by county, and the number sent to each county will be based on the proportion of the study area population in each county. The consultant will mail each of the 2,000 residences a questionnaire asking about existing and potential (future) recreation visits to the project area. The consultant will develop its database of residences using county tax office information. The consultant will make two mailings to this randomly selected sample, and based on the consultant's past efforts, we anticipate a response rate of 40 to 60 percent.

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Sub-Task 1.5: Recreation Providers, Agencies and Planners, and Stakeholders

The consultant will send separate questionnaires specifically designed for each group. The consultant will send a mailed questionnaire to owners/operators of existing true public marinas and other commercial recreation facilities, managers of public parks, agency representatives and planners, and representatives of other stakeholders. Commercial facilities and public parks provide public access to the Catawba-Wateree Project and the area adjacent to the Project for a large number of individuals. At commercial facilities, the consultant will assess the number of boat slips available, percent usage of the docking facilities during peak and off-peak times, number of boats launched during peak and off-peak times, and amount of fees for public launching. At public parks, the consultant will assess the level of use, facilities available, capacity utilized, and amount of fees.

The consultant will also develop a list of representatives of federal, state, and local resource and planning agencies, and recreation stakeholder groups, including all state relicensing team and advisory group members who have an interest in the Catawba-Wateree area. The consultant will survey a representative from each entity to determine the needs of the group, desires for facility improvements, and constraints to recreation participation in the area.

Sub-Task 1.6: Data Analysis

The consultant will analyze and present the data so the recreation use and needs of the study area can be viewed aggregated and disaggregated for individual locations. The consultant will organize and present the data they collect, as part of this study, such that it is usable by Duke for its analysis and decision-making processes. For example, the consultant will consolidate information about each of the facilities to assess current condition, determine the adequacy of the facility to accommodate current use levels, along with any needs for additional facilities. The consultant will also present use and demand estimates for the various populations including existing visitors, shoreline residents, and potential (future) visitors.

Estimating recreation use at a series of hydro developments such as the Catawba-Wateree Project is similar to assembling a puzzle. The pieces of information are often different shapes and types of data. The study methods focus on collecting as many of the pieces of recreation use data as possible. The pieces of data include traffic counter data, spot counts, visitor interviews, shoreline questionnaires, use estimates from commercial recreation facility managers and park managers. The following is a brief summary of how the consultant will analyze each type of data.

Traffic counter data – The data from the traffic counters are a record of the vehicles that enter and exit a site. In order to estimate the number of people who use a site during the study year, the consultant will divide the total counts for the year for a site by two in order to account for vehicles entering and exiting the site. The consultant will then multiply this count for the year by the average party size based on the data they collect using the visitor interviews.

Spot counts – The consultant will calculate the average number of vehicles by type at each site where they record spot counts. An excellent way to specify the precision of the averages is to construct a confidence interval. For example, if the number of spot counts for a site is 10 including: 4, 4, 5, 5, 5, 6, 6, 7, 8, 9 then the average would be 5.9 and the 95% confidence interval would range from 4.71 to 7.09. The wider the interval, the more confident you are that it contains the parameter. The 99% confidence interval is therefore wider than the 95% confidence interval and extends from 4.19 to 7.61.

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Visitor interviews – The consultant will calculate the averages for the responses to the visitor interview questions. As described above, the consultant will use the average party size to estimate the number of people using a site. The consultant will calculate a 95% confidence interval for each question they can calculate an average.

Shoreline questionnaires – The consultant will calculate the averages for the responses to the shoreline questionnaire. They will use the averages for annual recreational use in the study area to calculate the amount of annual use by shoreline residents. They will calculate a 95% confidence interval for each question they can calculate an average.

Use estimates from commercial recreation facility managers and park managers – The consultant will attempt to get annual recreational use estimates from all facility and park managers. If they are not able to get data from every facility or park, they will calculate average use by type of facility or park and extrapolate for the facilities and parks where use estimates are not available.

Task 2: Estimate Future Recreational Demand

The consultant will estimate future recreation demand at the Catawba-Wateree Project by assessing future demand for recreation activities and population trends. The consultant will develop growth factors for population and recreation use. Population growth factors will be based on county population increase estimates from the States of North and South Carolina. The consultant will use an average population growth rate for the counties where the Catawba-Wateree Project is located. The recreation use projections for the years 2005 through 2045 are will be from “Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends” by Cordell (1999). The consultant will multiply the population growth percentage and recreation use growth percentage by the estimated existing recreation use at the Catawba-Wateree Project. The table below shows the format for this analysis.

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Projected Recreation Demand at the Catawba-Wateree Hydroelectric Project

Recreation Activity	Existing Recreational Use	Recreation Trend Changes 2005-2015	Estimated Pop Change 2005-2015	Estimated Recreational Use 2015	Recreation Trend Changes 2015-2025	Estimated Pop Change 2015-2025	Estimated Recreational Use 2025	Recreation Trend Changes 2025-2035	Estimated Pop Change 2025-2035	Estimated Recreational Use 2035	Estimated Recreation Trend Change 2035 – 2045	Estimated Pop Change 2035 - 2045	Estimated Recreational Use 2045
List of recreation activities to be determined in consultation with the study team.													
Total													
Source for population changes for 2005-2045 from North and South Carolina Office of State Planning													
Source for recreational use changes for 2005-2045 from Bower et al., "Projections of Outdoor Recreation Participation to 2050" Outdoor Recreation in American Life (Cordell, 1999)													

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Task 3: Estimate Present and Future Capacity

The consultant will focus the boating carrying capacity assessment on areas that are considered to be potentially greater than 50% capacity based upon the 1999 Recreation Study and areas worthy of study based upon the professional judgment of the study team. These lakes include James, Hickory, Norman, Mountain Island, Wylie, and Wateree. The consultant will focus on the peak use period for the Catawba-Wateree Project: Memorial Day through Labor Day. The consultant will collect data on randomly selected weekdays, weekend days, and holidays between May 29, 2004 and September 6, 2004, from the hours of 10:00 a.m. and 6:00 p.m.

The consultant will analyze the physical aspect of boating carrying capacity by obtaining aerial photographs of the project area. The consultant will use a local aerial photographer with intimate knowledge of the area to take photographs on 10 randomly chosen days between Memorial Day and Labor Day. The consultant will use a stratified random sampling approach choosing 4 weekdays and 6 weekend days or holidays. The photographer will take pictures of all of the areas chosen for study. To ensure uniform data entry and the ability to compare boating use on the variety of days, the consultant will divide each lake into a number of individual cells. Using the photographs, the consultant will count the number of boats within each cell and then transfer this information into a Geographic Information System (GIS) layer for analysis. The consultant will analyze the data at the level of the individual cell, and then aggregate the data and analyze it for larger sections of each lake.

The consultant will measure the social aspect of boating carrying capacity with specific questions from the on-site interviews and mail surveys outlined in Task 1. The consultant will utilize the on-site, exit interviews conducted at public recreation sites and the mail survey of landowners along the shoreline of the Project to assess people's perception of crowding and safety.

The consultant will also assess the effects of water level fluctuations on boating carrying capacity and boating safety. The consultant will assess the available acres of water surface and the location of navigational hazards under the conditions Duke captures with its GIS mapping for different water levels.

Task 4: Determine Present and Future Public Recreation Facility Requirements

To determine present and future facility requirements, the consultant will first collect information about the recreation resources within the study area. The consultant will compare this information about existing facilities with data collected regarding existing public use and estimates of future use. In addition, the consultant will review any recreational needs identified by respondents to the surveys utilized in Task 1 and state, regional, and local plans. The consultant will also provide a regional recreation characterization to update and compare with the information contained in the 1999 recreation use study.

The consultant will discuss the potential for developing triggering mechanisms for additional recreation opportunities with the study team. The consultant will present the advantages and disadvantages of specific options for triggering mechanisms, which will allow the study team to provide input in developing specific triggering mechanisms.

Sub-Task 4.1: Recreation Facility Inventory

The consultant will develop a tailored inventory form for use at the recreation facilities in the study area. Information contained in the form will include type of facilities, services offered, parking available, etc. This inventory will also include an assessment of the facilities with regard to ADA requirements, GPS location of the facility, and representative photos of each facility. The consultant will complete the following for the study area:

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- Identify and characterize all recreation sites,
- Identify amenities at developed sites and uses at undeveloped sites,
- Identify sites/facilities for people with disabilities,
- Determine adequacy and condition of existing recreation facilities,
- Identify dedicated open space and game lands.
- Identify Wild and Scenic Rivers and formal or recommended Wilderness areas,
- Identify Land and Water Conservation and other federally funded properties, and
- Identify safety features designed to protect the recreating public.

The consultant will also develop detailed map layers that meet all of Duke's GIS base map standards.

Sub-task 4.2: Recreation Needs Assessment

The consultant will review the recreation facility information, recreation use data, recreation visitor comments, and potential user comments to assess any existing recreation needs at the Catawba-Wateree Project. The consultant will meet with Duke and the study team to discuss any recreation management, access, or development improvement recommendations for the Catawba-Wateree Project area.

The consultant will assess the available capacity of recreation sites, boating capacity determinations, and future recreation use estimates to develop recommendations for any necessary mitigation and enhancement measures regarding recreation. The consultant will review existing recreation sites to determine if future demand can be met through enhancement of existing sites, the addition (and location) of new recreation sites, or changes in recreation policy at the Catawba-Wateree Project.

Task 5: Access Area Improvement Initiative Assessment

The consultant will review the locations and conditions of sites that Duke has identified as priority sites for the AAIL. They will also work with the study team and potential partners for the AAIL to identify enhancements to the initiative, as well as possible modifications that may make the initiative more attractive.

The study team, along with other entities, will be able to provide valuable insight into the AAIL. To gain feedback from these individuals, the consultant will conduct a focus group regarding the AAIL. The consultant will work with Duke to determine the make up of the focus group. The consultant will then develop two half-day sessions to identify options, including pros and cons, regarding additional opportunities to utilize the AAIL, ways to restructure or enhance the AAIL to make it more enticing to additional groups, and additional groups that may be able to utilize the AAIL if it were open to them.

Task 6: Economic Value of Recreation Assessment

The Catawba-Wateree Project plays a significant role in the regional economics of North and South Carolina. Individuals use the Catawba-Wateree Project for recreation and access the lake from private docks, public boat launches, and marinas and utilize adjacent recreational lands, tailrace areas and riverine sections. These people make expenditures on food and beverages, lodging, entrance fees, boat rental and supplies, bait and tackle, gasoline, and other expenditures related to their activities.

The consultant will assess the socioeconomic effects of recreation associated with the Catawba-Wateree Project on the local economies of North and South Carolina. The consultant will utilize the recreation use estimates combined with expenditure information, each of which will be developed as a part of Task 1. The consultant will use the IMPLAN model (MIG, 1999) to develop multipliers to estimate the economic

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effects of recreation expenditures in the study area. The IMPLAN model utilizes specific multipliers for each of the counties in the study area to assess total economic effects. The consultant will assess the value of the income, jobs, and taxes attracted to the region due to the Project-related recreation.

Task 7: Quarterly Reports and Meetings

The consultant will prepare quarterly reports for presentation to the study team, resource committee, and stakeholder groups. The reports will consist of a summary of the consultant's data collection efforts, data received to date, and preliminary analysis. The current schedule for quarterly study team and resource committee meetings is:

- May 10, 2004,
- August 11, 2004,
- November 8, 2004, and
- February 8, 2005

Task 8: Draft Recreation Resources Report

The consultant will prepare a draft study report that will incorporate the results of Tasks 1 – 7. The consultant will meet with the study team to review the results of the study and make the report available for comment by the study team. The consultant will prepare a pre-draft report for Duke Power internal review one month prior to the study team review.

Task 9: Final Recreation Resources Report

The consultant will prepare a final study report that will incorporate the comments of the study team as appropriate. The consultant will also prepare an appendix that will provide a summary of comments received on the draft report and responses to the comments as appropriate.

VI. Schedules and Required Conditions

Data collection for the study will be conducted during a full calendar year in order to capture annualized recreation use and needs data. Study data will be available in quarterly interim reports beginning in May 2004 and the draft study report will be available for review by the study team and resource committee by the end of March 2005. The final study report will be available by the end of April 2005.

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Recreation Use and Needs Study Schedule

Schedule Task	Responsibility	Deliverable	Start Date	Duration	End Date
1.0	Study Team	Define Scope	09/29/03	3 month	12/26/03
2.0	Study Team	Develop Methodology and Questionnaires	12/26/03	2 months	02/29/04
3.0	Consultant	Conduct Study	03/01/04	12 months	02/28/05
3.1	Consultant	Present Recreation Use and Experience Levels			
3.2	Consultant	Estimate Future Recreation Demand			
3.3	Consultant	Estimate Present and Future Capacity			
3.4	Consultant	Determine Present and Future Facility Requirements			
3.5	Consultant	Assess AAI Opportunities			
3.6	Consultant	Assess Economic Value			
3.7	Consultant	Quarterly Reports and Meetings			
4.0	Consultant	Prepare Draft Report	02/28/05	3 weeks	03/18/05
5.0		Review Draft Report	03/21/05	3 weeks	04/08/05
5.1	Study Team	Review and recommend revisions	03/21/05	3 weeks	04/08/05
5.2	Resource Committee	Review and recommend revisions	03/21/05	3 weeks	04/08/05
6.0	Consultant	Finalize Study Report	04/11/05	3weeks	04/29/05

VII. Use of Study Results

The consultant will analyze the recreation data and information it collects, and will develop:

- A study area recreation facility inventory,
- Visitor profile information including results of interviews and mailings,
- Data tables including information gathered via spot counts and traffic counters,
- Annual total recreation use estimates for the project, with breakdowns for each reservoir, tailrace, and riverine segment,
- Detailed results on recreation demand, and
- A site-specific and study area recreation needs assessment.

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These results will characterize the types and amounts of existing and estimated future recreation use within the study area, and the ability of the Project to accommodate future increases in use. They will provide information on the quantity and quality of existing and proposed recreation facilities available at and adjacent to the Project and their ability to support existing and estimated future demand. The results will provide a prioritization of the types of, and locations for, additional facilities that may be needed, and identify enhancements to the Access Area Improvement Initiative to assist in developing successful partnerships with State and local government, non-government organizations, and the private sector.

VIII. Study Team Participants

	<u>Organization</u>	<u>Name</u>	<u>Phone #</u>	<u>E-Mail</u>
Duke Power Lead	Duke Power	Bill Ambrose	704-382-8587	wsambrose@duke-energy.com
Agencies	NCWRC	Chris Goudreau	828-652-4360	Goudrecj@wnclink.com
	NC PRT/DEHNR	Dwayne Stutzman	828-251-6208	dwayne.stutzman@ncmail.net
	SCPRT	Tony Bebber	803-734-0168	tbebber@scprt.com
	SCDNR	Barry Beasley	803-734-9095	Beasley@water.dnr.state.sc.us
	SCDNR	Dick Christie	803-289-7022	dchristie@infoave.net
Supporting Consultants	Duke Power	Bunny Johns	828-488-8539	bunnyjohns@yahoo.com
	TBD			
Other Participants	Burke County	Judy Francis	828-439-4362	jmfrancis@hci.net
	Harbortown Marina	John Maxwell	704-347-4224	maxdevco@earthlink.net
	The Masters Construction Co.	Bill McGinn	803-547-2306	themasters@comporium.net
	NC Marine Trade Services	Mike Bradley	252-728-2144	MBradley@sbt dc.org
	Carolina Canoe Club	Maurice Blackburn	704-394-8780	mblackburn1@carolina.rr.com

IX. List of Attachments

If needed

Catawba-Wateree Hydro Project (FERC No. 2232)

X. List of References

If needed

APPENDIX C

CATAWBA-WATEREE RELICENSING RECREATION USE AND NEEDS STUDY

STUDY TEAM AND RESOURCE COMMITTEE MEMBERS

Appendix C

Study Team members:

Ron Ahle	South Carolina Department of Natural Resources
Bill Ambrose	Duke Power
Barry Beasley	South Carolina Department of Natural Resources
Tony Bebber	South Carolina Department of Parks, Recreation and Tourism
Maurice Blackburn	Carolina Canoe Club
Mark Bradley	North Carolina Marine Trade Services
Dick Christie	South Carolina Department of Natural Resources
Judy Francis	Burke County Planning Department
Chris Goudreau	North Carolina Wildlife Resources Commission
Gerrit Jobsis	South Carolina Coastal Conservation League, American Rivers, Catawba-Wateree Relicensing Coalition
Bunny Johns	Consultant
Jeff Lineberger	Duke Power
John Maxwell	Harbortowne Marina
Sue McCauley	Lake Wylie Cove Keeper
Bill McGinn	The Masters Construction Company
Mark Oakley	Duke Power
Steve Reed	North Carolina Division of Water Resources
Dwayne Stutzman	North Carolina Division of Parks and Recreation
Kristi Suggs	York County

Resource Committee members:

Bill Ambrose	Duke Power
Hugh Barwick	Duke Power
Barry Beasley	South Carolina Department of Natural Resources
Tony Bebber	South Carolina Department of Parks, Recreation and Tourism
Mark Cantrell	United States Fish and Wildlife Service
Dick Christie	South Carolina Department of Natural Resources
Chris Goudreau	North Carolina Wildlife Resources Commission
Joe Hall	Duke Power
Bunny Johns	Consultant
Ron Linville	North Carolina Wildlife Resources Commission
Dwayne Stutzman	North Carolina Division of Parks and Recreation
Vicki Taylor	Catawba-Wateree Relicensing Coalition

APPENDIX D

CATAWBA-WATEREE RELICENSING RECREATION USE AND NEEDS STUDY

INTERVIEW AND SURVEY FORMS

Revised March 5, 2004

[Note: This questionnaire will be loaded onto PDAs which will allow Berger interviewers to use dropdown lists and go-to functions.]

CATAWBA-WATEREE SURVEY FORM A – Recreation Site Questionnaire

Hello, my name is _____ and I am conducting interviews with visitors to the Catawba-Wateree Area* on behalf of Duke Power. This information will be used as part of relicensing Duke's hydroelectric projects and will aid Duke in understanding more about recreation in the area. The questionnaire will take about 10 minutes, and your responses will be kept confidential. Thank you for your time and input.

*(If asked, this area includes the following lakes: James, Rhodhiss, Hickory, Lookout Shoals, Norman, Mountain Island, Wylie, Fishing Creek, Great Falls, Rocky Creek, and Wateree, the riverine sections between these lakes, and adjacent recreational facilities.)

Date: _____

Location: _____

Today's Weather: _____

Time: _____

1. How many times do you visit the Catawba-Wateree Area in one year? _____

2. What season do you recreate the most in the Catawba-Wateree Area?
Winter (Dec.-Feb.) Spring (March-May) Summer (June-Aug.) Fall (Sept.-Nov.)

3. When did you begin recreating in the Catawba-Wateree Area during this visit?
_____ time and date (if different than today) _____

4. How many people are in your party today? _____

5. What recreational activities have you participated in today within the Catawba-Wateree Area?

_____ motor boating	_____ boat fishing	_____ river canoeing
_____ bicycling	_____ pontoon boating	_____ sightseeing
_____ mountain biking	_____ water skiing/tubing	_____ hiking
_____ picnicking	_____ backpacking	_____ walking
_____ bank/pier fishing	_____ nature study/wildlife viewing	_____ running
_____ swimming	_____ tent or vehicle camping	_____ rollerblading
_____ lake canoeing	_____ river rafting	_____ hunting
_____ jet skiing	_____ knee boarding	_____ using playgrounds
_____ river kayaking	_____ stream fishing	_____ windsurfing
_____ lake kayaking	_____ sailing	_____ sculling
_____ tailrace fishing		

If other, please specify _____

6. What is the primary recreation activity you participated in today? _____

7. Did you use a boat while recreating today? ____Yes ____No

If yes, what type of boat did you use today?

____ motor boat (20 feet or less) ____ kayak ____ sailboat

____ motor boat (21-40 feet) ____ jet ski ____ canoe

____ motor boat (over 40 feet) ____ other _____(type and number)

8. How would you describe conditions on the lake or river today in regard to the number of boats on the water?

- 1 Not at all crowded
- 2 Slightly crowded
- 3 Moderately crowded
- 4 Very crowded
- 5 Extremely crowded

9. How would you describe conditions at this site today in regard to the number of people?

- 1 Not at all crowded
- 2 Slightly crowded
- 3 Moderately crowded
- 4 Very crowded
- 5 Extremely crowded

10. Please rate your level of satisfaction with the condition of the facilities that you used.

- 1 Very Satisfied
- 2 Satisfied
- 3 Neutral
- 4 Dissatisfied
- 5 Very Dissatisfied

11. If you answered 4 or 5 to Question 10, Why were you dissatisfied?

12. Please rate your level of satisfaction with the number and type of recreational opportunities and facilities in the Catawba-Wateree Area.

- 1 Very Satisfied
- 2 Satisfied
- 3 Neutral
- 4 Dissatisfied
- 5 Very Dissatisfied

13. If you answered 4 or 5 please tell me how your need for recreational opportunities and facilities could be better met.

- 1 Additional public boat ramps
- 2 Additional marinas
- 3 Additional picnic facilities
- 4 Additional restrooms
- 5 Additional lighting
- 6 Additional boat fueling facilities
- 7 Repair or renovation of existing facilities
- 8 Private aids to navigation

- 9 Access by season
- 10 Additional parking
- 11 Additional boat docks
- 12 Additional trails
- 13 Additional overnight camping
- 14 Improved access at low water levels
- 15 Better maintenance
- 16 Other _____

14. At which location are these recreational opportunities and/or facilities needed?

15. Please choose the response that best describes how safe you felt on the water today.

- 1 Very safe
- 2 Safe
- 3 Neither safe nor unsafe
- 4 Unsafe
- 5 Very unsafe
- 6 N/A

16. If you answered 4 or 5 to Question 15, why did you not feel safe?

- 1 Number of boats on the water
- 2 Speed of boats on the water
- 3 Erratic operation of boats on the water
- 4 Number of personal watercraft on the water
- 5 Speed of personal watercraft on the water
- 6 Uncontrolled operation of personal watercraft on the water
- 7 Deadheads/Floating logs
- 8 Abandoned pilings
- 9 Lack of law enforcement presence
- 10 Lack of nighttime navigational aids
- 11 Other _____

17. Please choose the response that best describes how safe you felt at this site today.

- 1 Very safe
- 2 Safe
- 3 Neither safe nor unsafe
- 4 Unsafe
- 5 Very unsafe
- 6 N/A

18. If you answered 4 or 5 to Question 17, why did you not feel safe?

- 1 Not enough lighting
- 2 Lack of telephone
- 3 Illegal activities
- 4 Other _____

19. How would you describe the water level on this lake (or river) as it pertained to your recreational activities today?

- 1 Too low
- 2 Just right
- 3 Too high
- 4 Too slow
- 5 Too fast

20. How would you rate the scenic/aesthetic quality of this area?

- 1 Unattractive
- 2 OK
- 3 Attractive

21. (If Unattractive) What detracts from the scenic/aesthetic quality of this area?

- 1 Litter
- 2 Transmission lines
- 3 Other _____

22. Please estimate the expenditures related to your recreation activity you have made on this trip or will make before you get home on the following items.

Food & Drink	\$ _____
Hotel/Motel/Lodging	\$ _____
Boating Rentals/Supplies	\$ _____
Bait/Tackle	\$ _____
Gasoline (auto/boat)	\$ _____
Other	\$ _____
<hr/> Total	<hr/> \$ _____

What percent of these expenditures were made within 30 miles of your destination? _____%

23. What is your zip code for your primary residence? _____

24. What is your gender?

- 1 Male
- 2 Female

25. What is your age? _____

26. Interviewee's race _____

- _____ White
- _____ Black
- _____ Asian
- _____ Hispanic
- _____ Native American
- _____ Other _____

Thank you for your assistance!

CATAWBA-WATEREE – SHORELINE RESIDENTS QUESTIONNAIRE

As part of Duke Power’s effort to ensure quality recreation opportunities in the Catawba-Wateree Area and as part of the relicensing process, the following questionnaire will help assess how people currently use and enjoy the Catawba-Wateree Area, and what recreation opportunities or facilities are needed in the future. **The “Catawba-Wateree Area” referred to in this questionnaire includes the following lakes: James, Rhodhiss, Hickory, Lookout Shoals, Norman, Mountain Island, Wylie, Fishing Creek, Great Falls, Rocky Creek, and Wateree, and the riverine sections downstream of Lakes James, Rhodhiss, Hickory, Wylie, and Wateree to the confluence with the Congaree River; and adjacent public recreation facilities.** Please complete the survey and return it in the enclosed self-addressed envelope. All of your responses will be kept confidential. Thank you for your time and input.

1. Which of the following recreation activities did you and others in or visiting your residence participate in during the past year (Memorial Day 2003 through Memorial Day 2004) in the Catawba-Wateree Area (please mark with an “X”).

- | | | |
|--|---|--|
| <input type="checkbox"/> Boating – Motor | <input type="checkbox"/> Sunbathing | <input type="checkbox"/> Using Playgrounds |
| <input type="checkbox"/> Boating – Pontoon | <input type="checkbox"/> Fishing – Boat | <input type="checkbox"/> Camping – Vehicle |
| <input type="checkbox"/> Jetskiing | <input type="checkbox"/> Fishing – Bank/Pier | <input type="checkbox"/> Camping – Tent |
| <input type="checkbox"/> Canoeing/Kayaking – Lake | <input type="checkbox"/> Fishing – Tailrace | <input type="checkbox"/> Walking |
| <input type="checkbox"/> Canoeing/Kayaking – River | <input type="checkbox"/> Fishing – Wade | <input type="checkbox"/> Running |
| <input type="checkbox"/> Rafting – River | <input type="checkbox"/> Hunting – Waterfowl | <input type="checkbox"/> Hiking/Backpacking |
| <input type="checkbox"/> Sailing | <input type="checkbox"/> Hunting – Small Game | <input type="checkbox"/> Bicycling |
| <input type="checkbox"/> Windsurfing | <input type="checkbox"/> Hunting – Big Game | <input type="checkbox"/> Mountain Biking |
| <input type="checkbox"/> Sculling | <input type="checkbox"/> Nature Study | <input type="checkbox"/> Rollerblading |
| <input type="checkbox"/> Waterskiing/Tubing | <input type="checkbox"/> Wildlife Viewing | <input type="checkbox"/> Off Road Vehicle Riding |
| <input type="checkbox"/> Kneeboarding | <input type="checkbox"/> Sightseeing | <input type="checkbox"/> Horse Riding |
| <input type="checkbox"/> Swimming | <input type="checkbox"/> Picnicking | <input type="checkbox"/> Historic/Cultural Sites |

If you and others in or visiting your residence participated in other recreation activities, please specify which ones _____

2. During the past year (Memorial Day 2003 through Memorial Day 2004), what is the total number of days you and others in or visiting your residence participated in recreation activities in the Catawba-Wateree Area? Number of days: _____
3. What was the average number of people in the group that participated in recreation activities with you and others in or visiting your residence in the Catawba-Wateree Area during the past year? Average group size: _____
4. What season do you and others in or visiting your residence participate in recreation activities the most in the Catawba-Wateree Area? (circle one)
- Winter (Dec.-Feb.) Spring (March-May) Summer (June-Aug.) Fall (Sept.-Nov.)
5. Have you or others in or visiting your residence participated in recreation activities on any islands in the Catawba-Wateree Area during the past year? Yes () No ()

If yes, what island activities did you and others in or visiting your residence participate in and where?

Activity(ies) _____
Lake(s)/River Section(s) _____
Name of Island(s) _____

6. Have you and others in or visiting your residence participated in recreation activities **at night** in the Catawba-Wateree Area during the past year? Yes () No ()

If yes, please estimate how many nights, and what activities you participated in and where?

of nights _____
Activity(ies) _____
Lake(s)/River Section(s): _____

7. At what location in the Catawba-Wateree Area do you primarily participate in recreation activities?

Weekend: Lake(s)/River Section(s) _____ Site/Area _____
Weekday(s): Lake(s)/River Section(s) _____ Site/Area _____

8. During the peak recreation season (May – September) how would you describe the conditions in regard to the number of people in the Catawba-Wateree Area where you primarily participate in recreation activities? (please circle)

Weekend:	1. Not at all crowded	Weekday:	1. Not at all crowded
	2. Slightly crowded		2. Slightly crowded
	3. Moderately crowded		3. Moderately crowded
	4. Very crowded		4. Very crowded
	5. Extremely crowded		5. Extremely crowded

If you answered 4 or 5 on question 8, please indicate what contributed to your feeling crowded.

9. During the peak recreation season (May – September) how would you describe the conditions on the water in regard to the number of watercraft in the Catawba-Wateree Area where you primarily participate in recreation activities? (please circle)

Weekend:	1. Not at all crowded	Weekday:	1. Not at all crowded
	2. Slightly crowded		2. Slightly crowded
	3. Moderately crowded		3. Moderately crowded
	4. Very crowded		4. Very crowded
	5. Extremely crowded		5. Extremely crowded

If you answered 4 or 5 on question 9, please indicate what contributed to your feeling crowded.

10. Have you and others in or visiting your residence had any experiences while participating in recreation activities in the Catawba-Wateree Area during the past year where you felt your health or safety was jeopardized? Yes () No ()

If yes, what happened, when, and where (which lake and what area of the lake) did it happen?

What: _____
When: _____
Lake(s)/River Section(s): _____ Site/Area: _____

11. Please rate your level of satisfaction with the **condition of the recreation facilities** in the Catawba-Wateree Area that you and others in or visiting your residence used over the past year. (please circle)

1. Very Satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very Dissatisfied

12. If you answered 4 or 5 to question 11, why were you dissatisfied?

13. Please rate your level of satisfaction with the **number and type of recreation opportunities and facilities** in the Catawba-Wateree Area. (please circle)

1. Very Satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very Dissatisfied

14. If you answered 4 or 5 to question 13, what type of recreation opportunities or facilities do you think are needed and at what specific location (s)?

Type: _____

Location: _____

Type: _____

Location: _____

Type: _____

Location: _____

15. How would you rate the scenic/aesthetic quality of the area where you primarily participate in recreation activities (question 7) in the Catawba-Wateree Area? (please circle)

1. Unattractive 2. Okay 3. Attractive

16. What, if anything, detracts from the scenic/aesthetic quality of this area?

17. Please estimate how much money you spent **daily** on recreation in the Catawba-Wateree Area during the past year?

Hotel/Motel/Lodging	\$ _____	Food & Drink	\$ _____
Boating Rentals/Supplies	\$ _____	Bait/Tackle	\$ _____
Gasoline (auto/boat)	\$ _____	Other	\$ _____

Total \$ _____

What percent of these expenditures are typically made within 30 miles of your lake residence?
_____ %

18. Is your residence in the Catawba-Wateree Area your (please circle)

- a. Primary residence b. Seasonal residence c. Weekend residence

19. Approximately how many days per year do you spend at your residence in the Catawba-Wateree Area? Number of days _____

20. Do you own a watercraft? Yes () No ()

If yes, how many watercraft of each type do you own and keep at your waterfront home in the Catawba-Wateree area?

___ Motor Boat (20 feet or less)	___ Motor Boat (21-40 feet)	___ Motor Boat (over 40 feet)
___ Canoe	___ Kayak	___ Pontoon Boat
___ Jet Ski	___ Sailboat	___ Other

For other, please specify type and number: _____

21. Did you have a waterfront home in the Catawba-Wateree Area in 1999? Yes () No ()

If yes, how many watercraft of each type did you own and keep at your waterfront home in the Catawba-Wateree Area in 1999?

___ Motor Boat (20 feet or less)	___ Motor Boat (21-40 feet)	___ Motor Boat (over 40 feet)
___ Canoe	___ Kayak	___ Pontoon Boat
___ Jet Ski	___ Sailboat	___ Other

For other, please specify type and number: _____

22. If you do not participate in water-related recreation activities in the Catawba-Wateree area, at what locations do you participate in these activities? _____

23. Do you have any additional comments? _____

- 24.
- | | | |
|---|---|--|
| Age: <input type="checkbox"/> 15 – 19 years | Race: <input type="checkbox"/> White | Income: <input type="checkbox"/> Less than \$5,000 |
| <input type="checkbox"/> 20 – 24 years | <input type="checkbox"/> African American | <input type="checkbox"/> \$5,000 - \$9,999 |
| <input type="checkbox"/> 25 – 34 years | <input type="checkbox"/> Hispanic or Latino | <input type="checkbox"/> \$10,000 - \$19,999 |
| <input type="checkbox"/> 35 – 44 years | <input type="checkbox"/> Asian | <input type="checkbox"/> \$20,000 - \$29,999 |
| <input type="checkbox"/> 45 – 54 years | <input type="checkbox"/> American Indian
and Alaska Native | <input type="checkbox"/> \$30,000 - \$49,999 |
| <input type="checkbox"/> 55 – 59 years | <input type="checkbox"/> Native Hawaiian
and Pacific Islanders | <input type="checkbox"/> \$50,000 - \$74,999 |
| <input type="checkbox"/> 60 – 64 years | <input type="checkbox"/> Other | <input type="checkbox"/> \$75,000 - \$99,999 |
| <input type="checkbox"/> 65 – 74 years | | <input type="checkbox"/> \$100,000 and over |
| <input type="checkbox"/> 75 – 84 years | | |
| <input type="checkbox"/> 85 years and over | | |

Thank you for your time!

CATAWBA-WATEREE – REGIONAL RECREATION QUESTIONNAIRE

As part of Duke Power’s effort to ensure quality recreation opportunities in the Catawba-Wateree Area and as part of the relicensing process, the following questionnaire will help assess how people currently use and enjoy the Catawba-Wateree Area, and what recreation opportunities or facilities are needed in the future. **The “Catawba-Wateree Area” referred to in this questionnaire includes the following lakes: James, Rhodhiss, Hickory, Lookout Shoals, Norman, Mountain Island, Wylie, Fishing Creek, Great Falls, Rocky Creek, and Wateree, and the riverine sections downstream of Lakes James, Rhodhiss, Hickory, Wylie, and Wateree to the confluence with the Congaree River; and adjacent public recreation facilities.** Please complete the following survey and return it in the enclosed self-addressed envelope. All of your responses will be kept confidential. Thank you for your time and input.

1. During the past year (Memorial Day 2003 through Memorial Day 2004) did you and others in or visiting your residence participate in recreation activities in the Catawba-Wateree Area?

Yes () No () **If Yes, skip to Question 3**

2. Why did you and others in or visiting your residence **not** participate in recreation activities in the Catawba-Wateree Area? **[Please answer and then skip to Question 18]**
-

3. Which of the following recreation activities did you and others in or visiting your residence participate in during the past year (Memorial Day 2003 through Memorial Day 2004) **in the Catawba-Wateree Area** (please mark with an “X”).

- | | | |
|--|---|--|
| <input type="checkbox"/> Boating – Motor | <input type="checkbox"/> Sunbathing | <input type="checkbox"/> Using Playgrounds |
| <input type="checkbox"/> Boating – Pontoon | <input type="checkbox"/> Fishing – Boat | <input type="checkbox"/> Camping – Vehicle |
| <input type="checkbox"/> Jetskiing | <input type="checkbox"/> Fishing – Bank/Pier | <input type="checkbox"/> Camping – Tent |
| <input type="checkbox"/> Canoeing/Kayaking – Lake | <input type="checkbox"/> Fishing – Tailrace | <input type="checkbox"/> Walking |
| <input type="checkbox"/> Canoeing/Kayaking – River | <input type="checkbox"/> Fishing – Wade | <input type="checkbox"/> Running |
| <input type="checkbox"/> Rafting – River | <input type="checkbox"/> Hunting – Waterfowl | <input type="checkbox"/> Hiking/Backpacking |
| <input type="checkbox"/> Sailing | <input type="checkbox"/> Hunting – Small Game | <input type="checkbox"/> Bicycling |
| <input type="checkbox"/> Windsurfing | <input type="checkbox"/> Hunting – Big Game | <input type="checkbox"/> Mountain Biking |
| <input type="checkbox"/> Sculling | <input type="checkbox"/> Nature Study | <input type="checkbox"/> Rollerblading |
| <input type="checkbox"/> Waterskiing/Tubing | <input type="checkbox"/> Wildlife Viewing | <input type="checkbox"/> Off Road Vehicle Riding |
| <input type="checkbox"/> Kneeboarding | <input type="checkbox"/> Sightseeing | <input type="checkbox"/> Horse Riding |
| <input type="checkbox"/> Swimming | <input type="checkbox"/> Picnicking | <input type="checkbox"/> Historic/Cultural Sites |

If you and others in or visiting your residence participated in other recreation activities, please specify which ones _____

4. During the past year (Memorial Day 2003 through Memorial Day 2004), on how many days did you and others in or visiting your residence participate in recreation activities in the Catawba-Wateree Area? Number of days: _____
5. What was the average number of people in the group that participated in recreation activities with you in the Catawba-Wateree Area during the past year? Average group size: _____

6. What season do you and others in or visiting your residence participate in lake- or river-related recreation activities most, in the Catawba-Wateree Area? (please circle)

Winter (Dec.-Feb.) Spring (March-May) Summer (June-Aug.) Fall (Sept.-Nov.)

7. At what location in the Catawba-Wateree Area do you primarily participate in recreation activities?

Weekend: Lake(s)/River Section(s) _____ Site/Area _____

Weekday(s): Lake(s)/River Section(s) _____ Site/Area _____

8. Have you and others in or visiting your residence participated in recreation activities on any islands in the Catawba-Wateree Area during the past year? Yes () No ()

If yes, what activities did you and others in or visiting your residence participate in and on which island(s)?

Activity(ies) _____

Lake(s)/River Section(s) _____ Name of Island(s) _____

9. Have you and others in or visiting your residence participated in recreation activities **at night** in the Catawba-Wateree Area during the past year? Yes () No ()

If yes, please estimate how many nights, what activities you participated in, and where?

Number of nights _____ Activity(ies) _____

Lake(s)/River Section(s) _____

10. Please rate your level of satisfaction with the **condition of the recreation facilities** in the Catawba-Wateree Area that you and others in or visiting your residence used over the past year. (please circle)

1. Very Satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very Dissatisfied

11. If you answered 4 or 5 to question 10, why were you dissatisfied?

12. Please rate your level of satisfaction with the **number and type of recreation opportunities and facilities** in the Catawba-Wateree Area. (please circle)

1. Very Satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Very Dissatisfied

13. If you answered 4 or 5 to question 12, what type of recreation opportunities or facilities do you think are needed and at what specific location (s)?

Type: _____

Location: _____

Type: _____

Location: _____

Type: _____
Location: _____

14. Have you and others in your party had any experiences while participating in recreation activities in the Catawba-Wateree Area during the past year where you felt your health or safety was jeopardized?
Yes () No ()

If yes, what happened, when, and where (which lake and what area of the lake) did it happen?

What: _____

When: _____

Lake(s)/River Section(s): _____ Site/Area: _____

15. How would you rate the scenic/aesthetic quality of the area where you primarily participate in recreation activities in the Catawba-Wateree Area? (please circle)

1. Unattractive

2. Okay

3. Attractive

16. What, if anything, detracts from the scenic/aesthetic quality of this area?

17. Please estimate how much money you spent **daily** on recreation in the Catawba-Wateree Area during the past year?

Hotel/Motel/Lodging	\$ _____	Food & Drink	\$ _____
Boating Rentals/Supplies	\$ _____	Bait/Tackle	\$ _____
Gasoline (auto/boat)	\$ _____	Other	\$ _____

Total \$ _____

18. Which of the following recreation activities did you and others in or visiting your residence participate in during the past year (Memorial Day 2003 through Memorial Day 2004) **not on the Catawba-Wateree reservoirs and river** (please mark with an "X").

<input type="checkbox"/> Boating – Motor	<input type="checkbox"/> Sunbathing	<input type="checkbox"/> Using Playgrounds
<input type="checkbox"/> Boating – Pontoon	<input type="checkbox"/> Fishing – Boat	<input type="checkbox"/> Camping – Vehicle
<input type="checkbox"/> Jetskiing	<input type="checkbox"/> Fishing – Bank/Pier	<input type="checkbox"/> Camping – Tent
<input type="checkbox"/> Canoeing/Kayaking – Lake	<input type="checkbox"/> Fishing – Tailrace	<input type="checkbox"/> Walking
<input type="checkbox"/> Canoeing/Kayaking – River	<input type="checkbox"/> Fishing – Wade	<input type="checkbox"/> Running
<input type="checkbox"/> Rafting – River	<input type="checkbox"/> Hunting – Waterfowl	<input type="checkbox"/> Hiking/Backpacking
<input type="checkbox"/> Sailing	<input type="checkbox"/> Hunting – Small Game	<input type="checkbox"/> Bicycling
<input type="checkbox"/> Windsurfing	<input type="checkbox"/> Hunting – Big Game	<input type="checkbox"/> Mountain Biking
<input type="checkbox"/> Sculling	<input type="checkbox"/> Nature Study	<input type="checkbox"/> Rollerblading
<input type="checkbox"/> Waterskiing/Tubing	<input type="checkbox"/> Wildlife Viewing	<input type="checkbox"/> Off Road Vehicle Riding
<input type="checkbox"/> Kneeboarding	<input type="checkbox"/> Sightseeing	<input type="checkbox"/> Horse Riding
<input type="checkbox"/> Swimming	<input type="checkbox"/> Picnicking	<input type="checkbox"/> Historic/Cultural Sites

If you and others in or visiting your residence participated in other recreation activities, please specify which one _____

19. Over the past year (Memorial Day 2003 through Memorial Day 2004), how many days did you and others in or visiting your residence participate in lake or river-related recreation activities, anywhere, **not on the Catawba-Wateree reservoirs and river?** Number of days: _____

20. What was the average number of people in the group that participated in recreation activities with you **not on the Catawba-Wateree reservoirs and river** during the past year?
Average group size: _____

21. What season do you and others in or visiting your residence participate in lake- or river-related recreation activities most, **not on the Catawba-Wateree reservoirs and river?** (please circle)

Winter (Dec.-Feb.) Spring (March-May) Summer (June-Aug.) Fall (Sept.-Nov.)

22. Do you own waterfront property in the Catawba-Wateree Area? Yes () No ()

If yes, is this residence your (please circle)

a. Primary residence b. Seasonal residence c. Weekend residence

23. What water bodies other than those in the Catawba-Wateree Area did you and others in or visiting your residence participate in recreation activities on during the past year. Please indicate the state where the water body is located.

a. Water body _____ State _____

b. Water body _____ State _____

c. Water body _____ State _____

d. Water body _____ State _____

24. Do you have any additional comments? _____

25. **Age:** 15 – 19 years **Race:** White **Income:** Less than \$5,000
 20 – 24 years African American \$5,000 - \$9,999
 25 – 34 years Hispanic or Latino \$10,000 - \$19,999
 35 – 44 years Asian \$20,000 - \$29,999
 45 – 54 years American Indian \$30,000 - \$49,999
 55 – 59 years and Alaska Native \$50,000 - \$74,999
 60 – 64 years Native Hawaiian \$75,000 - \$99,999
 65 – 74 years and Pacific Islanders \$100,000 and over
 75 – 84 years Other

Thank you for your time!

CATAWBA-WATEREE – RECREATION FACILITY PROVIDERS QUESTIONNAIRE

As part of Duke Power’s effort to ensure quality recreation opportunities in the Catawba-Wateree Area and as part of the relicensing process, the following questionnaire will help assess how people currently use and enjoy the Catawba-Wateree Area, and what recreation opportunities or facilities are needed in the future. **The “Catawba-Wateree Area” referred to in this questionnaire includes the following lakes: James, Rhodhiss, Hickory, Lookout Shoals, Norman, Mountain Island, Wylie, Fishing Creek, Great Falls, Rocky Creek, and Wateree, and the river sections downstream of Lakes James, Rhodhiss, Hickory, Wylie, and Wateree to the confluence with the Congaree River; and adjacent public recreation facilities.** Please complete the following questionnaire and return it in the enclosed self-addressed envelope. All of your responses will be kept confidential. Thank you for your time and input.

Name of Recreation Facility: _____

Address: _____

Lake: _____ Cove/Area: _____

1. Please complete the following table for your facility.

Type of Facility	Number of Facilities	Please Check One		No. Associated Parking Spaces	Typical Rent/ User Fee
		Public	Private		
Wet boat slips for rent					
Wet boat slips as courtesy					
Boat launching ramps (each lane is considered one ramp)					
Dry storage boat slips					
Other boat storage on land					
Fishing piers					
Bank fishing areas					
Swimming/beach areas					
Picnic tables					
Transient camp sites (stay limited to 14 days)					
Long-term camp sites (stay greater than 14 days)					
Other (please specify)					
		Total parking spaces →			

2. What time of the year are you open and your services available?

_____ to _____
(Day/Month) (Day/Month)

What are your daily operating hours? _____

Do you allow overnight use? Yes () No ()

3. Please check the following services you provide:

- | | |
|---|--|
| <input type="checkbox"/> Groceries | <input type="checkbox"/> Guide Services |
| <input type="checkbox"/> Restaurant Food and Drinks | <input type="checkbox"/> Gas Dock |
| <input type="checkbox"/> Fishing Supply Sales | <input type="checkbox"/> Boat Repair and Maintenance |
| <input type="checkbox"/> Restrooms | <input type="checkbox"/> Marine Pumpout |
| <input type="checkbox"/> Jet Ski Sales | <input type="checkbox"/> Marine Dump Station |
| <input type="checkbox"/> Boat Sales/Rentals | |

Which of these services are available to the general public? _____

4. Full pool of the lakes is 100 feet, but lake levels may vary over the season. Are your facilities functional at all lake levels? Yes () No ()

If not, at what lake levels are your facilities not functional (e.g., docks out of water)?

Facility: _____ Lake Level: _____ feet

Facility: _____ Lake Level: _____ feet

5. Do you track the number of people using your facilities? Yes () No ()

If yes, indicate how many people use your facility on a typical weekend and weekday for each season. If not, please estimate how many people use your facility.

Spring: weekend_____ weekday_____

Summer: weekend_____ weekday_____

Fall: weekend_____ weekday_____

Winter: weekend_____ weekday_____

6. What part of the calendar year would you define as your peak recreation season?

_____ to _____
(Day/Month) (Day/Month)

7. What is your peak month for recreation use? _____

8. How close to capacity were your boat slips during the 2003 recreation season?

_____ % or N/A

9. During what month(s) are your parking areas closest to capacity, and what is the estimated capacity utilized?

Month(s): _____ Capacity Utilized: _____%

10. Are the boating service facilities (e.g., gas, marine pumpouts, repair) at the lake where your facility is located adequate to meet the needs of the public?

Yes () No ()

If no, what types of facilities are needed? _____

Location where facilities are needed: _____

11. How would you rate the crowdedness on the lake where your facility is located during May through September? (please circle)

- Weekend:**
1. Not at all crowded
 2. Slightly crowded
 3. Moderately crowded
 4. Very crowded
 5. Extremely crowded

- Weekday:**
1. Not at all crowded
 2. Slightly crowded
 3. Moderately crowded
 4. Very crowded
 5. Extremely crowded

12. Are the existing recreation policies (e.g., no island camping, no-wake zones) for the lake where your facility is located adequate? Yes () No ()

If no, what policies are needed? _____

13. Are the recreational facilities, activities, and opportunities at the lake where your facility is located adequate? Yes () No ()

If no, what is needed? _____

14. Do you have plans for rebuilding or expanding your current facilities? Yes () No ()

If yes, what are they? _____

15. Any additional comments or recreation-related recommendations?

Thank you very much for your time!

**CATAWBA-WATEREE –
AGENCY AND STAKEHOLDER REPRESENTATIVES QUESTIONNAIRE**

As part of Duke Power’s effort to ensure quality recreation opportunities in the Catawba-Wateree Area and as part of the relicensing process, the following questionnaire will help assess how people currently use and enjoy the Catawba-Wateree Area, and what recreation opportunities or facilities are needed in the future. **The “Catawba-Wateree Area” referred to in this questionnaire includes the following lakes: James, Rhodhiss, Hickory, Lookout Shoals, Norman, Mountain Island, Wylie, Fishing Creek, Great Falls, Rocky Creek, and Wateree; the river sections downstream of Lakes James, Rhodhiss, Hickory, Wylie, and Wateree to the confluence with the Congaree River; and adjacent public recreation facilities.** Please complete the following questionnaire and return it in the enclosed self-addressed envelope. All of your responses will be kept confidential. Thank you for your time and input.

Name of agency or organization: _____

Name of person completing form (please print): _____

Lake(s)/River Section(s) within your jurisdiction or interest area: _____

If representing a non-governmental organization, how many local members do you have?

Number of members: _____

1. What part of the calendar year would you define as the peak recreation season for the Catawba-Wateree Area?

_____ to _____
(Day/Month) (Day/Month)

2. How would you rate crowdedness on **the lakes and downstream river sections and at the recreation sites within your jurisdiction or interest area** during May through September? (please circle)

a. LAKE JAMES

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

b. LAKE RHODHISS

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

c. LAKE HICKORY

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

d. LOOKOUT SHOALS LAKE

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

e. LAKE NORMAN

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

f. MOUNTAIN ISLAND LAKE

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

g. LAKE WYLIE

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

h. FISHING CREEK LAKE

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

i. GREAT FALLS LAKE

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

j. ROCKY CREEK LAKE

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

k. LAKE WATEREE

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

l. RIVER SECTION DOWNSTREAM OF LAKE JAMES

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

m. RIVER SECTION DOWNSTREAM OF LAKE RHODHISS

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

n. RIVER SECTION DOWNSTREAM OF LAKE HICKORY

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

o. RIVER SECTION DOWNSTREAM OF LAKE WYLIE

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

p. RIVER SECTION DOWNSTREAM OF LAKE WATEREE

<u>Number of Watercraft</u>		<u>Number of People at Recreation Sites</u>	
Weekend	Weekday	Weekend	Weekday
1. Not crowded at all	1. Not crowded at all	1. Not crowded at all	1. Not crowded at all
2. Slightly crowded	2. Slightly crowded	2. Slightly crowded	2. Slightly crowded
3. Moderately crowded	3. Moderately crowded	3. Moderately crowded	3. Moderately crowded
4. Very crowded	4. Very crowded	4. Very crowded	4. Very crowded
5. Extremely crowded	5. Extremely crowded	5. Extremely crowded	5. Extremely crowded

3. Are the recreation facilities, activities, and opportunities in the Catawba-Wateree Area adequate to meet the needs of the public? Yes () No ()

If no, what types of facilities are needed?

Type: _____

Lake/River Section _____ Site/Area _____

Type: _____

Lake/River Section _____ Site/Area _____

4. Are the existing recreation policies (e.g., no island camping, no-wake zones) for the Catawba-Wateree Area adequate? Yes () No ()

If no, what policies are needed?

5. Are there any safety issues regarding recreation in the Catawba-Wateree Area?
Yes () No ()

If yes, what is the safety issue(s) and location(s) where the safety issue(s) occurs?

Issue: _____

Lake/River section _____ Site/Area: _____

Issue: _____

Lake/River section _____ Site/Area: _____

6. Does your organization have any special needs that if met would have a significant positive effect on public recreation in the Catawba-Wateree Area?

Yes () No () If yes, please describe these special needs:

7. Any additional comments or recreation-related recommendations?

Thank you very much for your time!

APPENDIX E

CATAWBA-WATEREE RELICENSING RECREATION USE AND NEEDS STUDY

LIST OF PUBLIC ACCESS AREAS AND THE TYPES OF DATA COLLECTED AT EACH AREA

Catawba-Wateree Relicensing Recreation Use and Needs Study

Summary of Data Collection Locations

Lake/River Reach	Public Recreation Area	Duke Power-owned	Interviews	Spot Counts	Traffic Counter	Park Managers
Lake James	Black Bear AA	Yes	X	X	X	
	Lake James State Park		X	X		Traffic Counts & Camping #s
	Hidden Cove AA	Yes	X	X		Traffic Counts
	Canal Bridge AA	Yes	X	X		Traffic Counts
	Linville AA	Yes	X	X		
Bridgewater Regulated River Reach	Bridgewater AA	Yes	X	X	X	
	Watermill Road		X	X	X	
	Morganton Greenway - Greenlee Ford		X	X		
	Morganton Greenway - River Village		X	X		
Lake Rhodhiss	Johns River AA	Yes	X	X		
	Huffman Bridge AA	Yes	X	X	X	
	Castle Bridge AA	Yes	X	X		
	Sawmills Park AA	Yes	X	X	X	
	Rhodhiss AA	Yes	X	X	X	
	Rhodhiss Canoe Portage	Yes			X	
Lake Hickory	Bud Geitner Park		X	X	X	
	Glenn C. Hilton Park		X	X	X	
	Gunpowder AA	Yes	X	X	X	
	Lovelady AA	Yes	X	X		
	Wittenburg AA	Yes	X	X	X	
	Dusty Ridge AA	Yes	X	X	X	
	Oxford AA	Yes	X	X	X	
	Oxford Canoe Portage	Yes	X	X		
Oxford Regulated River Reach	Riverbend Park		X	X		Traffic Counts & People per Vehicle
Lookout Shoals Lake	Sharon AA	Yes	X	X	X	
	Lookout Shoals AA	Yes	X	X	X	
Lookout Shoals Regulated River Reach	Lookout Shoals Tailrace Fishing Area	Yes	X	X		

Catawba-Wateree Relicensing Recreation Use and Needs Study

Summary of Data Collection Locations

Lake/River Reach	Public Recreation Area	Duke Power-owned	Interviews	Spot Counts	Traffic Counter	Park Managers
Lake Norman	Hunsucker Park		X	X		
	Long Island AA	Yes	X	X	X	
	Lake Norman State Park		X	X		Traffic Counts & Camping #s
	Stumpy Creek AA	Yes	X	X	X	
	Pinnacle AA	Yes	X	X	X	
	McCrary Creek AA	Yes	X	X	X	
	Marshall Fishing Area	Yes	X	X	X	
	Hager Creek AA	Yes	X	X	X	
	Little Creek AA	Yes	X	X	X	
	Roosevelt Wilson Park		X	X		
	Beatty's Ford AA	Yes	X	X	X	
	Jetton Road County Park		X	X	X	
	Ramsey Creek AA	Yes	X	X	X	
	Blythe Landing County Park		X	X	X	
McGuire Fishing Area	Yes	X	X			
Mountain Island Lake	Cowans Ford Wildlife Refuge		X	X	X	
	Rural Hill Park			X		
	Neck Road AA	Yes	X	X	X	
	Latta Plantation County Park		X	X		Nature Center Visits & Boat Rentals
	Riverbend AA	Yes	X	X	X	
Lake Wylie	Mountain Island River Park and Mountain Island Tailrace Fishing Area*	Yes	X	X	X	
	Mount Holly River Street Park		X	X		
	Allen Fishing Area	Yes	X	X	X	
	South Point AA	Yes	X	X	X	
	Copperhead AA	Yes	X	X	X	Camping #s
	Buster Boyd AA	Yes	X	X	X	
	McDowell Park		X	X	X	Camping #s
	Allison Creek AA	Yes	X	X	X	
Ebenezer Park AA	Yes	X	X	X	Camping #s	
Nivens Creek AA	Yes	X	X	X		

Catawba-Wateree Relicensing Recreation Use and Needs Study

Summary of Data Collection Locations

Lake/River Reach	Public Recreation Area	Duke Power-owned	Interviews	Spot Counts	Traffic Counter	Park Managers
Wylie Regulated River Reach	Fort Mill AA	Yes	X	X	X	
	Rock Hill River Park		X	X	X	
	Landsford Canal State Park		X	X	X	
Fishing Creek Reservoir	Highway 9 Landing		X	X	X	
	Cane Creek AA	Yes	X	X	X	
	Fishing Creek AA	Yes	X	X		
Cedar Creek Reservoir	Stumpy Pond AA	Yes	X	X	X	
	Debutary Creek AA	Yes	X	X	X	
Lake Wateree	Cedar Creek AA	Yes	X	X	X	
	Wateree Creek Bridge		X	X		
	Wateree Creek AA	Yes	X	X	X	
	Taylors Creek AA	Yes	X	X	X	
	Taylors Creek Bridge		X	X		
	Lake Wateree State Park		X	X	X	Camping #s
	Dutchman's Creek Bridge		X	X		
	June Creek AA	Yes	X	X	X	
	Beaver Creek Landing		X	X	X	
	Colonel's Creek Bridge		X	X		
	Colonel's Creek AA	Yes	X	X	X	
	White Oak Creek AA	Yes	X	X	X	
	Buck Hill AA	Yes	X	X	X	
Wateree Regulated River Reach	Lugoff AA	Yes	X	X	X	
	Highway 1 Landing		X	X	X	
	Billy Tolar Landing		X	X	X	

* Mountain Island PFA and Mountain Island River Park abut each other and share a common access road, and this is where the traffic counter was located. In addition, during spot counts and interviews it was discovered that people would often park at one site and use the facilities located at the other site. Therefore, the data for these two sites is combined and treated as one data set.

APPENDIX F

CATAWBA-WATEREE RELICENSING RECREATION USE AND NEEDS STUDY

SUMMARY OF THE NUMBER OF INTERVIEWS AND SPOT COUNTS CONDUCTED AT PUBLIC ACCESS AREAS DURING THE 2004-2005 RECREATION AND NON-RECREATION SEASONS

Catwaba-Wateree Relicensing Recreation Use and Needs Study

Summary of Onsite Data Collection - Public Area Visitors (Survey A) and Spot Counts (March 2, 2004 - February 28, 2005)

Lake/River Reach	Public Recreation Area	Public Area Visitors (Survey A)			No. of Spot Counts		
		Non-Rec Season	Rec Season	Total	Non-Rec Season	Rec Season	Total
Lake James	Black Bear AA	9	68	77	10	23	33
	Lake James State Park	11	9	20	8	23	31
	Hidden Cove AA	4	6	10	9	22	31
	Canal Bridge AA	7	18	25	9	24	33
	Linville AA	2	20	22	9	21	30
	SubTotal	33	121	154	45	113	158
Bridgewater Regulated River Reach	Bridgewater Fishing Area	4	8	12	11	39	50
	Watermill Road	2	4	6	9	22	31
	Morganton Greenway - Greenlee Ford	9	7	16	6	23	29
	Morganton Greenway - River Village	5	5	10	7	24	31
	SubTotal	20	24	44	33	108	141
Lake Rhodhiss	Johns River AA	3	4	7	11	23	34
	Huffman Bridge AA	2	9	11	11	25	36
	Castle Bridge AA	12	78	90	10	23	33
	Sawmills Park AA	7	18	25	14	24	38
	Rhodhiss AA	5	24	29	11	25	36
	Rhodhiss Canoe Portage	0	0	0	3	20	23
	SubTotal	29	133	162	60	140	200
Lake Hickory	Bud Geitner Park	8	17	25	8	31	39
	Glenn C. Hilton Park	6	12	18	7	27	34
	Gunpowder AA	7	9	16	11	25	36
	Lovelady AA	14	35	49	12	27	39
	Wittenburg AA	21	74	95	12	27	39
	Dusty Ridge AA	6	12	18	12	28	40
	Oxford AA	13	40	53	14	28	42
	Oxford Canoe Portage	7	11	18	14	29	43
	SubTotal	82	210	292	90	222	312
Oxford Regulated River Reach	Riverbend Park	11	7	18	9	26	35
	SubTotal	11	7	18	9	26	35
Lookout Shoals Lake	Sharon AA	5	12	17	13	18	31
	Lookout Shoals AA	6	26	32	13	19	32
	SubTotal	11	38	49	26	37	63

Catwaba-Wateree Relicensing Recreation Use and Needs Study

Summary of Onsite Data Collection - Public Area Visitors (Survey A) and Spot Counts (March 2, 2004 - February 28, 2005)

Lake/River Reach	Public Recreation Area	Public Area Visitors (Survey A)			No. of Spot Counts		
		Non-Rec Season	Rec Season	Total	Non-Rec Season	Rec Season	Total
Lookout Shoals Regulated River Reach	Lookout Shoals Tailrace Fishing Area	2	6	8	8	17	25
	SubTotal	2	6	8	8	17	25
Lake Norman	Hunsucker Park	1	7	8	8	17	25
	Long Island AA	8	22	30	14	23	37
	Lake Norman State Park	16	53	69	10	20	30
	Stumpy Creek AA	11	29	40	17	24	41
	Pinnacle AA	9	40	49	15	29	44
	McCrary Creek AA	10	26	36	15	29	44
	Marshall Fishing Area	7	11	18	15	25	40
	Hager Creek AA	7	15	22	15	26	41
	Little Creek AA	6	27	33	13	27	40
	Roosevelt Wilson Park	5	15	20	7	18	25
	Beatty's Ford AA	12	28	40	15	28	43
	Jetton Road County Park	13	50	63	11	22	33
	Ramsey Creek AA	10	37	47	12	23	35
	Blythe Landing County Park	8	39	47	12	25	37
	McGuire Fishing Area	9	24	33	12	28	40
SubTotal	132	423	555	191	364	555	
Mountain Island Lake	Cowans Ford Wildlife Refuge	2	5	7	12	28	40
	Rural Hill Park	0	0	0	8	20	28
	Neck Road AA	7	31	38	12	31	43
	Latta Plantation County Park	15	64	79	9	22	31
	Riverbend AA	8	44	52	17	35	52
	SubTotal	32	144	176	58	136	194
Lake Wylie	Mountain Island River Park and Mountain Island Tailrace Fishing Area	10	29	39	16	30	46
	Mount Holly River Street Park	2	10	12	15	33	48
	Allen Fishing Area	9	18	27	14	25	39
	South Point AA	17	53	70	15	27	42
	Copperhead AA	12	37	49	12	33	45
	Buster Boyd AA	24	70	94	15	35	50
	McDowell Park	14	41	55	7	30	37
	Allison Creek AA	11	67	78	12	33	45
	Ebenezer Park AA	10	76	86	14	32	46
	Nivens Creek AA	8	53	61	13	35	48
SubTotal	117	454	571	133	313	446	

Catwaba-Wateree Relicensing Recreation Use and Needs Study

Summary of Onsite Data Collection - Public Area Visitors (Survey A) and Spot Counts (March 2, 2004 - February 28, 2005)

Lake/River Reach	Public Recreation Area	Public Area Visitors (Survey A)			No. of Spot Counts		
		Non-Rec Season	Rec Season	Total	Non-Rec Season	Rec Season	Total
Wylie Regulated River Reach	Fort Mill AA	6	27	33	14	38	52
	Rock Hill River Park	9	35	44	11	33	44
	Landsford Canal State Park	9	33	42	8	18	26
	SubTotal	24	95	119	33	89	122
Fishing Creek Reservoir	Highway 9 Landing	4	18	22	12	24	36
	Cane Creek AA	2	16	18	10	24	34
	Fishing Creek AA	9	16	25	13	22	35
	SubTotal	15	50	65	35	70	105
Cedar Creek Reservoir	Stumpy Pond AA	3	8	11	10	22	32
	Debutary Creek AA	5	11	16	10	23	33
	SubTotal	8	19	27	20	45	65
Lake Wateree	Cedar Creek AA	5	31	36	11	24	35
	Wateree Creek Bridge	2	0	2	10	22	32
	Wateree Creek AA	4	7	11	11	23	34
	Taylor's Creek AA	9	16	25	11	23	34
	Taylor's Creek Bridge	0	1	1	9	23	32
	Lake Wateree State Park	11	24	35	10	21	31
	Dutchman's Creek Bridge	4	4	8	10	22	32
	June Creek AA	7	29	36	11	23	34
	Beaver Creek Landing	4	17	21	10	26	36
	Colonel's Creek Bridge	4	4	8	11	22	33
	Colonel's Creek AA	6	14	20	10	22	32
	White Oak Creek AA	11	32	43	10	24	34
	Buck Hill AA	6	25	31	12	22	34
	SubTotal	73	204	277	136	297	433
Wateree Regulated River Reach	Lugoff AA	14	44	58	12	22	34
	Highway 1 Landing	4	17	21	10	19	29
	Billy Tolar Landing	0	2	2	1	3	4
	SubTotal	18	63	81	23	44	67
Project Study Area Total		607	1991	2598	900	2021	2921

Note: Non-Rec Season = January 1 - March 31 and October 1 -
Rec Season = April 1 - September 30

APPENDIX G

CATAWBA-WATEREE RELICENSING RECREATION USE AND NEEDS STUDY

POSSIBLE FUNDING SOURCES FOR AAI PARTNERSHIPS

Possible Funding Sources for Development of Duke Power-Owned Access Area

Organization	Expected Funding	Description of Funding	Contact	Decision-Making Authority	Parties Eligible	Application Form/ Guidelines	Comments
Federal Funding							
US Department of Interior (USDI), National Parks Service (NPS) Land and Water Conservation Fund (LWCF)	Federal funding re-instated in 2000. For FY 2005, the Consolidated Appropriations Act (P.L. 108-447) included \$90 million for LWCF state grants. The allocation for each State and Territory is determined by a formula based on law and subsequent approval.	Each state initiates a statewide competition for the amount available and has its own priorities and selection criteria (NC offers grants up to a \$250,000 maximum per year). Funding is available for the development of federal lands. Duke might be able to obtain these funds through the donation of lands to the federal government and should contact John Poole for more information.	John Poole, N.C. Division of Parks and Recreation, (919) 715-2662, John.Poole@ncmail.net; Bill Shaddox, (202) 565-1100, Edwelyn Dooley-Higgins (404) 562-3175, and Michael D. Wilson, National Grants Chief (202) 354-6900, all with the USDI, NPS; S.C. Recreation, Planning & Engineering Office, recreationgrants@scprt.com	USDI, NPS, NC Department of Natural Resources, SC Department of Parks and Recreation	State and local government	Contact appropriate NPS representatives, NC Department of Natural Resources representative, or SC Dept. of Parks and Rec. representative.	There might be additional cost risks. Has been used on Duke sites.
Recreation Trails Grant Program [this is part of the Transportation Equity Act of 1998 (TEA21), formerly the Intermodal Surface Transportation Efficiency Act (ISTEA)]. This grant program encompasses both the US Dept. of Transportation Recreation Trails Grant Program and the National Recreation Trails Fund Program	\$30-\$50 million nationwide per year for the last 6 years (since the introduction of the new and improved TEA21). However, TEA21 was scheduled to expire on Sept 30, 2003 and was extended until May 31, 2005. The Recreation Trails Grant Program of NC has stated that approximately \$1 million - max grant \$50,000 - match of 25% required - will be awarded for the next fiscal year. All grants are reimbursable. Funding opportunities after 2006 unknown at this time until legislation is resolved.	Provides funds to the states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Supports the development of bicycle and pedestrian transportation corridors. Trail uses include bicycling, hiking, in-line skating, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles.	Darrell McBane, NC Division of Parks and Rec, NC State Trails Coordinator (919) 846-9995, darrell.mcbane@ncmail.net; Wendy Coplen, SC State Trails Coordinator (803) 734-0130, wcoplen@scprt.com	Seven member NC Trails Advisory Committee, part of the NC Department of Environmental Health and Natural Resources. Grant Services section of Community and Recreation Development office of SC PRT.	Federal, state and local government agencies and non-profit organizations	Yes	This grant program encompasses both the US Dept. of Transportation Recreation Trails Grant Program and the National Recreation Trails Fund Program. The two programs used to be separate but with few differences. Has been used on Duke sites.
US Department of Transportation Scenic Byways Program	\$15.5 million awarded in FY2004. NC has no money in budget for enhancement. Can apply for grant.	Funding for lands along roads containing unusual or distinctive scenic character. 80/20 matching fund, 20% local.	Jeff Lackey, NC Scenic Byways Coordinator (919) 733-7932, jeff_lackey@dot.state.nc.us; Ronda Pratt, SC Scenic Byways Contact (803) 737-6372, prattr@dot.state.sc.us; Rob Draper, Federal Byways Team Leader, (202) 366-4649	Review of application by the FHWA and the Board of Transportation	Non-profit organization or government agencies	Yes; Applications must be completed on-line on FHWA's scenic byways website www.bywaysonline.org (http://www.bywaysonline.org/grants/), and submitted both electronically and in hard copy to the State Department of Transportation, then forwarded to the FHWA Division Office.	Anyone can nominate an area to become a scenic byway. There is an application for this online at http://www.bywaysonline.org/
USDI, US Fish and Wildlife Service Partners for Wildlife Program	\$33.6 million distributed in FY2004. \$25,000 per project per year, with some exceptions	Technical and financial assistance to restore wildlife habitats. The focus is on wetland and wildlife conservation. No definite split or match in funding. Would prefer 50% match.	John Anne Shearer, North Carolina (919) 856-4520 x17, JohnAnnShearer@fws.gov; Joe Cockrell, South Carolina (803) 727-4707 x17, JoeCockrell@fws.gov	Contacts advise on decision and final decision made by Ecosystem Management Teams made up of biologists from several different disciplines.	Private organizations are eligible for restoration	No formal application or deadline. Private landowners may contact the State Partners coordinators throughout the year.	
USDI, US Fish and Wildlife Service Wallop-Breaux Fund and Dingle Johnson Amendment (also known as the Federal Aid in Sportfish Restoration Act)	\$260 million distributed nationwide in 2004. Each state's share is based 60% on licensed sportsmen and 40% on its land and water area. No states receive more than 5% of total and no less than 1%. The program is a cost-reimbursement program, where the state covers the full amount of an approved project then applies for reimbursement through Federal Aid for up to 75 percent of the project expenses. The state must provide at least 25 percent of the project costs from a non-federal source.	Funds used for fish and wildlife conservation through land acquisition, habitat improvement, research, education, and other programs. The funds also help pay for boating access, and other fish and wildlife related recreation projects. Federal Aid funds	The Division of Federal Assistance at FederalAid@fws.gov; "Mitch" J. King, USFWS, Division of Federal Aid, Wildlife and sport fish restoration programs, (703) 358-2156; Shari Brewer, USFWS State Federal Assistance Specialist, (404) 679-4162; Kerri Heywood, USFWS Grants Management Assistant, (404) 679-4158	Department of Treasury, Secretary of the Interior	State Governments	Contact and work with DNR Regional Fisheries Management Supervisors or appropriate regional Community Services Specialists. Contact the Division of Federal Assistance for more information at (703) 358-2156	Has been used on Duke sites.

Possible Funding Sources for Development of Duke Power-Owned Access Area

Organization	Expected Funding	Description of Funding	Contact	Decision-Making Authority	Parties Eligible	Application Form/ Guidelines	Comments
USDI, US Fish and Wildlife Service Federal Aid in Wildlife Restoration Act (Pittman-Robertson Amendment)	Approximately \$200 million distributed in FY2004. Money is apportioned to the states. The program is a cost-reimbursement program, where the state covers the full amount of an approved project then applies for reimbursement through Federal Aid for up to 75 percent of the project expenses. The state must provide at least 25 percent of the project costs from a non-federal source.	Funds used for the selection, restoration, rehabilitation and improvement of wildlife habitat, wildlife management research, and the distribution of information produced by the projects. The Act was amended in 1970 to include funding for hunter training programs and the development, operation and maintenance of public target ranges. Funds are derived from an 11% Federal excise tax on sporting arms, ammunition, and archery equipment. Funds are also derived from a 10% handgun tax. Apportioned based on a formula which considers land mass, number of certified license holders, and/or population of state.	The Division of Federal Assistance, (703) 358-2156, FederalAid@fws.gov; Pam Matthes, USFWS Program Director, (703) 358-2066; State Federal Aid Coordinator, (404) 679-4159.	Department of the Treasury, Secretary of the Interior	State Governments	Contact and work with Federal Aid Coordinators to put together proposals for specific resource areas. See contact information.	
North Carolina State Funding							
Parks and Recreation Trust Fund (PARTF)	\$500,000 max. per project. Roughly \$12.5 million available for FY2004-2005 (varies depending on tax revenue).	Dollar-for-dollar matching grants to acquire land, develop, and renovate facilities for local public, park, and recreation purposes. The anticipated PARTF revenues are from a dedicated funding sources - % of the real estate conveyance tax - collected by county governments across the state. This revenue stream has increased each year.	John Poole, Program Manager, NC Parks and Recreation Trust Fund, (919) 715-2662, John.Poole@ncmail.net; Robin Capps, Grants Analyst, (919) 715-2661, Robin.Capps@ncmail.net; or contact the N.C. Division of Parks and Recreation	Parks and Recreation Authority, an 11 member board appointed by the Governor and the General Assembly	County governments, incorporated municipalities, or school administrative units applying jointly with county or incorporated city.	Yes; see http://www.ils.unc.edu/parkproject/partfund/home/ for more information	Has been used on Duke sites.
NC Dept. of Environment and Natural Resources, Division of Water Resources	NC General Assembly usually appropriates \$2,000,000 to \$3,000,000 per year to fund the Water Resources Development Grants Program. Grants to local government sponsors average \$50,000 each.	This program is designed to provide cost-share grants (non-federal costs) and technical assistance to local governments throughout the State. Applications for grants are accepted for seven purposes: General Navigation, Recreational Navigation, Water Management, Stream Restoration, Beach Protection, Land Acquisition and Facility Development	John Sutherland, Section Chief Division of Water Resources (919) 715-5446 john.sutherland@ncmail.net Darren England Division of Water Resource (919) 715-3044 darren.england@ncmail.net	Secretary, NC DENR	Units of local government and local political subdivisions	http://www.ncwater.org/Financial_Assistance/booklet.pdf	
Clean Water Management Trust Fund	Minimum of \$30 million a year depending on tax revenues, \$40.4 million awarded in FY2004. There is no maximum amount per project	Must enhance or restore water quality, enhance or restore degraded waters, protect unpolluted waters, or contribute toward a network of riparian buffers and greenways for environmental, educational, and recreational benefits	Bill Holman, Executive Director of CWMTF, (919) 733-6375, bill.holmna@ncmail.net; Lisa Schell, Public Information Officer, (919) 716-0057, lisa.schell@ncmail.net	21 member Board of Trustees appointed by the Governor and General Assembly	Local, state, or private non-profit groups	Yes; see http://www.cwmtf.net/ for application information	
Wildlife Resources Commission	Partnership funding may be available on a case-by-case basis	Partnership funding may be available on a case-by-case basis	Richard (Dick) Hamilton, Executive Director of Wildlife Commission (919) 733-3391 x222; Fred Harris, Assistant Director of Wildlife Commission, (919) 733-3391 x224; or contact the Wildlife Management Division at (919) 733-7291	Richard Hamilton, Executive Director of Wildlife Commission and/or Fred Harris, Assistant Director of Wildlife Commission	Anyone	Yes; call for more information	Commission would develop and manage lands if they were provided by Duke. Has been used on Duke sites.
Adopt-A-Trail Grant Program	Awarded approximately \$100,000 in FY2004. \$5,000 per grant.	The funds can be used for trail building, trail signage and facilities, trail maintenance, trail brochures and maps, and other related uses.	Darrell McBane, NC Division of Parks and Rec, NC State Trails Coordinator, (919) 846-9995, darrell.mcbane@ncmail.net	Seven member NC Trails Advisory Committee, part of the NC Department of Environment and Natural Resources.	Government agencies, nonprofit organizations, private trail groups, or volunteer organizations. Never funded a private company before but might be a possibility.	Yes; see http://ils.unc.edu/parkproject/trails/grant.html for more information	

Possible Funding Sources for Development of Duke Power-Owned Access Areaa

Organization	Expected Funding	Description of Funding	Contact	Decision-Making Authority	Parties Eligible	Application Form/ Guidelines	Comments
Department of Transportation	Funding would be from safety or enhancement funds (which are limited), or from certain discretionary funds available for safety projects	The Technical Corrections Bill amendment to G.S. 136-18(15) authorizes DOT to provide facilities for recreational uses of nonnavigable waters of the state by means of connecting roads and piers. This could potentially include access to rivers and streams, such as parking areas for canoers.	W. Richard Moore, Special Deputy Attorney General, Transportation Section NC DOT, Attorney General's Office, 1500 Mail Service Center, Raleigh, NC 27699-1505, (919) 733-3316	Enhancement projects require approval by the Board of Transportation and are presently scheduled and approved on a two year basis.	NA	See contact for application information	

Possible Funding Sources for Development of Duke Power-Owned Access Area

Organization	Expected Funding	Description of Funding	Contact	Decision-Making Authority	Parties Eligible	Application Form/ Guidelines	Comments
South Carolina State Funding							
Water Recreation Resources Fund	Funding amount varies. FY2003-2004 posted \$4,199,713 to the fund, whereas this FY2004-2005 posted \$3,141,678.	Funds distributed to counties for water recreation, water-related law enforcement, and engineering/rehabilitation costs. 100% funding, no matching	Diane Vanderhoff, Grant Manager, VanDerHoffD@dnr.sc.gov; John Frampton, Director, SC Department of Natural Resources (803) 734-4007, FramptonJ@dnr.sc.gov	County delegation from the Senate and House must approve and request funding, then DNR staff must review delegation's request for funding and make a final decision.	Counties	None, application process described in decision-making authority column. Requestors typically go through their county delegations.	Has been used on Duke sites.
Parks and Recreation Development Fund (PARD)	Base \$20,000 to each county. Further funding is distributed on a per-capita basis.	Funding for parks and recreation planning, development and/or renovation provided to county governments in the form of an 80(state) / 20(county) match	Alesha Cushman, Grants Administrator, Department of Parks and Recreation, (803) 734-0185, acushman@scprt.com; or, Wendy Coplen, SC State Trails Coordinator, (803) 734-0130, wcoplen@scprt.com	Money appropriated by state legislature. To apply for additional funds, the county must get approval of a county delegation. This is then reviewed by the Parks Recreation and Tourism Department.	County or local governments, including special purpose districts	Applications for PARD grants are available at Recreation Division, South Carolina Department of Department of Parks, Recreation and Tourism, 1205 Pendleton Street, Edgar Brown Building, Columbia, S.C. 29201, (803) 734-0141; or through the Spartanburg County Legislative Delegation Office. Each application must have the endorsement of a majority of the legislative delegation members of the county.	See http://www.spartanburgcounty.org/govt/depts/legdel/pard.htm for more information. Emphasis placed on providing these funds within areas which have demonstrated track records of providing park and recreation services and the ability to operate and maintain facilities in a responsible manner. Has been used on Duke sites.
Adopt an Access Area Program	None				Anyone		Would Probably have minimum affect on reducing O & M costs because there is no requirement for weekly services.
Recreation Land Trust Fund (RELT)	\$250,000 expected for 2006. The maximum is \$25,000 per project, unless the project is determined to have regional or statewide significance, in which case you can be eligible for up to \$100,000 annually.	State-funded grant program specifically for the purpose of acquiring property for public recreation. It requires a 50% match and is a reimbursable grant.	Alesha Cushman, Grants Administrator, Department of Parks and Recreation, (803) 734-0185, acushman@scprt.com; or, Wendy Coplen, SC State Trails Coordinator, (803) 734-0130, wcoplen@scprt.com	10 member board made up of recreation professionals	Local or state agencies	Interested eligible entities must fill out a "Letter of Intent Form", which is available at http://www.sctrails.net/trails/TRAILSPROGRAM/GRANTS/grants.html	
Heritage Trust Program	Total program funding of roughly \$3 million annually. Funded by state appropriations, the Endangered Wildlife Fund, the Endangered Species License Plate and some stamp tax revenue.	Program preserves archaeological, historical, or cultural resources through purchase and acquisition of lands. Includes protecting threatened and endangered species.	Stewart Greeter, Land Protection Coordinator, Heritage Trust Program (803) 734-3918	Heritage Trust Advisory Board	Lands worth being protected as decided by the Heritage Trust Program	None, contact Stewart Greeter.	
Department of Natural Resources	County Water Recreation Funds. Also see Heritage Trust Program above.	The County Water Recreation Funds are available to counties for water based recreation enhancements.	Tim Vinson, VinsonT@scdnr.st; Tim Ivey, Assistant Chief of Game (803) 734-3886	NA	Counties for the County Water Rec Funds	Email Tim Vinson for more information on how counties can apply for the Water Rec Funds.	
South Carolina Department of Parks, Recreation & Tourism (Devils Fork State Park)	Applying for federal funding through the Recreational Trails Grant Program.	This funding would be used for recreational trails development	Michael Trotter, Assistant Manager of Devils Fork State Park, (864) 944-2639, mtrotter@scprt.com	NA	NA	A public meeting is being held on Feb. 17, 2005 at 7p.m. at Devils Fork State Park Information Center/Store to go over grant and project information. For more information, contact Michael Trotter.	Devils Fork State Park sits on the banks of Lake Jocassee, a young lake created in 1973 by Duke Power for hydroelectric power generation.
North Carolina County Funding							
Alexander County	No current funding. Open to proposals.	NA	Rick French, County Manager (828) 632-9332	Board of Commissioners	For county use	Send letter outlining proposal, or contact county manager.	County has a lot of recreational facilities
Burke	No funding set aside this year, though could maybe be made available if there was a good proposal. All of their funding comes from PARTF. See PARTF above for more information.	NA	Judy Francis, Planning Director (828) 439-4362	Board of Commissioners	For county use	Send letter outlining proposal, or contact planning director.	Worked on canoe access park on land purchased from Duke Power at the Water Mill Road Site.
Caldwell County	No current funding. Open to proposals.	County does help with the planning of community parks, but does not fund directly.	Randy Feierabend, Planning Director, (828) 396-6362	Board of Commissioners	For county use	Send letter outlining proposal, or contact planning director.	Currently working on developing new community parks. Might be able to speak with them in more detail about recreational development.

Possible Funding Sources for Development of Duke Power-Owned Access Areaa

Organization	Expected Funding	Description of Funding	Contact	Decision-Making Authority	Parties Eligible	Application Form/ Guidelines	Comments
Catawba County	No funding currently available. County has been very successful attaining funds for projects through state and federal organizations.	Funding would come from PARTF funds and/or funds from other sources.	Jo Ellen Daly, Assistant County Manager, (828) 465-8201	Board of Commissioners	For county use	Send letter outlining proposal, or contact assistant county manager.	County is very interested in the development of future parks/recreation areas. However, request that we attempt to get funding through a state or federal agency or organization.
Cleveland County	No current funding. Open to proposals.	NA	Bill McCarter, Planning Director (704) 484-4800	Board of Commissioners	For county use	Send letter outlining proposal, or contact planning director.	Bought land from Crescent and Duke for a park. A future park might be a possibility, though the county currently works with a local non-profit organization on recreation projects.
Forsyth County	No current funding. Open to proposals, to potentially work with private land-owners	NA	Mark Serosky, Recreation Director, (336) 703-2500 then dial 5	Board of Commissioners	For county use	Send letter outlining proposal, or contact Mark Serosky	
Gaston County	No current funding. Open to proposals.	The Department provides technical assistance to municipalities and other organized groups throughout the County in the design and construction of recreation facilities and the development of recreational programs.	Cathy Hart, Recreation Director (704) 922-2162	Board of Commissioners	For county use	Send letter outlining proposal, or contact recreation director.	Recently developed the George Poston Park which has access to the South Fork River.
Iredell County	No current funding due to budget cuts. Had a grant program up until about 3 years ago.	NA	Robert Woody, Recreation Director, (704) 878-3103, rwoody@co.iredell.nc.us	Board of Commissioners	For county use	Send letter outlining proposal, or contact recreation director.	Possibility of future recreation development, though they just finished up a few new sites in the last few years.
Lincoln County	No current funding. Possible to have funding in budget in the future. Open to proposals.	NA	Stan Kiser, County Manager (704) 736-8471	Board of Commissioners	For county use	Send letter outlining proposal, or contact county manager.	County could use more recreation facilities. Seem interested in developing more recreation sites; however, didn't seem too enthusiastic in terms of funding.
McDowell County	No current funding. Obtain money through PARTF grants. Open to proposals.	NA	Charles Abernathy, County Manager (828) 652-7121 ext. 321; Stan Braswell, Recreation Manager (828) 652-3001	Board of Commissioners	For county use	Send letter outlining proposal, or contact county manager.	County recently received PARTF grants to developed a skate park and a 72-acre. plot of land for recreational uses.
Mecklenburg County	No current funding. Open to proposals any time.	NA	Lee Jones, Recreation, or Wayne Weston, Parks and Recreation Director, both at (704) 336-3854	Board of Commissioners	For county use	Send letter outlining proposal, or contact parks and recreation director.	Currently have two rec. sites on Lake Norman and one on Lake Wylie. Possibility of developing additional rec. sites. County has great relationship with Duke Power.
Stokes County	No contact with recreation or planning and development offices. Numerous attempts made.	NA	Parks and Recreation, (336) 593-2811	Board of Commissioners	For county use	NA	
Transylvania County	No funds available. Open to proposals.	NA	Contact Administration for Grants Officer at (828) 884-3100; or Rick Pangle, Recreation Director, (828) 884-3156, recdept@citcom.net	NA	NA	NA	Not a huge interest in developing outdoor recreation facilities.
South Carolina County Funding							
Cherokee County	No current funding. Very interested in proposals and open to some budget changes for the next fiscal year.	NA	Lowry Love, Director of Recreation (864) 489-6036	Board of Commissioners	For County Use	Send letter outlining proposal, or contact Director of Recreation.	Definite need for recreation facilities, also very lacking in funds for development of rec. facilities. Interested in athletic fields.
Chester County	No more funding in budget. Open to proposals. Will look at proposals any time.	NA	Gene Klugh, County Manager (Interim), (803) 385-5133, No current Recreation Director	Board of Commissioners	For County Use	Contact Recreation Director, proceed from there.	Office undergoing some personnel changes, but interested in Fishing Creek Access Area. Need long-term lease or ownership of property to secure state money. Have a chance at getting state money if the site to develop is associated with tourism or is water related.
Fairfield County	No contact with recreation or planning and development offices. Numerous attempts made.	NA	Philip L. Hinely, Administrator, (803) 712-6501; Jason Pridgen, Recreation Director, (803) 635-9114	Board of Commissioners	For County Use	Send letter outlining proposal. Contact County Administrator, or Recreation Director	

Possible Funding Sources for Development of Duke Power-Owned Access Areaa

Organization	Expected Funding	Description of Funding	Contact	Decision-Making Authority	Parties Eligible	Application Form/ Guidelines	Comments
Kershaw County	No current funding for this fiscal year. However, the recreation division is proposing that funding for recreation be included in next year's budget. Extremely excited about incoming proposals.	NA	James Davis, Recreation Director, (803) 425-6009; Robert T. Boland, County Administrator (803) 425-1500	Board of Commissioners	For County Use	Send letter outlining proposal to the Recreation Director	County realizes it needs recreational development. Also applying for several state grants for the next FY. Interested specifically in the Buck Hill Access Area site on Wateree.
Lancaster County	Current funding is through a county Park and Development Fund and state grants. Open to proposals.	NA	Jim Bull, Recreation Director (803) 285-5545; J. Chappell Hurst Jr., County Administrator, (803) 416-9300	Board of Commissioners	For County Use	Send letter outlining proposal, or contact Recreation Director.	The county has recently developed a Master Development Plan for the future. Any new projects would have to be in certain areas as outlined by the plan. Will consider new proposals. Call the Recreation Director for more specifics about the desired location of new rec. projects.
Oconee County	No contact with recreation or planning and development offices. Numerous attempts made.	NA	Vickie Satterfield, Parks, Recreation & Tourism Director, (864) 888-1453; Ron Rabun, County Administrator, (864) 638-4244	County Council	For County Use	Send letter outlining proposal, or contact Recreation Director.	Fall Creek location is a possibility, though already have two rec. facilities on Lake Keowee
Pickens County	No contact with recreation or planning and development offices. Numerous attempts made.	NA	Alan M. Ours, County Administrator, (864) 898-5844; Dale Powell, Recreation Director, (864) 868-2196	County Council	For County Use	Send letter outlining proposal, or contact County Administrator.	Would prefer to buy land outright for a recreation facility because this would make it easier to attain state funding. Currently have lease for County park and want to buy it.
York County	No current funding in budget for recreation (no recreation plan). Possible to build into budget for next fiscal year (starts July. 1). Open to proposals.	NA	Joshua Langen, County Planner (803) 909-7223; Diane Simpson, Assistant County Manager (803) 684-8511; Eric Greenway, Planning & Dev. Director, (803) 909-7240	County Council	For County Use	Contact County Planner	No Recreation Department. Interested in developing greenways and boat access along Sugar Creek and Catawba. Already working with Duke Power on potentially developing new rec. areas.
Non-Governmental Organizations: National							
BASS (Bass Anglers Sportsman Society)	No funding set aside		CEO, see www.bassmaster.com	CEO		No application	Possible funding though there is not a strong interest in contributing funding. See www.bassmaster.com for more information on the organization.
Boy Scouts of America	Limited funding nationally.	Local BSA councils put up the money for BSA camps and sites.	National Council (972) 580-2000; Luther Tankersley, Director of Properties Division, (972) 580-2201	Local BSA councils		Apply through local councils. The national HQ evaluates all property acquisitions for suitability and environmental compliance. Phase I hazardous waste studies are done at all potential properties. There can be no strings attached to land donations. BSA reserves the right to sell the property to raise	NC & SC have very strong local programs.
Ducks Unlimited	Recently began purchasing small amounts of property mostly in North and South Dakota.	Money is raised through fund-raising. They try to put together deals in which several groups and/or state agencies pool funds to purchase a valuable property. They would be interested in gifts of property, or easements.	Dave Marrone, conservation attorney, Ducks Unlimited national office (901) 758-3726, dmarrone@ducks.org; Edwin Cooper, South Carolina conservation attorney, (843) 722-2642	A review of the properties is undertaken by Ducks Unlimited biologists		Submit information about the location and size of the properties to Dave Marrone	Their primary interest is in preserving or enhancing wetlands and waterfowl habitat. The principal criterion for purchase would therefore be the value of natural resources on the property.
Edwin H. Mosler, Jr. Foundation	No recent grant amount information	Grants provided with an emphasis on support for the U.S. Olympic Committee, sports, and recreation activities, youth agencies, and secondary education.	270 Park Avenue, 26th floor, NY, NY 10112		No grants to individuals	Contributes only to pre-selected individuals, no applications selected.	
Elizabeth Firth Wade Endowment	No recent grant amount information	Grants for youth, recreation, theater, and the arts.	114 East De la Guerra, Studio 3, Santa Barbara, CA (805) 963-8822		No grants to individuals	Prefer to be contacted by mail with a proposal.	Someone from the Endowment is supposed to call back with more information regarding recent funding amounts and potential interest in this study. Have not heard back from anyone yet.

Possible Funding Sources for Development of Duke Power-Owned Access Area

Organization	Expected Funding	Description of Funding	Contact	Decision-Making Authority	Parties Eligible	Application Form/ Guidelines	Comments
Kampgrounds of America, Inc.	Investor funds. Investments would involve between \$600,000 and \$1 million for a 100-site campground, including a \$30,000 franchise fee for new campgrounds.	KOA sites are developed mostly by local investors. KOA rarely purchases properties themselves, but they will assist in finding local franchises.	Speak with a Licensing Representative at (800) 548-7239	KOA evaluates franchisee applications.	Local investors	Must submit a Information Request Form online at https://ownakoa.com/requestinfo/ . KOA campgrounds must have restrooms and showers, flush toilets only, a laundry, a game room, and a convenience store, as well as on-site electric utility.	KOA seemed interested in our study area. KOA facilities are oriented toward recreational vehicles (RVs). 7 to 10 acres required. Proximity to tourist attractions such as the Smokey Mountains desirable. Each KOA owner is granted an exclusive territory which averages six mile radius in size, but can be as small as one mile. There are currently 14 KOA Kampgrounds in NC and 6 in SC out of a national total of 472 sites
National Wild Turkey Federation	State affiliates have responsibility for purchase of properties.	State affiliates raise the necessary money for the restoration and wise management of the American wild turkey.	Bryan Curhans, Director of Land Management, (800) 843-6983 x3810	Joe Fowler, NC Regional Director, (704) 209-6346, jrfowlernwf@carolina.rr.com; Terry LeCroy, SC Regional Director (864) 227-8771, terrylecroy@emerald.com.		It is best to work through the state wildlife offices to determine if the properties are of interest as habitat.	
The Ogilvy Foundation		For wildlife conservation, outdoor recreation	309 West 49th Street, New York, NY 10019			Prefer to be contacted by mail with a proposal.	
Pinewood Foundation	No recent grant amount information totals. Grants range from \$1,000 to a few million.	Grants provided in the fields of higher education, cultural programs, arts, child welfare, health, hospitals, community development, and recreation.	100 Park Avenue, New York, NY 10017		No grants to individuals	Contributes only to pre-selected individuals, no applications selected.	Prefer to be contacted by mail with a proposal.
YMCA of the USA	Local YMCAs control capital funding.	Funds are raised locally for capital projects.	Property Management office (800) 872-9622	Local Y's		Contact metropolitan Y's, who will put us into touch with the local Y's who might be interested in the property.	The national office assists the local Y's in planning the site. Local Y's are responsible for any permitting involved. A YMCA site including a 30,000-60,000 sq. ft. building, parking, ball fields, day camp, etc., will generally require 12 acres. Camps vary greatly in size.
Non-Governmental Organizations: North Carolina							
Mecklenburg County Council, Boy Scouts of America, Charlotte, NC	No budget at present for property acquisition or leasing.	Funds would be raised locally for property acquisition.	Tony Morton, (704) 333-5471	Decisions made at Council level.		Interested in donations only. Land would probably be sold to raise money.	Scouts do not accept property donations with any strings attached. They own three properties now, one 1100 ac., a 260 ac. Clear Creek Scout Camp, and the service center on another 35 ac. Concerned about environmental safety and cost of maintenance. Employees maintain their property; it is difficult to get volunteers to maintain property. Public access is a problem.
North Carolina Nature Conservancy	Will raise money for the right property.		Merrill Lynch, Assistant Director for Protection, (919) 403-8558, mlynch@tnc.org	Decision made along with North Carolina Natural Heritage Program.		Contact Merrill Lynch for more information. Application material will be sent to NC Nature Conservancy. The Conservancy will request a map showing location of properties; topo and/or survey. Sites with endangered species or critical habitats preferred.	All preserves are open to the public. 10-20 acre minimum size required.
North Carolina Marine Trade Association	Can help identify investors for marinas.	This program is a state program, working with NC marine businesses in expansion and growth as well as helping non-NC companies come to the state. Private investment by individuals, partnerships, or corporations.	Mike Bradley, (252) 728-2144, Mike.Bradley@NCwaterways.com; Wendy Larimer, (910) 962-3351	By investors	Local Investors	Many investors are interested in marinas.	Duke Power has worked with Mike Bradley on previous occasions. Bradley is out of town for the next week or two, but will contact us with more information when he returns.
Sabates Foundation, Charlotte, NC	Approximately \$50,000 per year total.	Interested primarily in religious & educational projects.	Dominic Cappelli, Director (704) 372-9527	Sabates Foundation		Send letter requesting grant, indicate need, and how the money will be used.	Sabates would consider a project which combines a religious or educational purpose along with recreation or conservation, as one of several founders. Best bet would be YMCA.
The Wachovia Foundation	Grants range from a few thousand to a few million	Funds used for building, capital campaigns, special projects, endowment funds, research, operating budgets, annual campaigns, and renovation projects. Contributes to areas of recreation, historic preservation, ecology, handicapped, community and community development, and crime and law enforcement among other areas.	Joe Crocker, Community Affairs Manager, (336) 732-6138; Tami Simmons, (704) 383-1561, tami.simmons@wachovia.com; G. Kennedy Thompson, President, CEO, C/O Wachovia Bank & Trust Co., N.A., P.O. Box 3099, Winston, Salem, NC 27150-0001		No grants to individuals	Prefer to be contacted by mail with a proposal. Send to Tami Simmons, 301 South College Street, NC 0143, Charlotte, NC 28288-0143	Grants given primarily in NC.

Possible Funding Sources for Development of Duke Power-Owned Access Areaa

Organization	Expected Funding	Description of Funding	Contact	Decision-Making Authority	Parties Eligible	Application Form/ Guidelines	Comments
4-H Camps Program	No more funding for this year. Maybe next year?	Presently they have no money for property acquisitions. Not actively looking for new camps (currently have 6).	Larry Hancock (919) 515-8482	By the 4-H camping program		Not currently interested in applications. An application would include a letter stating intentions, where land is, price and/or financial arrangements. Address: Larry Hancock, 4-H Camping Program, Box 7606, NCSU, Raleigh, NC 27695	Ideal sites would have water access and be within a short drive of one of their 6 existing camp sites. 4-H camps near Duke sites are located in Caldwell and Stokes Counties. Public access not a problem assuming liability concerns are addressed.
Non-Governmental Organizations: South Carolina							
Palmetto Council, Boy Scouts of America, Spartanburg, SC	There is no money in current budget for the acquisition of new property.	They spent \$1.5 million 15 or so years ago for new camps. Demand is high in their area.	R Green (864) 585-4391	At the Council level, by a committee of volunteers which considers purchases or donations.		Written proposal required outlining location of properties, timing of availability, sales price, flexibility regarding purchase, lease, or donation. Send to: R Green, Palmetto Council BSA, PO Box 6249, Spartanburg, SC 29304.	Need for additional campsites exists
The University of South Carolina Development Foundation	They have plenty of land but would consider donations. Not aggressively purchasing property at present. Anticipate growth in the future though.	This foundation mainly deals with finding new real estate for the University.	Richard (Dick) H. Rockafellow (803) 777-1399, rrfellow@gwm.sc.edu	Foundation		Proposal should be sent to: Richard H. Rockafellow, The University of South Carolina Development Foundation, 900 Assembly St., Suite 404, Columbia, SC 29201.	Are not currently interested in dealing with natural areas. A man named Jim Rex (who is now retired), was trying to spur interest in natural areas and recreation in the late 1990's.
The Nature Conservancy of South Carolina	Will raise money for the right property.	They work closely with other natural resources agencies, and if they like a piece of land, they will put the owner in touch with an agency that has the money.	Sarah Hartman, Associate Director of Land Protection, (803) 254-9049	Decision is made by SCNC when biologists have determined that the site meets scientific criteria for preservation of biodiversity.		Contact Sarah Hartman for more information. Application material will be sent to NC Nature Conservancy. The Conservancy will request a site location map, topo and/or survey.	Site size 10-20 ac. minimum. Public access OK. They try to make sure the property "gets in the right hands".
Springs Close Foundation, Lancaster, SC	Since 1942, The Foundation has contributed over \$85 million. \$1.8 million was awarded to 24 agencies and organizations at the November 24, 2004 annual Board Meeting.	There are three major areas of program interest: Recreation & Environment, Public Education & Early Childhood Development, Community Service & Health. They give grants only in Chester, Lancaster, York Counties. Grants are often awarded on a matching basis with other foundations and/or the sponsoring agencies as other participants.	Tammy Whisenant, Program Officer, The Springs Close Foundation, Inc., 1826 Second Baxter Crossing, Fort Mill, S.C. 29708, (803) 548-2002	Close Foundation	No grants are made to individuals	Grant application and more information available at http://www.thespringsclosefoundation.org/grants.htm	Deadlines for the submission of grant requests are March 15 for the spring Board meeting and October 1 for the fall Board meeting.

APPENDIX H

CATAWBA-WATEREE RELICENSING RECREATION USE AND NEEDS STUDY

COMMENTS/RESPONSE ON THE DRAFT REC01 REPORT

Individuals who provided written comments

Individual	Organization
Tony Bebber	SC Parks, Recreation and Tourism (SCDPRT)
Maurice Blackburn	Carolina Canoe Club
Mike Bradley	SBTDC Marine Trade Services
Judy Francis	Burke County
Chris Goudreau	NC Wildlife Resources Commission (NCWRC)
Tom Kenney	Foothills Conservancy
Ron Linville	NC Wildlife Resources Commission (NCWRC)
Donna Lisenby	Catawba Riverkeeper
Sue McCauley	Lake Wylie Covekeeper
Dwayne Stutzman	NC Division of Parks and Recreation (NCDPR)
Vicki Taylor	Catawba-Wateree Relicensing Coalition
Advisory Groups	Foothills Advisory Group
	Lower Catawba Advisory Group
	Metro Advisory Group
	Piedmont Advisory Group

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ID No.	Commenter	Location in Draft Report	Subject	Comment	Response
TB-1	Tony Bebbber, SCDPRT	General	Carrying capacity methodology	Carrying Capacity methodology needs to be discussed to describe how much of the lake was not counted, limits to identifying small craft, photography based, only certain lakes were counted on certain days, etc.	The boat count methodology was discussed in section III.B.4 and the boat carrying capacity assessment in section III.C.2. The discussion includes the use of aerial photography, what lakes were counted, etc. In the final report we include a new section on the limitation inherent in the data collection and methodology used in the study. (see Section III.D)
TB-2	Tony Bebbber, SCDPRT	General	Comparison between 1999 and 2004-2005	Use appeared to be greatly underestimated in the 1999 study compared to the 2004 study. Is there a recommendation for frequent study updates to ensure that future needs will be accommodated?	We address the 1999 population estimates in response to comment VT-21. The RUNS will be updated periodically at an interval to be negotiated as part of the settlement process.
TB-3	Tony Bebbber, SCDPRT	General	Conservative estimates	Commercial/Residential build out scenarios are not included in analysis and it should be noted that all estimates are therefore very conservative.	We note in the final study report that the Ad Hoc Land Use committee is conducting a build out scenario study that will assess the effects of various build out scenarios on boating carrying capacity at Lake James, Lake Hickory, Lake Norman, Mountain Island Lake, Lake Wylie, and Lake Wateree.
TB-4	Tony Bebbber, SCDPRT	General	Methodology to identify use needs	Point out underlying assumptions, lack of data, and methodology up front.	We have augmented information on the limitations of the models used in the RUNS and consolidated this information into a new section on limitations in the final report. (see Section III.D)
TB-5	Tony Bebbber, SCDPRT	General	Population Projections	Areas of high concentrations of population are going to need higher levels of recreation facilities.	Estimates of future recreation use and land needs rely on a variety of data sources, types, and models, all of which contain inherent assumptions and limitations. These parameters are stated in the new methods or limitations section of the final report. All future use calculations (use estimates and land acreages) are based on current estimates organized by activity. Cordell et al. recognized the need to make accurate predictions of future use levels for activities and developed a model to calculate changes in participation (percentage of the population) and days (number of days per year a person participates in the activity). The authors assume that if today's behavior is a good indicator of future behavior, the models can be used to

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ID No.	Commenter	Location in Draft Report	Subject	Comment	Response
					<p>estimate future recreation participation and days by activity and region. To estimate future use, the authors used two models in combination: one captured demographic trend information and the other used population estimates. The model's explanatory variables include age, income, race, gender and population as well as other variables related to amount of resources available to calculate growth in activities indexed to a base year (1995). We contacted Cordell and Bowker, authors of the model, to determine methods to incorporate regional population growth into the model and have revised the model to include a factor to account for the more rapid population growth within the project region. This factor was applied to future recreation use projections to reflect the potential effects that regional population increases may have on recreation use in the project area in the future. In addition, we consider the county population growth projections with respect to how much recreation demand each reservoir will absorb for certain activities and this factors into the calculation of land acreage required to meet the expected future demand. This analysis relies on NC and SC state SCORP data for participation rates and days for the population as well as facility standards for the general population. (see Section III.D)</p>
TB-6	Tony Bebbler, SCDPRT	General	Shoreline mileage determination	Shoreline miles of islands should not be counted as access to all because a boat is required for use.	Shoreline frontage is not a factor in calculating future land acreage needs. However, we have revised the final report to make clear that island shorelines are only accessible by boat and we now show reservoir shoreline and island shoreline separately in Table 1. (see Section II.A)
TB-7	Tony Bebbler, SCDPRT	General	Study updates	Note planned frequency of study updates. Point out that most surveys did not provide information from current non-users.	Please see our response to comment TB-1 with regard to RUNS updates. The survey of visitors by its very nature was not intended to capture non-users. Likewise, we would assume that shoreline residents use the lakes and river reaches. The survey of potential visitors sought information on

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ID No.	Commenter	Location in Draft Report	Subject	Comment	Response
					where else people participate in recreation if not at the Catawba-Wateree system. We have added information about alternative recreation locations.
TB-8	Tony Bebbber, SCDPRT	General	Uses: Trails, Night Use, Waterfowl Hunting	It appears that nighttime recreation, waterfowl hunting, and perhaps other activities were not addressed very well.	We have included information from the survey about night-time recreation and duck hunting. See also our response to comment CG-1. We have included additional analysis about hunting in the final report and Appendix A. (see section III.C.1 and Section B.(lake no).b under each Lake Summary and Section b for each detailed lake in Appendix A.
TB-9	Tony Bebbber, SCDPRT	p. 104:	Economic Data	Can you account for state sales taxes in addition to local option sales taxes? How about gas taxes, etc.?	Expenditure data and modeling analysis shed light on the level of effect of spending on recreation associated with use of the Project has on the local communities, defined in the report as the counties surrounding the Project. We have provided an estimate of state sales and gasoline taxes based on the level of spending. (see Section IV.C)
TB-10	Tony Bebbber, SCDPRT	p. 111-112:	Key findings	We discussed this thoroughly at the Rec.01 Study Team Meeting. Include a summary of what Area Residents indicated. Note that the recommended land acreage needs is only for boating, etc. and more acreage will be needed for trails, etc. that were not included in the study. Add to the list of complaints about scenic quality. Provide some information about the regulated river reaches.	We have made the suggested additions and revisions to the summary of key findings in section V of the final report. (see Section V)
TB-11	Tony Bebbber, SCDPRT	p. 118:	References Used	Did you consult the 2002 SC State Trails Plan and the 1999 SC Recreation Participation and Preference Study provided to you as the project began?	In the draft report we used participation rates obtained from Cordell. In the final report, we use participation rates and the number of days people participate in recreation by activity from the 2002 SC SCORP, which includes numbers derived in the 1999 SC Recreation Participation and Preference Study, and the NC SCORP. For each recreation use category assessed for the projected future recreation land needs, the average of the participation rates and number days people participate in recreation provided in the NC and SC SCORPS were applied. As suggested, we agree

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ID No.	Commenter	Location in Draft Report	Subject	Comment	Response
					that they better reflect the region-specific recreation participation characteristics. These numbers were applied in determining the demand populations and the estimated demand utilized in the future use and acreage needs calculations. (see Sections III.C and D)
TB-12	Tony Bebber, SCDPRT	p. 12	Table 2/Methods and Targeted User Categories	Add column for estimated population of each (shoreline residents, county area residents, etc.). Did we get the response rate anticipated for each survey?	We received between 40 and 70 percent responses from shoreline residents (44 percent), marina operators (72 percent), and stakeholders (44 percent), but only 20 percent for potential visitors. Table 2 provides the target and actual response rates. A new Table 20 compares the number of completed surveys by type between 1999 and 2004. (See Table 2 and Table SD-1)
TB-13	Tony Bebber, SCDPRT	p. 18	Recreation Use Assessment	Provide more information about how interviews and surveys were combined, standard error, etc.	We have provided more details in the new methodology section, and have included 95% confidence intervals where ever averages were calculated for the data in the supporting data tables. (see last paragraph in Section III.C.1)
TB-14	Tony Bebber, SCDPRT	p. 22, Table 6	Study period boating capacity estimate	No data? Does having this “example” create more questions than providing real data?	We have deleted this table in the final report.
TB-15	Tony Bebber, SCDPRT	p. 28:	State parks	Shouldn't Landsford Canal and Lake Wateree be added to the list of state parks?	The discussion of regional recreation resources excludes the state parks that are included in the study area. These parks are included in the lake summary and detailed information is provided in Appendix A.
TB-16	Tony Bebber, SCDPRT	p. 28:	State parks	Harbison St. Forest is also known for mountain biking, Manchester is also known for OHV use	We have made these suggested edits in the final report (see Section IV.A.1)
TB-17	Tony Bebber, SCDPRT	p. 31, Table 11	Public Access Areas table	Consider expanding the table to describe all the public access areas in the CW. It would be helpful to see number of access areas along with number of ramps, so that we can see that there are not just mega-ramps. Also, add info on river reaches.	We have expanded this table to include all of the public recreation areas on the lakes and regulated river reaches. (see Table 12)

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ID No.	Commenter	Location in Draft Report	Subject	Comment	Response
TB-18	Tony Bebbber, SCDPRT	p. 32, 2nd para.	Recreation User Characteristics	Did Survey C respondents respond proportionately with the population (whites, AA, Hispanic, etc. in proper portion to population)? Or how did it compare?	We have provided a table comparing the demographics of the general population with that of the respondents. (see Tables 13 and 14)
TB-19	Tony Bebbber, SCDPRT	p. 32, 3rd para:	Recreation User Characteristics	If no income questions on Survey A, please note it. Is there a conclusion that can be confirmed from the information in this paragraph? (Shoreline/back lot residents have significantly higher incomes than the general population of the area counties. Non-owners are mostly served by public access or not served at all).	We clarify in the final report that no income data was solicited from visitors interviewed at the public recreation areas. We also added conclusions about different types of visitors to the general user characteristics based on the survey results. (see Tables 13 and 14)
TB-20	Tony Bebbber, SCDPRT	p. 32, Table 12:	Recreation User Characteristics	Total Visitation should be Use by Shoreline/Back Lot Owners, Area Residents, and Duke Public Access Areas (or something like that). Private marina or other private recreation use could be significant. Unless a good estimate is provided, I would not use "Total Visitation." Also, all the regulated river reaches have identical figures in both columns. It is highly unlikely that they would be identical. If information is unavailable, just say so.	We have revised the title of this table in the final report to clarify the pool of visitors considered in the survey. (see Table 15)
TB-21	Tony Bebbber, SCDPRT	p. 34	Summary of Study Area Boating Capacity	Note that no boat counts were conducted on x, xx, and xxx lakes. Note that it was a low visitor use study period due to rain/hurricane weekends and holidays. Is there an estimate of when the individual lakes will reach capacity?	The boat count information is provided in section III.B.4 of the draft and final report. We have added a discussion of the weather during the period of the boat counts. The capacity assessment provides an assessment of the overall carrying capacity based on existing use during the dates when aerial flights were conducted and does not provide an estimate of when the individual lakes would reach capacity. It does, however, provide an estimate of the total number of boats at which each of the 6 lakes assessed would reach capacity based on the existing mix of boating use occurring at the lake during the study period.

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TB-22	Tony Bebber, SCDPRT	p. 35	Boating use estimates and boat carrying capacity	Define boating surface acreage.	Shoreline frontage is not a factor in calculating the carrying capacity. The surface acreage was used in the carrying capacity assessment and this was based on full pond surface acreage minus isolated lake areas that are not accessible from the main lake, all island areas, and all areas with 120 feet of the shorelines for all boating uses. In response to questions raised about whether shallow water areas were eliminated, we reviewed available bathymetric data for five lakes and eliminated additional percentage of surface acreage as follows: Lake James (3.6 percent), Lake Norman (2.8 percent), Mountain Island Lake (21.5 percent), and Lake Wateree (6.8). There were no additional shallow water areas at Lake Wylie and there is no bathymetric data available for Lake Hickory. (see Section III.C.2)
TB-23	Tony Bebber, SCDPRT	p. 36	Survey identification/Editorial	Need descriptive terms for Survey A-E.	We now use the following descriptive names for the surveys: Survey A = public area visitors; Survey B = shoreline residents; Survey C = potential visitors; Survey D = marina operators, and Survey E = stakeholders
TB-24	Tony Bebber, SCDPRT	p. 37	Future needs estimates	We were disappointed you did not use the 1999 SC Recreation Participation and Preference Study to determine a more precise index value for each activity based on South Carolina residents rather than a sample of national residents. The USC study (http://www.discoverouthcarolina.com/documents/prt2000report.pdf) provides recreation participation information in 49 activities and even provides a breakdown by regional planning district. The Catawba Planning District data would have provided good estimates. Of course, you may not have had comparable figures from NC, but these may have served there too to represent a similar geographic area rather than a national study.	The final report includes information from the 1999 USC study as well as the NC and SC SCORP to make the numbers as regionally specific as possible. Please also see our responses to comments TB-5 and TB-11. We use the recreation participation activity rates from the SC and NC SCORP documents in our analysis. (See III.C.3)

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ID No.	Commenter	Location in Draft Report	Subject	Comment	Response
TB-25	Tony Bebbler, SCDPRT	p. 37-38, Table 14:	Estimates of future visitation	Does “visitation” include shoreline/back lot residents? Does this table take into account the huge bulge of population/recreation use when huge (Crescent property) developments get underway at Lake Wateree and Fishing Creek Reservoir? State data is probably based on a progression of past trends that may not hold true for these two lakes.	The visitation estimates consider the shoreline/back lot residents. These current use numbers were used as the basis for the future uses (and the changes identified in Table 14 p. 37-38). The estimated future uses are based on applying Cordell's future use index values (developed from a regional model that included population estimates as one of the many variables) to the current use numbers. As noted in the response to TB-5, we have adjusted the Cordell model to consider the aggressive population growth of local counties in our estimates of future land acreage needs. Please see response to comments TK-3, TB-5, and TB-11. (see Section III.C.3)
TB-26	Tony Bebbler, SCDPRT	p. 38, Table 15:	Estimated acreage needs	What about trails, fishing, or other uses? Trails and bank/pier fishing were expressly noted in many of the surveys. How do these sites relate to multi-use facilities, do we need more land so that the boaters, campers, picnickers, and swimmers (and others) are not on top of each other. Perhaps these are “minimum facility land acreage needs?” In the following paragraph, I question the term “total usable acreage needs.” I also suggest that the sites and parks listed “may meet these needs” rather than “will meet these needs.”	We have added facility standards for trails and bank fishing and include projected future land acreage needs for these activities in the final report. (see Table 19)
TB-27	Tony Bebbler, SCDPRT	p. 43	Economic Value of Recreation	So you used the data for IMPLAN and didn't report any here? Please show at least some of your work or results.	Results from the IMPLAN model are contained in Section IV.C of the final report.
TB-28	Tony Bebbler, SCDPRT	p. 43, 4th para:	Comparison between 1999 and 2004-2005	Capacity percentages and percent capacity is confusing. Don't you mean that “...overall boating counts were down...” and “...the boating counts increased by 10 percent, and during the holiday peak on Lake Norman and Mountain Island Lake the boating counts increased by 12 percent and 13 percent respectively.”	We have revised the discussion to be more clear about the differences between the two study periods in terms of boat counts and capacity. (see III.C
TB-29	Tony Bebbler, SCDPRT	p. 43, Capacity:	Comparison between 1999 and 2004-2005	Explain that how flyovers were counted and what level of detail could be counted (could a boat at rest, such as a fisherman in a small jon	We added to the methodology a description of the level of detail that could be discerned from the aerial photographs and discuss the limitations

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				boat be counted?). Explain why you think fewer people were boating in '04 than in '99 (weather, tropical storms, etc.).	inherent in using aerial photography in the new section on limitation in the final report. We also added in a discussion of the differences in boat counts between the 1999 and 2004 study period. (see Section III.D)
TB-30	Tony Bebbler, SCDPRT	p. 81	Future recreation needs/Lake Wylie	It is difficult to feel comfortable with these estimates when your data (page 41, Table X) shows a doubling of acreage needs from 1999 to 2004.	The 2004-2005 study period included the river reaches, in addition to the lakes, and other public access sites, while the 1999 study included only the lakes and the Duke public access sites. In the 2004-2005 study period over twice as many traffic counters were used. The final report includes a more detailed discussion about these differences in determining visitation. It is important to state that the future facility needs identified in the 2004-2005 RUNS are not based on the results of the 1999 study. The current facility needs are derived from future use projections based on the current data - inventory and survey responses, regional growth factors, and state activity participation rates.
TB-31	Tony Bebbler, SCDPRT	p. 82, table	Lake Wylie Recommendations	The recommendation regarding Landsford Canal should be “Additions to the upstream end of Landsford Canal State Park, or upstream of the park, to provide improved access facilities including a ramp for trailered boats.” (I think putting a trailered boat facility in the current park would negatively impact the natural/cultural resources mission of the park).	We understand that through subsequent discussion, your concern is that the recommended access be sited and installed in a manner that would avoid any negative effects on the natural and cultural resources of Landsford Canal State Park. We have revised the recommendation in the final study report to reflect this concern. (see Sections IV.B.7 and V.B)
TB-32	Tony Bebbler, SCDPRT	p. 82-83	Existing Recreation Areas	I note that Fishing Creek has only 0.8 miles of shoreline public shoreline frontage identified (total 24.4 acres) and only another 8 acres (shoreline frontage indefinite) recommended. How does this compare to Mountain Island Lake’s public resources and how can the “more trails” be accommodated? How much more shoreline frontage is needed?	We estimate land needs for facilities in acreage and have not assumed that all trails would be parallel to the lake or river shoreline.
TB-33	Tony Bebbler, SCDPRT	p. 89:	Recommendations	Were there no requests for hiking trails here? I believe Interest Statements included references to a proposed rail-trail, trails on Dearborn Island, etc.	The survey team was not provided stakeholder interest statement by agreement at the beginning of the survey. However, stakeholder survey data request trails, which we included under multiple

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					park use. We have made a separate recommendation for trails at this lake in the final report. (see Sections IV.B.9 and V.B)
TB-34	Tony Bebbler, SCDPRT	p. 92	Recreation Use Assessment	Cedar Creek Access info should be added to Lake Wateree. Note that more than one-half (52%) of the visitation occurred between October and April, changing this lake's "recreation season". Note that capacity may be different here as people anticipate seeing few boats and use this lake for that reason. They felt slightly crowded on weekends (even though usage is actually small compared to most lakes). They want a different experience.	We have included the information for Cedar Creek Access Areas with Lake Wateree in the final report. We have also changed the peak recreation season for the Catawba-Wateree Project area to April 1 through September 30 based on the traffic counter data.
TB-35	Tony Bebbler, SCDPRT	p. 93:	Recommendations	How do "more trails" convert to acreage (surely 29 new acres will not accommodate). Doesn't Debutary Creek need designated bank or pier fishing? Were there no mentions of multi-use facilities, such as at Dearborn Island?	We have added trails and bank fishing to our list of activities that require land in our computation of projected future land needs. (see Section III.C.3)
TB-36	Tony Bebbler, SCDPRT	p. 94	Existing Recreation Areas	You referenced "one state park" and "Lake Wateree State Park" which is duplicative. Lugoff should be listed in the regulated river reach (and on map on next page). The informal access areas (bridges) are most likely owned and operated by SCDOT.	We have eliminated the duplication in the final report. We have also included the information for the Lugoff Access Area with the Wateree regulated river reach and have noted that the informal access areas are owned and operated by the SCDOT. (see Section IV.B.11)
TB-37	Tony Bebbler, SCDPRT	p. 99	Future Recreation Needs Estimates	Land acreage needs almost doubled from 1999 to 2004 (p. 41), so I am uncomfortable with a 30 percent overall increase anticipated for the 45 year period. Also, how much shoreline frontage is needed to accommodate all these trails, camping, swimming, fishing, and boat access? Why was an area between Buck Hill and Colonels Creek chosen for additional boat access, when there are no access areas on the east side of the lake from Cedar Creek to the mouth of Beaver Creek (more than 5 miles)?	With regard to the estimate of future land needs, please see the response to TB-30. Shoreline frontage was not included in the calculation of future land needs as the amount of shoreline frontage needs to accommodate the facility needs would vary from site to site. The additional boat access between Buck Hill and Colonels Creek was recommended in the REC02 study of boating flows.
TB-38	Tony Bebbler, SCDPRT	p. iii.	Key recommendations	Key recommendations: are these the "most important" or should others be listed too? Table 11 indicates to me, a need for fishing piers and	These key recommendations were not intended to be inclusive; however, we have revised them to include all the lakes and regulated river reaches to

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				parking at Fishing Creek and Rocky Creek/Cedar Creek.	which they pertain. (see Section V.A)
TB-39	Tony Bebbber, SCDPRT	p. iii.	Key recommendations	Key recommendations, 6th bullet: wasn't this recommended below Fishing Creek and below Cedar Creek too?	See response to comment TB-38.
TB-40	Tony Bebbber, SCDPRT	p. iii. 4th bullet:	Key findings	Provide additional info about types of respondents, concerns about development, dilapidated properties, or other concerns.	We have revised the key findings to include the four most cited issues relative to scenic quality, which include litter, shoreline development, water quality, and the number of boats on the lakes. (see Section V.A)
TB-41	Tony Bebbber, SCDPRT	p.21, Table 5	Sample boat carrying capacity assessment	Is G "persons per party?" canoe/kayak and jet skiing, perhaps others, seem high. Does having this "sample" create more questions than providing real data?	We have eliminated the persons per party as that estimate does not factor into the carrying capacity estimate. The persons per party estimates were based on the 1999 survey average group size for boating use responses. (see Table 6)
TB-42	Tony Bebbber, SCDPRT	p.33. Figure 2:	Total visitation by lake	This figure demonstrates that the peak season for the entire basin is April through July or perhaps September. I believe this is true for most of the lakes individually as well.	Survey responses by recreation providers consistently (and typically) define the recreation season for the Catawba-Wateree Project area from May 1 through September 30. However, our traffic counter data show activity for April to be essentially the same as for September. Therefore, the final report defines the recreation season as April 1 through September 30.
TB-43	Tony Bebbber, SCDPRT	p.41, Table X	Estimated acreage needs	This table shows huge increases in needs just in five years. The total project needs more than doubled in 5 years and some individual project needs increased more than that. How does that relate to the next 50 years, especially on resources expected to experience exponential population growth such as Lake Wateree and Fishing Creek Reservoir?	We have added additional discussion on the differences in methodology in the 1999 report and the present study because the methods used in 1999 are significantly different so as to make comparisons between the two misleading. (see Section IV.A.6)
TB-44	Tony Bebbber, SCDPRT	p.42, Table XX	Estimated visitation	I was looking for Percent Increase here and you actually have Percent of Project Total by Lake/River Reach. Percent Increase may be more beneficial or it could be an added column. Note again that some increases are quite large for a five year period.	See comment TB-43. Percent increase is not directly applicable in this case as the reports are not directly comparable in this way. We have revised the text so as not to mislead the reader into thinking the tables are a direct comparison. (see Section IV.A.6)

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TB-45	Tony Bebbber, SCDPRT	p.77	Existing Resources	Fort Mill Access is in the regulated river reach (change in both paragraphs (and map on next page?).	We have included the data for the Fort Mill Access Area with the regulated river reach and have corrected the maps. (see Section IV.B.7)
TB-46	Tony Bebbber, SCDPRT	p.90-91	Existing Recreation Areas	note that Cedar Creek AA is in the tailrace and therefore part of Lake Wateree.	We have included the data for the Cedar Creek Access Area with Lake Wateree and have corrected the maps. (see Section IV.B.11)
TB-47	Tony Bebbber, SCDPRT	p.97	Recreation Use Assessment	56% of visitation in regulated river reach occurred in October-April, changing the season for this water body. In the 2nd paragraph, check info on next to last sentence about crowdedness; it appears that weekends were mentioned twice.	Please see our response to comment TB-42. We have eliminated the duplicate language in the final report.
TB-48	Tony Bebbber, SCDPRT	iii, 2nd bullet	Editorial	Please put percentage in parentheses or call it “majority”	We have revised the text. (see Executive Summary)
TB-49	Tony Bebbber, SCDPRT	p. 7. para. 3 and 5	Editorial	Change “collaborative” to “hybrid” or “enhanced.”	We have made the suggested edit. (see Section II.B)
TB-50	Tony Bebbber, SCDPRT	p. 28:	Editorial	Kings Mountain and Cowpens should not have apostrophes.	We have revised the text. (see Section IV.A.1)
TB-51	Tony Bebbber, SCDPRT	p. 28, 4th para. under SC	Editorial	Add this introductory text to the beginning of the sentence to clarify: “Other than the Catawba-Wateree reservoirs, there are a number of....”	We have made the suggested edit. (see Section IV.A.1)
TB-52	Tony Bebbber, SCDPRT	p.30	Editorial	Make sure Lugoff, Cedar Creek, and Fort Mill access areas are added in the downstream areas.	We have made the suggested edits. (see Sections IV.B.11, IV.B.7)
TB-53	Tony Bebbber, SCDPRT	p. 32 (and other places),	Editorial	Create some short descriptive term for various surveys (Survey A = public area visitors).	We now use the following descriptive names for the surveys: Survey A = public area visitors; Survey B = shoreline residents; Survey C = potential area visitors; Survey D=recreation facility providers; and Survey E = stakeholders.
TB-54	Tony Bebbber, SCDPRT	p. 38, between the tables:	Editorial	I have not been able to find a reference to FERC Guidelines for Outdoor Recreational Facilities on the FERC website. Can you provide a source to locate these?	We have removed this reference from the document as it is out of date and no longer in print.

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TB-55	Tony Bebbber, SCDPRT	p. 115-116:	Editorial	Fort Mill recommendations through Wylie Regulated should all be under Wylie Regulated section.	See our response to TB-52
TB-56	Tony Bebbber, SCDPRT	p.80 and all succeeding maps	Editorial/All lakes	Is it possible to show boat density and access areas/parks/marinas on the same maps? By flipping maps back and forth, it appears to me that highest density is not necessarily near public access areas but probably near residential areas.	We now show the boating density on base maps that include the public recreation areas, access areas, and marinas.
TB-57	Tony Bebbber, SCDPRT	p.79, third para	Editorial/Lake Wylie	You have references to Lake James and Bridgewater; please check data and switch to Lake Wylie/Wylie Regulated river reach.	We have checked the data and corrected the text.
MBL-1	Maurice Blackburn, Carolina Canoe Club	page 112, bullet 4	Acreage needs	This bullet refers to over 2,000 acres of Duke land being available should make it clear that this land is not necessarily located where it might be needed for the recommended 1,100 acres in the preceding bullet.	We have clarified in the final report that not all of this land is usable and may not be in appropriate locations to meet identified needs.
MBL-2	Maurice Blackburn, Carolina Canoe Club	page 112, bullet 4	Acreage needs	Does the 1,100 acres take into account the areas recommended for trail development?	The 1,100 acres in the draft report did not take into account future land needs for trails. We have added a facility standard for trails and bank fishing access and have estimated projected future land acreage needs for trails at each lake and regulated river reach. (see III.C.3)
MBL-3	Maurice Blackburn, Carolina Canoe Club	General	Editorial	The difficulty I had describing the bullet to which I was referring shows that it would be desirable throughout the report to use numbering rather than bullets.	Where appropriate throughout the text we have changed bullets to numbers to make it easier for the reader to find information. We continue to use bullets in the summary of key findings as use of numbers would suggest the list is in some priority order, which not intended.
MB-1	Mike Bradley, SBTDC Marine Trades Services	General	Specific facility needs: Boat repair facilities	The other big problem across the lakes is the loss of boat repair facilities - ones that can haul bigger boats and do the environmentally sensitive painting and hull repair. We are finding some solutions on the coast that may work there. These are off-the-waterfront facilities with a dedicated corridor to the water so that travel lifts or hydraulic trailers can move the boats to and from repair. This removes only a corridor from the expensive waterfront land pool, but still	Two of the 23 the marina owners that responded to our survey indicated a need for boat repair facilities. While boat repair is an ancillary service in support of recreation boating, we would consider the service to be outside of a licensee's obligation to provide facilities and public access to project lands and water for boating.

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				services the boaters. The corridor is wide enough for about 4 short term slips (for set-up to haul out or rigging after haul out) and a travel lift drop or a professional ramp or both. The acreage can be shared by more than one business lessees.	
MB-2	Mike Bradley, SBTDC Marine Trades Services	General	Specific facility needs: dry stack units	I would like to comment on dry stack storage shortages. I believe that you are addressing the dry stack issues – and I understand that there are unreasonable expectations and demands from waterfront property owners that make siting these difficult. Duke/Crescent land ownership may offer the best solution for this type of facility lease, but I think you are working with this.	The Ad Hoc Land Use Committee's study of the effects of various build out scenarios on boating carrying capacity takes into account dry stack storage. The RUNS report, however, does not address this need. The provision of dry dock storage facilities is beyond the normal obligations of licensees to provide facilities and access to project lands and waters for boating.
JF-1	Judy Francis, Burke County	General	Facility Improvements beyond AAll	I understand that the scope of the study specifies a discussion of the Access Area Improvement Initiative is to be included in this document. I would also like to see a discussion of improvements that will be done outside of the Access Area Improvement Initiative by Duke Power – if any. There should also be a statement explicitly stating that Duke Power will assume responsibility for providing the improvements subject to a timeline to be negotiated– regardless of whether or not a partner is eventually established through the Access Area Improvement Initiative.	It is the Licensee's responsibility to insure that public recreation needs at a licensed project are met. Creating partnerships with local, state, federal, and private entities is a common method for licensees to meet recreation needs at licensed projects. The AAll provides a vehicle for meeting these needs.
JF-2	Judy Francis, Burke County	General	Methodology to identify use needs	The study needs a section – as close to the front of the document as possible – that states very clearly and concisely what the underlying assumptions of the methodology are. There should be a comprehensive discussion also about the weaknesses in the study including dated methodology, census data that is dated and not particularly useful for population projections, limited and skewed survey results (ex: “visitors at access areas are satisfied with facilities”... of course they are – the ones that aren't satisfied aren't using them!), inability to	Please see our response to comment TB-6.

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				<p>quantify usage at some primary access areas due to multiple access points, standard deviations of calculations, problems with generalizing about the population-at-large from the returns received, lack of data on minority populations, etc. Some of these issues may be mentioned in various parts of the document – but pull it all together right in the beginning where it won't get lost. I am very leery of the population projections – they do not reflect growth at the rates we are expecting, especially in the Lake James area. I realize the numbers are generated using census data – but that data does not incorporate development activity that we know is coming in the near future. Using historic growth rates to assume the future in this area will not provide accuracy or give a realistic picture of the area. Build out scenarios would be useful and are necessary.</p>	
JF-3	Judy Francis, Burke County	General	Shoreline acreage/shallow water calculations	<p>Were shallow water areas taken into consideration when determining carrying capacity and usable areas? Some portions of the lakes are too shallow to be accessible during some (or all) of the year. The shoreline distances of islands should not be used in the calculations either because they have very limited accessibility.</p>	Please see our response to comment TB-22.
JF-4	Judy Francis, Burke County	General	Same as comment TB-23	<p>Make sure and note throughout the document what survey A, B, C, etc. actually represents. It is confusing to the reader as it is currently written.</p>	Please see our response to comment TB-23.
JF-5	Judy Francis, Burke County	General	Uses: Trails, Night Use, Waterfowl Hunting	<p>Trails were among the top amenities requested by survey respondents. Why are trails not listed with the other amenities on Table 15 (p. 38)? If the trails info is in various portions of the document – that info should be pulled together in one place for the reader to view. It is a significant issue for stakeholders and it should be discussed thoroughly and placed prominently</p>	Please see our responses to comments TB-26 and TB-8.

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JF-6	Judy Francis, Burke County	General		<p>in the document. There is also little or no discussion concerning night uses of the project area. I am unfamiliar with the entire project area, but there is a great deal of lake fishing during the PM in the Foothills area. I found no discussion of waterfowl hunting either – which is very popular on Lake James, on the mainstem of the Catawba, and on Lake Rhodhiss.</p> <p>Just a general impression – there does not seem to be any continuity between the study findings and the proposed recommendations. I am concerned that the methodology, population and user projections, and underlying assumptions paint a far less than accurate picture about current and projected recreation use. I am anxious to see how these issues can be addressed in the revisions.</p>	<p>In consultation with Cordell, we have made adjustments in his model to address regional population growth factors and projections for recreation activities that occur but were not documented by the survey (i.e., camping) because current facilities do not accommodate these uses. (see Section III.C.3)</p>
JF-7	Judy Francis, Burke County	Page 38A	Estimated Future Recreation Use	<p>The estimated Future Recreation Use chart on page 38A is just plain wrong. It shows no increase at all in motor boating and jet skiing on Lake James from 2004-2010. What about the thousands of homes that will be built on Lake James during that time – or the thousands of visitors to the new state park? How can these numbers be even remotely possible?</p>	<p>Please see response to comments CG-7 and CG-23.</p>
JF-8	Judy Francis, Burke County	Page 41	Acreage needs	<p>Do the acreage needs on page 41 account for only “usable” land? How much land in existing access areas is “usable,” and how much cannot be used for recreation improvements (even though it may have viewshed protection values not associated directly with recreation)? How much of that acreage is actual shoreline (which is what most people are looking for)? The facility summaries for each impoundment needs to specifically state how much “Usable” acreage is set aside – don’t forget to define what “usable” means! Also, in the 2001 SMP filing, a list of needs were identified and committed to by Duke. Those needs included some recreation</p>	<p>We have clarified in the final report that the total acreage does not take into account how much is usable or whether it is in the best location. We included in section IV. E. of the draft report information on facilities upgrades completed by Duke Power since the last RUNS in 1999. We have included in the final report a table to show the progress made by Duke Power in completing the recreation improvements included in the 2001 SMP. (see Table 41)</p>

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				improvements that, to my knowledge, have not all been provided. How are previous commitments separated from proposed commitments?	
JF-9	Judy Francis, Burke County	Page 42	Recreation use	I am concerned that we have historically underestimated recreation use of the project area in the past (compare 1999 estimates to the 04/05 actual numbers in the chart on page 42) – and there are no assurances that these numbers are not underestimated in this study. This leads to the concern that not enough recreation facilities will be proposed for the term of the next license (due to poor estimates of future use / demand). What will be the linkage mechanism between actual numbers and future facilities?	Please see response to comments TB-5, TB-11, and TK-3.
JF-10	Judy Francis, Burke County	Page 46	Facilities	Mimosa Boat Landing is a marina operating on Lake James that is not on the map or appendix (A-9). Also R&N Marina is on Lake Hickory – but is not noted in the appendix.	We have included these marinas in the text and maps in the final report. We now report 39 public marinas in the final report, on the public recreation area maps and in the detailed reports in Appendix A. (see Table 11)
JF-11	Judy Francis, Burke County	Page 50, last paragraph	Future Needs Assessment/ include trails	states that picnicking, camping, swimming, and boating are the four activities that will need specific land & facilities – but trails should be included here also and land calculations for that activity) that rated so highly throughout the project area.) <u>This should be addressed in the future needs assessment for every impoundment and river stretch in the project area.</u>	Please see our response to comment TB-26.
JF-12	Judy Francis, Burke County	Page 51	Camping needs	Camping is needed on the river between Lake James & Morganton – if you don't believe me, then come with me on a river clean-up day sometime. It needs to be listed here – perhaps this can be attributed to the very small sample size we got for this area.	
JF-13	Judy Francis, Burke County	page 55	Restroom facilities/Lake Rhodhiss	I see that there is language specifying that there be at least one public restroom on each impoundment. How is the location for that facility determined? On Lake Rhodhiss, there is an	The language in the draft report was not intended to be limiting. Access areas designed to accommodate large numbers of users should have restrooms available at the access area or nearby.

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				access area with hundreds of parking spaces that has no proposed restroom facilities. I can understand how a smaller access area designed to accommodate only a few users would not necessarily need more elaborate facilities – but if you know hundreds of people are going to be there – then wouldn't those projected visitor rates indicate that the place should have a restroom (p.55)? Lake Rhodhiss will soon be classified as "impaired" by the DENR – and should have public restrooms at large recreation access facilities located there.	We have reviewed the facility inventory, traffic count data and survey responses and now include additional restrooms at Castle Bridge and Rhodhiss access areas. (see Section V.B)
JF-14	Judy Francis, Burke County	Page 62		Isn't Riverbend Park at the upper end of Lookout Shoals? Do we need another proposed new access point that close to an existing park? Maybe it should be somewhere further down the lake...	The recommendation for a new access point at the upper end of Lookout Shoals is from the REC02 study, which assessed locations for boating facilities relative to potential recreation flow releases.
JF-15	Judy Francis, Burke County	Page 67		I am not sure there are any private campgrounds on Lake Norman in Catawba County. I believe the ones shown are actually permanent residential sites – not facilities where visitors could camp a day or two.	We have eliminated private campgrounds from the final report as they are not accessible to the general public.
JF-16	Judy Francis, Burke County	Page 68	Carrying capacity methodology	Just a thought – it seems like, when comparing the numbers for Lake Hickory and Lake Norman- that there are much greater carrying capacity issues on Lake Hickory (because of its much smaller size) – but the proposed improvements don't seem to indicate that.	With the boating density appearing higher for Lake Hickory, provision of additional launching facilities at Lake Hickory could have the effect increasing the boating use and density on the lake.
JF-17	Judy Francis, Burke County	Page A-26	Recommendations	Lake Rhodhiss recommendations include no mention of camping, swimming, picnicking, or trails – yet all were identified as needs in the study.	We have added a general recommendation for trails at Lake Rhodhiss. (see Section V.B)
JF-18	Judy Francis, Burke County	Pages 100 to 104	Economic Value of Recreation Assessment	This is vaguely written and needs to have more description. I am still unclear how IMPLAN works, and what these numbers are supposed to represent, how they were derived, etc.	This final report includes a more complete description of the methods used to calculate the economic value of recreation provided by users of the Catawba-Wateree system. (see Section IV.C)

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JF-19	Judy Francis, Burke County	Pages 18 through 20	Boating Carrying Capacity	How was Warren & Rea “modified”? I have problems with assuming that more urban areas have higher tolerance of crowds. That may be a fact they have to deal with – but that doesn’t mean they like or prefer it. The “urban lake user” concept is problematic for me.	The Warren and Rea methodology was modified to incorporate factors specific to the lakes within the project area, such as the crowding ratings from the surveys to reflect user perceptions on crowding at the lakes. The crowding rating reflects more of the tolerance perceptions rather than the amount of facility and shoreline development (item 5). The primary influence on the ratings for item 5 are based on the amount of access and shoreline development. As noted in the Warren and Rea methodology, an area with a high degree of access and facilities can handle a higher capacity than a less developed area. (see Sections III.C.1 and III.C.3)
JF-20	Judy Francis, Burke County	Pages 27 to 28	Trails and Parks ownership	In NC federal agency paragraph – the Dept. of Interior / National Park Service has the Overmountain Victory National Historic Trail and motor route in Burke & McDowell counties – the original route of which is now under Lake James and proceeds down the main stem of the Catawba River. The Pisgah Loop Scenic Byway is operated by Burke County and the NC Dept. of Transportation (not the feds). In the paragraph about state agencies – Lake James State Park (existing or new expansion) is not discussed even though it is right on the shoreline of Lake James. On page 28 – please note the Overmountain Victory trail affiliation with the Dept. of Interior / National Park Service.	We have made the suggested edits, except that Lake James State Park is discussed under the Summary of Study Area Recreation Areas. The discussion of regional, North Carolina, and South Carolina recreation resources is intended to encompass recreation opportunities within the region that are outside of the immediate project area. (see Section IV.A.1)
JF-21	Judy Francis, Burke County	Table 15, page 38	Camping, swimming, trails estimates	This table needs to be re-examined. Some of these numbers make no sense, particularly camping estimates and swimming. Also – the number one requested amenity (trails) isn’t even on the table at all.	We have clarified in the final report that land at Duke Power access areas is not all usable and may not be in the appropriate location to address identified needs. We also have included facility standards for trails and bank fishing in our revised projected future land acreage values.
JF-22	Judy Francis, Burke County	Table 5, page 21	Persons per boat data	The persons per boat numbers look really inflated – especially the canoe / kayak numbers.	Please see our response to comment TB-41.

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JF-23	Judy Francis, Burke County		Lake James/Lookout Shoals	Using Lookout Access Area as a comparable for the Linville Access Area is problematic. Wildlife Resources Commission has suggested that a much more accurate comparison would be Black Bear Access Area.	We based our selection of surrogate locations on spot count data. Absent any specific suggestion to use an alternative site, we have used the same surrogates as in the draft report.
JF-24	Judy Francis, Burke County	Executive Summary	Editorial	The Executive Summary states that the number one complaint about scenic quality at the recreation areas is litter, but on pages 37 & 50, the primary reasons also included too much shoreline development, dilapidated properties, the need for a shoreline buffer, too many boats, fallen trees, and poor water quality. All of the primary reasons should be listed in the Executive Summary.	We agree and have revised the text to include the top three concerns about the scenic quality. (see Executive Summary and Section V.A)
JF-25	Judy Francis, Burke County	General	Editorial	I would prefer that river stretches be distinguished from the impoundments. Please break out the data and maps for the river stretches so we can evaluate those needs more precisely. For example, the chart on page 31 combines Lake James and Bridgewater but they are very different and attract different users. Also – some access areas are attributed to lakes that are actually on river stretches (ex: Lake Hickory / Oxford, Lake James / Bridgewater) This tends to give an inaccurate picture of existing facilities.	The report already breaks out information by lake and regulated river reach and the maps show both the lakes and regulated river reaches. We have attributed the access areas in question to the appropriate regulated river reach.
JF-26	Judy Francis, Burke County	Table 10, page 30	Editorial	What is the difference between “local” and “county” in the forth column of Table 10?	The title of the column refers to the ownership of these facilities. Some facilities are owned by the county, and some are owned by other local entities.
JF-27	Judy Francis, Burke County	Page 43, 3rd paragraph, line #4	Editorial	Correct the year number.	We have corrected the year so it reads 1999.
JF-28	Judy Francis, Burke County	Page 56	Editorial	Correction – Lake Hickory is northwest of Lookout Shoals (not northeast).	We have made the revision to the text. (see Section IV.B.3.a)
JF-29	Judy Francis, Burke County	Page 60d	Editorial	What is “unstable ground” at the Oxford canoe portage?	People who tailrace angled mentioned that the shoreline and/or banks leading down to the water were rocky and uneven, making it unstable from a bank angling standpoint. We have clarified this

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					statement in the text. (see Section IV.B.3.d)
JF-30	Judy Francis, Burke County	Appendix A, Lake James	Editorial	The Lake James Appendix includes a discussion of Watermill Park – which is actually a joint project between Glen Alpine, Burke County, and Trout Unlimited. It is not located on Turkey Tail Lane – it is located on Watermill-Glen Alpine Rd.	We have corrected the location and ownership information for Watermill Road Public Recreation Area. (see Appendix A.1)
CG-1	Chris Goudreau, NCWRC	General	Night use	None of the documents clearly explain the extent to which the results include estimates of night use. Please add text in the methods section.	We have added text about how we assessed night time use to the methods section and night-time use data have been included in Section IV.B and in Appendix A for each Lake/river reach.
CG-2	Chris Goudreau, NCWRC	General	Survey C	The report does not explain how the results of Survey C were used to calculate recreation use, nor are those estimates even provided. Please explain.	Current recreation use estimates were calculated by multiplying the average group size obtained in on-site interviews (survey A) for each lake by the traffic counts obtained from the traffic counters deployed at almost every site. At sites where traffic counters were not possible or deemed inappropriate upon initial deployment, surrogate sites were used assuming use levels and types of activities were comparable between sites. Regional residents, the target population of Survey C, were captured in the on-site interviews as these people are assumed to access Project waters via the public access areas. As such, it is not necessary to calculate estimates based solely on responses to Survey C. Information on activities that people participate in as well as facility needs, site conditions, night activities, and aesthetics were utilized in the study report.
CG-3	Chris Goudreau, NCWRC	Lake James, Page A-23, Table A.1-12	Use estimates	The use estimate for Watermill seems extremely high. We do not believe that area supports over 18,000 recreation days per year (an average of 50 per day). It does not seem reasonable to include as a recreation day a car that just rides through an access area. Also, please explain the 29,000 users at Lake James State Park in January. These results raise serious questions about the validity of the estimates for many other sites, and therefore, of	Review of our interview results for the Bridgewater Regulated River Reach and Watermill Road Public Recreation Area in general indicates that the approximately 20,000 users estimated at this site is reasonable. Summary statistics indicate that the average group size applied to the traffic counts here is 2.4 persons per group (system wide average of 2.8) with 0.32 difference at the 95% confidence interval. The traffic counter was deployed for 49 weeks and the mean count per

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				the entire study. The report needs to explain these kinds of anomalies in the data.	week was 164 with a standard deviation of 74. Review of the data indicates the level of traffic was regular with no anomalies to raise concern about the quality of the recorder. The 29,000 users at Lake James State Park in January was data provided to us by the State Park through an agreement to share data. The State Park utilizes a traffic counter at their site as well.
CG-4	Chris Goudreau, NCWRC	Lake James, Page A-24	Use estimates	Where are the estimates of recreation use from Survey instruments B and C? There should be a table showing how the raw data were converted to estimated number of trips (by month), then multiplied by the average party size to arrive at the monthly estimated recreation use (recreation-days). Each survey type should have a row in the table.	We have provided a more detailed description of how visitation estimates were derived. Our methodology centered on the use of traffic count and interview data (average group size per lake). We have revised the approach for calculating the portion of use from shoreline residents. We are making the assumption that the number of dock permits represents the shoreline resident population. From the survey data, we know the average number of days that shoreline residents use the lakes. We multiple these two numbers to estimate recreation use by shoreline residents. Ninety-five percent confidence intervals are provided for these calculations in the supporting data tables. Use of the Project by regional residents (targets of survey C) was captured in both the traffic counts and the on-site interviews (survey A). We have added a more detailed discussion to the revised methodology section to clarify how we obtained our total use estimates. (see Section III.C.1)
CG-5	Chris Goudreau, NCWRC	Lake James, Page A-29, Tables A.1-13 to 16	Data identification	Please provide a standard deviation, standard error or 95 percent confidence interval for these results. We did not find them in the supporting documentation information.	The final report provides 95 percent confidence intervals for these results in the supporting data tables.
CG-6	Chris Goudreau, NCWRC	Lake James, Page A-30, Figure A.1-20	Sample Sizes	We find it hard to believe that there was no canoe use on the Bridgewater regulated reach and that 50 percent of the use is from kayaks. Again, such unexplained results lead us to believe that the sample size is extremely small	The Bridgewater Regulated River Reach data are only from Survey A. Survey B & C respondents did not indicate the regulated river reach as their primary location for recreation. Of the 44 interviews conducted on the regulated river reach, only 4

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				(thus the standard deviation is very high) or the methodology was inappropriate. Either way, we cannot trust the results to be reliable and question where else the results may be inaccurate.	individuals indicated they were boating (2 kayaking, 1 rafting, and 1 motor boating).
CG-7	Chris Goudreau, NCWRC	Lake James, Page A-38, Table A.1-22a	Future recreation needs	We do not agree that some types of recreation use (typically boating) will not increase between 2004 and 2010. This seems to assume that no development will take place on Lake James. Yet, we know that in the past few years that the number of individual docks and community marinas are increasing rapidly. Applications for many other marina slips have been sent to the FERC. The projections for Lake James, Rhodhiss, and Lookout Shoals are all likely way off the mark.	When looking at SC SCORP data the average number of times people participated in motor boating for the period 1990-1999 the trend was a 6.3% reduction in this activity. However, we agree that for the project area that Cordell's index for motor boating use is underestimated in terms of the likely increases in motor boating use within the project area. Therefore, in the revised future demand and land acreage estimates, we have adjusted the model to use Cordell's index for boat fishing, which results in an increase of about 10% by 2010 and an overall increase of about 22% by 2050. (see Section III.D)
CG-8	Chris Goudreau, NCWRC	Lake James, Page A-40, Table A.1-22b	Data identification	The data indicates that no hunting occurred on the Bridgewater river reach, but we know that duck hunting regularly occurs. Again, these kinds of results should be explained.	Public recreation areas on the Bridgewater Regulated River Reach were visited 12 times to conduct spot counts and interviews during the 2004/2005 waterfowl hunting season. Visit times varied and ranged from 7:27 a.m. to 5:26 p.m. However, no hunters were encountered. As you have noted hunting does occur, however, given the data recorded it is beyond the capability of this study to be able to project estimated future hunting use. We have explained this in the final report. (see Section III.C.1)
CG-9	Chris Goudreau, NCWRC	Page 102-103, Executive Summary	Economic impact analysis	The level of economic impact of recreation at the project is unclear. Is it \$94 million (total output) or \$24 million (direct labor). Please clarify here and in the Executive Summary.	The total level of economic impact spending associated with the Project has on the counties adjacent to the Project is the total output (\$95 million). We have added a more detailed discussion to the report to clarify this point. (see IV.C)
CG-10	Chris Goudreau, NCWRC	Page 105	Effects analysis	The potential effects section should include additional analyses. The first should analyze the effect changes in recreational flow releases in the riverine and bypass sections on recreation	We have added analysis of the effects of changes in recreation flow releases in the regulated river reaches and the effects of lake levels on boating, carrying capacity, and economics to this discussion.

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				use and ultimately on economic impact. The second should analyze the effect of better lake levels on boat recreation use, carrying capacity and economic impact.	(see Section IV.D)
CG-11	Chris Goudreau, NCWRC	Page 113, Table 23	Trails	All large access areas could benefit from trails along the shoreline to provide bank fishing spots.	We have made a general recommendation for trails at each lake and for each regulated river reach in the final report. (see Sections IV.B and V.B)
CG-12	Chris Goudreau, NCWRC	Page 12, Table 2	Rates and Sample Sizes for Survey	Overall return rate and sample size (N) for Survey B are not as informative as the return rate and N for each reservoir. A discussion of these rates and sample sizes should be discussed in Section IV.A.	The basis for the study was a system-wide analysis. The information provided is consistent with the methodology in showing that the number of returned surveys provided statistical accuracy for the entire system. The mailed surveys and interviews were stratified by lake to ensure representative data from all of the lakes when aggregated. We have provided a table with target survey returns and actual survey returns by reservoir and included a table at the beginning of each lake appendix indicating the number of surveys received for that lake by survey type. (see Tables 3 and 20 and Supporting Documentation Table SD-1a)
CG-13	Chris Goudreau, NCWRC	Page 17, Table 3		We are not sure that the comparable access sites for Linville and Lovelady are appropriate. Our field staff do not have a recommendation on which other sites are more appropriate, but they suggest that the use at Linville and Lovelady are about twice as much as that found at Lookout.	Please see our response to comment JF-23.
CG-14	Chris Goudreau, NCWRC	Page 18	Methodology to identify use needs	The methods do not explain how the total use estimates were derived from the various survey instruments and methods. We suggest that the use estimate for each survey (A, B, C, D and the traffic counters) be provided for each lake/river section. A measure of dispersion (e.g., standard deviation) or confidence (e.g., 95% confidence interval) also should be provided for each of these estimates. Then the methods should explain how the estimates are grouped to provide the total estimate by survey type. Again, the estimate by type should have an associated	Please see response to comment CG-4.

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				measure of dispersion or confidence.	
CG-15	Chris Goudreau, NCWRC	Page 19	Shallow water/boating carrying capacity	Some reservoirs, such as Lakes Rhodhiss, Mountain Island and Wylie, have substantial amounts of very shallow water under normal conditions that preclude some types of boating. Such areas should be eliminated from the “usable” acreages when calculating boat carrying capacity. It may be possible to use bathymetric data to estimate the size of these shallow areas. We suggest that depths less than 2 feet (when the reservoir is at normal pool) are not available to any motorized boating, even fishing. Depths less than 3 feet are not suitable for high speed activities such as cruising, water skiing, jet skiing.	Please see our response to TB-22.
CG-16	Chris Goudreau, NCWRC	Page 23, Section 3	Future use needs methodology	We do not believe that the assumption of unrestrained growth is reasonable. Also, the use of the term “needs” when referring to “use estimate” is confusing. The “needs” are related to the facilities/acreage, not the activities themselves. We suggest using the term “projected future use” instead. These future use estimates are then converted into an estimated number of facilities/acreages by using a published ratio of users per facility.	We have clarified the text to indicate that Cordell's models do incorporate changes in population into his resource availability variability, meaning that estimates of future activity numbers (number of people performing an activity such as motor boating) do have a population density driven variable that accounts for relative increases in the scarcity of recreation opportunities that occur with population increases from any combination of congestion, reduction in quality, loss of access, and physical conversion due to development. The assumptions for projected land acreage needs, however, were made without any consideration of topography or other spatial or ecological constraints. The acreage number represents how much land would be required to support a given activity in the future given the demand population. It says nothing about site-specific design criteria or location; it is simply gross acreage.
CG-17	Chris Goudreau, NCWRC	Page 26		It appears that a general expenditure dollar value was applied to all uses. If so, we recommend using the recreation-specific expenditure value. The total value would then	The sample method does not allow for us to link expenditure information with specific recreation activities. The survey asked people what activities they participated in while at the site and how much

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				be: \sum (recreation-specific use estimate x recreation-specific expenditure estimate) for all types of recreation.	they spent for the day, but not how much they spent on each activity they participated in during the day.
CG-18	Chris Goudreau, NCWRC	Page 31, Table 11	Shoreline acreage	An additional column should be added that gives the amount of shoreline frontage provided by the access areas, but excludes the shoreline of islands. This number should then be divided by the total amount of shoreline (excluding islands) provided at each reservoir to give a percentage.	We have added this column to Table 11 as suggested.
CG-19	Chris Goudreau, NCWRC	Page 32	General demographic data	The bulk of the general demographic summary data should be provided in tabular format like was done for the quarterly updates to the study team.	We have provided the general demographic summary data in tabular format. (see Tables 13 and 14)
CG-20	Chris Goudreau, NCWRC	Page 32, Table 12	Use Projections	The “ratio” shoreline owners to public access users is not explained. It seems to be a shortcut way to expand the use estimates calculated from Survey A to the entire population. If so, this is not acceptable. As explained above, we believe each survey instrument should have its own estimate of recreation use. The table should add a column for the 95% confidence interval for each reservoir use estimate.	We have revised our approach to estimating visitation by shoreline residents. Please see response to comment CG-4.
CG-21	Chris Goudreau, NCWRC	Page 33	Definition of Peak Recreation Season	Although the preconceived notion was that the peak recreation season is from May to September, the actual data indicate that the peak recreation season includes April. From April through September, the total monthly recreation estimates exceed 750,000 recreation days. For the remainder of the year those values are typically less than 500,000 recreation days. The peak recreation season should be defined as including April.	We have revised the definition of peak recreation season in the final report. Please see our response to comment TB-42.
CG-22	Chris Goudreau, NCWRC	Page 38, Table 15	Acreage needs	Also, it seems odd that the same amount of camping acreage is needed on Lake Rhodhiss as on Lake Norman. Please explain.	After reviewing the methods and calculations for camping facility needs at Lake Rhodhiss and Lake Norman we admit an error was made in our initial camping use estimate at Lake Rhodhiss which was carried forward into the facility needs estimates. The amount of camping at Lake Rhodhiss in the draft report was mistakenly based on combined

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					information from Lake Rhodhiss and Lake Norman. We have corrected this in the final report. (see Table 19)
CG-23	Chris Goudreau, NCWRC	Page 38, Table 15	Methodology to identify use needs	It also is somewhat misleading to project a current use of “zero” into the future if that “zero” use was due to the lack of facilities to support that activity. For example, the absence of camping on the Bridgewater river reach is due to the fact that there are no camping facilities available in that area. Projecting this forward ignores the data supplied in the other survey instruments indicating that camping should be provided in the river reach.	For the revised future recreation use projections for camping, we applied the baseline recreation use estimate for canoeing/kayaking to project potential future recreation use for this category. Similarly, for motor boating and jet skiing for the future use projections at the lakes, we applied the boat fishing future use rates to capture more realistic future recreation use (greater increase than the motor boating and jet skiing regional factors determined by Cordell) for the project area. Please see response to comment CG-7.
CG-24	Chris Goudreau, NCWRC	Page 40, Table ??	Sample Sizes	Is this the only table that shows sample sizes for each survey instrument? The sample sizes for the 2004-05 data should be provided earlier in the report. Also, the number in the last row/column should be changed from 552 to 120 to correctly show the overall comparison from 1999 to 2004-05.	We have included sample sizes in the tables in the final report. In Appendix A to the final report, new tables show the sample sizes for each survey instrument and by public recreation area. We have changed the number in the last column.
CG-25	Chris Goudreau, NCWRC	Page 45-46		It appears that other marinas were omitted from the text and figure. Mimosa still operates on the Linville side of the reservoir. There may be other omissions.	We have corrected the text and maps in the final report to include additional public marinas as requested. Please also see our response to JF-10.
CG-26	Chris Goudreau, NCWRC	Page 47		The map is not adequate to show the Bridgewater regulated reach. Please adjust the scale.	We have revised the scale of the map of the Bridgewater Regulated River Reach as suggested.
CG-27	Chris Goudreau, NCWRC	Page 48, Section B	Summary table of data	Please provide a summary table of the data provided in the text. Please make a clear reference to Table ?? in the “supporting documentation” document. That document should be labeled as Appendices H – N and each table should be given unique table numbers.	The lake summary is intended to provide a brief narrative summary and not present all of the data. The tables that show the details from data categories and sources are included in the Appendix A for each lake and regulated river reach. We have labeled each of the supporting data table and have included references to these tables in Appendix A.

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CG-28	Chris Goudreau, NCWRC	Page 50	Comparison table of existing and projected needs and acreage	Please provide a table comparing the existing and projected facility needs and acreages. This could be done in one table with separate rows for each reservoir or river reach.	We provide this comparison by lake in Table 21 in the final report.
CG-29	Chris Goudreau, NCWRC	Page 51	Needs Identification	Why wasn't lighting at Black Bear included in the table when it was highlighted as a need on page 50?	Only one survey respondent indicated that lighting was a safety concern but that individual did not indicate that additional lighting was needed.
CG-30	Chris Goudreau, NCWRC	Supporting Document, Page 6 (spot counts)	Use estimates	We do not believe that 49 percent of the use at Linville Access Area consists of swimming. Please explain why these results contradict the estimate of 0% listed on Page 12 (survey A, question 6). How were the data in the two tables used to provide estimates of use and needs. This may well have resulted in highly erroneous results and recommendations.	These are two different survey instruments recording data in two different manners. Page 6 of the supporting documentation is recreation use based on spot count data (total number of individuals the surveyor sees participating in each recreation activity at the access area). Page 12 of the supporting documentation is recreation use based on interviews conducted as people exit the access areas.
CG-31	Chris Goudreau, NCWRC		Visitation estimates	Also, please explain the extremely high number of visits per year (86.4) for the Bridgewater river reach. Was this due to one person indicating that they use the area every day of the year? If so, the median number may be more appropriate.	44 interviews were conducted on the Bridgewater Regulated River Reach. The 95 percent confidence interval is high (20.3), but the median value is 67.5 with almost 50 percent of the interviewees (20 of 44) indicating they visit the river reach 100 times or more each year. Though unlikely based upon the data (looking at the demographics of the interviewees [zip code, gender, race, and age] it does not appear that the same individual was interviewed more than once) we cannot absolutely rule out that an individual was not interviewed more than once.
CG-32	Chris Goudreau, NCWRC	Page 27	Editorial	<p>The reference to NCWRC facilities or activities is awkward. We recommend the following edits:</p> <p>The North Carolina state agencies include State Parks and the North Carolina Wildlife Resources Commission (NCWRC). There are seven state parks in the region; Mt. Mitchell, Mt. Jefferson, New River, Stone Mountain, Morrow Mountain, South Mountains, and Crowder's Mountain. The parks offer opportunities for hiking, mountain</p>	We have made the suggested edits.

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				biking, picnicking, horseback riding, camping, boating, walking, environmental education, fishing, and swimming. <u>In addition to managing game lands</u> , the NCWRC operates a number of boat <u>and fishing access areas</u> throughout the region. <u>Outside of the Catawba-Wateree system</u> , there are a total of 11 boat <u>access areas</u> in the region operated by the NCWRC. They are on the South Yadkin River, Yadkin River, High Rock Lake, Tuckertown Lake, Badin Lake, Lake Tillery, and the PeeDee River. The NCWRC <u>also manages all the boat access areas and some of the fishing access areas</u> owned by Duke Power in the Catawba-Wateree system.	
CG-33	Chris Goudreau, NCWRC	Page 35, Table 13	Editorial	The total rows at the bottom of the table should be deleted. The table only refers to the reservoirs for which aerial flights were conducted. Even if the other lakes were done, a system-wide estimate of boat carrying capacity is meaningless.	We agree and have deleted the bottom row of the table as suggested. (see Table 17)
CG-34	Chris Goudreau, NCWRC	Page 38, Table 15	Editorial	The title of the table is not accurate. The table only refers to certain types of recreation uses. It does not address other recreation needs such as trails and bank fishing.	We agree and have both revised the title of the table and have added other types of activities that would need land in the future. (see Table 19)
CG-35	Chris Goudreau, NCWRC	Page 100, Table 16	Editorial	The title of the table should be “Home Residence Location of Respondents to Surveys A, B and C”	We have made this edit.
CG-36	Chris Goudreau, NCWRC	Page 107, Table 21	Editorial	Please provide a key to the color coding.	We have provided a key to the color coding for this table in the final report. (see Table 40)
TK-1	Tom Kenney, Foothills Conservancy	Executive Summary		The Executive Summary neglects to mention shoreline development, too many boats, and poor water quality – along with litter – as the number one complaint about scenic quality	We have revised the Executive Summary to include the top three concerns relative to scenic quality.
TK-2	Tom Kenney, Foothills Conservancy	General	AAll program	Access Area Improvements should not be dependent on partnerships. The scope of the study specifies a discussion of the Access Area Improvement Initiative is to be included in this document. However, I would also like to see a	Please see our response to comment JF-1. In addition, the final report includes recommendations for portage facilities that Duke Power would implement outside the AAll program.

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				discussion of improvements that will be done outside of the Access Area Improvement Initiative by Duke Power – if any. Duke Power has the responsibility to provide adequate public recreation improvements/facilities for their project needing a new license from FERC. This is regardless of whether or not a partner is eventually established through the Access Area Improvement Initiative.	
TK-3	Tom Kenney, Foothills Conservancy	General	Acreage needs	Only 1,097 acres (up from 401 in 1999 study) are identified to meet recreation needs for the entire project – spanning two states and serving many millions of people. Of this 1,097 acres, neither there is no indication of how much is “usable” land nor how much is “shoreline” (including shoreline along regulated river reaches below dam releases). 1,097 acres is simply not sufficient to address the needs of the current and future population of the basin.	We have revised the methodology for the estimate of future recreation use projections and estimated acreage to incorporate additional regional factors, such as population growth associated with the regional counties, NC/SC SCORP participation rates for the various activities and to incorporate additional activities such as hiking and bank fishing. The land acreage is a projected estimate of land acreage needs based on the future recreation use and facilities model and it is assumed that this acreage would need to be "usable" in order to provide land acreage for the development of future recreation facilities. (see Section III.C.1 and III.C.3)
TK-4	Tom Kenney, Foothills Conservancy	General	Camping	Camping along regulated river reaches needs to be addressed.	In consultation with Cordell, we have added a substituted a future use projection for canoe/kayaking for camping, assuming that this could be the primarily source for campers along the river reaches.
TK-5	Tom Kenney, Foothills Conservancy	General	Future needs estimates	Underestimation of public recreation use/needs in the project area, given historic underestimation (1999 estimates did not accurately predict current actual populations) and population projections.	See response above to comment TB-5.
TK-6	Tom Kenney, Foothills Conservancy	General	Future needs estimates/Trails	Trails are not addressed in needs estimates even though they are a top interest of stakeholders and were overall the top need identified by survey respondents.	Please see our response to TB-26. We have revised the text to incorporate your recommended text revisions - to state that these are minimum facility land acreage needs and that they “may” meet these needs. (see Section V.A)

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TK-7	Tom Kenney, Foothills Conservancy	General	Island/reservoir shoreline calculations	Island shoreline (which can only be accessed by the public from a boat) vs. reservoir shoreline need to be separated for analysis.	Please see our response to comment TB-6.
TK-8	Tom Kenney, Foothills Conservancy	General	Recommendations	No recommendations are made to address needs for camping, swimming, picnicking and trails at Lake Rhodhiss despite the needs being identified by the study.	Please see our response to JK-17.
TK-9	Tom Kenney, Foothills Conservancy	On page 50	Land for trails	Only picnicking, camping, swimming and boating are listed as activities needing land and facilities, <u>yet lands required to provide trails should be included in that they are rated so highly by stakeholders throughout the region. Land for trails (hiking) needs to be addressed in the future needs assessment for all impoundments and regulated river reaches.</u>	Please see our response to comment TB-26.
TK-10	Tom Kenney, Foothills Conservancy		Economic Value assessment	More detail and clearer explanation is needed in the Economic Value assessment	We have added a more detailed discussion on this topic - see comment above. (see Section III.C.4 and IV.C)
TK-11	Tom Kenney, Foothills Conservancy		Estimated Future Recreation Use	The estimated Future Recreation Use chart is not correct, showing no increase in motor boating/jet skiing on Lake James 2004-2010, even though development plans project thousands of new homes and hundreds of thousands of visitors to the much enlarged Lake James State Park	Please see our response to comment CG-23.
TK-12	Tom Kenney, Foothills Conservancy		State parks	Lake James State Park is not discussed, yet will have almost 30 miles of shoreline & Lake Norman State Park is also not referenced/considered in relation to future needs	Lake James State Park is one of the public recreation areas included in the study and data from the park managers was included in our analysis.
RL-1	Ron Linville, NC Wildlife Resources Commission		Hunting and gamelan opportunities	It appears that no hunting opportunities are included - specifically waterfowl opportunities and any new gamelan opportunities. Has anybody from Ducks Unlimited, or similar hunting groups (such as NWTF or TU) been involved in this process? While boating access is important, so is long-term habitat preservation.	The survey instruments included hunting as an activity and questions about recreation facilities and opportunities that were needed. Survey responses did not identify any specific facility/land needs for waterfowl or game hunting.

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DL-1	Donna Lisenby, Catawba Riverkeeper	General		The study does not adequately determine how much additional public lands will be needed to provide recreation opportunities for the future needs of the basin. With the rampant pace of shoreline development throughout the basin, stakeholders especially need to know how much additional public lands will be required to provide recreation opportunities for a rapidly growing population for the next 30 to 50 years. Please expand the Study to accurately and adequately determine future recreation needs.	Please see response to comments TB-5, TB-11, TK-3, and CG-23.
DL-2	Donna Lisenby, Catawba Riverkeeper			Even though the Executive Summary contains a key recommendation to add trails, that need is not substantively addressed anywhere in the study.	The need for trails is identified in the survey data and is included in the lake summary sections, the detailed lake reports in Appendix A and in the recommendations for each lake and regulated river reach. Please see also our response to comment TB-26.
DL-3	Donna Lisenby, Catawba Riverkeeper			Island miles are repeatedly lumped into the inclusion of shoreline miles despite the fact that island shorelines are not accessible by 95 percent of the population because they don't own boats. This lumping skews the assessment of future recreation needs.	We recognize that island shoreline is accessible only by boat. This inclusion of island shoreline frontage in the reservoir shoreline frontage value does not skew the assessment of future recreation facility needs because the shoreline frontage was not included in the calculations for future land acreage. Future land acreage estimates are based on the demand population derived from state census data, participation levels in types of recreation from the NC and SC SCORPS, visitation estimates derived from the traffic counts, and recreation use estimates from the survey data. However, we have revised Table 11 of the draft report to include the percentage of shoreline classified as public recreation at the Duke Power access areas and the percentage managed by other public entities for recreation uses.
DL-4	Donna Lisenby, Catawba Riverkeeper	General		It appears to me that old, outdated methodologies were used for the boat study standards and procedures. Are more recent best available technology or methodologies available?	In terms of boat carrying capacity assessment, BOR and Warren and Rea are standard, accepted methodologies to assess boating carrying capacity. Warren and Rea consider both the physical aspect (surface acreage) and the social factors

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					(adjustment factors, such as crowdedness ratings). Other more recent carrying capacity methodologies (i.e., Limits of Acceptable Change, Stankey et al., 1985) are primarily based on establishing and applying regional management objectives and measures and identifying and assessing resource indicators and standards to meet these desired conditions. The purpose, in this case, of the carrying capacity assessment was to assess the level of boating use and areas where the greatest density of boating use was occurring. Therefore, Warren and Rea was the most appropriate methodology to apply. In addition, this methodology is acknowledged as an acceptable methodology by FERC staff.
DL-5	Donna Lisenby, Catawba Riverkeeper	Text below Table 15, page 38		This implies that all the acreage needed to meet future recreation needs until 2050 is already in place either at Duke Power access areas or at state/county parks, which is grossly inaccurate. The study goes even further and unbelievably concludes that all the acreage needed until 2050 is already in place at Duke Power access areas or parks.	Please see response to comments TB-5, TB-11, TK-3, and VT-17.
DL-6	Donna Lisenby, Catawba Riverkeeper	Population growth and safety		Some county population growth rates bordering the Catawba River reservoirs exceed 20 percent. The Catawba is the fastest growing bi-state river basin in the Carolinas. There have been three separate incidents since 1999 where people have died on the project's waters. Recreation users engage in unsafe activities (for example, at Mount Holly and Lake Wateree) because there are not enough facilities available. People need more places to legally swim and fish.	The need for more swimming areas is identified in the RUNS and recommendations for more swimming areas at several lakes are made in the report. Please see response to comments TB-5 and TB-11.
DL-7	Donna Lisenby, Catawba Riverkeeper	General		As currently drafted, the failures of this study will have a de-stabilization effect on the entire relicensing process. The relicensing process cannot handle many more of these destabilizing events.	The report follows the study plan methodology as developed with the Study Team. The findings and recommendations are based on the data developed through the agreed upon methodology.

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DL-8	Donna Lisenby, Catawba Riverkeeper	General		On page 21, the study indicates 3.9 persons per Jet Ski and 3.3 persons per boat for canoes/kayaks. I have logged thousands of miles and many days and nights patrolling the Catawba River. I have yet to see a three person kayak on the Catawba. And only once in 8 years on this river and entire lifetime on other American rivers and lakes have I ever seen 4 pre-teens on a jet ski.	Please see our response to comment TB-41.
DL-9	Donna Lisenby, Catawba Riverkeeper	Table 5, page 21		The methodology used to derive calculations in Table 5 is grossly flawed because the numbers are so far from what occurs in real life.	Please see our response to comment TB-41.
SM-1	Sue McCauley, Lake Wylie Covekeeper	General	Acreage needs	At our last meeting we discussed the need for additional trails, swimming beaches and restrooms. These additional facilities will require more USABLE land than boat access does	The final report clarifies that not all Duke Power lands may be usable or be located where specific needs exist.
SM-2	Sue McCauley, Lake Wylie Covekeeper	General	Future acreage needs	Yesterday in talking with Nick Stegall, the Utilities Director for the city of Rock Hill, he said that Rock Hill would be bordered by the Catawba River on the east and Lake Wylie on the north in ten years. It boggles the imagination to think of the growth expected over 30 years. Charlotte and Rock Hill and Gastonia will be a single metropolitan area. I think that our projections for future recreation needs are too conservative in light of the astonishing growth of this area	Please see our response to comment TB-5.
SM-3	Sue McCauley, Lake Wylie Covekeeper	General	Future acreage needs	In view of this growth and the rapid development of waterfront property, we need to protect large tracts of land in excess of 400 acres that can provide current and future access to the lake. Probably within ten years there will be almost no waterfront not in public or private ownership, and certainly no large tracks suitable for nature conservancies, trails, parks and future development.	In the context of relicensing, stakeholder interests that call for the preservation of large tracts of land need to be tied to specific resource needs associated with project operations. For recreation, we have identified future facility needs for certain types of recreation activities and have estimated the projected future land acreage to meet these needs. While the preservation of large tracts of land may be desirable, it is not necessarily a requirement to meet future recreation needs.

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SM-4	Sue McCauley, Lake Wylie Covekeeper	General	Future needs estimates	Since our conclusions show that 50% of the population lives in the Lake Norman and Lake Wylie area, we should plan a larger concentration of recreation facilities to meet the need of the large concentration of population growth there.	Estimated land needs for Lake Norman and Lake Wylie represent about 50 percent of estimated facility and land needs system-wide, which is consistent with population concentrations across the system.
SM-5	Sue McCauley, Lake Wylie Covekeeper	General	Scope of Study	I think that the study focused on access areas/boat launches, which FERC does require, but needs to continue planning for other types of recreation needs	We disagree. The 2004-2005 RUNS included non-Duke owned public recreation areas and focused more on passive recreation activities at the lakes and regulated river reaches. In addition, in the final report we have added projections for future facility and land needs for hiking trails and bank fishing recreation opportunities. (see Sections III.C.3 and III.D)
DS-1	Dwayne Stutzman, NCDPR	Page 27	Editorial	Reference in the last paragraph to the North Carolina State Trails System is erroneous. The "system" is not a system; it is a "program". If you intend to use the "program" in the narrative, a clarification will need to be given. Your present statement which reads - "North Carolina State Trails System as well as other state organizations also" might need to be changed to read - "North Carolina's system of trails also". This is a better reflection of the true nature of the NC State Trails program.	We clarified the text as suggested.
DS-2	Dwayne Stutzman, NCDPR	Page 28	Editorial	The sentence which reads - "Notable trails in the region include the Mountain-to-Sea-Trail (of which over 400 miles are currently open), Overmountain Victory Trail, the French Broad River Paddle Trail, and New River Paddle Trail to name a few." would need to be changed to - "Notable trails in the region include a portion of the proposed 900 + mile Mountains-to-Sea Trail (of which over 400 miles are now open), the Overmountain Victory Trail National Historic Trail, and the French Broad River Trail."	We have made the suggested edits.
DS-3	Dwayne Stutzman, NCDPR	Page 28	Editorial	Next sentence, 3rd word is trials, needs to be trails.	We have made the correction.

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DS-4	Dwayne Stutzman, NCDPR	Page 28	Editorial	Last sentence in that paragraph -"the regionally significant Upper Catawba Wateree River Trail" - should read - "the regionally significant Upper Catawba River Trail"	We have made the correction.
VT-1	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Executive Summary	Key recommendations	A key recommendation in the Executive Summary is to add more trails. However, this is not followed up in the main document in Table 15 (page 28) and elsewhere.	We agree. We now include a facility standard for trails (and bank fishing) and have added these to Table 19.
VT-2	Vicki Taylor, Catawba-Wateree Relicensing Coalition	General	Population Projections	Can you please supply the census data relied on for population projections? I don't question your sources but based on the discussion today (15 April, 2005) it would be useful to see it and compare with other population projections used in recent regional reports.	2003 population info was obtained from: North Carolina State Demographics, Office of State Budget and Management (http://demog.state.nc.us/) website accessed November 2004 and South Carolina Office of Research and Statistics, Health and Demographics Division. 2003 Census population estimates. (www.ors2.state.sc.us/population.asp) website accessed November 2004. Historical population data (1960-1990) was obtained from: Population of Counties by Decennial Census: 1900 to 1990; compiled and edited by Richard L. Forstall Population Division, US Bureau of the Census, Washington, DC, 20233 (www.census.gov/population/cencounts/nc190090.txt). Future use projections (2000-2030) were obtained from: North Carolina State Demographics, Office of State Budget and Management (http://demog.state.nc.us/) website accessed November 2004 and South Carolina Office of Research and Statistics, Health and Demographics Division. Based on 2003 Census population estimates. (www.ors2.state.sc.us/population/proj2030.asp) website accessed November 2004. Projections beyond 2030 were calculated by report authors by taking the average growth between 1960 and 2030 and applying it to the 2030 population to obtain 2040 and 2050 population estimates. We have included this information in a table in the final report.

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VT-3	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Page 16	Carrying capacity methodology	It has become clear to me (based on testimony at a Davidson Town meeting) that Lake Davidson is a separate body of water and requires a separate carrying capacity study. Lumping it into Lake Norman yields results that do not reflect the size and nature of this small lake. This may be necessary for Lake Cornelius as well.	These two water bodies are connected to Lake Norman by a culvert but are not accessible by boat from Lake Norman. We understand that under the SMP, Duke Power could require a developer of a large marina to conduct a boating carrying capacity on either of these water bodies as part of the permit application process. Therefore, we do not include a separate boating carrying capacity study for these water bodies in this report.
VT-4	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Page 19	Boating study methodology	The standards and procedures for boat studies were based on Burr 1977; Warren and Rhea 1989 (page 19). Can you please describe other standards and procedures that could have been used? Are there more recent ones? Are there different approaches? What is state of the art? What would detractors of these particular methodologies say? What are the reasons for using these standards and procedures?	Please see response to comment DL-4.
VT-5	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Page 27	State Parks	The list of regional recreation resources does not include state parks on Lakes James and Norman and other resources. Is this intentional to leave out the resources on the Catawba-Wateree?	The regional resources discussion excludes the recreation opportunities included in the recreation study area. Lake James State Park and other public recreation areas are discussed in the lake summaries in section IV B. and in Appendix A.
VT-6	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Page 32	Minority population needs	The percent of non Caucasian users (21 percent) is significantly higher than non Caucasian property owners (2 percent) around the water. This underscores the need for public areas to serve this minority population.	We agree and note that the recommendations for additional trails and bank fishing at access areas would serve more diverse populations.
VT-7	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Page 35	Carrying capacity methodology	The carrying capacity is based on full pond (page 35) but the reservoirs are rarely at full pond. The calculations should be adjusted to lake level averages.	Please see response to comment TB-22.

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VT-8	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Page 41, (b)	Duke's improvements since 1999 study	How do the facilities listed in (b) on page 41 compare with what Duke said it would do in the 2001 SMP filing? Can we see a table showing what was identified as needed, what was promised and what was done since 1999 study and 2001 filing? The format of the 2001 filing listed the needs and then alluded to county plans and other possible improvements being done through the AAll or by other means.	Please see our response to comment JF-8.
VT-9	Vicki Taylor, Catawba-Wateree Relicensing Coalition	page 52	Facilities/ Lake Rhodhiss	Castle Bridge Marina is listed as a public marina on Lake Rhodhiss (page 52) but I understand that it is closing. Please correct if this is true. Also, trash cans are recommended for Castle Bridge but not for the Rhodhiss access area across the river – what is the reasoning here?	Our understanding is that this marina is not closing.
VT-10	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Pages 23 to 24	Use Projections	Use of the Cordell Index to project increases in recreation days may not accurately reflect what is happening on our reservoirs. The projections seem low especially when compared with the changes that have actually occurred between 1999 and 2004.	Please see response to comments TB-5, TB-11, TB-25, and TK-3.
VT-11	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Pages 8 to 9	Recommendations	The six purposes or objectives listed don't include making recommendations. However recommendations are included in the report. What is the purpose of the recommendations? What is the "force" of these recommendations?	Sub-section 4.2 calls for the study to make facility recommendations based on the study results.
VT-12	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Table 1, page 4	Shoreline mileage determination	Table shows shoreline miles including island miles. Please break out the island shoreline miles and put in a separate column. For accessibility and recreation it is essential that we understand the difference between shoreline accessible by the non boating public. All percentages derived from shoreline miles must reflect actual" mainland" shoreline.	We have revised Table 1 as suggested. Information on island shoreline mileage was not available in 1999 so we have used the data from the 2001 SMP and indicate this in Table 1. Please also see our response to comment TB-6.

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VT-13	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Table 11 (page 31)	Shoreline acreage	Table 11 shows that Lakes James and Norman have virtually the same number of acres and feet of shoreline for access areas. But James is a much smaller lake (137.5 shoreline miles including islands) with less population demand. Norman (569 shoreline miles including islands) in a growing urbanizing area should have at least the same ratio of public access acres/feet to lake size. Also, we need a table to show percent of total shoreline that is available for public access.	We have revised Table 11 to show the percentage of shoreline classified as public recreation owned by Duke Power and the percentage owned by other public entities.
VT-14	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Table 12, page 32	Terminology	What is the Shoreline Owner to Public Access Area ratio, and what is it intended to reveal?	Please see response to comment CG-4.
VT-15	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Table 14, page 37	Future needs estimates	This is very worrying. Why were the estimates so wildly off? What assurances do we have that we have better estimates now? (Table 14, page 37) How will Duke compensate for not having provided necessary recreation opportunities for now and for not preparing for future needs (due in part to poor estimates)? We are behind the curve here.	Please see our response to comment SM-3.
VT-16	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Table 14, page 37	Visitation estimates	The increases in visitation percentages seem low for Norman compared to others.	There are many factors and variables incorporated into our future use estimates. According to Cordell et al variables that have a strong influence on recreation behavior include age, income, gender, population, and race. The percentage increase for Lake Norman is reasonable given the model and data types and sources we used in obtaining our estimates. See also our response to comment TB-25.

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VT-17	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Table 15 (page 38)	Acreage needs	The paragraph below table 15 seems to say that all the acreage needed until 2050 is already in place either at Duke Power access areas or state/county parks etc. Is that a correct interpretation? What happened to the need for trails? They seem to have been left out of this assessment although they appeared as one of the key recommendations in the Executive Summary and are repeated many times in the surveys.	Please see our response to comment JF-21. If your reference is to the facility standards, they are derived from FERC and SC/NC sources as noted. The demand population numbers are based on state census data from surrounding counties.
VT-18	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Table 4, page 21		I don't understand Table 4. Can you help interpret what it means? I understand the narrative that precedes, but the table doesn't seem to follow.	This table shows the acreage per boating type that was applied for each lake based on the application of the factor assessment.
VT-19	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Table 5, page 21	Data on persons/boat	Persons per boat for canoes/kayaks is 3.3 This seems high. Also, indicates 3.9 persons per jet ski. Seems very high.	Please see our response to comment TB-41.
VT-20	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Table 6, page 22	Comparison between 1999 and 2004-2005	The narrative above Table 6 (page 22) refers to the 1999 data but the table is labeled 2004-5. Is this a typo? If not, how and why was the 1999 data used?	This is a typographical error that has been corrected in the final report.
VT-21	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Table X, page 41	Comparison between 1999 and 2004-2005	The change in amount of land projected to be required from 1999 to 2004-5 (Table X, page 41) is stated to be due to more people recreating? resulting in more surveys? Was the 1999 estimate inaccurate? Flawed?	The final report provides more discussion about the differences in computing the recreation use and future needs land acreages between the two study periods. The 2004-2005 study period included the river reaches, in addition to the lakes, and also included other public access sites, while the 1999 study included only the lakes and the Duke public access sites. Therefore, the new estimates should be more representative of the existing and future recreation use needs and land acreage facility needs within the project. (see Section III.C.6)

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VT-22	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Table XX, page 42	Comparison between 1999 and 2004-2005	The 1999 report estimated recreation use for 2010 to be 696,661 for Lake James. But in fact, by 2004 we have recreation use of 994,674. (Table XX page 42). For Norman in 1999 the estimate for 2010 was 1,096,831 but by 2004-5 it was 3,001,282. The 1999 estimate for Wylie in 2010 was 2,440,037 but in fact in 2004-5 it was already 2,843,222. The Wateree 1999 estimate for 2010 was 597,232 but by 2004-5 it was 874,821.	Please see our response to comment VT-21.
VT-23	Vicki Taylor, Catawba-Wateree Relicensing Coalition	page 7 and throughout	Editorial	The word “collaborative” is used several times (beginning on page 7) to describe the Duke relicensing process. Is this intended to indicate something different from “enhanced” or “hybrid”?	We have revised the text to avoid the term "collaborative." (see Section II.B)
VT-24	Vicki Taylor, Catawba-Wateree Relicensing Coalition	Page 29-30	Editorial	The narrative says there are 55 Duke Power developed access areas and 4 undeveloped access areas, but Table 10 says 51 developed and 4 undeveloped. Please correct and reconcile.	There are 52 Duke Power developed access areas, 4 undeveloped access areas, and 3 portages. We have corrected Table 11.
Foothills AG-1	Foothills Advisory Group	General	Boat density	Look at the cumulative impact of boat density study. Pair that with population data.	A separate analysis of the effects of various build out scenario on boating carrying capacity at 6 lakes was provided to the Ad Hoc Land Use Committee.
Foothills AG-2	Foothills Advisory Group	General	Campgrounds	Mary George noted that permanent campgrounds should not be included (she will work with Bill to identify the sites specifically)	We agree that private, permanent campgrounds are not available to the public and have revised the report to exclude them.
Foothills AG-3	Foothills Advisory Group	General	Economic Data/all lakes	Check the economic return data. (Some stakeholders felt the numbers were lower than they should be)	The economic data presented in the draft report is consistent with the survey responses to the questions about spending at the public recreation areas.
Foothills AG-4	Foothills Advisory Group	General	Population Projections	Check the population data (many concerned that the population projections were off and too low for the region)	Please see our response to VT-2

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Foothills AG-5	Foothills Advisory Group	General	Stakeholder versus general public data	Request to separate data from general public surveys and stakeholder surveys or responses. (Provide two separate numbers for each. i.e. this is what the stakeholders said this is what the general public said)	In the lake summaries included in the main body of the report we summarize our findings. We provide the details for each target audience in the presentation of data and analysis for each lake in Appendix A.
Foothills AG-6	Foothills Advisory Group	General	State Parks	Include Lake James state park into research.	Lake James State Park is one of the public recreation areas included in the study and data from the park managers was included in our analysis.
Foothills AG-7	Foothills Advisory Group	General	Trails Methodology	Trails and bank fishing (would like LB to investigate a methodology that could be used to identify how many, where trails are needed. Results so that quantitative information is available)	Please see our response to comment TB-26.
Foothills AG-8	Foothills Advisory Group			Address plans for recreation facilities at the new Lake James State Park	We have added information about the facilities included in the expansion of the Lake James State Park. (see Section IV.B.1.a)
Foothills AG-9	Foothills Advisory Group			Confirm shoreline footage calculations are correct	All calculations in the final report have been reviewed for accuracy.
Lower AG-1	Lower Catawba Advisory Group			Include in future recreation needs list a caveat for population increases that did not account for new developments in the area (such as the Greenwood development).	The final report includes a new section on the limitations inherent in the models used in the RUNS analyses. (see Section III.D)
Lower AG-2	Lower Catawba Advisory Group			Rather than starting at full pond for boating capacity calculations, start at normal targets and then subtract 120 foot ring around lakes for a “real life” boating capacity read	The 120 foot allowance is derived from the maximum dock lengths as measured from full pool. This distance recognizes the conflict between docks and most forms of boating. While normal pool likely would result in a smaller surface area, it is not necessarily the case that boating couldn't occur within 120 feet of normal pool. It would be difficult, however, for most boating to occur in shallow areas. For the purposes of this analysis, shallow water areas are defined as areas of depths less than 5 feet or as limited by the ability of the bathymetric equipment to record. In response to questions raised about whether shallow water areas were eliminated, we reviewed available

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					bathymetric data for five lakes and eliminated additional percentage of surface acreage as follows: Lake James (3.6 percent), Lake Norman (2.8 percent), Mountain Island Lake (21.5 percent), and Lake Wateree (6.8). There were no additional shallow water areas at Lake Wylie and there is no bathymetric data available for Lake Hickory. (see Section III.C.2)
Lower AG-5	Lower Catawba Advisory Group			Was there any mention of access at Wateree Creek. Double check	Yes. A traffic counter was placed at the Wateree Creek Access Area. Between mid-August and mid-November, the traffic counter located at Wateree Creek Access Area was stolen. Debutary Creek Access Area was used as a comparable site for traffic count data. Duke Power expanded the Wateree Creek Access Area in 2002 as part of its AAll program. In Appendix A.11, we identify informal access areas on Wateree Creek where the county does not allow formal parking or bridge fishing.
Lower AG-6	Lower Catawba Advisory Group			Take another look at Lower Catawba area surveys to ensure the accuracy of current swimming data.	We have reviewed the data from survey respondents to ensure the accuracy.
Lower AG-7	Lower Catawba Advisory Group			Clarify when we will use the word "consider" and why.	We use "consider" in cases where additional evaluation is needed.
Metro AG-1, Piedmont AG-1, and Lower AG-3	Metro Advisory Group and Piedmont Advisory Group	Economic data		Check the economic return data.	Based on the average group expenditure data collected from site interviews, the stated 95 percent confidence intervals, and the use of IMPLAN multipliers (and the assumptions in the model framework), the total economic value of recreation calculated for this report is reasonable. The biggest expenditures were for gasoline and food (both approximately \$20 per group). Without coincidence, lodging was the lowest, supported by other data in the report that suggest people visit for the day which indicates that they live in proximity to

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					the Catawba-Wateree system.
Metro AG-2, Piedmont AG-2, and Lower AG-4	Metro Advisory Group and Piedmont Advisory Group	Population data		Check the population data in terms of use (look at current use compared to where and on what they missed the mark from the 1999 study and explain reasons).	Please see response to comments TB-5 and TB-30.
Metro AG-3	Metro Advisory Group	Carrying capacity data		Check the boating capacity data (stakeholders were interested in seeing weighted rather than average). Check the fly-over data as well. The weekends are noted lower than usual use.	The averages are based on the average of the counts for the given time period, i.e., weekday, weekend and holiday. The boat counts were reviewed and confirmed. We added text regarding the weather during the periods when the counts were conducted and the potential influence the weather may have contributed to the number of boats out on the lakes during that period. (see Sections III.D and IV.B.3)
Metro AG-4	Metro Advisory Group		Mountain Island Lake	Re-examine the recreation activities that occur above the sandbar in Mountain Island Lake.	We assume that the sandbar in question is the shallow area located near the Riverbend power plant. This location is upstream of the two access areas included in the survey and is also located in the downstream clear zone of the power plant. We would not expect formal recreation use in this area. There were no specific references made to this location in the survey responses.
Piedmont AG-3	Piedmont Advisory Group	General		Please perform a general check of all data.	We have checked the data in the final report.
Piedmont AG-4	Piedmont Advisory Group			Need a warning system if new access areas is installed at Highway 5	The need for a new warning system would be assessed as part of any plan for a new access area at the Highway 5 location.