

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Suedeem G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.:

Duke Power

Project No. 2232-485

ORDER MODIFYING AND APPROVING NON-PROJECT USE
OF PROJECT LANDS AND WATERS

(Issued October 12, 2006)

1. On March 8, 2005, Duke Power, licensee for the Catawba-Wateree Hydroelectric Project No. 2232, filed an application requesting Commission authorization to lease 6.57 acres of project lands to Black Bear Development, Inc. (Black Bear) for the construction of a commercial/non-residential marina on Lake James, in McDowell County, North Carolina. The proposed marina, which includes 14 docks with a total of 190 boat slips, two fishing piers, a fuel dock, and a barrier-free pier, would provide the Bear Cliff residential subdivision and members of the public with access to Lake James, one of the project's reservoirs. Black Bear also proposes to place riprap to stabilize approximately 2,505 linear feet of eroding shoreline.

2. On April 29, 2005, the Lake James Environmental Association (Association) filed a timely motion to intervene, opposing Black Bear's proposal. This order addresses the Association's concerns and approves Duke Power's request with certain conditions.

Background

3. Lake James, one of eleven reservoirs of the 294.72-megawatt Catawba-Wateree Project, has a surface area of about 6,577 acres and 151.5 miles of shoreline. The

reservoir's full pond elevation is 1,200 feet mean sea level, which is also the established project boundary.¹

4. Article 39 of the license for the Catawba-Wateree Project gives Duke Power the authority to grant permission for certain types of non-project use and occupancy of project lands and waters without prior Commission approval.² Because the marina facilities proposed by Black Bear are not within the scope of uses set forth in Article 39, they can only be permitted if the Commission approves an application to allow the facilities and uses in question.

5. Duke Power's consideration of requests for permission to use its project shoreline and waters is guided by its shoreline management plan (SMP), which was first approved in 1996,³ revised in 1998 to include shoreline management classification maps,⁴ and updated in 2001.⁵ The SMP is intended to assist Duke Power in managing the use and development of the project's shoreline.⁶

6. Under the SMP, the entire shoreline is classified according to various existing and future use categories, which are indicated on the SMP classification maps. The maps classify the shoreline where the proposed marina is to be located as future

¹ The project boundary for the Catawba-Wateree Project is generally located at the normal high water elevation contour at each of the reservoirs. 20 FPC 360, 365-67 (1958). For this reason, project lands consist of those lands that lie under the project waters at all times and those lands that lie between the reservoirs' high water marks and minimum pool levels. 67 FERC ¶ 61,061 at 61,170 (1994).

² See 24 FERC ¶ 61,346 (1983) (order adding the Commission's standard land use article and approving the licensee's requests to lease project lands and waters for private marinas and other shoreline development).

³ 74 FERC ¶ 62,047.

⁴ The Commission approved the classification maps in 2000. 93 FERC ¶ 62,159.

⁵ The Commission approved the updated (and current) SMP in 2003. 105 FERC ¶ 62,027. The updated SMP supercedes the earlier SMP. *Id.* at P 2.

⁶ 105 FERC ¶ 62,027.

commercial/non-residential. Under this classification, commercial marina facilities such as the one proposed here are permitted.⁷

Description Of Proposal

7. Black Bear proposes to stabilize approximately 2,505 linear feet of project shoreline using riprap⁸ and to construct a marina on Lake James. The riprap would extend from below the full pond elevation to two feet above the full pond level to control erosion and sediment along the shoreline.

8. The marina facilities would be spaced along more than 2,500 feet of shoreline. They would include 14 multi-slip boat docks, 13 with a total of 182 slips (each slip measuring 10 feet wide and 20 feet long and separated by an 8-foot-wide center walk), and one houseboat dock with 8 slips, each 16 feet wide and 60 feet long. The docks would have 6-foot-wide, 40-foot-long access ramps, and would be placed 40 feet apart to allow for proper ingress and egress.

9. The facilities would also include a pier (75 feet long and 6 feet wide) accessible to disabled persons, and a fuel dock and boat pump-out station (70 feet long and 8 feet wide). Each of these facilities would provide additional slips to accommodate courtesy docking on a short-time basis. In addition, about 0.5 miles down the shoreline, Black Bear would construct two fishing piers (each 50 feet long and 6 feet wide).

10. A 16-foot-wide, 50-foot-long concrete bulkhead and one boat access ramp would also be constructed to provide for access to and operation of a boat storage facility that accommodates 80 boats. Construction of the dry dock bulkhead would affect 0.83 acres of wetlands located near the shoreline of Lake James, within shallow lake bottom areas. A 145-foot-long culvert would be installed in a small 4-foot-wide tributary to Lake James to support construction of an access road to the marina.⁹

⁷ See Duke Power's SMP, Volume I at 23 (classification matrix chart of suitable future shoreline uses), filed July 30, 2001.

⁸ Riprap is a permanent, erosion-resistant gravel cover of large, loose, angular stone with filter fabric or granular underlining.

⁹ The 80-slip dry dock and the culvert are located outside the project boundary and are not subject to our jurisdiction.

11. The Commission issued public notice of Duke Power's application on March 31, 2005. In response, the Association filed a motion to intervene. The Association opposes the marina, arguing that large cluster docks such as the ones proposed here will have significant and unavoidable impacts on local economies, shoreline vegetation, and warm-water and cool-water fishery resources and potential cumulative impacts on water quality and fish and wildlife habitats. In addition, the Association raises concerns regarding boating safety and impacts to aesthetic resources.¹⁰

12. In April 2006, the Commission's staff issued for public comment a draft environmental assessment (EA) analyzing the potential impacts of constructing and using the proposed marina. By letter dated May 24, 2006, the U.S. Department of the Interior's Fish and Wildlife Service (FWS) filed comments on the draft EA. FWS is concerned with the potential impacts of the proposed marina on the shoreline and fish and wildlife resources, and the potential secondary and cumulative impacts that may result from increased recreational uses and residential development at the marina. FWS is also concerned with the excavation of wetlands for the dry-dock bulkhead. Staff's final EA, which is attached to and issued with this order, discusses the commenters' concerns.

Discussion

13. We have reviewed the application in this proceeding pursuant to the Federal Power Act's comprehensive development standard, as informed by the SMP,¹¹ relevant license terms, public and agency comments on the non-project use, and the EA. As discussed below, the record indicates that constructing and operating the proposed facilities, with conditions set forth in this order, would have only a minor environmental

¹⁰ The Association raises additional concerns regarding a number of issues, including the lack of safety protocols in the event of an accidental railroad derailment or terrorist attack; the need for state protocols requiring public notice of bacterial/viral water contaminations that occur; the sparse usage of septic pump-out stations; and the need for significantly increased penalties for violations by new cluster dock facilities. The Association did not raise or explain these issues with sufficient specificity to warrant further discussion in this order.

¹¹ The primary goals of the shoreline plan are to: (1) provide for public and private access without destruction of the project's natural resources or without compromising the project's primary function, which is the production of electricity; and (2) ensure that the existing and future public recreational needs of the project are addressed.

impact and would not interfere with project purposes, such as public safety, public recreation, and the protection of environmental values.

A. Fish and Wildlife Habitat

14. FWS is concerned that the proposed lease and docks will contribute to the continued deterioration of the project area's shoreline and fish and wildlife habitat.¹²

15. As discussed in the EA, adverse environmental effects will result from the proposed action during construction of the facilities and placement of riprap, when temporary, minor impacts to water quality, aquatic habitat, and recreational access to the shoreline area will occur.¹³ By letter dated May 24, 2006, the FWS stated that it concurs with staff's determinations that the proposed project would not affect threatened or endangered species.

16. Installation of the riprap would have long-term impacts on wildlife resources, because it would replace or alter some existing shoreline vegetation and wildlife habitat; but impacts to fishery resources would be very minor, because only a small percentage (approximately 0.3 percent) of total shoreline would be affected.¹⁴

¹² The Association is concerned that too much of the Bear Cliff lakeshore is suffering from the removal of vegetation from the shoreline, including trees within the 50-foot shoreline buffer. The area is outside the project boundary and not subject to the Commission's jurisdiction. Rather, the 50-foot-buffer that the Association refers to is an area under the supervision of the North Carolina Environmental Management Commission, which has established rules, entitled The Catawba Riparian Buffer Protection Rules, requiring Duke Power to maintain a 50-foot buffer around all riparian shorelines along the Catawba River mainstem below Lake James and along the seven mainstem lakes (Lake James, Lake Rhodhiss, Lake Hickory, Lookout Shoals Lake, Lake Norman, Mountain Island Lake, and Lake Wylie) from Lake James to the North Carolina/South Carolina border in the Catawba River Basin, to protect existing 50-foot-wide vegetated riparian (shoreline) areas. See "Frequently Asked Questions," included in Duke Power's application for Project No. 2232-000, filed February 14, 2006.

¹³ EA Section 5.2.1(D).

¹⁴ With respect to activities outside the project boundary, construction of an access road to the marina would require placement of a culvert over a small tributary stream. During this construction, riparian vegetation in the immediate vicinity of the streamside work would be removed. Pursuant to a FWS recommendation, Black Bear has agreed to
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17. To reduce impacts to fishery resources, North Carolina Wildlife Resources Commission (North Carolina WRC) recommends the following measures, which Black Bear has agreed to implement: (1) adopt an in-water work moratorium from April 1 to June 1; (2) install and maintain suitable trees and brush under the fixed portion of the marina's docks and piers, in a fish-friendly manner, to provide complex aquatic habitat; and (3) follow construction procedures for the concrete bulkhead that prevent wet concrete from contacting surface waters. Black Bear's implementation of these measures will help reduce impacts to fish and wildlife resources and will ensure that any impacts will be minor.

18. The Association is concerned that while the proposed construction of the marina may temporarily affect warm-water species, it may adversely affect smallmouth bass, walleye, and other cool-water species that are known to be in Lake James. The Association does not, however, provide any information or data to support its contention.

19. As explained in the EA, construction of the proposed facilities will temporarily affect fish habitat, but overall, the proposed facilities would have only minor, short-term impacts on aquatic habitat and fisheries in Lake James.¹⁵ Cool-water species are less likely to be adversely affected by the marina operations, because during the warmer months, cool-water species generally inhabit areas in the deeper levels of the reservoir, where the water is cooler. Shoreline stabilization using riprap, which provides desirable spawning habitat for some cool-water species, is likely to have a beneficial effect on fishery resources by providing diversity in the type of available habitat,¹⁶ and during installation of the riprap, trees and vegetation would remain undisturbed. While construction of the proposed facilities would cause a temporary disturbance to fish

use, sedges, grasses, rushes, and native woody species to replace riparian vegetation along the restored stream channel. In addition, to protect wildlife resources, the shoreline protection permit issued by McDowell County requires Black Bear to protect 13 trees greater than 6 feet diameter within the established 50-foot shoreline buffer and to replace trees removed within the 50-foot buffer with trees totaling an equivalent diameter somewhere within the 50-foot buffer. *See* n.12, *supra*.

¹⁵ EA section 5.2.1 (C).

¹⁶ *Id.*

habitat, Black Bear would install fish-friendly structures under the docks and piers that would provide additional cover and foraging habitat for fish.¹⁷

B. Water Quality

20. The Association asserts that the paved parking lots, located outside the project boundary and intended to serve the marina, will produce petroleum and other chemical runoff concentrations that will pollute the lake and a fresh water intake facility planned by McDowell County and may pose serious public health issues. Increased boating activity in the vicinity of the marina and operation of the fuel dock and pump-out facilities could also result in fuel spills.¹⁸

21. A condition of the water quality certificate issued by the North Carolina Department of Water Quality (North Carolina DWQ) for the proposal requires Black Bear to develop a spill control plan, including measures to prevent discharges to surface waters. The certificate also prohibits the placement of any waste, spoil, or fill in the waters and riparian areas, except for that proposed by Black Bear (*e.g.*, riprap). The North Carolina WRC recommends that Black Bear implement several additional measures to address fuel spills and leakage from petroleum products: install proper fuel spill containment devices and have trained personnel to effectively manage a potential spill situation; not allow concrete to come in contact with surface waters until cured; and avoid the use of pesticides, herbicides, fertilizers, and cleaners near or over water. Black Bear has agreed to comply with these recommendations. With implementation of the

¹⁷ The Association also contends that fish-friendly dock construction procedures include the use of building materials that are harmful to aquatic environments. The Association does not, however, provide any information in support of its contention. The licensee is responsible for supervising, controlling, and monitoring construction activities, and it is expected to take corrective action in the event prohibited or illegal materials are used. In the construction of the proposed marina, it is unlikely that the use of fish-friendly materials will harm the aquatic environment, because fish-friendly structures are typically composed of recycled plastics that are less likely to leach chemical contaminants into the water than other materials.

¹⁸ See EA section 5.2.1(B).

recommended measures, we believe the percent concentration of any incidental fuel spillage or other pollutant will be negligible.¹⁹

C. Wetlands

22. FWS states in its May 24, 2006 letter that excavation of approximately 0.83 acres of wetlands for construction of the proposed dry-dock bulkhead will result in the loss of shallow riparian habitat needed for fish-spawning and maturation.

23. FWS has recommended that Black Bear develop a comprehensive mitigation, restoration, and monitoring plan, including restoration of comparable wetlands and streams at a ratio of at least 2:1. Black Bear has agreed to comply with these agency recommendations, requirements, and permit conditions.

D. Cumulative Impacts

24. FWS and the Association state that, in reaching a decision, the Commission should take into consideration the potential cumulative impacts that the proposed marina may have on public waterways, water quality, fish and wildlife habitats, and local economies.

25. Staff considered the potential cumulative impacts associated with Duke Power's application in the attached EA and found that the minor adverse impacts of the proposed marina on water quality, fish and wildlife habitats, boat traffic and safety, and landscape aesthetics would add to the cumulative environmental impacts of other shoreline development activities at the project.²⁰ Over time, continued shoreline development will result in unavoidable, cumulative fish habitat loss and degradation.²¹

¹⁹ In addition, the installation of riprap is likely to have a long-term beneficial effect on water quality, because the riprap will help reduce and prevent erosion and sedimentation along some areas of shoreline. EA section 5.2.1(B).

²⁰ EA section 6.0. The Association's contention that large marinas such as Black Bear's will adversely affect local economics is not relevant to our consideration of whether the proposal could interfere with licensed project purposes. In any event, based on the economic boost that has been experienced in other recreational developments, it is likely that the proposed facilities will have a beneficial effect on local economics through the employment opportunities that construction and operation of the marina will provide.

²¹ The increasing alteration of the shoreline and vegetation cover (including trees, shrubs, and herbaceous plants) is associated with increases in sedimentation and

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26. However, the licensee's SMP is designed to take cumulative development factors into account and to consider the project's environmental resources and the developmental demands at the project reservoirs in a comprehensive manner.²² The mitigation measures included in the SMP, combined with other local, state, and federal regulations and permitting requirements that Black Bear must meet, will help to minimize any cumulative effects resulting from the construction of the proposed marina.

E. Boating Studies and Recreation Use

27. The Association contends that new or updated boat count studies, boat density studies, and long-range boating traffic projections for the immediate area and the entire lake are needed to properly consider Black Bear's proposal.

28. We disagree. The SMP has taken all of these development factors into account. There is no evidence to suggest that the information in Duke Power's SMP (last submitted in 2001) is out of date or inaccurate. Furthermore, Duke Power states that it uses the most recent data available, including digital aerial photography, to guide decisions regarding all types of access within the project boundary and to ensure that the SMP is a factually-based document that can be used by the licensee and the Commission for reviewing requests for use of the project and its resources.²³

29. The Association also contends that canoeists and kayakers who use Lake James need more recreational space to ensure their safety and enhance their paddling experience. We believe an adequate amount of open water will still be available after the docks are installed to safely accommodate appropriate boat-related activities. The EA notes that increased boating activity in the immediate vicinity of the proposed marina may create unsafe conditions for recreational boaters, but the proposed marina is designed to provide adequate ingress and egress of boat traffic; and the design features of

turbidity. In addition, loss of vegetation along the water's edge will reduce the habitat of wildlife species that depend on it.

²² For example, the SMP assigns shoreline segments to various use classifications in order to restrict development in certain areas with environmentally important or sensitive resources and to permit development in other areas that are more appropriate for intensive use.

²³ See Duke Power's 2001 revised SMP (filed July 30, 2001), Volume I at 3.

the docks meet the SMP's guidelines, including dock length and spacing.²⁴ While increased boating activity may diminish the quality of the recreational experience in the immediate area of the marina for those engaging in more passive recreation, such as canoeing, kayaking, and near-shore fishing, continued access to the reservoir would allow paddlers to effectively use less-developed areas of the project's waters.²⁵ Given the configuration of the proposed docks and piers, we find that the proposed facilities should have an insignificant effect on boating traffic and safety.²⁶

F. Cultural Resources

30. The Association believes that there are likely to be historic sites within the development area, and asks that Interior, the Bureau of Indian Affairs, the State Historic Preservation Officer (SHPO), and the Tribal Historic Preservation Office be allowed to assess the area before any construction is initiated.

31. The entities that are involved with cultural resources at the proposed site, the SHPO and Indian Tribes, had the opportunity to assess the area and provide comments on any historic sites identified within the area. In October 2003, Black Bear sent a copy of its application to the SHPO, asking for comments and whether there was a need for any additional information. The SHPO responded that it had no comment on the

²⁴ EA section 5.2.1(G). It is not entirely clear from the application that the 14 docks will not extend more than 120 feet from the shoreline, as required by the SMP. However, our authorization in this order is for docking facilities that meet the requirements of the SMP, including limiting the length of the docks to no more than 120 feet from the shoreline.

²⁵ The Association also argues that Black Bear's proposed non-project use of project lands and waters infringes on the public's use of public waterways and benefits only a few private properties. Black Bear's proposal is fully consistent with the current shoreline development at the project and does not represent a significant development expansion or restriction on the public's use of public waters. Contrary to the Association's assertion, the Black Bear marina is a commercial, non-residential development that is intended to serve not only residents of a nearby subdivision but members of the public as well.

²⁶ The boat slips are sized to accommodate relatively small boats that can be easily maneuvered in and out of the docks, and the developer will install lighting on the docks to ensure visibility and user safety. *See* EA section 3.1.

application.²⁷ On March 30, 2005, the Commission's staff sent letters to the Eastern Band of Cherokee Indians, the Cherokee Nation of Oklahoma, and the Catawba Indian Nation, with a copy to the SHPO, initiating consultation under section 106 of the National Historic Preservation Act.²⁸ The letters described Black Bear's proposal and the area of potential effect. The letters explained that the facilities would be constructed off-site and floated into place, that no dredging would occur, and that the North Carolina Department of Cultural Resources had reviewed the application and had no comments. Neither the SHPO nor the Tribes filed a response to the letters.

32. We believe there is little likelihood that authorizing this non-project use of project lands and waters will result in any impact to cultural resources. No known cultural or archaeological sites have been identified.²⁹ In addition, construction of the proposed facilities will involve very little disturbance to the area. In the event any archeological or historic remains are discovered during construction, Black Bear will be required to stop all work immediately and notify the licensee, the SHPO, and any Tribes that might attach religious or cultural significance to the discovered materials.

G. Aesthetic Resources

33. The Association contends that the impacts of the proposal on the daytime and nighttime viewsheds are not adequately addressed. We disagree. The physical presence of the docks, fishing piers, buildings (and especially any lights and signs associated with these structures) would have a minor, long-term visual impact on the shoreline.³⁰ The SMP has designated the area as commercial/non-residential, and under this designation, marinas such as the one proposed here, are allowed. The new structures would not be out of character with similar developments along the shoreline. Given the commercial/non-

²⁷ Copies of this correspondence are contained in section 3 of Black Bear's application.

²⁸ 16 U.S.C. §§ 470 *et seq.* (2000).

²⁹ The EA evaluates the impacts of the proposal on cultural resources and concludes that construction of the docks, fishing piers, and associated structures would have no impact on known cultural resources. *See* EA section 5.2.1(H).

³⁰ EA section 5.2.1(G).

residential designation, residents in the area should have no expectation that their views would remain unobstructed.³¹

Conclusion

34. We conclude that construction and operation of the proposed docks, as conditioned below, will not constitute a major federal action significantly affecting the quality of the human environment, will not interfere with licensed project purposes, and will be consistent with the statutory standards by which we regulate hydroelectric projects. Accordingly, we approve Duke Power's application to permit the proposed use of project lands and waters, as modified by this order.

The Commission orders:

(A) Duke Power's application, filed March 8, 2005, to lease 6.57 acres of land within the project boundary of the Catawba-Wateree Hydroelectric Project No. 2232 to Black Bear Development, Inc. (Black Bear) to construct a marina, fishing piers, a fuel dock, boat ramp, bulkhead, and associated facilities, is approved, as conditioned below.

(B) The facilities shall comply with the requirements of Duke Power's current Shoreline Management Guidelines (dated June 1, 1996), including the requirement that the facilities extend no more than 120 feet waterward of the full pond contour.

(C) The licensee shall include the following conditions in the lease issued to Black Bear Development, Inc., as approved in Ordering Paragraph (A) above:

(1) Upon discovery of any previously unidentified archaeological or historic properties during construction of the marina facilities covered by the lease, the lessee shall immediately stop all land-disturbing and land-clearing activities and contact Duke Power, the North Carolina State Historic Preservation Officer

³¹ The Association also expresses concern that once the Commission approves non-project uses of project lands, the public lacks any recourse if an unacceptable or bad situation arises, because the approval has no termination date. However, the licensee remains obligated under the terms of the license and is responsible for ensuring that the approved dock facilities do not interfere with project purposes, including recreation and public safety. Members of the public may notify the licensee when a problem arises, so that the licensee can investigate and address the matter, and require remedial action, if warranted.

(SHPO), and any Native American tribes/groups that may have an interest in the discovery.

(2) The lessee's use of project lands and waters shall not endanger health, create a nuisance, or otherwise be incompatible with the project's overall purposes, including public recreation and resource protection.

(3) The lessee shall take all reasonable precautions to ensure that its use of project lands and waters will occur in a manner that will protect the scenic, recreational, and other environmental values of the project.

(4) The lease shall reserve to the licensee the right to supervise and control the lessee's shoreline development activities to ensure that all conditions are properly implemented, including mitigation measures required by this order as well as the related permit conditions and agency recommendations the lessee has agreed to implement (*e.g.*, tree replacement, wetlands mitigation).

(D) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. § 385.713 (2006).

By the Commission.

(S E A L)

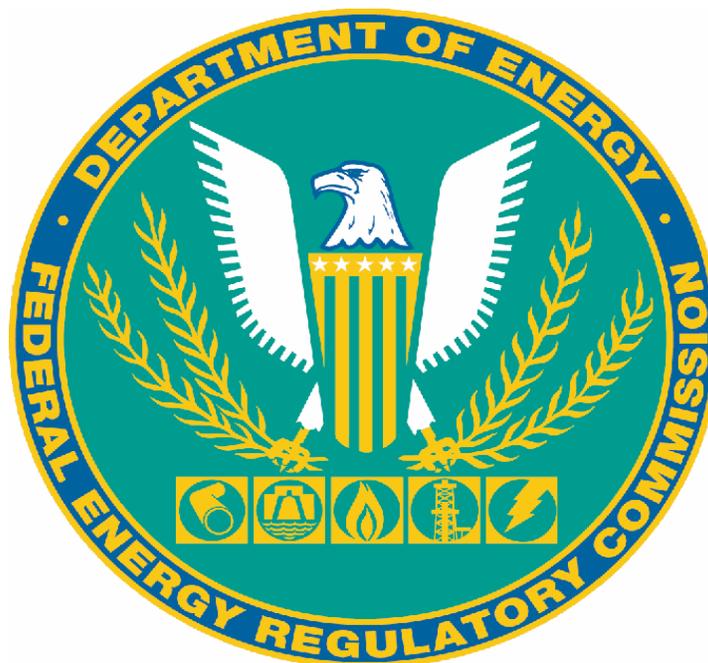
Magalie R. Salas,
Secretary.

FINAL ENVIRONMENTAL ASSESSMENT

Application for Non-Project Use of Project Lands and Waters

**Duke Power, A Division of Duke Energy Corporation
McDowell County, North Carolina**

**Catawba-Wateree Hydroelectric Project
FERC Project No. 2232-485**



**Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Administration and Compliance
Washington D.C.**

September 2006

FINAL ENVIRONMENTAL ASSESSMENT

**Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Administration and Compliance
Washington, D.C.**

**Catawba-Wateree Project
FERC Project No. 2232-485**

1.0 APPLICATION

Application Type: Non-Project Use of Project Lands and Waters
Date filed: March 8, 2005
Licensee: Duke Power, a Division of Duke Energy Corporation
Water Body: Lake James
Nearest Town: Marion
County and State: McDowell County, North Carolina (figures 1 and 2)

2.0 PURPOSE AND NEED FOR ACTION

On March 8, 2005, Duke Power (or licensee), licensee for the Catawba-Wateree Project, FERC No. 2232, filed an application for non-project use of project lands and waters. Specifically, Duke Power has requested Commission authorization to lease to Black Bear Development, Inc. (Black Bear) 6.57 acres of project land for a commercial/non-residential marina.

The marina would be located at the Bear Cliff Community on Lake James in McDowell County, North Carolina (Figure 1). Bear Cliff is a planned lakefront development combining a private residential subdivision with a public day-use area. In addition to the proposed marina and recently completed general store, the day use area will provide facilities for recreational-vehicles and tent camping, rental cabins, and a 60-acre nature preserve with hiking trails. According to Black Bear, the marina would provide needed boat slips on the western end of the lake. Also according to Black Bear, the marina would be a public facility serving the surrounding counties.

Article 39 of the license for the Catawba-Wateree Project gives Duke Power the authority, without prior Commission approval, to grant permission for certain types of non-project use and occupancy of project lands and waters. Because the proposed marina and associated leased land is not within the scope of uses set forth in Article 39, it can only be allowed if the Commission approves the proposed application.

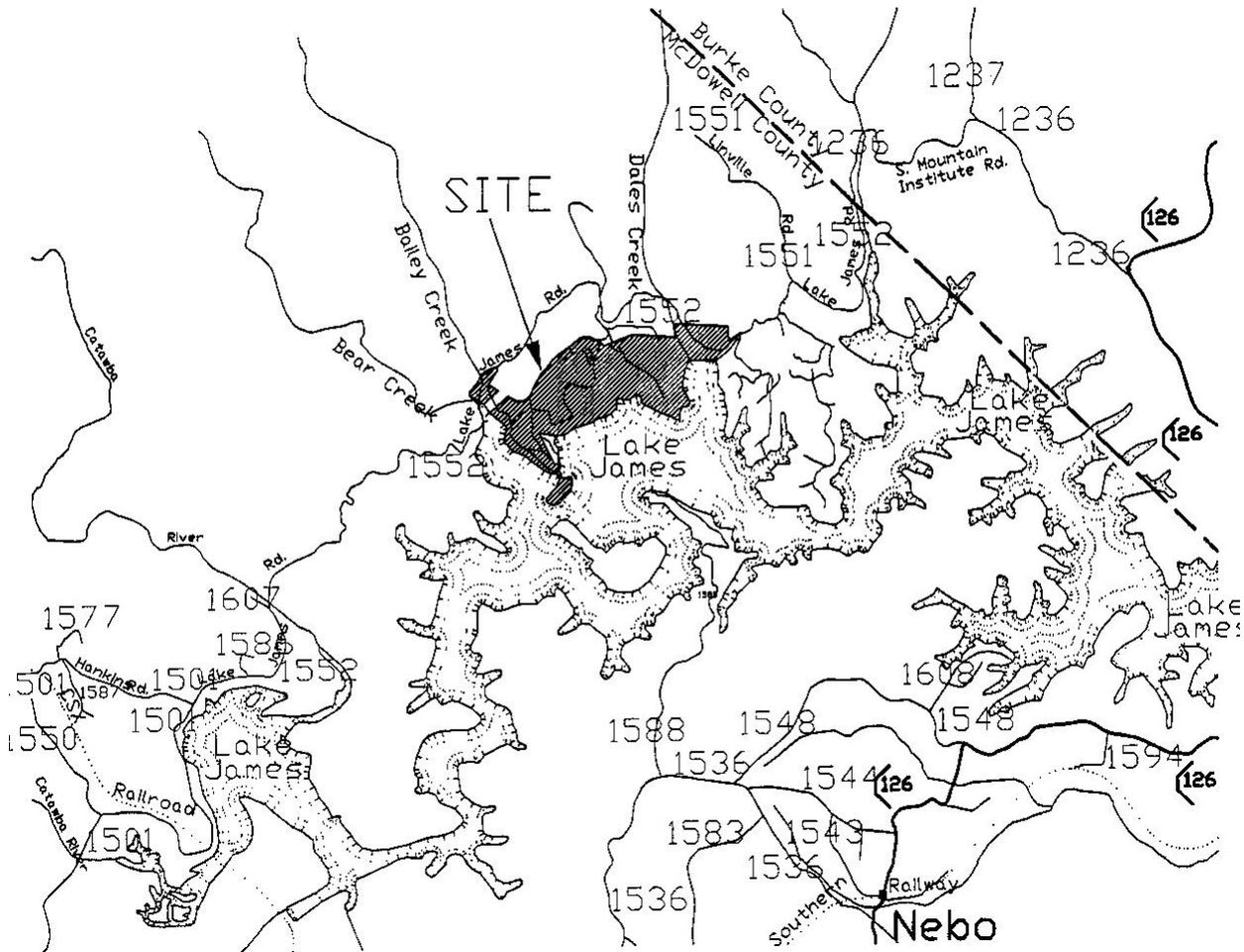


Figure 2. Location of the Bear Cliff Community on Lake James near Marion, North Carolina.

3.0 PROPOSED ACTION AND ALTERNATIVES

3.1 Proposed Action

Duke Power has requested Commission authorization to lease to Black Bear 6.57 acres of project land for a commercial, non-residential marina. Black Bear would construct the marina at the Bear Cliff Community on the shoreline of Lake James in McDowell County, northeast of the town of Marion (figure 2).

The proposed marina would consist of 14 cluster-docks accommodating 190 boat slips, one dry-docking storage area, an access ramp with a bulkhead, one handicap-accessible pier, four slips for a fuel dock and a boat pump-out station, and two fishing

piers (figure 3). In addition, a culvert would be installed to accommodate a road crossing over a small, un-named tributary to Lake James. The culvert is located outside of the project boundary, however it has been considered in this EA.

The slip areas for 13 of the cluster-docks would be 10 feet wide by 20 feet long. The fingers of the docks would be 4 feet wide with a main walk that would be 4 feet wide. The cluster-docks would be constructed off site with marine construction material and floated into place during the low recreation use season. The docks would be placed 40 feet apart to allow for proper ingress and egress of watercraft. Low-level, pedestal-type lights would be installed, which would illuminate downward to accommodate safe night use of the docks, but not impact the adjoining property owners with disturbing illumination.

A houseboat dock would have 8 slip areas, each measuring 16 feet wide by 60 feet long. The dock fingers would be 4 feet wide with a main walk 4 feet wide. A single access ramp to the dock would be 40 feet long by 6 feet wide.

A 16-foot-wide by 50-foot-long concrete bulkhead would be constructed to provide access for a dry docking storage facility that would accommodate 80 boats. While the building would be located outside the project boundary, a boat access ramp would be built to accommodate the facility. In addition, a fuel dock and boat pump-out station are proposed consisting of 4 slips, each 10 feet wide by 20 feet long. An 8-foot-wide by 70-foot long ramp would provide access to the fuel dock and pump-out facilities.

The two proposed fishing piers would each be 6 feet wide, by 75 feet long, and have a short "T" section at the end. In addition, a barrier-free pier would be constructed 6 feet wide by 75 feet long with a short "T" section.

Black Bear would also stabilize 2,505 linear feet of shoreline in the area where the docks and piers will be located using riprap that would be placed along the existing shoreline and extend from below the full pond elevation to 2 feet above full pool. No dredging would be required and the rip rap would be transported and placed by barge, unless circumstances require placement by hand. During the installation of riprap, all trees and vegetation would be left undisturbed. Excavation for the dry-docking bulkhead would affect 0.83 acre of wetlands. The wetlands occur near the shoreline of Lake James within shallow lake bottom areas.

3.2 Action Alternatives

No alternative actions have been identified.

LAYOUT OF PROPOSED FACILITIES AND PICTURE LOCATIONS

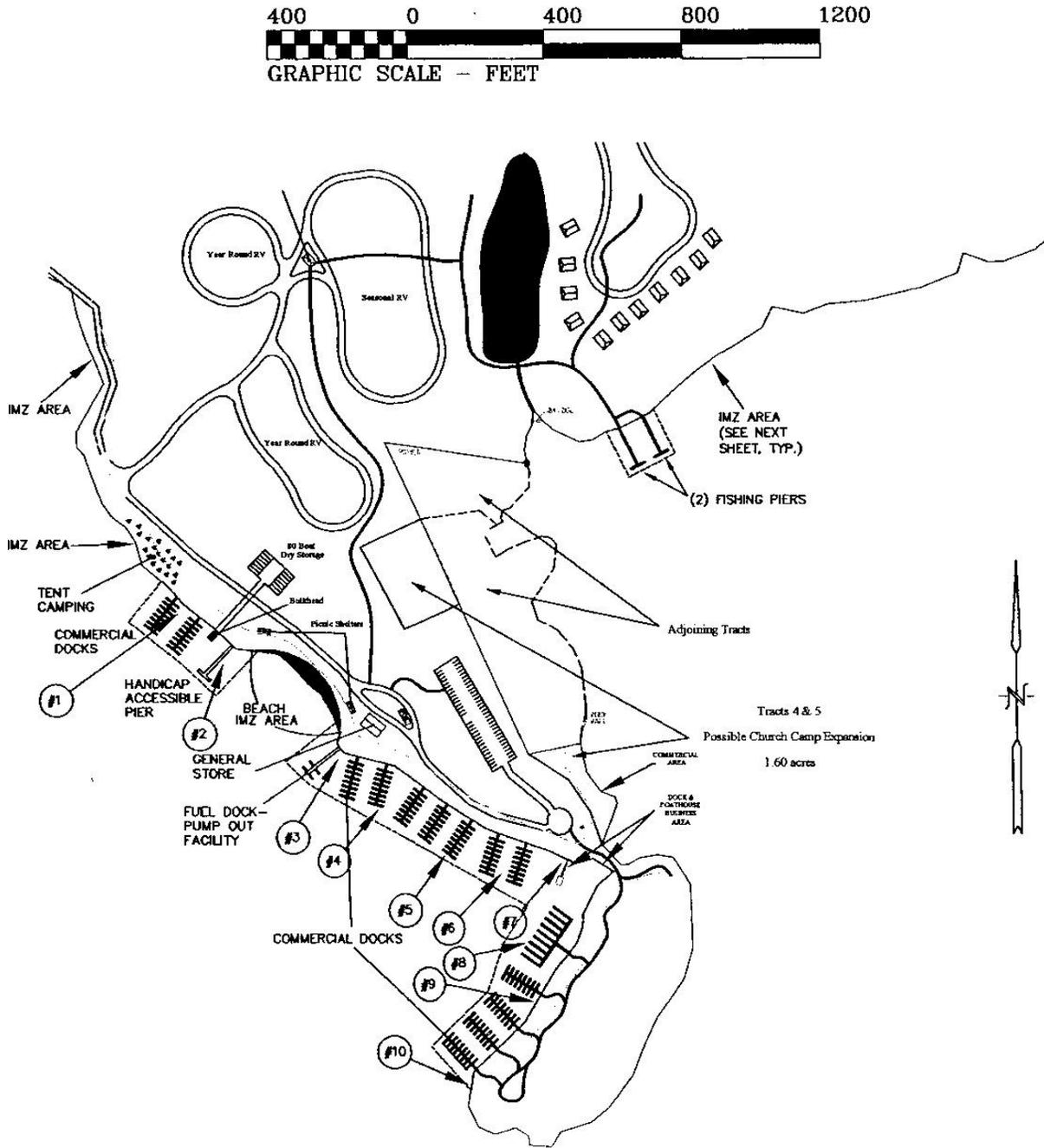


Figure 3. The proposed Black Bear Marina on Lake James, North Carolina

4.0 AGENCY CONSULTATION AND PUBLIC INVOLVEMENT

Duke Power's application documents Black Bear's agency-consultation efforts regarding the proposed marina. Table 1 lists the correspondence received from the consulted agencies. In its letter dated October 23, 2003, Black Bear agrees to comply with all of the agency recommendations, requirements, and permit conditions discussed in this EA.

Table 1. Agency correspondence received by Black Bear Development, Inc.

Agency	Letter Date(s)
North Carolina Department of Environment and Natural Resources, Division of Water Quality	July 21, 2004
North Carolina Department of Environment and Natural Resources, Division of Parks and Recreation	October 30, 2003
North Carolina Department of Cultural Resources, Historic Preservation Office	November 19, 2003
U.S. Army Corps of Engineers, Wilmington District	June 22, 2004 August 27, 2004
North Carolina Wildlife Resources Commission	November 25, 2003
North Carolina Department of Environment and Natural Resources, Public Water Supply Section	November 19, 2003
McDowell County Planning Administrator, Building Inspections	October 29, 2003 November 17, 2003
Rutherford-Polk-McDowell District Health Department	October 29, 2003
U.S. Department of the Interior, Fish and Wildlife Service	January 6, 2004

The North Carolina Department of Environment and Natural Resources, Division of Water Quality (NCDWQ) approved a section 401 Water Quality Certification (General Water Quality Certification GC3373) for the proposal in its July 21, 2004 letter.

In addition to the general conditions of the certificate, the applicant must comply with the following specific conditions:

1. Impacts Approved - The following impacts are approved as long as all conditions of the certification (or isolated wetland permit) are met: (1) impacts to 2,505 feet of shoreline; and (2) impacts to 0.14 acre of water. No other impacts are approved, including incidental impacts or impacts to wetlands.
2. Diffuse Flow (No Review) - All constructed stormwater conveyance outlets shall be directed and maintained as diffuse flow at non-erosive velocities through the protected stream buffers such that it will not re-concentrate before discharging into a stream as identified within 15A NCAC 2B .0243 (5). If this is not possible, it may be necessary to provide stormwater facilities that are considered to remove nitrogen. This may require additional approval from this Office.
3. No equipment is allowed into surface waters. All equipment shall be clean and free of all oil leaks (motor, transmission and hydraulic). Any equipment operated on the "dry" beach shall have a spill control plan in it, and the necessary items to implement the spill control plan on-site to prevent discharges to surface waters.
4. All stone used in the stabilization of stream banks shall be clean, washed stone.
5. McDowell County Catawba Buffer Ordinance – The proposed project must comply with the McDowell County local riparian buffer ordinance approved by the Division of Water Quality under the Catawba River Basin: Protection and Maintenance of Existing Riparian Buffers, 15A NCAC 02B .0243 (b).
6. Erosion & Sediment Control Practices - Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation, operation, and maintenance of Best Management Practices in order to protect surface water standards:
 - a. The erosion and sediment control measures for the marina must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites,

borrow sites, and waste/spoil sites, including contractor-owned or leased borrow pits associated with the project.

7. Waste, Spoil, Solids, or Fill - No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the Pre-Construction Notification. All construction activities, including the design, installation, operation and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.

8. Sediment & Erosion Control Measures in Wetlands or Waters - Sediment and erosion control measures shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored within six months of the date that the Division of Land Resources has released the project.

9. Certificate of Completion - Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return the attached certificate of completion to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650.

In its October 30, 2003 letter, the North Carolina Department of Environment and Natural Resources, Division of Parks and Recreation has no objections to the project as proposed.

The North Carolina Department of Cultural Resources, Historic Preservation Office states that it has no comments on the proposed action in its letter of November 19, 2003.

In its June 22, 2004 letter, the U.S. Army Corps of Engineers (Corps) informed Black Bear that a Pre-Construction Notification (PCN) regarding the proposed action must be completed and submitted to its office. The applicant provided a PCN on August 8, 2004, and requested a Section 404 permit from the Corps. The Corps issued a General Permit for the proposed action on August 27, 2004. The General Permit authorizes installation of a culvert for a road crossing, placement of rip rap along 2,505 linear feet of shoreline for bank stabilization, excavation of open waters (145 linear feet of an unnamed tributary to Lake James), and construction of boat docks. The General Permit requires the applicant to obtain a Section 401 Water Quality Certification from the

NCDWQ of Water Quality and to comply with the Special Conditions specified in the June 29, 2004 letter from the North Carolina Wildlife Resources Commission (NCWRC).

The NCWRC comments on the proposed Black Bear Marina in its letter of November 25, 2003. The NCWRC's major concerns for this development are the impacts to fish and wildlife habitat. More specifically, they are concerned about leakage of petroleum products from boats and the potential for fuel spills at the service dock. Also, the NCWRC questions whether this facility would appreciably affect the recreational carrying capacity of the lake, thereby affecting the boating experience. Additionally, an excessive number of boats can result in erosion of banks, destruction of emergent vegetation, introduction of noxious plant fragments, and biological impacts from sediment re-suspension and erosion. NCWRC recommends that Duke Power consider this in its decision-making process.

The NCWRC notes that this marina would be a public facility providing an important means to enhance the public's enjoyment of the projects resources, and does not object to the proposed marina provided that the applicant adheres to Duke Power's Shoreline Management Plan (SMP). Should Duke Power decide to allow the proposed construction, the following comments and recommendations to minimize impacts to fish and wildlife and their habitat were provided: (1) obtain FERC approval for the proposal; (2) provide details on how the marina would affect existing boat traffic in the area and carrying capacity; (3) provide a stormwater treatment plan for the parking lot and other hardened surfaces; (4) provide fuel-spill-containment devices and trained personnel to effectively manage a potential situation; (5) install and perpetually maintain suitable trees and brush under the fixed portion of the marina's docks and piers in a fish-friendly manner as set out in the approved SMP, to provide complex aquatic life habitat; (6) an in-water work moratorium should take place from April 1 to June 1 to minimize impacts to spawning fish, and to the survivability of young fish; (7) concrete is toxic to aquatic life and should not be allowed to come in contact with surface waters until cured; (8) avoid the use of pesticides, herbicides, fertilizers, and cleaners near or over water, and; (9) the states erosion and sedimentation control requirements should be strictly adhered to.

In its letter of November 19, 2003, the North Carolina Department of Environment and Natural Resources, Public Water Supply Section notes that it has reviewed the permit application and has no objections to the marina as proposed.

The McDowell County Planning Administrator notes on October 29, 2003 that any land-disturbing activity that occurs within 250 feet of the reference lines would require a McDowell County Shoreline Protection Permit. On November 17, 2003, a McDowell County Shoreline Protection Permit was issued that authorizes commencement of work

on the property. Requirements of the permit include: (1) primary structures will need to be set back 65 feet from the shoreline; (2) 13 trees greater than 6 feet diameter exist within the 50-foot buffer under the county's riparian buffer ordinance are to be protected; (3) prior to any land-disturbing activity within 50 feet of the shoreline, any trees that are to be removed will need to be marked; (4) a representative of the McDowell County Planning Department will make a site visit to record all necessary measurements before any trees are cut; and (5) trees removed within the 50-foot buffer must be replaced with trees totaling an equivalent diameter somewhere within the 50-foot buffer.

In its letter dated October 29, 2003, the Rutherford-Polk-McDowell District Health Department notes that most of its public health concerns about the proposed marina appear to have been addressed by the appropriate agencies. If wastewater is disposed of in a septic tank system, a permit would be required from the Health Department for that septic system.

The U.S. Department of the Interior, U.S. Fish and Wildlife Service (FWS) states in its January 6, 2004 letter that if it is determined that this proposed action may adversely affect any species federally-listed as endangered or threatened, formal consultation with the FWS must be initiated. FWS recommends that if appropriate habitat is available in the proposed development area for any of the federally-listed species included in the list enclosed in its letter, then surveys should be conducted prior to the initiation of construction in order to determine if any of these species are present. FWS has records of occurrence of the threatened bald eagle (*Haliaeetus leucocephalus*) in the project area and a plant that is a federal species of concern-Northern Oconee-bells (*Shortia galacifolia* var. *brevistyla*). Also, FWS provided the following additional comments and recommendations to minimize potential effects to the species:

1. The land parcel that would be leased to Black Bear is subject to the provisions of Federal endangered species permit TE034491-0 issued to Crescent Resources, Inc. (Crescent). FWS questions whether Black Bear has become a party to this existing permit. The applicant's consultant confirms that Black Bear has become a party to it.
2. Given the proximity of the proposed marina to aquatic environments, the FWS emphasized that stringent measures to control sediment and erosion should be implemented prior to any ground disturbance, and should be maintained throughout the construction period.
3. FWS states that any mitigation plan for the proposed marina must include the restoration of comparable wetlands and streams at a ratio of at least 2:1. FWS would need to review a complete mitigation plan in order to provide detailed

comments. A mitigation plan should include a description of the site of any mitigation, a detailed wetland restoration or creation plan, the goals and objectives of the plan, and an assessment of the probability of success. A complete plan should include a specific description of the manner in which the proposed mitigation will offset any permitted impacts, including those to fish and wildlife resources in the permit area. Timeliness of the completed restoration/creation efforts should be considered relative to the proposed impacts. A regular monitoring plan should be included in any restoration plan.

4. Riparian-vegetation plantings should include sedges, grasses, and rushes, as well as native woody species. Exotic vegetation should be screened from any plant material. Large woody species will provide thermal cover and deep bank-stabilizing root systems along the restored stream channel.
5. Stream channel design should mimic slope, riffle slope, pool slope, valley slope, meander geometry, sinuosity, cross-sectional dimensions, entrenchment ratio, bed material (pebble count), and bank-full discharge of a nearby reference reach of stable stream of the same classification (Rosgen 1996). FWS would like to review the final design of the stream and/or wetland restoration of any proposed mitigation.
6. Monitoring should continue for at least five years following wetland or stream construction. Annual reports should be submitted to the resource agencies. Resource agencies should be notified of problems with the success or function of stream or wetland mitigation within 30 days of detection.
7. An appropriate regional conservation organization should hold title to deed restrictions on the mitigation site(s). The title to the conversation easement should be conveyed along with an endowment for future monitoring, management, and any contingencies to ensure success of the mitigation. The endowment should also make provision for any required periodic legal filing.

Tribal Consultation - On March 30, 2005, the Commission sent a consultation letter to the Eastern Band of Cherokee Indians, the Cherokee Nation of Oklahoma, and the Catawba Indian Nation. The letter described the proposed project, states that the Commission had reviewed the existing information and determined that the project does not utilize any Federal or tribal lands, and requested the Tribes' concurrence within 30 days of receipt of the letter. The Commission received no responses to this letter.

Public Notice -- On March 31, 2005, the Commission issued a public notice of Duke Power's application requesting that comments, motions to intervene, and protests be filed by April 29, 2005. Table 2 lists the correspondence filed with the Commission in response to the public notice.

Table 2. Correspondence filed with the Commission in Response to the Public Notice.

Organization	Letter Date
U.S. Department of the Interior, Office of Environmental Policy and Compliance	April 26, 2005
Lake James Environmental Association	April 29, 2005

In its letter of April 26, 2005, the U.S. Department of the Interior, Office of Environmental Policy and Compliance states that it has no comments to provide on this application.

In its letter of April 29, 2005, the Lake James Environmental Association (LJEA) filed a motion to intervene in this proceeding. LJEA lists a number of environmental issues that it believes should be considered. According to LJEA:

1. Duke Power's non-project use application uses data from dated studies that do not realistically represent conditions at Lake James. LJEA believes that the application does not follow the spirit of the Commission's regulations protecting against such drastic changes to public waterways and that this type of non-project use of project lands not only infringes on the public's use of public waterways, but merely serves to benefit few private properties while turning project lands into a "country club" for the wealthy. Accurate boat-count studies need to be performed and taken into consideration along with long-range boating-traffic projections for the immediate area as well as the entire lake. Duke Power, as the licensee, should be required to provide to the Commission and the public realistic, current boat-traffic-density studies and accurate projections on future density. Any boat-traffic-density studies should include input from all stakeholders in the current Commission/Duke Power relicensing process. Gaining such input would be a simple and cost-effective process since Duke, the Commission, and most other Catawba River Basin stakeholders are currently meeting on a regular basis as a part of the ongoing Commission relicensing process. Additionally, 2,505 feet of natural fishable shoreline would be permanently compromised by riprap.

2. The Commission and Duke Power should look at the overall cumulative impacts of decisions made in the past and today in regard to impacts on the future generations of the general public.
3. LJEA, Citizens to Save Lake James, Carolina Canoe Club, adjacent property owners, and the Lake James Task Force have identified a large demand for Lake James to become more paddler friendly. Canoeists and kayakers who already use Lake James currently need more recreational space to ensure their safety and enhance their paddling experience.
4. Protection of the daytime and nighttime viewsheds is not being addressed. Western North Carolina has become very attractive to tourists from throughout the United States and abroad. The impacts of allowing such massive cluster-docks on the long-range scales being planned would have significant and unavoidable impacts on local economies and would likely lead to a decrease in the desirability of the area.
5. Timeout periods to establish smart-growth practices would enhance and protect everyone's enjoyment of Lake James and would bring a balance of private development and adequate public access, while also helping to protect wildlife and fisheries habitats.
6. Commission approval of non-project uses of project lands run for eternity instead of the term of the applicant's license, thus, once approved, the public's ability to correct a bad or unacceptable situation becomes extremely difficult, if not impossible.
7. The applicant has not included the impacts or sizes of impervious paved parking lots planned to serve the marina. These parking lots will produce petroleum and other chemical runoff into Lake James on a permanent basis and their impact as a dangerous source of pollution to the fresh-water intake facility now being planned by McDowell County should be considered. All runoff will enter the lake within dangerous proximity to the new intake site that has already been acquired from Duke Energy. Treating such polluted water will increase water treatment facility costs dramatically, seriously encumbering costs and liabilities to local governments and the public. Due to the geographical layout of the site and surrounding waterways, such pollutant concentrations would likely linger in the area for extended periods of time causing increased risks of serious public health issues.

8. The fish-friendly pier-and-dock construction practices mentioned repeatedly include building materials known to be harmful to all significant biological environments such as Lake James.
9. Regardless of official classifications, a cool-water fishery does exist in Lake James. Smallmouth bass, walleye, steelhead trout, lake trout and muskie are known to thrive in James. The proposed development activities may only affect warm-water species temporarily, but the same activities will easily devastate cool-water species.
10. Too much of the lakeshore in the vicinity of Bear Cliff is suffering from the removal of live and dead vegetation from the shoreline despite the McDowell County Shoreline Protection Ordinance designed to protect the area. The construction of this marina at Bear Cliff will result in the removal of living and dead shoreline vegetation along the entire length of the proposed cluster-dock shoreline.
11. Comments filed in recent cluster-dock applications to the Commission from the U.S. Department of the Interior indicate that protected Cherokee and/or Catawba Indian historic and archaeological sites are very likely to be disturbed by cluster-dock development activities. The applicant has failed to address this issue. There are likely historical sites located within the scope of this cluster-dock proposal. The Commission should allow the U.S. Department of the Interior, U.S. Bureau of Indian Affairs, the SHPO and the Tribal Historic Preservation Office to adequately assess the areas in question immediately and prior to any further development activity. Native Indian artifacts are easily found along the banks of the Catawba, the North Fork of the Catawba and Paddy Creek. Any research should be allowed sufficient time so as to provide reliable scientific and historical findings.

In view of these concerns, LJEa makes the following recommendations:

1. This is an opportunity to accommodate private development without encumbering the public's use and safety of our waterways with wet-slip storage. LJEa contends that off-water boat storage is a much more economical and safer alternative for all parties.
2. The Commission should require that holding areas for boats at the dry-storage facility, all wet slips, and any wet-slip storage be constructed with proven environmentally-friendly, man-made materials, and in a controlled area off site

because man-made construction materials: (1) do not leach chemicals into the waterways like pressure treated lumber; (2) do not require chemicals to clean, maintain, or protect the surface; (3) will provide a safer environment and ensure better water quality for fish and turtle habitat; (4) will save the property owner money due to the maintenance-free nature of the product; (5) will most likely last a lifetime which is an investment for the property owner; (6) will not splinter like pressure-treated lumber, ensuring children a splinter-free day; (7) are not as slick as pressure treated lumber when wet; (8) are significantly more durable, cutting maintenance costs in the long run; and (9) will benefit all parties just as much as eliminating the use of Styrofoam for floatation purposes.

We consider the comments received in the above correspondence in the environmental-analysis section of this EA.

On April 28, 2006, the Commission issued a Draft Environmental Assessment (DEA) on the subject application. By letter dated May 24, 2006 the FWS commented on the DEA. It expresses concern for potential adverse cumulative impacts on project environmental resources resulting from shoreline development and increased boating activity. It also commends the applicant and Duke for agreeing to implement the FWS's recommendations for resource protection, and for ensuring that the provisions of the SMP are followed. The FWS acknowledges that the SMP is a useful tool, and indicates that the SMP and shoreline development matters have been a subject of extensive discussion and consideration during the ongoing project relicensing process. The FWS has been actively participating in the relicense process. The potential for cumulative impacts to project resources is addressed throughout this EA, particularly in section 6.0.

5.0 ENVIRONMENTAL ANALYSIS

5.1 Affected Environment

General setting

The proposed marina would be located on Lake James (Figure 4), which is part of Duke Power's Catawba-Wateree Project. The project includes a series of 13 hydroelectric developments with 11 reservoirs on the Catawba River in North Carolina, and the Catawba and Wateree Rivers in South Carolina (Figure 5). The developments and reservoirs occupy lands in 14 counties in the two states, spread over approximately a 200-mile reach of river. The 11 reservoirs, in order from north to south, their shoreline miles, and their surface areas are listed in Table 3.

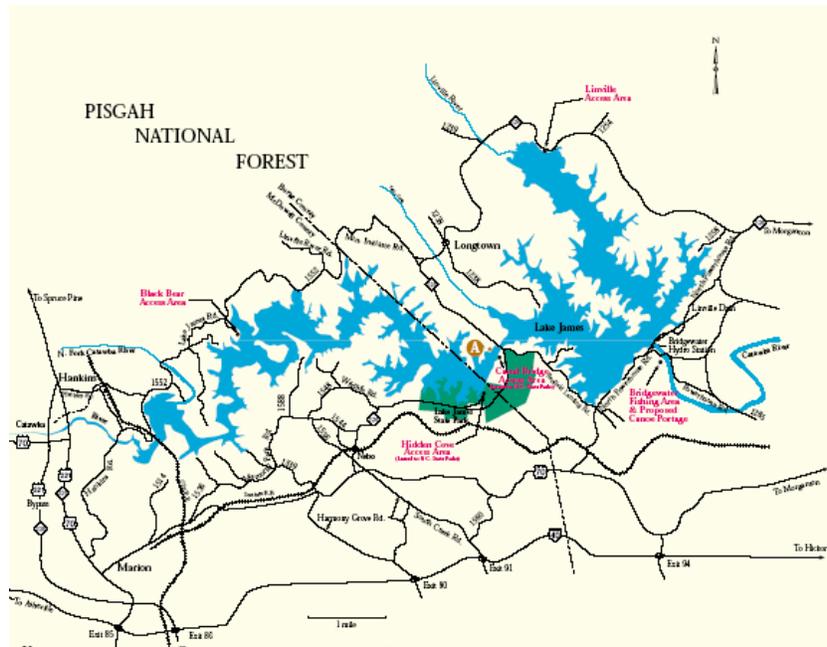


Figure 4. Location of Lake James, North Carolina.

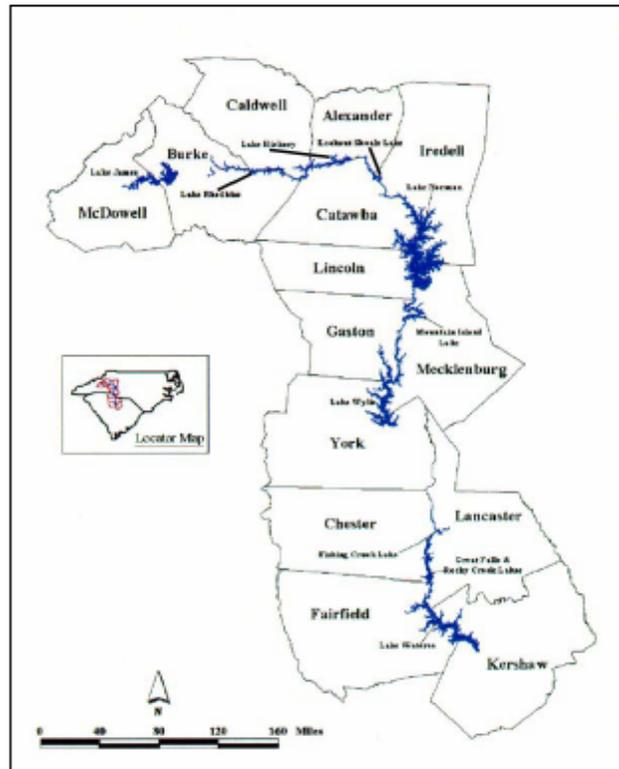


Figure 5. The Catawba-Wateree Project area. (Source: Duke Power 2001).

Table 3. Shoreline characteristics of the Catawba-Wateree Project reservoirs

Reservoir	Shoreline miles	Surface acres
Lake James (NC)	151.5	6,577
Lake Rhodhiss (NC)	103.9	3,021
Lake Hickory (NC)	110.6	3,941
Lookout Shoals Lake (NC)	36.3	1,208
Lake Norman (NC)	591.6	31,984
Mountain Island Lake (NC)	86.5	2,914
Lake Wylie (SC)	327.5	12,149
Fishing Creek Lake (SC)	67.1	3,191
Great Falls Lake/Rocky Creek Lake (SC)	37.0	1,020

Lake Wateree (SC)	214.9	12,891
Source: Duke Power 2001		

The hydropower developments were constructed between 1905 and 1925, except for the Lake Norman Development, which was completed in 1963. The project boundary established in the license is generally the normal high-water-elevation contour at each of the 11 reservoirs.

Duke Power manages the shoreline along the Catawba-Wateree Project reservoirs in accordance with its SMP, which was first approved by the Commission in 1996, revised in 1998 to include shoreline management classification maps, and updated in 2001 (Duke Power 2001). The revised SMP is intended to assist Duke Power in supervising and controlling future shoreline uses at the project.

The primary goals of the Catawba-Wateree SMP are to: (1) provide for public and private access without destruction of the project’s natural resources and without compromising the project’s primary function, which is the production of electricity; and (2) ensure that the existing and future public recreational needs of the project are addressed. Under the SMP, the entire project shoreline is classified according to various existing and future use categories, which classifications are indicated on the SMP’s classification maps.

Lake James is one of the project’s larger reservoirs, with 151.5 miles of shoreline and 6,577 surface acres at a full pool elevation of 1,200.0 feet mean sea level (msl). Table 4 summarizes the shoreline land-use classifications for Lake James from Duke Power’s SMP.

Table 4. Shoreline land-use classifications for Lake James

Shoreline classification	Shoreline miles	% of total
Commercial/Non-Residential	1.6	1.1
Commercial/Residential	4.4	2.9
Residential	12.5	8.3
Business Industrial	0.0	0.0
Public Recreation	0.7	0.0
Public Infrastructure	0.7	0.0
Project Operations	2.3	1.5

Future Commercial/Non-Residential	60.8	40.1
Future Commercial/Residential	4.0	2.6
Future Residential	15.8	10.4
Future Public Recreation	10.0	6.6
Impact Minimization Zones	9.5	6.3
Impact Minimization Zones (Dev)	0.2	0.0
Environmental Area	20.8	13.7
Natural Area	8.1	5.3
Total	151.5	100.0
Source: Duke Power 2001		

Environmental Components

Geology and Soils—

The headwaters of the Catawba-Wateree River Basin originate in the Blue Ridge Physiographic Province, which quickly transitions toward the southeast into the Piedmont Plateau Physiographic Province. The rocks are generally granites and gneisses that once formed the basement of the Appalachian highlands. This area has the highest peaks of the Appalachian highlands. Other rock types found in the southern portion of the Blue Ridge Province include thick sedimentary rocks, including siltstones, sandstones, and conglomerates. Many of these sedimentary rocks have been metamorphosed, but to a lesser degree than is found in the Piedmont Plateau.

Shorelines of the reservoirs within the Catawba-Wateree system are seasonally exposed as water levels are lowered to accommodate anticipated seasonal runoff, or to provide additional power generation. During certain periods, shorelines may experience erosion because of wave action on exposed sediments or soils.

Water Quality and Quantity—

Water quality in the Catawba River Basin, especially in its forested upper reaches above the Catawba-Wateree Project, is generally good. Water quality within the project varies from reservoir to reservoir, depending upon factors such as reservoir configuration, water-retention time, and nutrient input (FERC, 1996). Because of its location in the forested headwaters, and its long water retention-time, the majority of Lake James has excellent water quality (WQRC 2005). Lake James receives relatively high concentrations of nutrients and organic matter from the North Fork Catawba and Catawba River inflows, and low nutrients and organics from the Linville River. Concentrations of algae are greatest near the headwaters of the reservoir's Catawba arm where nutrients are

high, but algal activity is low near the reservoir's dams because Lake James acts as a trap for phosphorus, a plant nutrient.

The Catawba-Wateree Project reservoirs are managed for hydroelectric-power generation, minimum-flow-release requirements, cooling water for power plants, and recreation. Reservoir water levels typically fluctuate 2 to 3 feet daily, but may fluctuate as much as 10 feet throughout the year. Water levels are lowered in the fall and winter to accommodate spring runoff. During the summer, water levels are kept relatively high and stable for recreation (FERC, 2003).

Fisheries—

The principal sport fishes in most of the Catawba-Wateree Project reservoirs are warmwater species, including largemouth bass, white crappie, black crappie, bluegill and other sunfishes, and catfishes. All of these species frequent shoreline areas with standing timber, submerged woody debris, aquatic vegetation, or other cover. Spawning occurs in spring and early summer over nests constructed in shallow-water habitats, often in areas sheltered by undercut banks, fallen timber, and other overhead cover (Duke Power 2001; FERC, 2003).

Lake James has 151.5 miles of shoreline, of which 20.8 miles (13.7 percent) are classified as Environmental Areas in Duke Power's SMP. The Environmental Area designation includes vegetated areas or cove heads with stream confluences protected from development. In addition, 8.1 miles (5.3 percent) of shoreline are classified as Natural Area, indicating areas containing shallow waters, significant cultural resources, or significant terrestrial habitat. Development is not allowed in such areas within the project boundary (Duke Power 2001; FERC 2003).

The littoral fish community of Lake James was studied from 1994 through 1997 and in 2000 by means of spring shoreline electro-fishing (Aquatics 2005). Thirty eight species of fish were observed, including common carp, notchlip redhorse, largemouth bass, and bluegill and redbreast sunfish. Littoral (near-shore) samples in the coves revealed large numbers of gizzard and threadfin shad, sunfish, largemouth and smallmouth bass, crappie, yellow perch, walleye, and white bass. Lake James is unique among the Catawba-Wateree reservoirs because it supports a cool-water fishery (smallmouth bass and walleye) as well as a warm-water fishery. No fish kills were reported by the NCWRC and Duke Power during the 1988-2001 period.

Terrestrial and Wildlife Resources—

Forest vegetation at the Catawba-Wateree Project ranges from broadleaf deciduous-dominated systems of the Blue Ridge Mountains in the upper reaches of the watershed, to a wide mixture of pine- or oak-dominated forests in the Piedmont province in the lower portions of the basin. Much of the forest land in the Piedmont province is managed for pines and has been developed into monocultures.

The principal terrestrial wildlife species in the project area include white-tailed deer, Eastern cottontail rabbit, and Eastern gray squirrel. A total of 43 native and two introduced species of mammals are expected to occur in the 14 counties included in the Catawba-Wateree Project area (Webster 2005). Upland game birds that are present may include bob-white quail, American woodcock, and mourning dove. Great blue heron and other birds associated with aquatic habitats are also found in the project area. A diversity of non-game terrestrial species, including songbirds and many species of amphibians and reptiles, occur in the area. Areas where tributaries meet the project reservoirs may have wetland characteristics, and serve as feeding areas for waterfowl and shorebirds, and as habitat for other species.

Wetlands—

The wetland resources associated with the Catawba-Wateree Project are representative of Southeastern reservoir and riverine environments in terms of wetland types (*e.g.*, emergent and scrub-shrub), vegetation (*e.g.*, sedges, water willow), juxtaposition (*e.g.*, fringe and coves), and principal functions and values (*e.g.*, wildlife habitat, shoreline stabilization). Lake James supports 40 wetlands areas with a total area of 234 acres. The range of water levels directly related to project operations in Lake James is such that the hydrology for the adjacent wetlands is not adversely affected. There are typically minimal lake-level fluctuations during the growing season (*i.e.*, May through October).

Threatened and Endangered Species--

Two federally-listed species are known to exist in McDowell County, North Carolina. The bald eagle (*Haliaeetus leucocephalus*) is listed as threatened under the Endangered Species Act (ESA). A plant, the Northern Oconee-bells (*Shortia galacifolia* var. *brevistyla*) is a federal species of concern. FWS records suggest that these species may occur in the project area.

Recreation and Other Land and Water Uses—

There are five developed, Duke Power-owned public, recreation access locations on Lake James, two of which are leased to the NCDPR, and one state park, Lake James State Park. Duke Power's developed access areas on Lake James provide about 404 acres and 32,129 feet of shoreline frontage for public use. Combined, the developed access areas have 13 public boat ramps, six loading piers, about 345 parking spaces for vehicles/trailers, and 23 parking spaces for cars (Duke Power 2001).

Lake James State Park is owned and operated by the NCDPR. The park provides 605 acres, 21,246 feet of shoreline footage, and one public fishing pier accessible to persons with disabilities. In addition, there are four commercial, non-residential marinas that provide public access to Lake James, and 10 commercial, residential marinas (Duke Power 2001).

In 1999, the Duke Power-owned recreational facilities at Lake James received a total of 220,143 visits. Overall recreational use, including all public and private access areas, was estimated to be 311,258 visits. A boat-capacity study in 1999 indicated no overall crowding problems on Lake James, even on holiday weekends. Fishing and motor boating were the most common boating activities, comprising 40.0 and 26.5% usage, respectively. The reservoir provides an estimated 6,812 acres of water for canoes/kayaks, of which 4.5% was used in 1999.

Future recreational use of Lake James is expected to increase, based on anticipated increases in population within 50 to 60 miles of the reservoir (Duke Power 2001). An additional 35.80 acres are expected to be needed for swimming, picnicking, camping, and boating by the year 2050. Respondents to a 1999 Recreation Use and Needs Survey indicated a need for camping, picnicking, hiking/bicycling trails, mooring sites, gas pumps, and restroom facilities on Lake James. They expressed concerns about controlling and slowing shoreline development, and the need for more controls on jet skiing and boat speeds.

Cultural Resources—

The Commission, the Advisory Council on Historic Preservation, and the North Carolina and South Carolina State Historic Preservation Officers (SHPOs) developed a Programmatic Agreement (PA) outlining the operating procedures for cultural resource management and protection under Duke Power's SMP. Under the PA, and in an effort to identify and evaluate historic properties within the Catawba-Wateree Project, Duke Power developed a database of all known historic properties in North Carolina and South

Carolina that are located in the immediate vicinity of the project. Duke Power also developed a schedule and implementation plan to conduct archaeological surveys of areas within the project boundary determined to have a probability for the presence of archaeological resources (Duke Power 1997). However, the Catawba-Wateree Project area has not been systematically surveyed for historic or archaeological resources.

According to Duke Power's SMP (Duke Power 2001), there are 36 previously recorded cultural resources (including eight architectural resources and 28 archaeological sites) within the Lake James Study Area. The architectural resources include three single-family dwellings, an industrial site, a bridge, and three dams. The architectural resources range in date from the late nineteenth century to the early twentieth century. The archaeological sites include those from the Early Archaic through the Historic cultural periods.

Of the 28 archaeological sites, five can be attributed to the Archaic period and eight can be assigned specifically to the Woodland period (Duke Power 2001). Eight sites are associated with a combination of Archaic and Woodland periods. No determination of the time period was made for six of the sites. One site is linked to the Mississippian period. For 24 of the prehistoric sites, there are not enough data to determine site function. Two of the sites are inundated by project water.

None of the archaeological sites or architectural resources is listed in the National Register of Historic Places. In its letter dated November 19, 2003, the North Carolina SHPO had no comment on the proposed action.

5.2 Environmental Effects

5.2.1 Proposed Action

Table 5 summarizes the probable environmental impacts of the proposed action. The table rates the type, intensity, and duration of the effects on each of the resource issues noted in section 5.1. Brief descriptions of these effects are provided in the remarks that follow.

(A) Geology and Soils

The 14 cluster-docks and three piers would be constructed off site and floated into place during low lake recreation usage. Construction of the Black Bear Marina would temporarily disturb lakebed sediments during the placement of pilings for the docks and fishing piers. Dock and pier construction would also involve minor vegetation removal

where these structures would connect to the shoreline. Construction of the dry docking access would include excavation in the dry of 0.06 acre of Lake James bottom substrate for placement of a bulkhead. Other structures associated with the bulkhead and dry docking facility would affect 0.77 acre of Lake James. All construction associated with these structures would be in compliance with the regulating authorities' requirements so that impacts to the lakebed and shoreline would be minimized. Construction of the docks and piers would not involve dredging, further reducing impacts to the lakebed.

Black Bear has committed to using the best management practices for erosion and sedimentation control at all ground-disturbing sites. These construction practices, combined with adhering to other agency permit conditions, would result in only minor, short-term impacts in terms of increased soil and sediment disturbance in Lake James (see Water Quality and Quantity below).

Shoreline stabilization, which would involve the placement of 2,505 linear feet of riprap, would temporarily disturb lakebed soils and may involve minor ground disturbance in some shoreline areas. Transport and placement of all riprap would be performed by barge. It is likely that installation of the riprap would have only a minor, short-term impact to sediments and water clarity in Lake James (see Water Quality and Quantity below). Conversely, installation of the riprap could have a long-term beneficial effect on sedimentation in Lake James by slowing or stopping erosion along some areas of the shoreline.

Construction of an access road to the Black Bear Marina would necessitate crossing a single, unnamed tributary stream. The stream is about 4 feet wide, and a 145-foot-long culvert would be placed in the stream to support the roadway. Excavation, filling, and shoreline stabilization would be needed to place the culvert in the stream. This would occur outside of the project boundary.

In its section 401 Water Quality Certification, the NCDWQ has given Black Bear its approval, in accordance with certain conditions, to impact 0.14 acre of water and 2,505 linear feet of shoreline for the purpose of installing riprap. Black Bear must comply with McDowell County's riparian-buffer ordinance. All constructed stormwater conveyance outlets must be directed and maintained as diffuse flow at non-erosive velocities. The erosion and sediment control measures for the marina must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*. The applicant has committed to implement all of the NCDWQ's conditions, and to comply with the FWS's recommendation to implement and maintain stringent erosion and sedimentation control measures.

The McDowell County Planning Administrator issued a Shoreline Protection Permit (which includes portions of the proposal that are outside the project boundary) that requires primary structures to be set back 65 feet from the shoreline, the protection of 13 trees within the established 50-foot buffer and the replacement of any trees removed from the 50-foot buffer. The applicant has committed to implement these permit requirements. LJEAs expressed concern that too much live and dead vegetation would be removed from the shoreline, despite the McDowell County Protection Ordinance. However, the applicant agrees to comply with the permit's conditions, which would protect and replace trees that are important for preventing shoreline erosion. Also, the applicant proposes to use a small trenching machine for the installation of electric and fuel lines so no trees would have to be disturbed by this work.

The Corps issued a general permit for the proposed action that authorizes placement of riprap along 2,505 linear feet of shoreline for bank stabilization, excavation of 145 linear feet of stream channel for a road-crossing culvert¹, and construction of boat docks. Black Bear agrees to comply with these conditions, which are expected to minimize the effects of riprap and culvert placement on geology and soil resources. Black Bear also agrees to comply with the FWS recommendation to restore the stream channel affected by the culvert installation by mimicking the channel conditions of a nearby reference reach.

The NCWRC expresses concern about erosion of banks resulting from increased boat traffic. Increased boating activity in the vicinity of the marina would result in the minor disturbance of shoreline soils and near-shore sediments due to wave action, propeller disturbance, and mooring. These impacts are largely unavoidable, but would be reduced by the proposed riprapping of affected shoreline areas, and to the degree that boaters comply with North Carolina law mandating a no-wake zone within 50 yards of any dock, pier, or similar structure on Lake James.

(B) Water Quality and Quantity

Construction of the docks, fishing piers, and associated structures, placement of a culvert at a stream crossing: and installation of the riprap would have minor, localized, short-term impacts on water quality due to increased sedimentation in Lake James. Erosion and sedimentation would increase turbidity and total suspended solids in the

¹ Culvert inverts should be buried at least one foot below the bed of the stream for culverts greater than 48 inches in diameter.

lake, and disturbance of the sediment could release nutrients resulting in temporarily increased biological activity, and possibly reduced dissolved-oxygen (DO) levels. However, construction in the water would be very limited; docks would be constructed off-site and floated into place and riprap would be placed from barges. Water quality standards likely would not exceed state criteria and water quality conditions would return to normal levels soon after the completion of construction activities. Minimal excavation along the shoreline is proposed (for the dry-docking bulkhead) and shoreline vegetation

Table 5. Environmental Effects of the Proposed Action

IMPACT ISSUE	IMPACT RATING		
	1 – Minor 2 - Moderate 3 – Major	A - Adverse B - Beneficial NI - No Impact	S – Short Term L – Long Term I – Intermittent
A. Geology and Soils			
Soil Erosion	1	A/B	S/L
Shoreline Stability	2	B	L
B. Water Quality and Quantity			
Sedimentation	1	A/B	S/L
Contaminants and Runoff	1	A	L
C. Fisheries			
Water Quality	1	A/B	S/L
Fisheries and Littoral Habitat	1	B	L
D. Terrestrial and Wildlife Resources			
Wildlife and Riparian Habitat	1	A	S/L
E. Wetlands	1	A	L
F. Threatened and Endangered Species	--	NI	--
G. Recreation and Other Land Uses			
Boating Use/ Boating Congestion	1	A	L
Shoreline Occupancy and Use	1	A	L
Public Access to Project Lands and Waters	2	B	L
H. Cultural Resources	--	NI	--
I. Landscape Aesthetics			
Visual Character and Scenic Quality	1	A	L
Ambient Noise Levels	1	A	L
J. Socioeconomics	1	B	L

would be left in place wherever possible, so increased turbidity and total suspended solids from marina construction and riprap installation would be relatively minor. Conversely, the installation of riprap could have a long-term beneficial effect on water quality by slowing or stopping existing erosion and sedimentation along some areas of shoreline.

Increased boating activity in the vicinity of the marina could result in minor spills of gasoline or oil that would have short-term adverse effects on water quality. Operation of the fuel dock and pump-out facilities could also result in spills of gasoline, oil, or other chemicals.

The NCDWQ states that the proposed marina is covered by Water Quality General Certification (No. 3373). Black Bear must comply with the following conditions included with that Certification: (1) all constructed stormwater-conveyance outlets must be directed and maintained as diffuse flow at non-erosive velocities through the protected stream buffers; (2) no equipment is allowed into surface waters; (3) all equipment must be clean and free of oil leaks; and (4) a spill control plan (and necessary items to implement it) must be in place to prevent discharges to surface waters; (5) all riprap must be cleaned, washed stone; (6) McDowell County's buffer ordinance must be followed; (7) proper erosion and sedimentation controls must be implemented; and (8) no waste spoil, or fill are to be placed in wetlands, waters, or riparian areas beyond the certification's approved-impacts footprint.

The NCWRC expresses concerns about leakage of petroleum products from boats and the potential for fuel spills at the service dock. The following water-quality recommendations were made and Black Bear has agreed to implement them: (1) the applicant should provide a stormwater treatment plan for the parking lot and other hardened surfaces; (2) the marina should have proper fuel spill containment devices and trained personnel to effectively manage a potential spill situation; (3) concrete is toxic to aquatic life and should not be allowed to come in contact with surface waters until cured; and (4) avoid the use of pesticides, herbicides, fertilizers, and cleaners near or over water.

In addition, the LJEAs notes that parking lots and roads serving the proposed marina, will produce petroleum and other chemical runoff in Lake James, and must be considered as a dangerous source of pollution. LJEAs recommends that off-water, dry-boat storage be considered as an alternative to wet-slip storage in order to reduce the risks of water quality degradation, and that construction should be done using man-made materials rather than pressure-treated lumber in order to avoid leaching of chemicals into the water.

It is recognized that there is potential for minor adverse impacts to water quality associated with the proposed marina. Under section 2.7 of the Commission's regulations, the licensee is expected to comply with federal, state, and local regulations for health, sanitation and public safety.² Further, section 2.7 (f) (2) states that the licensee is expected to provide either by itself or through arrangement with others for facilities to process adequately sewage, litter, and other wastes from recreational facilities including wastes from watercraft, at recreational facilities maintained or operated by the licensee or its concessionaires.³

The agencies' recommendations and requirements and the water quality certificate issued for the proposal, address potential impacts to water quality, including fuel spills and chemical runoff concentrations from the paved parking lots, which are located outside the project boundary. Black Bear has agreed to comply with all the recommendations, requirements, and/or conditions of the consulted agencies. With the proper implementation of these measures, impacts on water quality would be minor. The applicant has also committed to installing fish-friendly structures under the marina's docks and fishing piers. These structures are typically made of recycled plastics that are less likely to leach chemical contaminants into the water than pressure-treated lumber.⁴

(C) Fisheries

Construction of the docks and piers and installation of the riprap would have minor, short term impacts on water quality and aquatic habitat that could affect fish in the immediate vicinity. It is likely that these impacts would also have only minor, short-term effects on fisheries in Lake James as a whole. Moreover, the presence of the riprap, and its long-term beneficial effect in slowing erosion and sedimentation, could have a long-term beneficial effect on fisheries.

² See 18 C.F.R. § 2.7 (2006).

³ 18 C.F.R. § 2.7(f)(2) (2006).

⁴ As licensee, Duke Power has the responsibility to supervise and control development activities on project lands, and can take actions to ensure protection of environmental resources. Duke Power is also expected to take remedial action (possibly in conjunction with the appropriate federal, state, and local agencies) in the event that environmental measures are not followed.

As previously stated, Black Bear has committed to installing aquatic-habitat structures under the marina's docks and fishing piers. Once installed, these structures would provide additional cover and foraging areas for fish.

Of greater concern are the potential short-term impacts of removing or disturbing fish habitat during installation of the riprap, and the potential long-term impacts of modifying fish habitat due to the riprap's presence. Removal or disturbance of productive shallow-water areas would reduce important spawning, rearing, and nursery habitat for fish. Removal of cover, such as submerged woody debris, rooted plants, and overhanging vegetation, would reduce the availability of shade and cover. Conversely, in areas of limited or no shoreline vegetation, stabilizing the shoreline with riprap would likely have a beneficial effect on fisheries resources by providing some diversity in the type of available habitat. For example, riprap provides desirable spawning habitat for one of the cool-water fishes of Lake James, the walleye. Because the extent of proposed riprapping is small (2,505 linear feet, less than a half mile) compared to the overall shoreline area of Lake James (151.5 miles), both the negative and beneficial effects of this activity are likely to be minor. In addition, it should be noted that cool-water species are stocked, generally live in the deeper levels of the reservoir, and are not a sustainable species in Lake James, therefore are less likely to be adversely affected by the marina operations. All fish species will likely be displaced during the construction period.

The NCWRC recommends the following measures to avoid or reduce the impacts of shoreline stabilization and dock and pier construction on fish and aquatic habitat:

- An in-water work moratorium should take place from April 1 to June 1 to minimize impacts to spawning fish, and to the survivability of young fish.
- The applicant should install and perpetually maintain suitable trees and brush under the fixed portion of the marina's docks and piers, in a fish-friendly manner, to provide complex aquatic habitat.
- Construction procedures that prevent wet concrete from contacting surface waters should be used.

The applicant has agreed to implement all the measures recommended by the NCWRC, and these measures would help reduce impacts to fisheries and aquatic habitat. The applicant's compliance with these recommendations and other state and federal requirements to protect water quality and fish habitat will ensure that impacts to fisheries and aquatic habitat are minor. From a lake-wide perspective, the impacts to fish habitat

from riprap installation would be very minor, because only a small percentage of total shoreline would be affected (approximately 0.3 percent).

In addition, it should be noted that cool-water species generally inhabit areas in the deeper levels (where the water is cooler) of the reservoir during the warmer months in Lake James, though some individuals of these species they may occasionally move in and out of the near-shore areas. Cool-water species would therefore be less likely to be adversely affected by the marina operations. As such, all fish species could temporarily avoid or be displaced from the marina area during the construction period.

(D) Terrestrial and Wildlife Resources

Construction of the marina would have short-term impacts on terrestrial and wildlife resources because it would temporarily disturb existing shoreline vegetation and wildlife habitat. Installation of the riprap would have long-term impacts on terrestrial and wildlife resources because it would replace or alter some existing shoreline vegetation and wildlife habitat. Construction of an access road to the marina would require placement of a culvert over a small tributary stream. Riparian vegetation in the immediate vicinity of the streamside work would be removed and subsequently restored.

The McDowell County Shoreline Protection Permit for the marina requires that: (1) 13 trees greater than 6 feet diameter) within the established 50-foot shoreline buffer be protected; (2) the McDowell County Planning Department record measurements of trees to be cut; and (3) trees removed within the 50-foot buffer be replaced with trees totaling an equivalent diameter somewhere within the 50-foot buffer. The FWS recommends that riparian vegetation along the restored stream channel include sedges, grasses, and rushes, and native woody species. Exotic vegetation should be screened from any plant material.

The applicant has agreed to implement the above measures, which would help reduce impacts to terrestrial and wildlife resources. Black Bear's compliance with these agency requirements and recommendations will ensure that impacts to wildlife are minor in the vicinity of the project area.

(E) Wetlands

Wetlands in the vicinity of the proposed marina are limited to the Lake James shoreline area. Construction of the bulkhead for the dry-docking facility would require excavation of an estimated 0.83 acre of the lake bottom. Impacts would include

temporary erosion, sedimentation, and turbidity, and permanent alteration of the wetland area.

The section 401 Water Quality Certification issued by the NCDWQ requires that no waste, spoil, solids, or fill of any kind occur in wetlands, waters, or riparian areas beyond the footprint of the impacts approved in the certification. The FWS recommends that any mitigation plan for the marina include the restoration of comparable wetlands and streams at a ratio of at least 2:1. The FWS requested a complete mitigation, restoration, and monitoring plan for review.

The applicant has agreed to comply with all agency recommendations, requirements, and permit conditions. Black Bear's implementation of the above measures would appropriately minimize and compensate for impacts to wetland areas.

(F) Threatened and Endangered Species

As discussed above, the installation of riprap along 2,505 feet of shoreline would have adverse impacts on terrestrial and aquatic habitats. To the extent that the affected habitat is used by bald eagles, or contains specimens of Northern Oconee-bells, the proposed rip rapping could affect threatened and endangered species. FWS records suggest that these species may occur in the area. By letter dated May 24, 2006, the FWS states that it has reviewed its records and concurs with the determinations made in the DEA that the proposed project would not affect endangered or threatened species or their habitats. The FWS provided a series of recommendations on controlling erosion and minimizing/compensating for impacts to streams and wetlands, which should prevent impacts to threatened and endangered species. Black Bear has agreed to implement these recommendations. Implementation of these measures should further reduce the likelihood of adverse impacts associated with this proposal.

(G) Recreation and Other Land and Water Uses

Construction of the docks and fishing piers would temporarily restrict recreational access to the shoreline area. However, the impacts of such access restrictions would be minor and short-term. Once operational, the marina site would provide increased public opportunities for boating, fishing, picnicking, and camping. Although not part of the proposed marina, and not located within the project boundary, Black Bear intends to provide areas for overnight camping, both tent camping along the Lake James shoreline and longer-term RV camping on site. In addition, rental cabins would be available for short-term and long-term visits. The recently completed marina store would also provide campers and boaters with the opportunity to purchase food, drinks, fuel, and other

recreational items. The site would provide another water-front and water-access area available to the public seeking a camping and boating experience on Lake James. Overall, this would provide for a moderate, long-term benefit to the public.

While it is certain that boating activity in the immediate area of the marina would increase as a result of the proposed action, the extent of the increase is expected to be minor compared the overall boating activity on Lake James. The existing Black Bear Access Area, near the proposed marina, accounts for 37% of the present recreational visitation to Lake James (Duke Power 2001). Operation of the proposed marina would reduce traffic at this and other nearby public access points, at least in the short term. Increased boating activity near the Black Bear Marina may diminish the quality of the recreational experience for those who seek more passive experiences along the shoreline such as canoeing, kayaking and near-shore fishing, but continued access to the reservoir would allow recreational visitors to effectively use the project's waters.⁵

The physical presence of the docks, fishing piers, and associated buildings would have a minor, long-term impact on recreation by placing new structures in the area and increasing boating use and congestion. This increased use and congestion could create unsafe conditions for recreational boaters. However, Black Bear's proposed marina is designed to provide adequate ingress and egress of boat traffic, and the design features of the docks must meet the SMP's guidelines, including dock length and spacing. Given the configuration of the proposed docks and piers, these facilities are expected to have an insignificant effect on boating traffic and safety.

Shoreline stabilization efforts would temporarily restrict recreational access to shoreline areas while the riprap is being installed. However, the impacts of such access restrictions would be minor and short-term. In the long term, the riprap and fish-friendly boat docks and fishing piers (some that are barrier-free) may provide more fish habitat and fishing opportunities than presently exist.

The construction materials proposed to be used to build these structures are consistent with the approved shoreline management guidelines, and conform to modern-day marina structures. A list of building materials is included in Section 4 of the

⁵ Lake James was estimated at 19 percent of its total boating capacity during weekdays, at 24 percent during weekends, and at 42 percent during peak holiday periods. (Appendix B of the July 31, 2001 SMP).

application. In addition, the docks would be constructed on land and off-site, which would minimize the potential for building materials to enter the water.

In terms of land use, the marina would be in compliance with Duke Power's SMP because it would be constructed in an area classified as Future Commercial/Non-Residential.

(H) Cultural Resources

Construction of the docks, fishing piers, and associated structures would have no impact on known cultural resources. The North Carolina SHPO has no comment on construction of the proposed marina.

Shoreline stabilization could have both adverse impacts and beneficial effects on cultural resources. Adverse impacts would occur if previously undiscovered archaeological or historic resources are exposed or disturbed during installation of the riprap. If any archaeological or historic remains are discovered during construction, we recommend that: (1) all work at the site cease immediately; and (2) the SHPO and any Native American Tribes that might attach religious or cultural significance to the discovered materials be consulted to determine if the remains warrant a recovery effort, or if the site is eligible for listing on the NRHP. Beneficial effects would occur if the installation of riprap stopped or slowed existing erosion and protected undiscovered cultural resources from the effects of erosion and exposure.

In an effort to identify potentially-affected cultural resources or practices, the Commission sent a letter to the Eastern Band of Cherokee Indians, the Cherokee Nation of Oklahoma, and the Catawba Indian Nation. The letter described the proposed project, stated that the Commission has reviewed the existing information, and determined that the project does not affect any federal or tribal lands, and requested the Tribes' concurrence. To date, the Commission has received no response to this letter from the Tribes.

The SHPO, the DOI, the Bureau of Indian Affairs, and the Tribal Historic Preservation Office are able to contact the licensee and Black Bear to request visits prior to and during construction for the purpose of assessing the area for the potential of unearthing or disturbing historical/archaeological sites. By letter dated October 23, 2003, the SHPO was requested by Black Bear to comment on the marina application. By letter dated November 11, 2003, the SHPO responded, stating it had no comment. By letter dated March 30, 2005, the Commission requested the Eastern Band of Cherokee Indians, the Cherokee Nation of Oklahoma, and the Catawba Indian Nation to comment on the marina application. No response was received. On March 31, 2005, the Commission

issued a public notice on the application. With the exception of the DOI-OEPC, none of above-mentioned entities responded to the notice. The DOI-OEPC, by letter dated April 29, 2005, stated that it has no comments.

It should be noted that this EA recommends that if any archaeological or historic remains are discovered during construction: (1) all work at the site cease immediately; and (2) the SHPO and any tribes that might attach religious or cultural significance to the discovered materials be consulted to determine if the remains warrant a recovery effort, or if the site is eligible for listing on the NRHP. We expect that implementation of this recommendation would adequately protect historic and archaeological resources at the project site.

(I) Landscape Aesthetics

The use of power equipment, machinery, and barges during construction of the marina and installation of the riprap would result in minor, short-term visual and noise impacts in the immediate vicinity. These impacts would cease, however, when construction is completed.

The presence of docks and boat activity would alter the landscape and would affect onlookers differently. Some lake users and homeowners would view these effects as being obtrusive and out of scale with the natural surroundings, while others would consider them as desirable amenities with positive economic benefits. As stated previously, the SMP has designated the area as commercial/non-residential, and under this designation, marinas such as the one proposed are contemplated and permissible.

The physical presence of the docks, fishing piers, and structures associated with the Black Bear Marina would have a minor, long-term visual impact on the shoreline. However, the new structures would not be out of character with similar developments along the shoreline. Increased boating use in the area would create long-term, intermittent noise impacts in the immediate vicinity. Installation of the riprap would have the long-term effect of altering the shoreline's appearance, although many trees along the shoreline would be left standing. The visual effect of shoreline stabilization could be adverse or beneficial, depending on the extent of existing erosion on a given shoreline segment.

(J) Socioeconomics

Construction and operation of the marina and installation of the riprap could provide employment opportunities and income for the local and regional workforce.

5.2.2 No-Action Alternative

Under the no-action alternative, the Commission would deny Duke Power's application to lease to Black Bear 6.57 acres of project land for the proposed commercial/non-residential marina. As a result, Black Bear would be precluded from developing the proposed marina and the negative environmental impacts described above would not occur. In addition, some positive effects of the proposal, such as the stabilization of shoreline areas that are currently eroding, increased recreational opportunities, and potential increases in employment, would not occur.

6.0 CUMULATIVE IMPACTS

According to the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act, an action may cause cumulative impacts on the environment if its impacts overlap in space and/or time with the impacts of other past, present, or reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions.

In its motion to intervene, the LJEAs cite concerns with potential cumulative effects, stating that previous Commission EAs prepared for development proposals on Lake James do not take into consideration the cumulative impacts of approved and projected private-development growth on Lake James, and therefore, do not provide reliable information. All current, future-approved and future-proposed development should be addressed as an impact on the public's waterways. These numbers need to be calculated and projected during peak recreation-season months over a length of time sufficient enough to provide reliable, current scientific data. Given the irreversible foreseeable impacts of such massive cluster-dock permits, the LJEAs suggest that density studies occur for a period of years, not months.

The licensee's SMP was designed to take such cumulative-development factors into account. The SMP is a working document that assumed future development would follow current trends when it was submitted in 2001. The document comprehensively addresses the issue of cumulative shoreline-development impacts. Specifically, it assigns shoreline segments to various use classifications in order to restrict development in certain areas with environmentally important or sensitive resources, and to permit development in other areas that are more appropriate for intensive use (FERC, 2004).

Unavoidable cumulative impacts resulting from continued shoreline development include incremental, fish-habitat loss and degradation. The increasing alteration of the

shoreline and vegetative cover (including trees, shrubs, and herbaceous plants) is associated with increases in sedimentation and turbidity. In addition, the loss of perimeter vegetation reduces the habitat of wildlife species that depend on edge habitat.

Local shoreline development trends indicate that residential and commercial developments within the project boundary will continue to increase. In light of the growing number of non-project-use developments, state and local buffers identified in the project's SMP are implemented to help maintain the scenic quality of the area, among other things. These buffers restrict shoreline development and require natural or vegetated areas. The project's SMP identifies valuable habitats and has placed restrictions on development.⁶

The licensee's application does not include any requests for dredging and would permit minor vegetation clearing. The proposed docks would be constructed as "fish friendly" structures (a design included in the SMP) and floated into place to reduce potential sedimentation and turbidity. Riprap would be installed with an underlay of filter fabric to further curb shoreline erosion.

The proposed facilities are relatively large in size and capacity and represent a substantial contributing factor to the growing number of non-project uses of project lands and waters at the Catawba-Wateree Project. This trend continues to transform the lake's primarily natural character into a more developed landscape. Although the marina's adverse impacts to project resources, as stated in this EA would be relatively minor, these types of effects will be compounded as increasing numbers of developments are constructed at the lake. However, the Black Bear Marina is considered a commercial, non-residential development that is intended to serve the public, and so the marina's beneficial effects must be weighed against its cumulative impacts in determining whether Black Bear's proposal is the public interest.

The project's SMP aims to balance the various and sometimes conflicting expectations of people, businesses, natural resource agencies, and environmental groups by allowing controlled and measured development along the shoreline. The SMP also comprehensively addresses the issue of cumulative shoreline development impacts. Specifically, the SMP assigns shoreline segments to various use classifications in order to restrict development in certain areas with environmentally important and sensitive

⁶ FERC. 2003. Final Environmental Assessment: Amendment to License—Revised Shoreline Management Plan (P-2232-428).

resources, and to permit development in other areas that are more appropriate to intensive use. Therefore, the proposed construction is not inconsistent with the strategic provisions of the SMP.

Mitigation measures included in the SMP, combined with other local, state, and Federal regulations and recommendations would help to minimize the adverse effects resulting from construction of the proposed marina. These measures and those the applicant proposes, include: (1) maintaining a vegetative buffer along the shoreline; (2) complying with the resource-protection conditions of all the required permits; (3) constructing a clustered, multi-slip docks, and a dry-dock facility instead of individual docks; (4) not disturbing woody debris;⁷ and (5) installing fish-friendly docks.

The SMP was initially developed, and has been subsequently revised with the input of local, state, and federal agencies; private and non-governmental entities; and the general public. The Commission has issued three EAs during various stages of the SMP, and numerous EAs for site-specific development proposals at Lake James. Each revision of the SMP, and each non-project-use proceeding continues to refine and balance the needs and values of competing stakeholder interests. The project license is due to expire in 2008. During the upcoming relicensing process, management of the project's shoreline resources, among other issues, will again require reconsideration.⁸

7.0 Conclusions And Recommendations

The Commission staff has evaluated the environmental effects of the proposed action and no-action alternative. We find that the proposed action would not interfere with hydropower operations, and is not in conflict with the hydropower project's purposes or license. In addition, we find that the proposed action would have both adverse impacts and beneficial effects on the environment. We conclude, however, that the adverse impacts would be minor if staff recommendations, and all federal, state, and local regulations, and the agency recommendations discussed in this EA are followed.

⁷ This measure is consistent with the Memorandum of Agreement (MOA) Concerning Habitat Enhancement and Woody Debris Management for the Catawba-Wateree Hydro Project, between the licensee, South Carolina Department of Natural Resources, and NCWRC.

⁸ FERC. 2003. Final Environmental Assessment: Amendment to License-Revised Shoreline Management Plan (P-2232-428).

Continued implementation of the approved SMP would also reduce unavoidable adverse impacts.

Construction of the proposed docks, fishing piers, dry-dock ramp and associated facilities, and installation of the riprap would have a minor, short-term impact on water quality due to increased sedimentation in Lake James. However, water quality standards likely would not exceed state criteria, and water quality conditions would return to normal levels soon after the completion of construction activities.

The proposed action would have short-term impacts on fish and wildlife by removing or disturbing terrestrial and aquatic habitat during installation of the marina structures and shoreline riprap, and potential long-term impacts by modifying habitat due to the presence of these structures. This could include impacts to wetlands associated with a road crossing and culvert installation over a small stream. In addition, although no threatened or endangered animal or plant species have been reported in the immediate vicinity of the proposed marina, it is possible that shoreline stabilization could have at least minor, long-term impacts on the bald eagle or the Northern Oconee-bells.

Construction of the docks, fishing piers, and installation of the riprap would temporarily restrict recreational access to the shoreline area. However, the impacts of such access restrictions would be minor and short-term. The physical presence of the marina facilities would have a minor, long-term impact on recreation by placing new structures in the area, and increasing boating use and congestion. This increased use and congestion could create unsafe conditions for recreational boaters. Black Bear's marina design appears to account for adequate ingress and egress of boat traffic. The design features of the docks meet the SMP guidelines, including dock length and spacing.

In terms of land use, the proposed marina would be in compliance with Duke Power's SMP because it would be constructed in an area classified as commercial, non-residential.

Construction of the marina and associated facilities would have no impact on cultural resources, and the SHPO states that it has no objections to construction of the proposed marina. Shoreline stabilization could have adverse impacts on cultural resources if previously undiscovered archaeological or historic resources are exposed or disturbed during installation of the riprap. If any archaeological or historic remains are discovered during construction, it is recommended that: (1) all work at the site cease immediately; and (2) the SHPO and any tribes that might attach religious or cultural significance to the discovered materials be consulted to determine if the remains warrant a recovery effort, or if the site is eligible for listing on the NRHP.

The use of power equipment, machinery, and barges during construction of the marina and installation of the riprap would result in minor, short-term visual and aural impacts in the immediate vicinity. These impacts would cease, however, when construction is completed. The physical presence of the docks, fishing piers, and associated structures would have a minor, long-term visual impact on the shoreline. Increased boating use would create long-term, intermittent noise impacts in the immediate vicinity of the marina. Installation of the riprap would have the long-term effect of altering the shoreline's appearance.

There would also be some minor to moderate beneficial effects under the proposed action. The installation of riprap could have a minor long-term beneficial effect on shoreline stability, water quality, fisheries, and cultural resources by slowing or stopping erosion and sedimentation in some areas. Also, construction of the marina and installation of the riprap could provide employment opportunities.

Based on our analysis, Commission staff recommends that the proposed action be approved. We recommend that Duke Power include conditions in its lease agreement with Black Bear to ensure that: (1) the proposed marina would not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use, and (2) Black Bear takes all reasonable precautions so that the operation and maintenance of the marina would occur in a manner that would protect scenic, recreational, and other environmental values of the project. We also recommend that Duke reserve in the lease its right to supervise and control Black Bear's development and use of the leased lands to ensure that the lessee implements, to the licensee's satisfaction, all of the agencies recommendations, requirements, and permit conditions discussed in this EA, to the extent that they apply to the proposed marina and riprap.⁹ In addition, if previously unidentified historic or archaeological artifacts, features, or remains are encountered during construction within the project boundary, we recommend that all work cease and the SHPO and potentially affected tribes be consulted immediately.

In our review of Black Bear's proposed non-project use of project lands and waters, we did not identify any significant impacts that would result from the Commission's approval of Duke Power's application. Therefore, based on the information contained in the record for the proceeding, we conclude that approving the proposed application would not constitute a major federal action significantly affecting the quality of the human environment.

⁹ See note 4, *supra*.

8.0 LITERATURE CITED OR USED

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9.0 LIST OF PREPARERS

Federal Energy Regulatory Commission: Brian Romanek, (Task Monitor)
Environmental Protection Specialist, B.S., M.A. Resource Management and Planning

Steven Naugle, Environmental Protection Specialist

Oak Ridge National Laboratory: Glenn Cada, Fisheries Biologist