123 FERC ¶ 61,069 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;

Suedeen G. Kelly, Marc Spitzer,

Philip D. Moeller, and Jon Wellinghoff.

Duke Energy Carolinas, LLC

Project No. 2602-016

ORDER ON REHEARING AND CLARIFICATION

(Issued April 22, 2008)

- 1. On July 19, 2007, the Commission issued an order accepting surrender of Duke Energy Carolinas, LLC's (Duke) minor license for the 225-kilowatt (kW) Dillsboro Hydroelectric Project No. 2602, located on the Tuckasegee River in Jackson County, North Carolina. The order established conditions for removal of the project's dam and powerhouse and requirements for various plans to be filed by the licensee after consultation with appropriate resource agencies and entities.
- 2. Timely requests for rehearing and clarification of the order were filed individually by Duke, the U.S. Department of the Interior (Interior), and the North Carolina Wildlife Resources Commission (North Carolina WRC), and jointly by: Jackson County, North Carolina; Macon County, North Carolina; the Town of Franklin, North Carolina; the Friends of Lake Glenville Association, Inc. (FOLGA); T.J. Walker; the Dillsboro Inn; and the Western North Carolina Alliance (Western Alliance)(hereinafter referred to as "community parties"). As discussed below, we grant rehearing and clarification in part.

Background

A. **Project Description**

3. The Dillsboro Project consists of a 12-foot-high, 310-foot-long concrete masonry dam; a 77-foot-wide by 43-foot-long by 43-foot-high powerhouse containing two generating units with installed capacities of 175 kW and 50 kW, respectively; a 15-acre reservoir with no useable storage; an 80-foot-long intake canal; and a 25-foot-long tailrace.

¹ Duke Energy Carolinas, LLC, 120 FERC ¶ 61,054 (2007) (July 19 Order). The order also dismissed Duke's application for a subsequent license for the project in Docket No. 2602-005. The surrender proceeding is docketed as Project No. 2602-007.

4. Historically, Duke has operated the project in a run-of-river mode, maintaining the headpond within 6 inches of full pond elevation. Project operations depend on available flow in the Tuckasegee River, which is regulated by Duke's upstream East Fork and West Fork Projects (Project Nos. 2698 and 2686, respectively).

B. Procedural History

- 5. The original license for the Dillsboro Project expired on July 31, 2005. In 2003, Duke filed an application for a subsequent license, and in the transmittal letter for that application stated that it might file a surrender application for the project at a later date. In May 2004, in accordance with two settlement agreements (known as the Nantahala and Tuckasegee Agreements)² among Duke and interested stakeholders, Duke filed its application for license surrender, proposing to remove the project's dam and powerhouse and appurtenant facilities.
- 6. On June 16, 2005, a group of individuals and municipal and local entities (community commenters)³ filed comments styled as a "preferred settlement agreement" (community proposals) in the Dillsboro surrender proceeding, proposing that the Tuckasegee Agreement be revised to, among other things, provide for: (1) relicense of the Dillsboro Project; (2) transfer of the project license to Jackson County or its designee as a charitable contribution; and (3) payment of \$500,000 for off-site river restoration in lieu of the removal of the Dillsboro Dam.
- 7. Commission staff prepared a draft and a final Environmental Assessment (EA) in May and July 2006, respectively. The EAs examined surrender of the Dillsboro Project license and removal of the project, as proposed by the licensee, and as proposed by the licensee with additional staff-recommended measures.
- 8. Staff concluded in the EA that project removal would benefit environmental resources by restoring natural conditions within an 0.8-mile segment of the Tuckasegee River, providing fish access to 9.5 miles of river that previously were blocked to

² Duke filed the agreements, entitled the Nantahala Cooperative Stakeholder Team's Settlement Agreement (Nantahala Agreement) and the Tuckasegee Cooperative Stakeholder Team's Settlement Agreement (Tuckasegee Agreement), on January 8, 2004. These agreements were intended to resolve, among the signatories, all issues related to Duke's pending relicense applications for the Nantahala, East Fork, West Fork, and Dillsboro Projects.

³ The community commenters include the community parties that are now seeking rehearing of our July 19, 2007 surrender order, as well as other entities.

⁴ Unless otherwise noted, references in this order to the EA are to the final EA.

upstream movements, enhancing aquatic resource distribution within the Tuckasegee River system with the resulting free flow of the river,⁵ and improving recreational opportunities for whitewater boating and riverine angling.⁶

- 9. The draft EA contained the Commission staff's Biological Assessment (BA) of the effects of license surrender and project removal on federally listed threatened and endangered species that may occur in the vicinity of the Tuckasegee River. The draft EA concluded that the proposed action would not be likely to adversely affect the endangered Appalachian elktoe mussel, or the endangered Indiana bat. Staff also concluded that relocating the Appalachian elktoe mussel from immediately downstream of Dillsboro Dam to an upstream location prior to commencing project removal would minimize the effects of dam removal on the mussel and its critical habitat and in fact would benefit the mussel population by re-connecting the sub-populations that have been separated by the dam.
- 10. On August 14, 2006, FWS filed its Biological Opinion (BO), concurring with staff's conclusion that project removal, as proposed by Duke and with the measures identified in the EA, would not be likely to jeopardize the continued existence of the Appalachian elktoe mussel, nor adversely affect or destroy its critical habitat. FWS found that incidental take of the Appalachian elktoe mussel may occur as a result of demolition activities associated with the decommissioning and removal of the Dillsboro Dam. To ensure that any incidental take of the Appalachian elktoe mussel is authorized, FWS identified reasonable and prudent measures to avoid or minimize incidental take, as well as terms and conditions to implement those measures.

C. July 19 Order

11. Based on the record in the Dillsboro surrender proceeding, we concluded that removal of the Dillsboro Project would benefit environmental resources in the Tuckasegee River and would be in the public interest. Accordingly, our July 19 Order accepts Duke's surrender of its license for the Dillsboro Project, effective upon compliance with certain conditions, and dismisses its application for a subsequent

⁵ See EA at 146.

⁶ *Id.* at 278.

⁷ The Appalachian elktoe mussel is known to occur in the Tuckasegee River, 100 to 300 feet downstream of the Dillsboro Dam; and the Tuckasegee River has been designated as critical habitat for this mussel.

⁸ In its BO, the FWS also agreed that license surrender and project removal would not be likely to adversely affect the Indiana bat.

⁹ July 19 Order, 120 FERC ¶ 61,054, at P 50 (2007).

license. The order requires Duke to remove the dam and accumulated sediment during low flows, and to complete removal of the dam and powerhouse and site monitoring within three years of the order's issuance date. Removal is to be accomplished in a manner that adequately protects the endangered Appalachian elktoe mussel and minimizes the downstream transport of sediments. The order also requires Duke to construct a new public boat launch and parking area.

Discussion

- 12. On rehearing, the community parties argue that the surrender order should be reversed and the application for subsequent license reinstated and processed. One of the community parties, Jackson County, also contends that the Commission erred in denying its late motion to intervene in the subsequent license proceeding. Duke, Interior, and North Carolina WRC request revision and clarification of several of the order's requirements.
- 13. American Whitewater filed comments concurring with Duke's rehearing request. On September 4, 2007, Duke filed an answer to the community parties' request for rehearing, and on September 19, 2007, the community parties filed an answer to Duke's answer. The Commission's rules do not allow answers to requests for rehearing, or answers to answers, unless otherwise permitted by the decisional authority. The filings are not needed to resolve the issues raised in the rehearing requests and do not demonstrate good cause for allowing them. They are therefore rejected.

A. <u>Late Intervention</u>

- 14. Jackson County filed a timely intervention in the surrender proceeding. Its intervention in the subsequent license proceeding was received one day late, on January 7, 2004, without a statement showing good cause for the late intervention, as required by the Commission's regulations. ¹¹ In our July 19 Order, we denied Jackson County's motion to intervene, but noted that the denial did not affect the county's ability to participate in the surrender proceeding. ¹²
- 15. In its rehearing request, Jackson County states that, after learning its motion was late, it filed a renewed motion to intervene on March 12, 2004, in which it alleges that it demonstrated good cause for filing late. The March 12 pleading explains that the county was unaware that the filing was required to be time-stamped by the Secretary's Office before expiration of the 60-day deadline, and that the lateness was inadvertent.

¹⁰ See 18 C.F.R. § 385.213(a)(2) (2007).

¹¹ See 18 C.F.R. § 385.214(d) (2007).

¹² July 19 Order, 120 FERC ¶ 61,054 at n.12.

16. Jackson County's ignorance of the Commission's regulations does not constitute good cause. However, because it is a party to the surrender proceeding and given the interrelated nature of the two proceedings, we will grant late intervention in the subsequent license proceeding to Jackson County.

B. Water Quality Certification

- 17. For any activity that may result in a discharge into United States waters, section 401(a)(1) of the Clean Water Act (CWA)¹³ requires an applicant for a federal license to obtain, from the state in which the discharge originates, certification that the discharge will comply with applicable water standards. Removal of the Dillsboro Dam could result in a discharge under section 401 of the CWA.
- 18. On March 17, 2005, Duke filed a request for water quality certification with the North Carolina Division of Water Quality (North Carolina DWQ), and the agency issued the certification on May 15, 2005. The surrender order includes the certification conditions. The certification contains conditions related to removal of project facilities, including requirements that Duke: (1) implement erosion and sediment control measures that comply with the state requirements; (2) ensure that all construction activities be performed in a manner that ensures state water quality standards are met; and (3) submit a "detailed dam removal and monitoring plan with the submittal of a 401 Certification for the [dredge and fill] Permit [under section 404 of the CWA] needed to physically remove the Dillsboro dam."
- 19. On March 23, 2007, Duke filed its application for the water quality certification needed for a section 404 dredge and fill permit (second certification). On November 18, 2007, North Carolina DWQ issued the second certification, which contained additional, more detailed requirements for dam removal and monitoring. ¹⁴
- 20. On rehearing, the community parties argue that the Commission erred in issuing the surrender order, because the 2005 water quality certification addressed the "surrender" of the license, but did not authorize the removal of the dam and powerhouse. In support of their argument, the community parties cite to the need for a second certification, supported by a detailed dam removal and monitoring plan, for the actual removal of the dam.¹⁵

¹³ 33 U.S.C. § 1341(a)(1) (2000).

¹⁴ Duke filed a copy of the certification on December 6, 2007.

¹⁵ The community parties contended that the second certification was in fact on hold before the North Carolina DWQ, referring to two letters dated July 27 and August 10, 2007, in which the North Carolina DWQ notified Duke that the certification was on hold pending review, public comment, and a public hearing.

- 21. Contrary to the community parties' contention, the first certification clearly applies to the surrender of the Dillsboro license and the removal of project facilities. The requirement that Duke obtain a section 404 permit (and thus another water quality certification that will provide the basis for issuance of the 404 permit) does not affect the validity of the first certification. In any event, given the issuance of the second certification, these arguments are moot.
- 22. The community parties next allege that the Commission erred in accepting the May 2005 certification without making a finding that North Carolina DWQ followed its own procedures, as required by *City of Tacoma v. FERC (Tacoma)*. ¹⁷ Specifically, they contend that the agency did not follow proper procedures because it failed to send notices of the certification request to the various local governmental entities. They also argue that there is no record of North Carolina DWQ issuing the required public notice of Duke's certification request for the license surrender and dam removal. ¹⁸ However, they do not allege that these are violations of state regulations, nor do they cite to any provisions of the state's statutes or regulations that set forth such requirements.
- 23. The court in *Tacoma* stated that the Commission must address questions as to whether a water quality certification complies with the provisions of section 401 of the CWA. Section 401(a)(1) requires a state to "establish procedures for public notice in the case of all applications for certification." North Carolina DWQ has established public notice procedures for certification. Its regulations provide that notice of a pending application for certification shall be published one time in a newspaper having general circulation in the county in which the discharge will occur and that publication shall be

Section 385.713(c)(2) of our regulations, 18 C.F.R. § 385.713(c)(2) (2007), requires that requests for rehearing include a separate section entitled "Statement of Issues" that lists each issue in a separately enumerated paragraph. That section further provides that "any issue not so listed will be deemed waived." The community parties did not raise the "notice" issue in their Statement of Issues, and it is accordingly deemed waived. While we are accordingly not required to reach this argument, we nevertheless respond to the argument and find it to be without merit.

¹⁶ Indeed, Duke must comply with the requirements of both certifications. Since the second certification includes the conditions from the first certification plus more detailed, site-specific requirements for monitoring and erosion and sediment control, we will attach the second certification as an appendix to this order.

¹⁷ 460 F.3d 53, 67 (D.C. Cir. 2006).

¹⁸ They agree that the notice issued by North Carolina DWQ with a public comment period ending August 15, 2007, is the required notice for the second certification.

¹⁹ 33 U.S.C. § 1341(a)(1) (2000).

made at least 15 days prior to proposed final action.²⁰ The regulations further provide that, at the request of any person, the person will be added to a water quality certification mailing list, and the agency shall mail copies of notices to all persons on the list.²¹

- 24. The Court in *Tacoma* stated that section 401(a)(1) impliedly requires states to comply with their public notice procedures and the Commission "to obtain some minimal confirmation of such compliance, at least in a case where compliance has been called into question."²²
- 25. Although we will investigate whether a state certifying agency followed its notice procedures, we believe that our obligation to do so is limited to those cases where the issue has been raised in a timely manner.²³ North Carolina DWQ issued the certification in question in May 2005, but the community parties did not raise the issue of whether the agency issued public notice of the application until after we issued our surrender order in July 2007.²⁴ Under these circumstances, the Commission had no reason to investigate whether public notice of the certification application had in fact been issued before taking

²⁰ 15A NCAC 02H.0503(a) (2007). The public notice requirement may also be satisfied by a joint notice with the Division of Coastal Management or the U.S. Army Corps of Engineers, in accordance with their established procedures. 15A NCAC 02H.0503(c) (2007). The regulations also provide for public hearings in appropriate cases. 15A NCAC 02H.0503(d) (2007).

²¹ 15A NCAC 02H.0503(e).

²² 460 F.3d at 68.

²³ This is especially true where, as here, the complaining entities had at least constructive notice of the certification proceeding.

²⁴ We reject the community parties' contention that they raised the issue by filings of October 5, 2006, and February 10, 2007. Contrary to their assertion, these filings did not allege that North Carolina DWQ had violated its regulations by failing (1) to issue public notice of Duke's application for water quality certification, and (2) to mail the notice to those on the water quality certification mailing list. Rather, they stated, at most, that certain county governments (Jackson, Swain, and Macon, and the Towns of Dillsboro and Franklin) had not received copies of any public notices of the application, but did not argue to the Commission that their failure to receive notice violated the state's regulations. The only evidence they provided regarding the mailing lists were letters to North Carolina DWQ dated January 10, 2007, from Macon and Jackson Counties and the Town of Franklin asking to be added to the mailing lists for other projects. Therefore, these filings were inadequate to raise the issue. In contrast, the notice issue in *Tacoma* was raised in comments during the relicensing proceeding, before the Commission took action on the relicense application.

action on the surrender application. And we will not now, at this late stage, entertain such questions. The community parties sat back for almost two years from the time the certification was issued in May 2005 and waited until rehearing of the Commission's order to raise the issue. Further, even if notice was found to be deficient as to the first certification, there is no dispute that notice was given as to the second certification, which covered the same federal action (approval of dam removal), albeit in more detail. Thus, given that the community parties do not allege any error or defect in notice as to the second certification and indeed cite to the second certification, any defect in notice as to the first certification was cured by the notice issued in connection with the second certification.²⁵

C. Environmental Analysis

26. The community parties contend that staff's EA and FWS' BO are factually and analytically flawed and that the Commission's order, which relied on these environmental documents, is therefore a flawed decision. According to the community parties, the flaws include the documents' failure to: recognize the non-operational status of the Dillsboro Project; consider reasonable alternatives to the proposed action and potential benefits of certain alternatives; take into account certain potential impacts of recent events that have substantial cumulative impacts; support the conclusion that project removal will not adversely affect aesthetics, trout fishing and other recreational values, and the Appalachian elktoe mussel; and conduct a socioeconomic analysis of the alternatives. We address each of these contentions below. ²⁶

We reject this argument. Neither the FPA nor our regulations require us to entertain offers of settlement. An agreement that requires the licensee to undertake certain action at a licensed project without the licensee's consent or without the licensee stipulating to the provisions of the agreement cannot be considered an agreement that settles issues pertaining to the project and, therefore, cannot be viewed as a settlement agreement. As we have concluded in similar cases, a settlement is unilateral and not truly (continued...)

²⁵ The court in *Tacoma* recognizes that a state must have "complied with state law notice requirements when it issued its water quality certification or, if it did not, that it has done so [subsequently]." 460 F.3d at 69.

The community parties styled their submission as the "preferred settlement agreement." In the surrender order, we considered their pleading to be unilateral and a settlement agreement in name only, because neither Duke, the licensee, nor any of the federal and state resource agencies that played a major role in the Dillsboro surrender are parties to it. The community parties argue that by refusing to consider their filing as an alternative settlement due to the licensee's non-participation, we are elevating the licensee to a "super-party" preferred status with veto power, and that, contrary to Rule 602's invitation to participants to submit settlement offers at any time (*see* 18 C.F.R. § 385.602 (2007)), we are thereby promoting litigation and discouraging settlement offers, including constructive alternatives.

1. Operational Status

- 27. The community parties contend that the analyses in the EA and BO are premised on the mistaken assumption that the Dillsboro Project is operational, when in fact it has not been operating for several years. Thus, the community parties argue, the Commission erred in considering the surrender of the non-operating Dillsboro Project as mitigation for the other Duke projects in the river basin.²⁷
- 28. When Duke filed its license surrender application on May 28, 2004, the project was operating, and staff's environmental analysis used the project as licensed (and operating) for its baseline condition. Staff analyzed Duke's proposal to determine potential environmental effects and to develop conditions and measures for protection of resources based on the proposal submitted. Although Duke, in its comments on the draft EA, ontified Commission staff that the project generating equipment had been damaged by flooding in September 2004 and June 2005, this was not reflected in the final EA. However, the fact that the generating units were not operational would not have altered staff's analysis of the no-action alternative.
- 29. As to the contention that the Commission considered the Dillsboro surrender as mitigation for the other projects in the river basin, the community parties are mistaken. Commission staff analyzed the potential environmental impacts, including cumulative impacts, of the Dillsboro surrender proposal and of each of the relicensing proposals for

a settlement if it does not have the support of the licensee and federal and state resource agencies that have played a major role and have jurisdiction in the matter; rather it is simply a recitation of the filer's position in the case. *See, e.g., Erie Boulevard Hydropower, L.P.*, 117 FERC ¶ 61,189, at P 63 (2006). By stating that the licensee has to agree to the provisions for there to be a settlement, we are not giving the licensee veto power over the community parties' proposals.

²⁷ Community parties' request for rehearing at 58.

²⁸ This was reasonable since the FPA requires that project works be maintained in working condition. *See* FPA section 10(c), 16 U.S.C. § 803(c) (2000). Thus, had Duke retained the project license, it would have been required to bring the project back into operation.

²⁹ See Duke's June 26, 2006 filing at 24-25.

³⁰ Continued operation of the project as licensed is the baseline against which we measure the proposal and any alternatives.

the six projects in the river basin.³¹ However, neither the EAs nor the Commission in its surrender order considered the Dillsboro surrender proposal as mitigation for continued operation of the other projects. Instead, mitigation for the other projects will be addressed in the respective proceedings.³²

2. Reasonable Alternatives

a. <u>Commission's Responsibility under the National</u> Environmental Policy Act

30. The community parties cite section 102(2)(E) of the National Environmental Policy Act of 1969 (NEPA)³³ as requiring the Commission to consider reasonable alternatives to proposed actions. The community parties assert that, contrary to NEPA,³⁴ the EA failed to take a "hard look" at reasonable alternatives, and instead evaluated alternatives that led to a predetermined outcome of license surrender. In particular, the community parties contend that the EA did not sufficiently address the alternatives of

The community parties argue that the Commission's environmental review of the Dillsboro Project as separate from Duke's other projects in the basin was improperly segmented and prevented a fair consideration of the cumulative environmental consequences along the Tuckasegee River, thereby violating the National Environmental Policy Act (NEPA). NEPA does not require a consolidated review of all the projects in a river basin. In any case, contrary to the community parties' arguments, the EA examined the cumulative impacts and benefits of the Dillsboro surrender together with continued operation of the East Fork, West Fork, and Bryson Projects on the potentially affected resources, including water quantity and quality, aquatic riverine habitat, aquatic resources, threatened and endangered species, and recreation resources. In the EA, the geographic scope of analysis for cumulatively affected resources included the mainstem and tributaries to the Tuckasegee River from its headwaters to its entry into Fontana Lake (i.e., from the top of Tanasee Creek and Wolf Creek reservoirs on the East Fork tributary, and Lake Glenville on the West Fork tributary, downstream 21 miles to Fontana Lake, including all tributaries).

³¹ Each project's analysis was done separately, but issued in two EAs (Dillsboro, East Fork, West Fork, and Bryson in one EA, and Nantahala, Franklin, and Mission in a separate EA).

³² The community parties contend that Duke's settlement agreements viewed removal of the Dillsboro Project as mitigation for continued operation of the other projects. However, the Commission is not bound to accept that view, and indeed, as the record demonstrates, we do not.

³³ 42 U.S.C. § 4332(2)(E) (2000).

³⁴ 42 U.S.C. § 4332 (2000).

- (1) retirement in place with a provision for fish passage facilities, or (2) continued operation of the project under license with additional environmental measures such as fish passage or increased minimum flows.³⁵
- 31. The Commission is required by NEPA to take a "hard look" at the potential environmental consequences of its proposed action.³⁶ However, in carrying out their NEPA responsibilities, federal agencies are governed by the rule of reason.³⁷ The range of alternatives that must be considered is a matter within an agency's discretion,³⁸ but must be sufficient to permit a reasoned choice of alternatives, i.e., "reasonable"

³⁵ The community parties also contend that the EA should have considered the comprehensive proposal embodied in their "settlement agreement." In fact, Commission staff analyzed the many environmental aspects of their proposal throughout the EA. For example, the EA analyzed the community parties' recommendations (with a cite in parentheses to the EA where each is analyzed), which assume continued operation of the Dillsboro Project, to: dredge the project reservoir to restore its ability to trap sediments (93-95); provide funds to Jackson County for development, maintenance, and improvement of water-related environmental enhancement and mitigation measures (stream and lakeshore bank stabilization and protective plantings) and for improvement of soil or water conservation programs (179-80); remove and relocate all bats from the Dillsboro powerhouse and install bat houses along the Tuckasegee River upstream and downstream from the Dillsboro Dam in sufficient numbers to accommodate the existing bat population that uses the Dillsboro powerhouse (181-83); pay Jackson County \$350,000 within 2 years of issuance of the East Fork, West Fork, and Dillsboro licenses and pay Jackson County \$5,000 annually for each megawatt, or portion thereof, of capacity authorized under the licenses (276); use funds contemplated for dam removal to fund a river restoration effort in the State of North Carolina (277-78); develop and implement an annual fish stocking program at the Dillsboro Reservoir; construct a canoe and kayak portage around Dillsboro Dam (278); provide warning and informational signs (279); prepare a recreation plan addressing recreation facilities and public access at the Dillsboro Project (279-80); and transfer the Dillsboro Project license and facilities to Jackson County or its designee (290-93).

³⁶ Committee for Auto Responsibility v. Solomon, 603 F.2d 992, 1002 (D.C. Cir. 1979), cert. denied, 445 U.S. 915 (1980).

³⁷ Natural Resources Defense Council v. Morton, 458 F.2d 827, 837 (D.C. Cir. 1972).

³⁸ Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 551-52 (1976).

alternatives.³⁹ The EA satisfies this requirement by considering the alternative of license surrender with project removal as proposed by the licensee, the licensee's proposal with additional staff-recommended measures, and continued project operation under the terms of the existing license (no-action alternative).⁴⁰ The additional alternatives suggested by the community parties are essentially variations of the alternatives analyzed, and would take the environmental analysis to a level of detail not required by NEPA.⁴¹

32. Moreover, there is no point in studying the fish passage scenarios suggested by the community parties. As to license surrender while leaving the project intact and requiring Duke to install fish passage facilities, while the Commission may have the authority to order the construction of such facilities as a condition of license surrender, we would have no jurisdiction to require ongoing maintenance and monitoring to ensure their effectiveness, and there is thus no purpose in analyzing the alternatives the ultimate impact of which we can neither predict nor control. As for the possibility of relicensing the project with the requirement for fish passage, such a recommendation would have been considered had we not approved the surrender and instead returned to processing the relicense application. However, that is not the case here. As Commission staff noted in the EA, Duke's proposal "would remove the barrier to upstream fish passage and downstream fish passage and return the river to a natural channel."

³⁹ See section 102(2)(C)(iii) of NEPA, 42 U.S.C. § 4332(2)(C)(iii) (2000); and North Carolina v. FPC, 533 F.2d 702, 707 (D.C. Cir. 1976), citing NRDC v. Morton, 458 F.2d 827 (D.C. Cir. 1972).

⁴⁰ The community parties contend that the EA fails to demonstrate that the alternative of project removal would be preferable to the no-action alternative (continued project operation), particularly since the no-action alternative would maintain a viable source of renewable energy in the area. However, NEPA requires the Commission to evaluate reasonable alternatives; it does not require that the Commission choose any particular alternative.

⁴¹ If an alternative is not reasonable, it may be eliminated from further study. *Rochester Gas and Electric Corporation*, 100 FERC \P 61,113 (2002). Moreover, as we explained in the July 19 Order, we cannot force a licensee to seek a new license for its project upon expiration of the existing license. Thus, given Duke's express desire to surrender its license, any alternative predicated on the company's receiving a new license is not feasible and merits no further consideration. July 19 Order, 120 FERC \P 61,054 at P 28.

⁴² EA at 148.

33. We conclude that the analytical approach that we have taken, which is the same approach the Commission has employed for decades, provided consideration of a sufficient range of reasonable alternatives and enables us to make an informed decision.⁴³

b. FWS' Responsibility under the Endangered Species Act

- 34. The community parties criticize FWS' BO, asserting that it fails to consider reasonable alternatives under the Endangered Species Act (ESA), ⁴⁴ such as possible enhancements to the project's operation that would have minimized impacts to the habitat of the Appalachian elktoe mussel and mussel populations. The community parties consider the environmental analysis in the BO to be inadequate, because it does not analyze the alternative of having the project's operating capacity restored with the installation of a fish passage facility ramp to mitigate adverse impacts to existing Appalachian elktoe populations. The community parties assert that, for these reasons and because the BO contains numerous flaws, our reliance on it is unreasonable and our decision is contrary to the requirements of the ESA.
- 35. The ESA requires that federal agencies consult, informally or formally, with Interior and obtain a biological opinion on whether their proposed action is likely to result in a violation of the ESA when the agencies determine that a proposed action may affect a threatened or endangered species. The proposed action in this case is Duke's proposal to remove the project. Unlike NEPA, the ESA does not require consideration of alternatives to the proposed action.
- 36. As stated previously, the Commission's staff consulted with the FWS, and obtained a BO finding that the proposed license surrender and project removal would not be likely to jeopardize the continued existence of the Appalachian elktoe mussel, nor adversely affect or destroy its critical habitat. As required by section 7(b) of the ESA,

⁴³ The community parties also contend that the EA does not include a cost-benefit analysis of alternatives. The Commission evaluates how much more or less the proposed action and the alternative would cost as opposed to an alternative source of power, such as fossil fuel plants. The community parties contend, incorrectly, that the EA does not include a cost comparison of alternatives. To the contrary, the EA analyzes the costs of various alternatives (no-action, i.e., continued operation of the project; surrender with project left in place; surrender with full removal; and surrender with partial removal), as well as additional staff-recommended measures. In fact, the EA notes that the cost of generating 912 megawatt hours under the community parties' proposal would be \$617,220 and result in a negative annual benefit of \$582,220. EA at 330-332.

⁴⁴ 16 U.S.C. § 1536 (2000).

⁴⁵ See 50 C.F.R. § 402.01(b) (2007).

⁴⁶ 16 U.S.C. §1536(a)(4) (2000).

FWS provided an incidental take statement as part of its BO for the Dillsboro Project.⁴⁷ FWS determined that incidental take of the Appalachian elktoe mussel may occur as a result of project removal activities, and FWS prescribed terms and conditions to implement measures that avoid or minimize incidental taking.

- 37. In arguing that we relied unreasonably on FWS' BO, the community parties fail to recognize the substantive and procedural responsibilities that ESA section 7(a)(2) ⁴⁸ imposes and the interdependence of federal agencies acting under that section. Although a federal agency is required to ensure that its action will not jeopardize the continued existence of listed species or destroy or modify their designated critical habitat, it must do so in consultation with the appropriate agency, in this case, FWS. Because FWS is charged with implementing the ESA, it is the recognized expert with regard to matters of listed species and their habitat. ⁴⁹
- 38. While the action agency is ultimately responsible for its action and is technically not bound by the findings of a biological opinion,⁵⁰ an agency that proceeds with an action in a manner that is inconsistent with the biological opinion runs the risk of having its action found to be arbitrary, capricious, and contrary to law.⁵¹ Thus, the Supreme Court has observed that, while a biological opinion "theoretically serves an 'advisory function,' ... in reality it has a powerful coercive effect on the action agency."⁵² The statutory framework is based on the assumption that the biological opinion will play a central role in the action agency's decision-making, and an agency that disregards a biological opinion and proceeds with its proposed action "does so at its own peril."⁵³

⁴⁷ Contrary to the community parties' assertion, the BO evaluated, rather than relied upon, the action proposed in staff's EA.

⁴⁸ 16 U.S.C. §1536(a)(2) (2000).

⁴⁹ See City of Tacoma, Washington v. FERC, 460 F.3d 53, 75 (D.C. Cir. 2006) (finding that expert agencies such as FWS have greater knowledge about the conditions that may threaten listed species and are best able to make factual determinations about appropriate measures to protect the species).

⁵⁰ Sierra Club v. Marsh, 816 F.2d 1376, 1386 (9th Cir. 1987); City of Tacoma, Washington, 104 FERC ¶ 61,092 (2003).

 $^{^{51}}$ See, e.g., TVA v. Hill, 549 F.2d 1064, 1070 (6th Cir. 1977), aff'd, 437 U.S. 153 (1978).

⁵² Bennett v. Spear, 520 U.S. 154, 169-170 (1997) (internal citation omitted).

⁵³ *Id.* at 170.

39. We believe our reliance on the BO was reasonable and appropriate.⁵⁴ The BO includes a thorough analysis of the likely effects of the project removal on the Appalachian elktoe mussel and provides evidentiary support for the conditions and measures to be implemented for protection of the endangered species, including relocation of the mussel population. We find nothing in the record to suggest that the BO is fatally flawed or that we should not rely on it, as the community parties argue.⁵⁵ Moreover, as we recently found, the Commission may reasonably rely on the expertise of Interior in matters involving listed species, and need not conduct a detailed substantive review of a biological opinion before deciding whether to implement its conditions in connection with a proposed action.⁵⁶

⁵⁴ The community parties allege that FWS used outdated and incomplete survey information regarding elktoe distribution in the Tuckasegee River and effects on elktoe critical habitat; recommended relocation of the mussel to a location that may be unable to accommodate the increased numbers of mussel; and failed to analyze and mitigate the impact of cold water releases and inadequate flows on the critical habitat of the mussel. However, the community parties do not elaborate on these concerns or attempt to show how the evidence supporting FWS' BO might be deficient. The community parties also contend that survival of the relocated elktoe is unknown and speculative and that the existing, downstream habitat could be the best habitat. Since elktoe mussels were present in the river prior to dam construction, and are also present in the upstream areas of the river where they are proposed to be relocated from their current position just below the dam, they should be able to survive in the new location. Great care will be taken in the collection and relocation of the mussels, which will be numbered and marked to permit identification. Ordering Paragraph (F) of the surrender order requires the preparation of an elaborate mussel relocation plan. In addition, the Incidental Take Statement has extensive requirements related to mussel protection, including providing an on-site biologist, minimizing activities within the floodplain, conducting removal activities during certain times of the year, and developing appropriate collection, handling, and transport methods, and post-relocation monitoring provisions. Mussel survival will be monitored by the FWS to ensure that the relocation does not harm them.

The community parties have not advanced any new information that calls into question the factual conclusions of FWS' BO. *See Pyramid Lake Paiute Tribe of Indians v. U.S. Dept. of the Navy*, 898 F.2d 1410, 1415 (9th Cir. 1990) (finding that even when a biological opinion is based on admittedly weak information, a federal agency's reliance on it will satisfy its ESA obligations if the record contains no new information or other data which seriously undermines the opinion's conclusions).

 $^{^{56}}$ City of Tacoma, Washington, 109 FERC \P 61,198 (2004). See also City of Tacoma, Washington, 110 FERC \P 61,140 (2005).

3. Recent Events

- 40. The community parties contend that the environmental documents, including FWS' BO, fail to consider recent events that, they allege, have substantial cumulative impacts, i.e., the release of sediment into the Tuckasegee River just below the Dillsboro Dam, caused by a dam failure at Balsam Mountain Preserve; the current status of the Appalachian elktoe mussel population and the potential damage to the population during harvesting as the mussels are relocated; and the impacts to the mussels from the continued release of cold water out of the East Fork and West Fork Projects. The community parties maintain that these events constitute new information that must be considered and that the Commission's failure to take them into account renders the decision flawed.
- 41. The dam at Balsam Mountain Preserve failed in early June 2007, just before we issued the surrender order and nearly a year after issuance of the EA and the BO (issued July and August 2006, respectively). Therefore, it would not have been possible for staff or the FWS to take the effect of dam failure into consideration in the environmental documents, as the community parties argue.
- 42. According to media accounts of the incident, the failure of a dam at the Balsam Mountain Preserve released about 400,000 gallons of water,⁵⁷ or a little over one acrefoot, and 3,000 cubic yards of sediment⁵⁸ down Sugarloaf Creek, into Scotts Creek, and ultimately into the Tuckasegee River. The resulting turbidity and sediment deposition likely had some effect on a population of Appalachian elktoe mussels that occupy habitat near where Scotts Creek flows into the Tuckasegee River. However, the effects would have been minor and should be short term due to the small amount of sediment mobilized.⁵⁹
- 43. Duke's responsibility lies in addressing the impacts to mussel populations as a result of removing the Dillsboro Dam. The surrender order has several requirements to address potential effects on the Appalachian elktoe mussel population.
- 44. Ordering Paragraph (F) requires Duke to consult with FWS and develop, for our approval, a plan to relocate mussels from downstream of the Dillsboro Dam prior to dam removal. As part of the plan Duke is required to: (1) relocate the mussels upstream of

⁵⁷ See article in "The Sylva Herald," http://www.thesylvaherald.com/2007/062807/html/fines_levied_in_wake_of_golf_c.htm

⁵⁸ U.S. Fish and Wildlife Service Field Notes, Vol. 2, No. 5, Fall/Winter 2007.

⁵⁹ Later media reports state that biologists found no dead mussels specifically associated with the failure of the Balsam Mountain Preserve dam. *See* http://www.blueridgenow.com/article/20070803/NEWS/708040330.

the Dillsboro Dam into habitat that reflects the existing habitat from which they came; minimize the time that mussels are exposed to air temperature, sunlight, and other factors associated with being moved from one area of the river to another; (2) maintain a similar density of individual mussels as the area from which the individuals originate; and (3) conduct surveys to monitor the status of mussel populations following relocation of the mussel into new habitat, including mussel survival during removal and following placement into new upstream areas. If mussel survival is poor, Duke will implement restoration measures such as juvenile propagation and transplant of host fish encysted with mussel larvae (glochidia). Ordering Paragraph (H) requires Duke to develop a sediment management plan in consultation with the FWS. These plans will help minimize any adverse effects associated with harvesting and relocating downstream mussel populations to areas upstream of Dillsboro Dam.

- 45. In addition, the Incidental Take Statement attached to FWS' BO, Appendix B to the surrender order, includes several measures to protect the mussels prior to and during dam removal, including provisions for: (1) developing collection, transportation, relocation, and monitoring methods; (2) relocating the post-spawned mussels during the summer low flow period prior to removing the dam; and (3) having a qualified aquatic biologist present at critical times to monitor certain phases of demolition.
- 46. With regard to the East and West Fork Projects, there is little, if any, evidence to suggest that continued coldwater releases will affect the population of Appalachian elktoe. Water temperatures in the Tuckasegee River are such that populations of Appalachian elktoe currently in habitat areas of the river both upstream of, and downstream from, the Dillsboro Dam location. Removal of the Dillsboro Dam will have no bearing on the upstream releases from the East and West Fork Projects, but, rather, the dam's removal will result in a free-flowing river reach that will expand available habitat for the mussels.
- 47. We therefore conclude that the EA, upon which these conditions are based, adequately analyzes the effects of dam removal on the Appalachian elktoe mussel and that our order contains appropriate measures to minimize potential adverse effects on the Appalachian elktoe mussel.

4. <u>Effects on Aesthetics, Noise Levels, Trout Fishing, and Other Recreational Resources, and the Appalachian Elktoe Mussel</u>

48. The community parties contend that there is no environmental support for the order's conclusion that project removal will not adversely affect aesthetics, trout fishing, and other recreational values, or the Appalachian elktoe mussel. We disagree.

⁶⁰ The community parties also assert that the surrender action is unsupported by adequate studies. However, environmental studies were conducted for the dam removal and included in Duke's surrender application (*see* Attachment E, entitled "Sediment (continued...)

- 49. We explained previously that FWS' BO contains support for the determination that, with the measures identified in staff's EA and BA, the proposed license surrender and project removal would not be likely to jeopardize the continued existence of the Appalachian elktoe mussel, nor adversely affect or destroy its critical habitat. We also pointed out in our surrender order that mussel species which may rely on the upstream movement of fish to distribute juvenile mussel glochidia will benefit from the open river corridor and that the project removal will thereby enhance aquatic resource distribution within the Tuckasegee River system. In addition, removal of the Dillsboro project works will be accomplished in a manner that protects the endangered Appalachian elktoe mussel, thereby mitigating any adverse impacts.
- 50. With respect to aesthetics, trout fishing, and other recreational values, project removal will provide enhancements rather than significant adverse effects. Dillsboro Dam alters the natural character of the Tuckasegee River by creating an impoundment with slow moving water and fine substrates. Removing the dam would allow 9.5 miles of upstream river habitat that was previously blocked by Dillsboro Dam to be continuous. Dam removal would restore riverine habitat and could also reconnect fragmented fish populations. Reconnecting populations upstream and downstream of the dam is particularly important for the endangered mussels, which require a fish host to disperse larval mussels to upstream habitats. ⁶¹
- 51. The community parties argue that there is no support for the conclusion that the elktoe mussel will be enhanced by the increased fish access resulting from dam removal. They also argue that the goal of creating 0.9 miles of habitat puts at significant risk the

Study Relating to the Removal of the Dillsboro Dam"), and these studies were sufficient for staff to perform its environmental analysis.

fishery will expand downstream with dam removal, because this could only occur with cooler water passing downstream, which would adversely affect the protected Appalachian elktoe. As stated in the EA (at page 65), summer and early fall temperatures often exceed the state standards for trout streams at the Dillsboro Dam. However, trout fishing currently occurs upstream of, and downstream from, Dillsboro Dam, with the stream reach from the Dillsboro Dam to the State Route 1534 bridge (approximately 7 miles from Dillsboro Dam) designated by the state as hatchery supported trout waters. *See* EA at 225. The removal of the dam would allow for the free movement of trout from upstream regions to suitable areas below where the dam once stood and would change the 0.8-mile-long reservoir reach into a free-flowing river. There are not expected to be any significant water temperature changes with the removal of the dam and therefore, no adverse effects on habitats for Appalachian elktoe that currently occur above and below the Dillsboro Dam.

existing habitat downstream of the dam and threatens the viability of the downstream population as well (causing adverse impacts to mussel that are not transplanted or do not thrive after being transplanted).

- 52. Removal of the dam creates a longer stretch of uninterrupted river available to the fish host for the mussel glochidia, which increases the possibility of mussels extending their home range. This conclusion is supported by general mussel biology literature. Contrary to the community parties' argument, removal of the dam involves no significant risk to downstream habitat. The mussels farther downstream are far enough removed that the sediments will be in suspension when they reach that section of the river. The three-staged flushing flows will allow sediments to be removed downstream to Fontana Lake prior to each stage of demolition, thereby reducing the amount of sediment moving downstream.
- 53. Even with the dam removed, the seasonal flows, when taken into consideration with the combined stream geomorphology and stream gradient, would still produce a visual and auditory experience year round, although the exact quality of that experience would not be measurable until the stream stabilizes with conditions at the site.
- 54. Duke's removal of Dillsboro Dam will have significant benefits. As stated previously, removal of the project will provide increased recreational opportunities. The project removal will result in the river having nearly one more mile of free-flowing water and angling opportunity for native fish and the delayed harvest-managed trout fishery in the area where the reservoir once existed and will provide unobstructed, public access to 9.5 miles of the Tuckasegee River downstream of the confluence of the East and West Forks of the Tuckasegee River. It will restore riverine habitat and the ability for fish passage to occur, enhance the whitewater boating and canoeing opportunities of the area,

Watters, G.T. Small Dams as Barriers to Freshwater Mussels (Bivalvia, Unionoida) and Their Hosts. <u>Biological Conservation</u>, p. 79-85. 1996. See also Giller, P.S. and Malmqvist, B. <u>The Biology of Streams and Rivers</u>. Oxford University Press: Oxford, New York. 1998; U.S. Fish and Wildlife Service. Appalachian Elktoe Recovery Plan. Atlanta, Georgia. 1996.

⁶³ With the mussels in a dormant state and the flushing flows maintaining the sediment suspension, there is a low probability of danger to the mussels. When the high spring flows occur, any remaining sediments in the river will be re-suspended and transported 21 miles downstream to Fontana Lake, just before mussels revive from their winter dormancy.

and improve access to the river by eliminating the former stream impediment created by the dam. Boaters will be able to launch their boats upstream from where the dam used to be and will no longer have to portage around the dam.⁶⁴

55. The community parties contend that the statement that water currently flows over the dam primarily during the fall and winter months is erroneous, because noise levels at the dam are significant year-round. Our statement in the order that flows are primarily in the fall and winter is an accurate statement. Rainfall and runoff events are more prevalent during these time frames. With the current operating regime, water flows over Dillsboro Dam 92 percent of the time, primarily in the fall and winter months. 65

D. <u>Competition for the Site</u>

- 56. The community parties argue that since the project was not operating, the licensee allowed the project to fall into disuse while filing a subsequent license application to hold the site and that instead of penalizing the licensee for this "site-hoarding," the Commission rewarded the licensee with the requested surrender and dam removal authority. The community parties allege that, by allowing Duke's relicensing application to remain on file pending action on the surrender application and not dismissing it, the Commission precluded others from competing for the site. The community parties propose that the project be relicensed, and/or transferred to Jackson County or its designee as a charitable contribution.
- 57. It is within our discretion to defer processing a timely-filed application while we consider an alternate proposal reached through settlement negotiations. While the filing of an application for subsequent license might discourage competition, it does not prevent others from filing competing applications. In this proceeding, an opportunity for filing competing applications was already provided, and neither Jackson County nor any other entity filed an application. As we have explained in *Arizona Public Service Company*, we do not believe it would be in the public interest to initiate a new

⁶⁴ The community parties contend that the EA does not analyze the socioeconomic impacts of dam removal on current users – fishermen and paddlers - and local businesses that benefit from these users. However, increased opportunities for fishing and boating could benefit the local businesses that cater to these recreation activities, and there is no convincing evidence that dam removal will have negative socioeconomic effects.

⁶⁵ See EA at 215-216.

⁶⁶ Under the Commission's regulations, 18 C.F.R. § 16.20 (2007), any entity may file an application for a new license at least 24 months before the existing license expires. In this case, the deadline for filing a relicense application was July 31, 2003.

⁶⁷ Arizona Public Service Company, 97 FERC ¶ 61,315 (2001).

relicensing proceeding when the existing licensee has attempted to resolve matters relating to its own relicensing application by seeking a settlement, even if that settlement might lead to a surrender of the license and removal of project works, including any associated dams. Here, the licensee, state and federal resource agencies, and numerous non-governmental organizations (and even the Town of Dillsboro) agreed that surrender of the Dillsboro license and removal of the project would be in the public interest; and based on the record of the proceeding, we concluded that license surrender with project removal is appropriate and in the public interest. Moreover, the time for competition has long passed, and the community parties showed no interest in competing for the site. Were we to have denied the surrender, there would not have been a new round of competition. Rather, we would have resumed processing Duke's relicense application (which had been held in abeyance while the surrender was under consideration) and determined whether, or under what conditions, to issue a subsequent license.

58. When, in accordance with the surrender order, Duke completes the surrender and project removal process, the site will once again be open to development. At that time, any entity will be free, in accordance with the FPA and the Commission's regulations, to apply for a license for the site.

E. Commission's Standard in License Surrender Proceedings

- 59. The community parties contend that, by stating the surrender and project removal are best adapted to the comprehensive development of the Tuckasegee River under section 10(a)(1) of the FPA, the Commission failed to apply two other standards the equal consideration standard under section 4(e) of the FPA and a broad public interest standard.
- 60. The community parties are correct that our July 19 surrender order erred in referring to our licensing standard. However, they are mistaken in their argument that section 4(e) applies to the license surrender. Accepting surrender of a project pursuant to section 6 of the FPA does not entail the equal consideration/comprehensive development standards of FPA sections 4(e) or 10(a)(1), which apply to license proceedings. ⁶⁹

⁶⁸ The filing of a surrender application is no guarantee that surrender will be approved, or, even if approved, under what conditions.

⁶⁹ Niagara Mohawk Power Corporation and Fourth Branch Associates (Mechanicville), 98 FERC ¶ 61,227, at 61,902, reh'g denied, 100 FERC ¶ 61,185, at P 12 (2002); Rochester Gas and Electric Corp., 100 FERC ¶ 61,113, at P 10 (2002). See also Clark Fork and Blackfoot, LLC, 111 FERC ¶ 61,160, at P 19 (2005). FPA section 6 states that licenses may be surrendered "upon mutual agreement between the licensee and the Commission after thirty days' public notice."

61. As we explained in *Arizona Public Service Company*, ⁷⁰ in the absence of any further statutory standard, we apply a broad public interest standard. That is what we did in the Dillsboro surrender proceeding, where (despite an earlier reference to the comprehensive development standard for licensing) we concluded: ⁷¹

this action will result in greater upstream and downstream fish movement, wider distribution of Appalachian elktoe mussels, as well as improvement of recreational opportunities in the Tuckasegee River. For these reasons, surrender of the Dillsboro Project, with the requirements adopted herein, will benefit environmental resources in the Tuckasegee River, and is in the public interest.

F. Other Issues

62. Duke, Interior, and the North Carolina WRC propose a number of clarifications and modifications to the surrender order, as discussed below.⁷²

1. Sediment Removal

- 63. Duke developed, in consultation with FWS, North Carolina WRC, and North Carolina Department of Environment and Natural Resources, a multi-faceted sediment removal plan that called for the removal of a limited amount of sediment within the reservoir, relocation of Appalachian elktoe mussels most at risk for impacts from sediment transport, phased removal of the project dam, and the use of flushing flows to move sediment downstream. Duke further notes that FWS' BO addresses Duke's proposal and provides incidental take terms and conditions that are consistent with the proposal.
- 64. Duke notes that Ordering Paragraph (H) of the surrender order requires Duke to file for Commission approval a detailed Sediment Management Plan that includes, among other things, measures to minimize sediment transport downstream and remove exposed sediment from the reservoir as it is lowered. Duke is concerned that this requirement may be at odds with its proposed plan for flushing flows to transport some of the sediment downstream.

⁷⁰ 109 FERC ¶ 61,036 (2004).

⁷¹ July 19 Order, 120 FERC ¶ 61,054 at P 50.

⁷² North Carolina WRC asserts that the surrender order contains several errors regarding its status and involvement in the proceeding, due to the interchanging of acronyms for North Carolina Wildlife Federation and North Carolina WRC. North Carolina WRC is correct. Our references to "North Carolina Wildlife" in paragraphs 10 and 11 and footnote 21 of the July 19 Order should have read "North Carolina WRC."

65. Duke's plan for flushing flows and the requirements of the surrender order are not inconsistent. In fact, the required sediment management plan includes a provision for using flushing flows to transport sediments downstream. Use of a flushing flow should ensure that the re-suspended sediments allowed to flush downstream from the Dillsboro Project are dilute and remain suspended in the water column until the flows reach the next downstream reservoir past any other mussel beds. Therefore, we see no need to alter Ordering Paragraph (H).

2. <u>Timing of Project Removal</u>

- 66. Condition 9 of FWS' Incidental Take Terms and Conditions requires the licensee to conduct sediment removal and dam removal "during low flow (likely early summer)." In its license surrender application, Duke had proposed to begin demolishing the dam in January, but in the surrender order we concluded that this time conflicted with Condition 9. To be consistent with Condition 9, we required the licensee to conduct sediment and dam removal during low flows.
- 67. On rehearing, Duke argues that removal activities that begin in January are optimal to allow completion before the summer's peak season and to avoid the spring spawning season for fish and the endangered Appalachian elktoe mussel. Duke requests clarification that the Commission is imposing only a requirement that Duke comply with Condition 9 by developing a removal schedule in consultation with FWS and the North Carolina WRC, and not a requirement that it conduct the removal during the summer months.

⁷³ Ordering Paragraph (H)(3) provides for sediment transport by "controlled" operational flows." The community parties argue that the EA did not consider the potential environmental effects that the dam removal will have on the upstream East and West Fork Projects or the impact to these projects of reducing their reservoir levels to provide up to 1,500 cubic feet per second (cfs) flushing flows for one to three days, at each stage of dam removal. While the Dillsboro Project depends on available flows in the Tuckasegee River that are regulated by upstream releases from the East and West Fork Projects, the projects do not release any special flows for the operation and management of the Dillsboro Project. The Dillsboro Project has operated in a run-ofriver mode and the East and West Fork Projects operate in a peaking mode with large seasonal and daily variations (up to 17 feet) in reservoir levels. Based on mean flows ranging from 791 to 1,008 cfs in the Tuckasegee River at the Dillsboro Dam during January through March, the flushing flows could be used within the constraints of the projects as currently licensed or as proposed for relicensing. Therefore, removing the Dillsboro Project and returning that stretch of the Tuckasegee River to a free-flowing river should have no effect on the operational regime of the upstream projects.

- 68. On rehearing, Interior and North Carolina WRC also ask that the surrender order be revised to allow demolition of the dam and powerhouse to occur between December 1 and March 31. The agencies explain that this appears to be the optimal time, based on additional information and FWS' and North Carolina WRC's further evaluation of factors, including biological activity (which is generally low during early winter), the reproductive status of the Appalachian elktoe, and predominant flow conditions.
- 69. As stated previously, FWS found that incidental take of the Appalachian elktoe mussels may occur as a result of demolition activities, and FWS has identified reasonable and prudent measures to avoid or minimize incidental taking. Since FWS believes demolition between December 1 and March 31 is the optimal time, and since Condition 9 specifies that exact dates for demolition are "to be determined in consultation with the FWS" and North Carolina WRC, we will defer to the FWS on this issue and revise Condition 9 accordingly.⁷⁴

3. <u>Completion of Project Removal</u>

- 70. The surrender order requires Duke to complete project removal and post-removal monitoring within three years of the order's July 19, 2007 issuance date. On rehearing, Duke, Interior, and North Carolina WRC argue that this schedule imposes time constraints that are impossible to meet and poses environmental concerns for fishery resources. To comply with this timeframe, Duke states that it would have to complete removal of the project by July 2008, and immediately commence post-removal monitoring, so that the monitoring could be completed by July 19, 2010. Instead, Duke, Interior, and North Carolina WRC ask that Duke be given a full three years to complete the removal of the dam and powerhouse and an additional two years following removal to complete post-removal monitoring, as Duke had proposed in its surrender application.
- 71. We agree that the longer time period requested by Duke, Interior, and North Carolina WRC may be needed to, among other things, meet the seasonal constraints of the mussel relocation and dam demolition; allow adequate time for preparation and approval of required plans; and to take into consideration the seasonality of field activities and the preparation necessary for working in designated critical habitat and near endangered species. We will revise the surrender order accordingly.

⁷⁴ Although FWS asks that we revise Ordering Paragraph (I) of the surrender order (which merely requires the licensee to comply with FWS' Incidental Take Terms and Conditions), we think it will be less confusing to simply modify the time frame specified in Condition 9.

⁷⁵ Moreover, the parties to the Tuckasegee Agreement agreed to Duke's proposal to take three years to complete the removal and to devote two years thereafter to environmental monitoring.

4. Boat Launch Location

- 72. As a provision of the settlement agreements governing Dillsboro and Duke's other projects on the Tuckasegee River, Duke agreed to provide a public boat launch and gravel parking area in the vicinity of property owned by the Tuckaseigee Water and Sewer Authority (Authority), about 0.8 miles upstream of the current location of the Dillsboro Project's reservoir. Ordering Paragraph (O) of the surrender order requires Duke to install the boat launch and parking area in the vicinity of the Authority's property.
- 73. On rehearing, Duke states that its attempts to negotiate a lease or property use agreement with the Authority have been unsuccessful. Duke therefore asks for Commission approval to construct the facility on property it owns, known as the Pole Yard, located along the shoreline of the project's reservoir approximately 0.3 miles upstream of the Dillsboro Dam. The Pole Yard site would provide better access to the river because, unlike the Authority's site, the parking facilities would be located immediately adjacent to the launch facilities. Moreover, Duke's ownership of the Pole Yard property would ensure the timely completion of the facilities; and because the land has previously been disturbed and subjected to severe clearing, placing the recreation facility here would have minimal environmental impacts. We will approve the new location and revise Ordering Paragraph (O) accordingly.

5. Refueling of Construction Equipment

74. Condition 5 of FWS' Incidental Take Terms and Conditions requires Duke to refuel all construction equipment outside of the 100-year floodplain. Duke states that this would require removal of all equipment from the demolition site, thereby presenting a significant logistical challenge. Duke proposes instead to consult with FWS in developing, for Commission approval, a refueling plan that addresses FWS' concerns with protecting the floodplain, while allowing Duke to refuel construction equipment on lands used for demolition activities. In Interior's rehearing request, it concurs with Duke's proposal and states that the refueling plan will be subject to FWS' approval. The request is reasonable, and we will modify Condition 5 accordingly.

6. Consultation

75. The community parties ask that the Commission allow them (FOLGA, Western Alliance, T. J. Walker, Jackson and Macon Counties, and Franklin) and two other entities, Jackson County Soil and Water Conservation District (SWCD) and Jackson

⁷⁶ Duke states that it has discussed the new location with the North Carolina WRC, North Carolina Department of Environment and Natural Resources, and several river recreation groups that are parties to the settlement agreements, and that those entities believe that the Pole Yard location is the best site. *See* Duke's request for rehearing at 9.

County Board, to be included among the parties with whom the licensee must consult under Ordering Paragraphs (D) (Blasting, Public Safety, and Erosion and Sediment Control Plans), (E) (Final Restoration Plan), (F) (Appalachian Elktoe Mussel Relocation Plan), (G) (Bat Relocation Plan), (H) (Sediment Management Plan), (L) (Fish Monitoring Plan), (N) (Report on Survey and Revegetation Efforts), and (O) (Construction Plan for Boat Launch and Parking Area). The community parties assert that their interests will be affected by action taken under these ordering paragraphs.

76. Recognizing that Jackson County may have a special interest in the development of the final restoration plan for the project area and the boat launch and parking area plan, the surrender order requires post-licensing consultation with the county on the preparation of these plans. However, it is not generally the Commission's practice to require post-licensing consultation with local governmental entities with respect to affected resources that fall under the jurisdiction of state and federal agencies having statutory or regulatory responsibilities in those resource areas. We see no reason to do otherwise in this case. The federal and state agencies that must be consulted on the preparation of the blasting, public safety, and erosion control plan; mussel and bat relocation plans; and the sediment management and fish monitoring plans have the necessary expertise with respect to the resources addressed by the plans and our review, and approval of the plans will ensure that they implement the requirements of the surrender order in a manner that is environmentally sound and is in the public interest. We therefore deny the request to give consultation status to Jackson County and other Jackson County governmental entities (Jackson County SWCD and Jackson County Board). As for the revegetation report required by Ordering Paragraph (N), it is merely a report of activities undertaken, and thus does not require consultation.

77. FOLGA, Macon County, and Franklin have no relationship to, or vested interest in, the Dillsboro Project, nor do they represent an interest that could be directly affected during the surrender process. The Lake Glenville community that FOLGA represents is located 26 miles upstream of the Dillsboro Project. The Tuckasegee River does not run through Macon County, whose border is located 6 miles west of the project and the Tuckasegee River. Franklin is 15 miles southwest of Dillsboro but not downstream of the project. It is located on the Little Tennessee River, which is not a tributary to the Tuckasegee River on which the project is located. The Lake Glenville community, Macon County, and Franklin are not located in proximity to the Dillsboro Project. Their requests for consultation status are therefore denied.

⁷⁷ The community parties did not include this consultation issue in the Statement of Issues section of their rehearing request. The issue is therefore deemed waived under section 385.713(c)(2) of our regulations, 18 C.F.R. § 385.713(c)(2) (2007). However, we respond to the request for consultation status for each of the parties.

⁷⁸ We note that Jackson County SWCD and Jackson County Board did not seek rehearing of the surrender and thus did not request consultation status.

- 78. T.J. Walker is the owner and operator of Dillsboro Inn, a local business located immediately downstream of Dillsboro Dam. Western Alliance consists of several Dillsboro business owners who have concerns regarding the economic and cultural impacts of removing the dam and other members who use and enjoy the Tuckasegee River. T.J. Walker, Dillsboro Inn, and Western Alliance ask to be added as consulting parties. However, it is not the Commission's practice to grant consultation status to individuals, corporations, or local businesses, and the interests of these entities are adequately represented by Jackson County (as to those matters for which we granted consulting status) and the resource agencies under their respective resource areas. Therefore, we deny T.J. Walker's, Dillsboro Inn's, and Western Alliance's requests to be consulting parties.
- 79. Duke, North Carolina WRC, and Interior request that several ordering paragraphs be revised to provide for consultation with Interior and North Carolina WRC on required plans.
- 80. Ordering Paragraph (E) requires the licensee to prepare a detailed, site-specific final restoration plan in consultation with the North Carolina WRC and Jackson County and to file the plan for Commission approval. Interior asks that Duke also consult with it on the plan. We agree that Interior should be consulted on the restoration plan, and we will amend Ordering Paragraph (E) accordingly.
- 81. Interior asks that Ordering Paragraph (F), which requires the licensee to develop a relocation plan for the Appalachian elktoe mussel, and Ordering Paragraph (O), which requires the boat launch and parking area plan, be amended to require both consultation with FWS and FWS approval before the plans are submitted to the Commission for final approval and implemented. Interior believes this revision is appropriate because the activities to be approved concern, or would be implemented, within or adjacent to designated critical habitat, and/or areas occupied by the endangered Appalachian elktoe and other fish and wildlife resources. North Carolina WRC states that, along with FWS, it is charged with the management and protection of the Appalachian elktoe and should be included in the consultation process on the mussel relocation plan.
- 82. It is appropriate for Interior and North Carolina WRC to be given a consultation role with respect to the Appalachian Elktoe Mussel Plan required by Ordering Paragraph (F), and it is appropriate to include the standard agency consultation language in Ordering Paragraph (F), and we are revising Ordering Paragraph (F) accordingly. Condition 10 of

⁷⁹ T. J. Walker expresses concern about the loss of the dam's flood control role, after protecting Dillsboro's waterfront residences and businesses during three high-water events and two hurricanes in 2004. The Dillsboro Dam impounds a 15-acre reservoir at a water surface elevation of 1,972 feet (*see* EA at 22). Because of the impoundment's small size there is no useable storage capacity. Therefore, the removal of the dam should have no effect on downstream flooding (*see* EA at 87).

the water quality certification gives FWS approval authority over the mussel plan. We find it is also appropriate for FWS to be added as a consulting party on the Boat Launch and Parking Area Construction Plan that is required under Ordering Paragraph (O). However, FWS approval authority over the recreation facilities construction plan is not warranted. Under the FPA, it is the Commission's responsibility to ensure that the licensee implements the provisions of its license in a satisfactory manner. The Commission is charged with assessing plans and is required to maintain approval authority over project structures and operations. FWS' consultation role should be adequate.

- 83. Duke, Interior, and North Carolina WRC point out that Ordering Paragraph (F) does not include the standard requirement for agency consultation in preparing the plan and ask that this requirement be added. This language is standard language, which we generally include in license conditions that require consultation with agencies and Commission review and approval of plans. It was an oversight to not include this language, and we will modify the ordering paragraph accordingly.
- 84. Ordering Paragraph (N) requires that the licensee file with the Commission, within 60 days of draining the reservoir, a report describing the licensee's efforts to survey the area surrounding the former impoundment and to revegetate areas with high erosion potential. Interior asks that Ordering Paragraph (N) be amended to require that the licensee submit a copy of the required report to FWS. We believe it is appropriate for FWS to receive a copy of this required report involving erosion protection measures, particularly since the licensee is required to implement measures that ensure shoreline stability as an incidental take term and condition (Condition 15). We are modifying Ordering Paragraph (N) to include this condition.

7. Commencement of Land-clearing or Land-disturbing Activities

85. Duke requests clarification concerning certain plans required by the surrender order: final restoration plan, mussel relocation plan, bat relocation plan, sediment management plan, fish monitoring plan, and public boat launch and parking plan. Each plan includes the following requirement:

No land-clearing or land-disturbing activities shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan....

Duke asks whether this requirement relates only to those land-disturbing activities identified within each plan or if none of the plans can be implemented until all of the plans are approved by the Commission. As an example, Duke points to the bat

⁸⁰ Respectively, Ordering Paragraphs (E), (F), (G), (H), (L), and (O).

relocation plan and asks whether it can proceed with relocating the bats upon approval of that plan, or whether it must wait until all the required plans are approved.

86. The appropriate time for commencing action under the various plans will vary. Duke can begin work on certain measures, which stand alone, when it receives approval of the specific plan. For example, upon approval of the boat launch and parking construction plan, Duke may begin these construction activities. Similarly, as soon as the bat relocation plan is approved, Duke can begin the activities approved under that plan. However, several of the plans are interrelated in addressing various measures relating to dam removal and dam removal activities, and measures under these plans can only be started when all associated plans are approved. Duke's implementation schedule for each plan should address this issue.

The Commission orders:

- (A) The request for rehearing and clarification filed in this proceeding by Duke Energy Carolinas, LLC on August 20, 2007, is granted.
- (B) The request for rehearing filed in this proceeding by the U.S. Department of the Interior on August 20, 2007, is granted to the extent provided in this order and denied in all other respects.
- (C) The request for rehearing filed jointly in this proceeding by Jackson County, North Carolina, Macon County, North Carolina, the Town of Franklin, North Carolina, the Friends of Lake Glenville Association, Inc., T.J. Walker, the Dillsboro Inn, and the Western North Carolina Alliance on August 20, 2007, is denied.
- (D) Jackson County's request for late intervention in the relicensing proceeding for the Dillsboro Project No. 2602-005 is granted.
- (E) The request for rehearing and clarification, filed in this proceeding by the North Carolina Wildlife Resources Commission on August 20, 2007, is granted.
- (F) Duke Energy Carolinas, LLC's answer, filed in this proceeding on September 4, 2007, is rejected.
- (G) The answer to Duke Energy Carolinas, LLC's answer, filed on September 19, 2007, jointly in this proceeding, by Jackson County, North Carolina, Macon County, North Carolina, the Town of Franklin, North Carolina, the Friends of Lake Glenville Association, Inc., T.J. Walker, the Dillsboro Inn, and the Western North Carolina Alliance is rejected.
- (H) The Commission's order issued in this proceeding on July 19, 2007, is revised as follows:

- (1) Ordering Paragraph (E) is revised to add the U.S. Fish and Wildlife Service as an agency to be consulted in preparing the final restoration plan.
- (2) Ordering Paragraph (F) (relocation plan for the Appalachian elktoe mussel) is revised by inserting the following paragraph after the first paragraph:

The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service and the North Carolina Wildlife Resources Commission. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, specific descriptions of how the agencies' comments are accommodated by the plan, and a schedule for implementing the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

- (3) Ordering Paragraph (N) (Revegetation Report) is revised by adding a new last sentence that reads: "The licensee shall submit a copy of the report to the U.S. Fish and Wildlife Service and Jackson County, North Carolina, at the time of filing."
- (4) The first paragraph and the first sentence of the third paragraph of Ordering Paragraph (O) (Public Boat Launch Construction Plan) are revised by changing the location of the facility and adding the U.S. Fish and Wildlife Service as an entity to be consulted on the plan, and will now read:
 - (O) At least 60 days before the start of removal operations, the licensee shall file for Commission approval, a plan detailing the construction of a new public boat launch and gravel parking area on licensee-owned property known as the Pole Yard, located approximately 1.4 river miles downstream of the Tuckaseigee Water and Sewer Authority's property.

* * *

The licensee shall prepare the construction plans after consultation with the U.S. Fish and Wildlife Service, North Carolina Department of Environment and Natural Resources, Jackson County, and the Town of Dillsboro.

- (5) Condition 5 of Appendix B is revised to add two sentences at the end of the condition that read as follows: "In the alternative, construction equipment may be refueled pursuant to a plan developed by the Licensee and approved by FWS. The Licensee shall file a copy of the approved plan with the Commission."
- (6) Condition 9 of Appendix B is revised by changing "likely early summer" to "December 1 through March 31."

- (7) The removal of project facilities must be completed by July 19, 2010, and all post-removal monitoring must be completed by July 19, 2012.
- (8) The surrender approved for the Dillsboro Project No. 2602 in the Commission's July 19, 2007 order is subject to the conditions included in the water quality certification issued by the North Carolina Department of Water Quality on November 8, 2007, as those conditions are set forth in the attached Appendix.

By the Commission.

(SEAL)

Nathaniel J. Davis, Sr., Deputy Secretary.



Michael F. Easley, Governor

William G. Ross Jr., Secretary North Carolina Department of Environment and Natural Resources

> Coleen H. Sullins, Director Division of Water Quality

November 21, 2007

Duke Energy Carolinas, LLC Attn.: Mr. Jeffrey Lineberger Manager, Hydro Licensing WC12Y 526 South Church Street Charlotte, NC 28202-1802

> Re: Dillsboro dam removal project Jackson County DWQ # 2003-0179, version 6.0 APPROVAL of 401 Water Quality Certification with Additional Conditions

Dear Mr. Lineberger:

Attached hereto is a copy of Certification No. 888888 issued to Duke Energy Carolinas, LLC dated November 8, 2007. In addition, you should get any other federal, state or local permits before you go ahead with your project including (but not limited to) Solid Waste, Sediment and Erosion Control, Stormwater, Dam Safety, Non-discharge and Water Supply Watershed regulations.

If we can be of further assistance, do not hesitate to contact us.

for Coleen H. Sullins, Director

CHS/jrd

Attachments: Certificate of Completion

cc: Amanda Jones, U.S. Army Corps of Engineers, AshevilleRegulatory Field Office Kevin Barnett, DWQ, Asheville Regional Office DLR Ashveille Regional Office File Copy

Central Files Public Hearing mailing list

Paul Nolan, 5515 North 17th Street, Arlington, VA 22205

Jason Isbanioly, Devine, Tarbell and Associates, Inc., 400 S. Tryon Street, Suite 2401, Cvharlotte,

T.J. Walker, Dillsboro Inn, P.O. Box 270, 146 North River Road, Dillsboro, NC 28725 Unidentified FERC staff

Steve Reed, N.C. Division of Water Resources

Filename: 20030179version6.0DillsboroDam(Jackson)401

Duke Energy Page 2 of 4 November 8, 2007

NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500 to remove the Dillsboro dam and powerhouse in Dillsboro, NC on the Tuckasegee River in Jackson County, North Carolina, pursuant to an application filed on the March 23, 2007, and in additional correspondence received June 27, 2007 and October 25, 2007.

The application and supporting documentation provides adequate assurance that the proposed work will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application, the supporting documentation, and conditions hereinafter set forth.

This approval is only valid for the purpose and design submitted in the application. If the project is changed, prior to notification a new application for a new Certification is required. If the property is sold, the new owner must be given a copy of the Certification and approval letter and is thereby responsible for complying with all conditions of this Certification. Any new owner must notify the Division and request the Certification be issued in their name. Should wetland or stream fill be requested in the future, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). If any plan revisions from the approved site plan result in a change in stream or wetland impact or an increase in impervious surfaces, the DWQ shall be notified in writing and a new application for 401 Certification may be required. For this approval to be valid, compliance with the conditions listed below is required.

Conditions of Certification:

1. Impacts Approved

The following impacts are hereby approved as long as all of the other specific and general conditions of this Certification (or Isolated Wetland Permit) are met. No other impacts are approved including incidental impacts:

	Amount Approved (Units) – Permanent fill	Amount Approved (Units) – Temporary fill	Plan Location or Reference
River	Zero (feet)	102 (feet)	Site plan

Sediment and Erosion Control:

- Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:
 - a. The erosion and sediment control measures for the project 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 pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the North Carolina Surface Mining Manual.
 - The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.

Duke Energy Page 3 of 4 November 8, 2007

- 3. 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 404/401Permit Application. 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;
- 4. 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;

Continuing Compliance:

5. Duke Power shall conduct construction activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with section 303(d) of the Clean Water Act) and any other appropriate requirements of State law and federal law. If the Division determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the Division may reevaluate and modify this Certification to include conditions appropriate to assure compliance with such standards and requirements in accordance with 15A NCAC 2H.0507(d). Before modifying the Certification, the Division shall notify Duke Power and the US Army Corps of Engineers, provide public notice in accordance with 15A NCAC 2H.0503 and provide opportunity for public hearing in accordance with 15A NCAC 2H.0504. Any new or revised conditions shall be provided to Duke Power in writing, shall be provided to the United States Army Corps of Engineers for reference in any Permit issued pursuant to Section 404 of the Clean Water Act, and shall also become conditions of the 404 Permit for the project;

Other conditions:

Sediment Removal

Duke Power shall remove 70,000 cubic yards of sediment from behind the dam before the dam structure is completely removed. The total amount to be removed may be altered only if there is less than 70,000 cubic yards of sediment available for removal or if additional materials are required for bank stabilization. Any deviations below the 70,000 cubic yards must be approved by the Division of Water. This material shall be disposed of in an upland disposal site(s) or sold to be used in upland sites.

7. Temporary Fills

All temporary fill and culverts shall be removed and the impacted area returned to the original grade, including each stream's original cross sectional dimensions, planform pattern, and longitudinal bed and bed profile after seismic-related construction is complete and the various sites shall be stabilized with natural woody vegetation (except for the maintenance areas of permanent utility crossings) and restored to prevent erosion. If the temporary fill is not completely removed and restored as described above within the specified time above, additional written approval from this Office must be obtained to modify this condition.

7. Monitoring

Water quality monitoring shall be done as outlined in the "Draft Dillsboro Dam and Powerhouse Removal Environmental Monitoring Program" prepared by Duke Carolinas and submitted on October 25, 2007 with the following changes:

Duke Energy Page 4 of 4 November 8, 2007

- At least two (2) fish and aquatic macrobenthos collections shall be made before dam removal at different seasons.
- Full scale benthic macroinvertebrate collections (rather than just EPT collections) shall be made.
- c. Post-dam removal monitoring shall be for a total of three (3) years.
- d. Fish and macrobenthos collections in the lake pool shall be done in accordance with written DWQ approval for the monitoring plan.
- Pebble counts shall be added to the planned monitoring protocol for downstream and upstream river reaches at the same locations as the macrobenthos samples.
- f. Water quality sampling must be done on at least a monthly basis during the pre dam removal and monthly for the post dam removal phases for the first two years. Quarterly samples are adequate for the third year of sampling. If sampling reveals that measurements start to stabilize, then DWQ may reduce this monitoring frequency upon written request and review.
- g. Chemical and physical water quality monitoring data shall be reported to DWQ (Central Office and Asheville Regional Office) on a monthly basis and within 30 days following the end of the month of the collections. The fish and macrobenthos data shall be reported to DWQ annually by March 1 of each year.
- The artificial structure of the dam shall be removed down to the natural rocky substrate of the channel.
- Sediment Management Plan The Sediment Management Plan for the Dillsboro Dam Removal as submitted on October 25, 2007 shall be followed.
- 10. If any man-made debris is revealed within the footprint of the lake during or after the removal of the dam, such debris must be removed and disposed of in a proper upland location.
- 11. Any stream bank areas disturbed during the dam removal or mining operation shall be revegetated with woody vegetation upon completion of the dam removal operation during the next fall-spring season. In any event, temporary vegetative cover must be installed on all disturbed stream bank areas within one week of completion of work in that area.

Also, this approval to proceed with your proposed impacts or to conduct impacts to waters as depicted in your application shall expire upon expiration of the 404 Permit.

If this Certification is unacceptable to you, you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 8th day of November 2007 DIVISION OF WATER QUALITY

Chillywar for Coleen H. Sullins, Director

CHS/jrd