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 Nos. 2602-005 and 2602-007

ORDER ACCEPTING SURRENDER AND DISMISSING APPLICATION FOR SUBSEQUENT LICENSE

(Issued July 19, 2007)

1. This order grants, as modified herein, Duke Energy Carolinas, LLC's (Duke)[1] application to surrender the minor license for its 225-kilowatt (kW) Dillsboro Project No. 2602 (Dillsboro). The order also dismisses Duke's application for a subsequent license for the project.

[1] The project was originally licensed to Nantahala Power and Light Company. In 2000, Nantahala changed its name to Nantahala Power and Light, a division of Duke Energy Corporation. (*See* 91 FERC ¶ 62,235). Subsequently, an order was issued approving transfer of the project from Nantahala Power and Light, a division of Duke Energy Corporation to Duke Energy Corporation (under the name Duke Power, a division of Duke Energy Corporation, Nantahala Area) (*See* 96 FERC ¶ 62,142 (2001)). Finally, an order was issued on March 23, 2006, approving transfer of the Dillsboro license from Duke Power to Duke Energy Carolinas, LLC, and approving the substitution of Duke Energy Carolinas, LLC as the applicant for surrender in this proceeding. (*See* 118 FERC ¶ 62,223).

Project Description

2. The Dillsboro Project is located on the Tuckasegee River in Jackson County, North Carolina.[2] The project has an installed capacity of 225 kW, and includes: (1) a 12-foot-high, 310-foot-long concrete masonry dam that is integral to the powerhouse; (2) a 0.8-mile-long, 15-acre reservoir with no usable storage; (3) an 80-foot-long intake canal containing three intake bays, each consisting of a reinforced concrete flume; (4) a 77-foot-wide by 43-foot-deep by 43-foot-high powerhouse containing two vertical Francis-type generating units, with installed capacities of 175 kW and 50 kW, respectively; and (5) a 25-foot-long tailrace.

3. The project's reservoir is filled to near capacity with an estimated 100,000 to 120,000 cubic yards of sediment. Channel depths for about 500 feet upstream of the powerhouse range from 8 to 12 feet. Most of the remaining portions of the reservoir are 3 to 7 feet deep.

4. Historically, Duke has operated the project in a run-of-river mode, maintaining the headpond within 6 inches of full pond elevation. Project operation depends 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).

Background

5. An original minor license for the Dillsboro Project was issued on July 17, 1980, with an effective date of May 1, 1965, and a termination date of July 31, 2005, for a license term of 40 years and three months.[3]

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[2] The Tuckasegee River is a tributary of the Little Tennessee River, a navigable waterway which empties into the Tennessee River. *See* 13 FPC 14 (1954). Pursuant to section 23(b)(1) of the Federal Power Act (FPA), Dillsboro was required to be licensed based on its location on a stream over which Congress has jurisdiction under the Commerce Clause, Dillsboro's connection to an interstate power grid, and construction occurring at the project after 1935. *See Nantahala Power and Light Company,* 56 FPC 3560 (1976), *aff'd*, 57 FPC 1033 (1977).

[3] 12 FERC ¶ 62,030 (1980). The license term was set under the then applicable license term policy for operating projects that the owners knew or should have known were required to be licensed, and at which there had been post-1935 construction. *See Pacific Power & Light Company,* 56 FPC 1804 at 1809 (1976). (Dillsboro and Sylva Electric Company constructed the project in the 1920s. It installed the second of the two

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6. Pursuant to Part I of the Federal Power Act (FPA),[4] Duke filed an application for a subsequent license on July 22, 2003.[5] Since expiration of Duke's original license on July 31, 2005, project operations at Dillsboro have continued pursuant to section 9(b) of the Administrative Procedures Act, [6] pending disposition of Duke's subsequent license application.

7. A public notice of Duke's application for subsequent license for Dillsboro was issued on November 7, 2003, with a deadline for filing motions to intervene and protests of January 6, 2004.

8. On January 8, 2004, Duke filed two settlement agreements -- the Nantahala Cooperative Stakeholder Team's settlement agreement (Nantahala agreement) and the Tuckaseegee Cooperative Stakeholder Team's settlement agreement (Tuckasegee agreement) -- on behalf of itself and multiple stakeholders.[7] Together, the two

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generating units in 1941. In 1957, Nantahala Power and Light Company purchased the project, repaired the generating units, added two vertical feet of concrete to the overflow crest of the spillway on the dam, and restored the project to service.)

[4] 16 U.S.C. § 808 (2000).

[5] On relicensing, projects, like Dillsboro, with an expiring license that is not subject to sections 14 and 15 of the FPA (because we previously waived those sections) apply for "subsequent" rather than "new" licenses. *See* 18 C.F.R. § 16.20 (2006).

[6] 5 U.S.C. § 558 (c) (2000) (stating that where a licensee has timely filed for a renewal or new license, the existing license does not expire until the agency acts). Because the Commission waived sections 14 and 15 of the FPA with respect to the Dillsboro Project, the project could not on license expiration receive an annual license which is authorized under section 15. Therefore, as is the Commission's practice in such cases, the Commission authorized continued operation of the project pursuant to 18 C.F.R. § 16.21 (2006).

[7] Signatories to the Nantahala agreement, for relicense of Nantahala and surrender of Dillsboro are: Duke; American Whitewater Affiliation (American Whitewater); Big Choga Homeowners Association; Carolina Canoe Club; Eastern Band of Cherokee Indians (Cherokees); Mountain Shadows Homeowners Association; Nantahala Community; Nantahala Gorge Association; Nantahala Highlands Estates Property Owners Association; Nantahala Outdoor Center; Nantahala Racing Club; Natural Resources Conservation Service; North Carolina Department of Environment and Natural Resources (which includes North Carolina's Division of Water Resources, Division of

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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. [8] Both agreements proposed a surrender of the Dillsboro Project, including

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Parks & Recreation, and Division of Water Quality) (North Carolina DENR); North Carolina Wildlife Federation (North Carolina Wildlife); North Carolina Wildlife Resource Commission (North Carolina WRC); Southwestern North Carolina Resource Conservation and Development Council; Swain County Economic Development Commission; Swain County Soil and Water Conservation District; North Carolina Council of Trout Unlimited, Inc. (Trout Unlimited); United States Department of the Interior, Fish and Wildlife Service (FWS); and the United States Department of Agriculture, Forest Service (Forest Service).

Signatories to the Tuckasegee agreement, for relicense of East Fork and West Fork and surrender of Dillsboro, are: Duke; American Whitewater; Bear Creek Lake and Cedar Cliff Lake Residents; Carolina Canoe Club; Dillsboro River Company; the Cherokee; Trout Unlimited; North Carolina DENR; North Carolina Wildlife; North Carolina WRC; Signal Ridge Marina; Swain County Economic Development Commission; Town of Dillsboro; Town of Sylva; Tuckasegee Gorge Association; FWS; and the Forest Service.

Two participants in the Nantahala settlement negotiations did not sign the agreement, and thirteen participants in the Tuckasegee settlement negotiations did not sign the agreement. Of these, only American Rivers, Jackson County Government (Jackson County), Jackson County Soil & Water Conservation District (Jackson Conservation), and Western North Carolina Alliance (Western Alliance) are intervenors in the Dillsboro surrender proceeding.

[8] The Dillsboro subsequent license application is one of seven relicense applications filed by Duke in the Little Tennessee River Basin. Dillsboro, the East Fork Hydroelectric Project No. 2698 (East Fork), and the West Fork Hydroelectric Project No. 2686 (West Fork) are located on the Tuckasegee River. The Bryson Hydroelectric Project No. 2601 (Bryson), is located on the Oconaluftee River (a tributary of the Tuckasegee River. The Nantahala Hydroelectric Project No. 2692 (Nantahala) is located on the Nantahala River; the Franklin Hydroelectric Project No. 2603 (Franklin) is located on the Little Tennessee River; and the Mission Hydroelectric Project No. 2619 (Mission) is located on the Hiwassee River.

Commission staff prepared one environmental assessment of Dillsboro, East Fork, West Fork, and Bryson, and a separate environmental assessment of Nantahala, Franklin, and Mission.

removal of Dillsboro's powerhouse and dam. On May 28, 2004, in accord with the agreements,[9] Duke filed an application to surrender the Dillsboro license.[10]

9. A public notice of the surrender application was issued on June 4, 2004, with a deadline for filing comments, motions to intervene, protests, and requests for cooperating agency status of July 6, 2004.[11]

10. Timely interventions were filed in the proceeding on Dillsboro's application for subsequent license by North Carolina Wildlife Federation (North Carolina Wildlife); the U.S. Department of the Interior (Interior); the Department of the Interior's Bureau of Indian Affairs (BIA); Jackson County Soil & Water Conservation District (Jackson Conservation); and North Carolina Department of Environment and Natural Resources (which includes North Carolina's Division of Water Resources, Division of Parks & Recreation, and Division of Water Quality) (North Carolina DENR).[12]

11. Timely interventions were filed in the proceeding on Dillsboro's surrender application by North Carolina Wildlife; Interior; North Carolina DENR; Jackson

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[9] *See* Nantahala agreement, section 6.4, and Tuckasegee agreement, section 6.4, in Appendix B to the Dillsboro surrender application.

[10] The Dillsboro surrender application includes, in appendices: the two settlement agreements, the two consensus agreements from which the settlement agreements were developed, and Duke's Removal and Restoration Plan.

[11] On June 4, 2004, the Commission also issued a public notice of the settlement agreements in the Dillsboro subsequent license proceeding, and in the relicense proceedings for Nantahala, East Fork, West Fork, Bryson, Franklin, and Mission, of the Tuckaseegee and Nantahala agreements. The notice did not set a deadline for interventions with respect to the agreements, but set deadlines of June 24, 2004, for comments, and July 6, 2004, for replies.

[12] Western North Carolina Alliance (Western Alliance); Jackson County Government (Jackson County); Town of Dillsboro; and Dillsboro Inn and T.J. Walker, and Jackson County Recreation Department Advisory Board (Jackson Recreation) filed late motions to intervene in the subsequent license proceeding. None of the movants requested late intervention or submitted any of the information required under 18 C.F.R. § 385.214(d) (2006), to support late intervention. Therefore, these motions are denied. However, that denial will have no impact on the parties' abilities to participate in this proceeding since they all timely intervened here.

Conservation; Western North Carolina Alliance (Western Alliance); Town of Dillsboro; Dillsboro Inn and T.J. Walker; and American Rivers. Jackson County Government (Jackson County) and Jackson County Recreation Department Advisory Board (Jackson Recreation) filed timely motions for intervention and protest. In addition, notice issued on March 28, 2005, granted late motions for intervention that had been filed by Clifton Corporation; the Friends of Lake Glenville Association, Inc.(FOLGA); Macon County, North Carolina (Macon County) and the Town of Franklin, North Carolina (Franklin) (jointly); and by Jackson County, Jackson Conservation, and Macon County, the Town (jointly).[13]

12. On June 16, 2005, a group of municipal and local entities (community commenters) filed comments styled as a "preferred settlement agreement" (community proposals)[14] 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 Dillsboro Project to Jackson County or its designee as a charitable contribution; and (3) substitution of a payment of $500,000 for off-site river restoration in lieu of the removal of the Dillsboro Dam.[15]

[13] Apparently, Jackson County and Jackson Conservation were among the movants in this joint motion even though they previously had filed timely interventions.

[14] The pleading is unilateral and is a settlement agreement in name only. Neither Duke, the licensee, nor any of the federal and state resource agencies that have played a major role in the Dillsboro surrender are parties to it. In the context of hydropower license proceedings, a "settlement" that is not supported by the licensee or any of the resource agencies with jurisdiction in the matter is not truly a settlement, but is rather simply a recitation of the filer's position in the case. *See Erie Boulevard Hydropower, L.P.*, 117 FERC ¶ 61,189 at P 63 (2006). This does not mean that we will not consider and, where appropriate, adopt recommendations made by entities other than the licensee or the resource agencies. Indeed, in this instance, the community commenters' recommendations were considered in the final environmental assessment for the project, and are discussed in this order, *infra*.

[15] The community commenters are Jackson County; Jackson Conservation; Jackson Recreation; Jackson County Greenway Commission; Macon County; Franklin; the Town of Webster, North Carolina (Webster); Dillsboro Inn and T.J. Walker; FOLGA; Glenville Community Development Club; Cullowhee Falls, Inc.; and Cullowhee Forest Property Owners Association, Inc.

13. On May 10, 2006, the Commission issued a draft environmental assessment (EA) for the surrender of Dillsboro, and the relicensing of East Fork, West Fork, and Bryson. Comments were submitted by numerous entities and individuals,[16] and a final EA was issued on July 14, 2006.

14. For the reasons discussed below, we accept the surrender of Duke's license. Duke's proposals concerning removal of project works and associated protection and mitigation measures are adopted, with the modifications set forth in this order, as requirements of the surrender. Because Duke's surrender of its license is accepted, its application for a subsequent license is dismissed.

Discussion

A. Project Surrender

15. Duke proposes to remove the powerhouse and dam in three stages. In the first stage, which will take approximately four to five weeks, it will: (a) dismantle or demolish the powerhouse superstructure[17]and machinery; (b) remove the left training wall in the tailrace;[18] and (c) raise or remove the headgates to the powerhouse to allow maximum flow through the remaining powerhouse substructure.[19] Duke proposes to begin the second stage – dam demolition – in early January, and complete dam removal by late March or early April. In this stage, it intends to: (a) draw down the Dillsboro

[16] Interior; FWS; BIA; United States Department of Agriculture; Forest Service; United States Geological Survey; South Yatkin Power; T.J. Krueger; the Cherokees; North Carolina WRC; Western Alliance; American Whitewater; American Rivers FOLGA; Charles Taylor; Jackson County; Shane Williams; Michael Bamford; Susan & David Caples; Helen Elizabeth Cook; Salvatore Castagna; Debbie Castagna; Duke Power; T.J.Walker; Richard & Ellen Boyd; Richard C. Becherer; Phillip Fowler; Sandi Eichhorn; T.J. Krueger; Mike & Ann Bober; Kevin Killilea; Oscar Towler; Amy Major; Marti Garza; H.J. Eichhorn; Claire Stiles; Doug Odell; Robert Riordan; NCWRC; Roger Scovil; EBCI; Bill Gibson; Norene Quinn; Jerome Quinn; and Raymond Williams.

[17] The superstructure includes the portions of the powerhouse that are above water, such as the walls and roof.

[18] The training wall acts as a guide to direct water through the tailrace.

[19] The substructure refers to the portion of the powerhouse that is below water, and includes the project's turbines, generators, and concrete flumes.

reservoir by directing flows through the powerhouse; (b) create a notch in the right abutment of the dam adjacent to the powerhouse; and (c) excavate and remove the dam in three to four foot vertical sections.[20] Finally, in the third stage, which will take approximately four to five weeks, Duke will demolish and remove the powerhouse substructure. In connection with the substructure removal, Duke proposes to: (a) identify disposal sites; (b) demolish the concrete powerhouse substructure with an excavator; (c) dispose of concrete rubble and sediment; and (d) restore the site by seeding with native vegetation.

16. For environmental protection and mitigation, Duke proposes that, prior to removal of project works, it will relocate endangered Appalachian elktoe mussels from their current habitat, immediately downstream of the Dillsboro Project, to a habitat upstream of the project. Duke also proposes that, prior to removal of the powerhouse, it will install bat boxes in the vicinity of the project to replace habitat that will be lost to approximately 500 little brown bats that currently inhabit the powerhouse. In addition, Duke has stated that, in consultation with various federal and state agencies, [21] and the Eastern Band of Cherokee Indians (Cherokees), it will develop an environmental monitoring plan to: (1) document pre-removal conditions in order to establish pre-removal baseline conditions at the project; [22] (2) monitor environmental conditions during demolition to permit any necessary adjustment of demolition activities; [23] and (3) after removal, document that all

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[20] During the demolition process, the flow in the Tuckasegee River will, at various times and sometimes in combination, be diverted through the powerhouse substructure, passed through the notch in the dam, and/or passed over the partially demolished crest of the dam.

[21] Specifically, Duke proposes to consult with: North Carolina Wildlife; North Carolina DENR's Division of Water Quality (North Carolina DWQ) and Division of Water Resources (North Carolina DWR); the U.S. Army Corps of Engineers (Corps); and FWS.

[22] This will include information concerning water quantity and quality, aquatic resources, botanical and wildlife resources, cultural resources, recreational resources, and land use and aesthetic resources.

[23] Duke states that it will provide photographic documentation of removal conditions at several monitoring stations throughout the project, and conduct water quality sampling. It will monitor Appalachian elktoe mussel removal techniques, placement of the mussel in new habitat, and individual mussel survival. It will also monitor bank erosion, and the use by little brown bats of bat boxes to be installed in the vicinity of the powerhouse. The monitoring plan will also provide, upon initiation of

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conditions of the surrender have been satisfied.[24] It notes that, as agreed in the Nantahala and Tuckasegee agreements, it will obtain the Commission's approval of the environmental monitoring plan.

17. In the final EA, staff concluded that project removal will benefit environmental resources by restoring natural conditions within a 0.8 mile segment of the Tuckasegee River, and providing fish access to 9.5 miles of river that previously were blocked to upstream movements. Upstream and downstream fish populations will no longer be separated. Mussel species which may rely on the upstream movement of fish to distribute juvenile mussels will benefit from the open river corridor. Thus, the removal will enhance aquatic resource distribution within the Tuckasegee River system, and species richness of upstream areas.[25] The resulting free flow of the river will also improve recreational opportunities for whitewater boating and riverine angling.[26] Furthermore, the restoration of riparian habitat could create new wetland areas, and thereby enhance terrestrial habitat.[27] Finally, as conditioned herein, removal of the Dillsboro Project works will be accomplished in such a manner as to adequately protect the endangered Appalachian elktoe mussel (and in fact new mussel habitat will be created and disjunctive populations previously separated by the Dillsboro dam will be able to join),[28] and proposed mitigation for the displacement of the little brown bats is

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dam removal and subsequent drawdown of the project reservoir, for the Cherokee Tribal Historic Preservation Officer to monitor for the exposure of any resources of cultural significance.

[24] After dam removal, Duke states that it will document: physical stream changes; bank and sediment stabilization and revegetation; upstream and downstream changes in aquatic life; Ephemeroptera-mayflies, Plecoptera-stoneflies, and trichopteracaddisflies' population**;** changes in dissolved oxygen, pH, and temperature; changes in riparian areas; and the relocated mussel population. Duke also states that, as agreed in the Nantahala and Tuckasegee agreements, it will fund two years of post-removal restoration and monitoring following completion of dam removal.

[25] *See* EA at 48-49.

[26] *See id.* at 278.

[27] *See id.* at 182-83.

[28] *See id.* at 191.

appropriate.[29] On the other hand, only a very small amount of energy (0.225 megawatts) will be lost as a result of decommissioning the Dillsboro Project.

18. We conclude that surrendering the Dillsboro license and decommissioning the project are best adapted to the comprehensive development of the Tuckasegee River. Further, Duke's proposed plans for decommissioning and for environmental monitoring provide an acceptable general scheme for project removal and we accept them, as modified herein. To ensure that the removal is adequately and safely conducted, this order requires Duke to file with the Commission detailed plans and specifications and other preconstruction documents before commencing removal of project works.[30] Removal activities may not begin until the Commission's Division of Dam Safety and Inspection, Atlanta Regional Office, has determined that all preconstruction requirements have been satisfied.[31]

19. Finally, Duke proposes to continue operating the Dillsboro Project under the terms of the current license until it commences removal of the project works. We will authorize Duke to do so, conditioned on Duke meeting the deadlines that we are here approving for submission of plans and specifications, and commencement of removal.

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[29] *See id.* at 194.

[30] Specifically, Duke will be required, based on consultation with appropriate, specified agencies, to file with the Commission: (1) plans and specifications detailing the sequence of activities and a schedule (with date-specific commencement and completion deadlines) for retirement activities (ordering paragraph (D)); (2) a detailed sediment management plan that includes monitoring of sediment transport prior to removal, during removal, and after removal of the project features and stream restoration (ordering paragraph (H)); (3) a final site restoration plan providing for revegetation of exposed areas and areas in need of stabilization with native species of vegetation (ordering paragraph (E)); (4) a relocation and monitoring plan for the Appalachian elktoe based on the mussel relocation methods described in the appendix to FWS's Biological Opinon, filed August 14, 2006, in this proceeding (ordering paragraph (F)); and (5) prior to demolition of the powerhouse, a plan for design, construction and installation of bat boxes suitable for the species displaced by the powerhouse removal, and for monitoring of the bat boxes after the removal (ordering paragraph (G)). After removal has been completed, Duke must document that it has left the site in a safe and stable condition (ordering paragraph (P)).

[31] *See* ordering paragraph (D).

B. Specific Issues

1. Sediment Removal and Schedule for Demolition of Dam and Powerhouse

20. Generally, the time frames for the surrender process – four to five weeks for removal of the powerhouse superstructure, three to four months for removal of the dam, four to five weeks for removal of the powerhouse substructure and site restoration, followed by a two year period of monitoring to be sure that the restoration is adequate – appear reasonable.[32] However, Duke's proposal to demolish the dam in January during high flows is in conflict with FWS's Incidental Take Term and Condition No. 9, [33] which requires that the dam be demolished during low flows, and with which we are in agreement.

21. As previously noted, there are an estimated 100,000 to 120,000 cubic yards of sediment in the project reservoir. Duke favors removing the dam during high flows in order to flush the sediment downstream. However, a large release of sediments from the project could cause many ecological problems downstream. Depending on the grain size of the sediment, mussel beds could be smothered; and insect larvae, and fish eggs or larvae could be buried by the sediments. Furthermore, suspended sediments could cause gill erosion in fish. Pool habitat could be filled in. Accordingly, and consistent with Condition No. 9, we will require that the licensee conduct sediment removal and dam removal during low flows, and that it ensure that any remaining sediment is stabilized in place to prevent resuspension in the river.

2. The Dillsboro Terms of the Nantahala and Tuckasegee Agreements

22. While Duke included a section in its surrender application setting out its view of the role of the Dillsboro license surrender in relation to relicensing of other projects included in the Nantahala and Tuckasegee agreements,[34] it is not clear whether Duke

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[32] Duke stated that it would fund two years of post-removal monitoring, but noted that total monitoring might be open-ended, requiring indeterminate additional years to complete. We will not require open-ended monitoring since it could either delay effectiveness of surrender or occur after surrender, when the Commission would no longer have authority to enforce it.

[33] *See* Appendix B.

[34] *See* Final Dillsboro Surrender Application, section 2.2.

intended this merely to set out the context in which it was filing its surrender proposal, or to be a part of its surrender proposal. To the degree that Duke may have intended the terms of the Nantahala and Tuckasegee agreements[35] to be a part of its surrender proposal, we provide below our responses to some of the specific proposals.

23. The agreements provide for Duke to convey an interest in all its property associated with the Dillsboro Project, either to the Town of Dillsboro -- or, if the town does not want it – to Jackson County.[36] The agreements also provide for the pursuit of some cost-share funding and in-kind service partnerships to minimize costs of the removal and for compensation to various entities by Duke for its cost savings.[37] Finally, under the agreements, Duke has agreed to provide the Town of Dillsboro a written account of the dam removal process, including a summary of expected benefits, within one year following completion of project removal, site restoration, and monitoring.

24. While these terms of the agreement do not conflict with the FPA and the parties may agree to them as a matter of private contract, we will not adopt them as requirements of the surrender. While Duke is free to convey its property to the town or the county there has been no showing that the public interest requires such an action. With respect to cost-sharing and cost-caps, we have made clear that we look only to our licensees for full performance of all license requirements.[38] Finally, while Duke is free to provide a written report to the town, we see no basis for making this a surrender requirement.

25. Duke also agreed to provide a public boat launch and gravel parking area in the vicinity of the Tuckasegee Water and Sewer Authority's property, just upstream of the current location of the Dillsboro Project's reservoir, and outside the current project boundary. We will adopt Duke's proposal to construct the boat launch and parking area as a requirement of the surrender since the construction is a one-time measure that can be completed before the surrender becomes effective.[39] However, we will not require

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[35] *See, especially,* Nantahala agreement, section 6.4, and Tuckasegee agreement, section 6.4.

[36] *See* section 6.4(5) and (6) of the Nantahala agreement, and section 6.4(5) and (6) of the Tuckasegee agreement.

[37] *See* Nantahala agreement, section 6.4(9) – (11).

[38] *See Alcoa Power Generating, Inc.*, 110 FERC ¶ 61,056 at P 31 (2005).

[39] *See* ordering paragraph (O).

maintenance of these sites, since maintenance would continue after the surrender becomes effective, when the Commission would no longer have authority to enforce it.

26. Finally, Duke agreed to complete "dam removal and powerhouse closure/disposition" within three years of the Commission's "final" surrender order,[40] and to complete post-removal stream restoration and annual monitoring within two years following completion of dam removal. We clarify that the referenced three years for closure and "disposition" includes both the removal of project works and the two years of monitoring.

3. Community Proposals/Comments

27. Community parties argue that the Dillsboro Project should be relicensed, and/or transferred to Jackson County or its designee as a charitable contribution; and that Duke should pay for off-site river restoration in lieu of removing of the Dillsboro Dam.

28. A licensee cannot be required to retain or renew its license if it wishes to surrender it.[41] Likewise, the Commission cannot compel a transfer,[42] and in any case, no entity developed a transfer proposal, [43] nor has Duke expressed any interest in one.

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[40] Commission orders are final unless a request for rehearing is filed within 30 days from the date of the order's issuance, as provided in section 313(a) of the FPA. Filing of a request for rehearing during the 30-day period does not operate as a stay of the effective date of an order except as specifically ordered by the Commission. Thus the deadlines for implementation of the project's retirement are tied to the date of issuance of this order. *See* ordering paragraphs, *infra*.

[41] *See Arizona Public Service Company*, 109 FERC ¶ 61,036 at P39 and n. 34 (2004). That fact, however, does not guarantee that surrender or project decommissioning will be approved. The alternative of continued project operation is considered in a surrender proceeding, even if actual relicense applications are not. *See PacifiCorp*, 97 FERC ¶ 61,348 at 62,627 n.24 (2001). In this instance, continued project operation was considered as the no action alternative in the draft and final EAs.

[42] *See Wellesley Rosewood Maynard Mills, L.P.*, 108 FERC ¶ 61,048 (2004).

[43] The Clifton Corporation proposed, in its comment, that the project be transferred to it, but acknowledged that it had not yet even conducted an evaluation of the facility.

29. The Dillsboro Inn and Mr. Walker have argued that removal of the powerhouse and dam will adversely affect aesthetics and the socio-economics of the area. They state that the aesthetic value of the dam from the white-sounds and view of water flowing over it are a significant draw for tourism for the Dillsboro Inn, the Town of Dillsboro and adjacent cities. They also note that the reservoir is part of a 10-mile-long segment of a catch and release cold water fishery rated as the best trout fishery in the state, and argue that removal of the dam will adversely affect the fishery by removing the divider between the warm and cold water fisheries. They further maintain that the river segment is likely to be heavily braided with sediment chokes and shallow water as a result of dam removal, and that these various effects on aesthetics and fisheries will lessen local tourism. Finally, they argue that the cessation of power generation will adversely affect the economics of the Town of Dillsboro and adjacent communities.

30. We conclude that project removal will not adversely affect aesthetics and other recreational values. The dam is located in an area characterized by a rocky bedrock channel with rapids, shoals, and pools, and has an average gradient of about 15 feet per mile.[44] After removal of the dam, creation of riffle pools could allow water to flow over the rocky bedrock and through the associated pools and rapids unrestricted,[45] creating a visual and auditory aesthetic experience comparable to that created by the project's dam. Furthermore, water currently flows over the dam primarily during the fall and winter months, outside the main part of the tourist season.[46] After dam removal, the flow and its associated visual and auditory experience will be able to occur unrestricted year-round, rather than simply during the off-tourist season.

31. A 4.5-mile-long Dillsboro section of the Tuckasegee River below the Dillsboro dam is generally characterized as Class II whitewater.[47] While, currently, access to this whitewater is only available downstream of the dam, the dam's removal will add a mile

[44] *See* EA at 225.

[45] *See id.* at 216.

[46] *Id.*

[47] *See id.* at 226. These classifications are based on the American Whitewater Scale of River Difficulty, under which Class I (easy) refers to fast moving water with riffles and small waves; and Class II (novice), refers to straightforward rapids with wide, clear channels that are evident without scouting.

of free-flowing water to the river, increasing opportunities for whitewater boating, canoeing, and kayaking.[48]

32. Finally, the removal of the dam will not adversely affect the trout fishery located upstream of the dam. Rather, once the dam is removed, the upstream trout fishery will have an opportunity to extend downstream, and the marginal fishing opportunity that the sediment-filled reservoir currently permits will be replaced by a stream fishing area.[49] Therefore, removal of the dam should have only a limited effect on the socio-economics of the area. Indeed, the area may see an increase in recreational activity after the dam is removed.

Statutory Requirements

A. Water Quality Certification

33. Under Section 401(a)(1) of the Clean Water Act (CWA),[50] any applicant for a federal license or permit for an activity that may result in a discharge into United States waters must 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. The Commission may therefore not approve or accept the surrender of the Dillsboro license unless and until the state certifying agency has either issued water quality certification for the action or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year.

34. In this instance the certifying agency is the North Carolina DWQ. On March 17, 2005, Duke applied to the North Carolina DWQ for water quality certification. The North Carolina DWQ certification was issued on May 15, 2005, and filed with the Commission on May 24, 2005.

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[48] Furthermore, the current site for boat access, located downstream of the dam, is frequently congested and parking is inadequate during the summer months. As a condition of the surrender, Duke will construct a boat launch and gravel parking lot upstream, which will give whitewater boaters and others greater access to the river. *See* EA at 226.

[49] *See* EA at 276-77.

[50] 33 U.S.C. § 1341(a)(1) (2000).

35. The certification contains conditions related to removal of project facilities, including requirements that: (1) erosion and sediment control practices and measures comply with the North Carolina Sediment and Erosion Control Planning and Design Manual, the North Carolina Sediment and Erosion Control Manual, the North Carolina Surface Mining Manual, and the Sedimentation Pollution Control Act; (2) all construction activities be performed so that no violations of state water quality standards, statutes, or rules occur; (3) to the maximum extent possible, sediment and erosion control devices not be placed in wetlands or waters; (4) if a section 404 permit is needed,[51] (a) the licensee obtain it from the U.S. Army Corps of Engineers (Corps) before removing the Dillsboro dam, and (b) if the Corps determines that a section 404 permit is not needed, the licensee submit a detailed dam removal and monitoring plan for written approval by North Carolina DWQ before the dam is removed. The certification also reserves the authority of North Carolina DWQ to modify the certification if it determines that state water quality standards are not being met, that state or federal law is being violated, or that further conditions are necessary to assure compliance.

36. The water quality certification conditions are set out in Appendix A. Compliance with Appendix A is required by ordering paragraph (D).

B. Endangered Species Act

1. Incidental Take Terms and Conditions

37. Section 7(a)(2) of the Endangered Species Act of 1973 (ESA)[52] requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of designated critical habitat.

38. Based on its biological assessment (BA) included in the draft EA, Commission staff concluded that surrender of the Dillsboro license and removal of the project will not be likely to adversely affect the federally endangered Indiana bat, and will not be likely to adversely affect the federally endangered Appalachian elktoe mussel.[53]

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[51] 33 U.S.C. § 1344 (2000).

[52] 16 U.S.C. § 1536(a)(2) (2000).

[53] 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. *See* EA at 41.

39. Staff found no evidence of the Indiana bat in the area of the Dillsboro Project and determined that the area lacks the requisite habitat for that species. Staff also concluded that relocating the Appalachian elktoe mussel from immediately downstream of Dillsboro dam to an upstream location prior to commencing removal of project facilities would minimize the effects of dam removal on the mussel and its critical habitat, and that removal of the project's dam will benefit the Appalachian elktoe mussel by reconnecting the sub-populations that have been separated by the dam. [54]

40. Accordingly, on May 17, 2006, staff sent its BA and a letter to FWS, requesting concurrence with staff's determination that continued project operation would not adversely affect the Indiana bat, and the Appalachian elktoe mussel.

41. On August 14, 2006, FWS filed its Biological Opinion of the Effects of New Major Licenses for the East Fork and West Fork Projects, a Subsequent License for the Bryson Project, and the Application for License Surrender for the Dillsboro Project (BO). In its cover letter, FWS stated that the proposed action will have no impacts on the Indiana bat, and concluded that the requirements under section 7 of the ESA are fulfilled with regard to this species.

42. With regard to the Appalachian elktoe mussel, FWS determined that the proposed surrender of the Dillsboro Project's license and removal of the dam and associated facilities, with the measures identified in the final EA and the Commission staff's BA, is not likely to jeopardize the continued existence of the Appalachian elktoe mussel, nor adversely affect or destroy its critical habitat. To ensure that any incidental take of the Appalachian elktoe mussels is authorized,[55] FWS identified reasonable and prudent measures to avoid or minimize incidental take, as well as terms and conditions to implement those measures.

[54] *See* EA at 191-92.

[55] FWS found that incidental take of the Appalachian elktoe mussels may occur as a result of demolition activities associated with the decommissioning and removal of the Dillsboro dam. Specfically, during demolition, individual mussels may be crushed, harmed by siltation or other water quality degradation, or dislocated because of physical changes in their habitat.

43. The terms and conditions of the BO are set out in Appendix B, and those addressing the Dillsboro Project are adopted as conditions of this order by ordering paragraph (I).[56]

2. Conservation Measures

44. Under section 7(a)(1) of the ESA, FWS, when reviewing a federal action, may recommend conservation measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat. Such recommendations are advisory only. In this instance, FWS recommended the implementation of several conservation measures. The recommended conservation measures are broad and open-ended, requiring continued Commission oversight after surrender is effective and the Commission no longer has jurisdiction.[57] Moreover, the incidental take terms and conditions previously discussed will adequately protect the species at issue. Accordingly, we will not adopt these measures as requirements of the Dillsboro surrender.[58]

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[56] Because the Dillsboro surrender application originally was being considered in the same proceeding with the relicensing of the East Fork, West Fork, and Bryson projects, staff's EA, BA, and letter requesting concurrence addressed the effects on endangered species and habitat of East Fork, West Fork, and Bryson as well as the effects of Dillsboro. Consequently, FWS's BO addressed the effects of all four projects and some of its terms and conditions relate to East Fork, West Fork or Bryson, not to Dillsboro. Since this order addresses only the Dillsboro surrender, we adopt only the terms and conditions related to the surrender. In addition, we note that, while Duke will be responsible for taking the actions required by the BO, subject to our oversight, some of FWS's terms appear to require actions by the Commission. Accordingly, we have eliminated the references to "FERC" in Appendix B, where appropriate.

[57] Recommendations 1 and 6 relate to funding of additional research to better understand the distribution and viability of the Appalachian elktoe mussel population in the Tuckasegee River, generally. Conditions 2, 3, and 4 provide for promotion of education about the mussels and their conservation, pursuit of additional buffers and conservation along the main stem of the Tuckasegee River and its tributaries, and working with local and state water quality officials to minimize or eliminate wastewater and storm-water discharges into the river. Conditions 5 and 7 do not relate to Dillsboro but, respectively, to Bryson, and to East Fork and West Fork.

[58] Where applicable, FWS's recommended conservation measures may be considered in the relicense proceedings for East Fork, West Fork, and Bryson.

C. Section 106 of the National Historic Preservation Act

45. Under section 106 of the National Historic Preservation Act (NHPA), [59] the Commission must take into account the effects of its actions on properties included in or eligible for the National Register of Historic Places (National Register) and, prior to taking action on a proposed undertaking, afford the Advisory Council on Historic Preservation (Council) a reasonable opportunity to comment.[60] Such comment generally entails consultation with the State Historic Preservation Officer (SHPO), the Advisory Council, and additional consulting entities, including the license applicant and Indian tribes,[61] local governments, and members of the public.

46. If a federal agency determines that the undertaking will have an adverse effect on historic properties, and the federal agency and the SHPO agree on how adverse effects will be resolved, they execute a Memorandum of Agreement (MOA) addressing potential adverse effects and the actions to be taken to mitigate them, and submit a copy of their executed agreement along with documentation, to the Council before approving the undertaking.[62]

47. The area of potential effects for the Dillsboro Project encompasses all the lands within the project boundary, including lands inundated by the project's reservoir, the shoreline of the reservoir, the land surrounding the project structures, and the construction area needed to remove the powerhouse and dam. The Dillsboro powerhouse and dam are historic properties. The proposed undertaking is the demolition and removal of the powerhouse and dam. Consequently, demolition and removal of these structures would have an adverse effect on historic properties within the area of potential effects.

48. There are no known archaeological sites within the flood pool or shoreline.[63] However, the Eastern Band of Cherokee Indians' Tribal Historical Preservation Officer

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[59] 16 U.S.C. § 470f (2000).

[60] *See* 36 C.F.R. § 800.1(a)(2006).

[61] The Cherokees participated in the consultation in this proceeding.

[62] 36 C.F.R. § 800.6(b)(1) (2006).

[63] In a letter dated December 16, 1999, the North Carolina SHPO stated that there were no known sites, nor was it likely that any sites would be discovered, and that the licensee did not need to conduct an archaeological survey at the project.

(THPO) indicated a belief that such properties may exist at the Dillsboro Project along the original shorelines and landforms currently inundated by the project's impoundment.

49. The Commission's Office of Energy Projects and the North Carolina SHPO developed an MOA setting out requirements to address adverse effects.[64] A draft of the MOA was submitted to the Council with a letter noting that if the Council did not respond, it would be assumed that the Council had concluded consultation with it to resolve adverse effects was not needed. The Commission and the North Carolina SHPO executed the MOA on September 19, 2006, and Duke signed as a concurring party.[65] A copy of the executed MOA and relevant documentation were submitted to the Council. The MOA is adopted by ordering paragraph (N).

Conclusion

50. Although removal of the Dillsboro Project will have short-term environmental impacts and result in a loss of 0.225 MW of capacity, as discussed herein, 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.

The Commission orders:

(A) Duke Energy Carolinas, LLC's application for a subsequent license for the Dillsboro Hydroelectric Project No. 2602, filed July 22, 2003, is dismissed.

(B) Duke Energy Carolinas, LLC's application for surrender of license for the Dillsboro Hydroelectric Project No. 2602, filed May 28, 2004, is granted as modified in this order. The surrender shall become effective upon issuance of a Commission notice

[64] The MOA requires the licensee, in consultation with the North Carolina SHPO and the THPO to prepare an Historic American Buildings Survey/Historic American Engineering Record of the dam and powerhouse; to monitor areas exposed upon initiation of dam or powerhouse demolition for any archaeological sites within the area of potential effects, and document the sites; and, once demolition of the dam is completed, to conduct a one-time Phase I survey to document any currently unknown historic properties.

[65] The THPO did not sign as a concurring party but, on August 4, 2006, filed a letter stating that the draft MOA is acceptable.

that all of the surrender conditions specified below, including the Regional Engineer's review of project removal and site restoration, and all monitoring requirements, have been satisfied.

(C) The removal of project facilities and project site restoration authorized by this order is subject to and conditioned by the water quality certification issued on May 15, 2005, by the North Carolina Department of Environment and Natural Resources, Division of Water Quality, contained in Appendix A to this order.

(D) At least 60 days before starting removal of the project works, the licensee shall submit one copy of the following documents to the Commission's Division of Dam Safety and Inspections (D2SI) –Atlanta Regional Office, and two copies to the Commission (one of these shall be a copy to the Director, D2SI): (1) a detailed description of the sequence of activities and schedule for removing the project features and restoring the site; (2) final contract plans and specifications; (3) Quality Control and Inspection Program; (4) Temporary Construction Emergency Action Plan; (5) a blasting plan, if necessary; (6) a public safety plan for the period during removal activities; and (7) a detailed erosion and sediment control plan. that includes but is not limited to descriptions and locations of the erosion and sediment control measures to be implemented during removal of the project features and site restoration, to also include deconstruction staging areas, access locations, and sediment and debris disposal areas.

The licensee shall prepare these plans after consultation with the North Carolina Division of Water Quality, North Carolina Division of Water Resources, North Carolina Wildlife Resources Commission, U.S. Fish and Wildlife Service, North Carolina Department of Environment and Natural Resources, and the Eastern Band of Cherokee Indians. The licensee shall include with the plans documentation of consultation, copies of comments and recommendations on the completed plans, and specific descriptions of how the comments are accommodated by the plans. The licensee shall allow a minimum of 30 days for the parties to comment and to make recommendations before filing the plans with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The licensee may not begin removal activities until the D2SI-Atlanta Regional Office has reviewed the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized start of removal activities.

(E) At least 60 days before the start of removal operations, the licensee shall file for Commission approval, a detailed, site-specific final restoration plan. The plan shall include, but shall not be limited to: (1) documentation of pre-removal site conditions to establish baseline conditions; (2) measures for revegetation of exposed areas, areas with a

high potential for erosion, and areas in need of stabilization with native vegetative species and biodegradable geotextile fabric; (3) a two year period of monitoring to be sure that the site restoration is effective; and (4) a schedule for implementing the plan.

The licensee shall prepare the plan after consultation with the North Carolina Wildlife Resource Commission and Jackson County. The licensee shall include with the plan documentation of consultation, copies of agency comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to 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.

The Commission reserves the right to require changes to the plan. 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, including any changes required by the Commission.

A copy of the approved plan shall be sent to the Commission's Division of Dam Safety and Inspections-Atlanta Regional Office Regional Engineer and to the Director, Division of Dam Safety and Inspections.

(F) At least 60 days before relocating the Appalachian elktoe mussel, the licensee shall file for Commission approval a relocation plan, based on a detailed survey of project tailwaters. Any relocation site developed under the plan shall: (1) reflect the existing habitat (substrate and velocity) and water quality; (2) minimize the time that mussels are exposed to extreme conditions (*e.g.*, out-of-water exposures, air temperatures, sunlight) during relocation; and (3) avoid overcrowding by creating densities similar to those calculated from the original location. The plan shall, at a minimum, provide for: (1) a lay out of a sampling grid; (2) conducting sequential depletion surveys; (3) capturing the mussels from below the dam and relocating them to the upstream shoal area, where a population of mussels already reside; (4) a delineation and recording of the relocation site boundaries using global positioning system technology; and (5) a permanent demarcation of the relocated mussels for future monitoring. If relocated mussels do not survive, or if downstream populations are adversely affected by dam demolition, restoration of lost populations shall include juvenile propagation and/or release of host fish that are encysted with Appalachian elktoe glochidia.

The Commission reserves the right to require changes to the plan. 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, including any changes required by the Commission.

A copy of the approved plan shall be sent to the Commission's Division of Dam Safety and Inspections-Atlanta Regional Office Regional Engineer and to the Director, Division of Dam Safety and Inspections.

(G) At least 60 days before the start of removal operations, the licensee shall file with the Commission, for approval, a plan to relocate bats from the powerhouse. The plan shall provide for: (1) construction of two bat houses in the nearby vicinity prior to dismantling of the powerhouse; (2) netting and removal of remaining bats from the powerhouse during dismantling, if needed; (3) preservation of potential roost sites for bats displaced from the powerhouse by minimizing the destruction of or harvesting of any trees along the project reservoir; and (4) monitoring of the bat houses at regular intervals from the time of on-site placement until two years after removal of the project is completed.

The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service and the North Carolina Wildlife Resource Commission. The licensee shall include with the plan documentation of consultation, copies of agency 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 to 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.

The Commission reserves the right to require changes to the plan. 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, including any changes required by the Commission.

A copy of the approved plan shall be sent to the Commission's Division of Dam Safety and Inspections-Atlanta Regional Office Regional Engineer and to the Director, Division of Dam Safety and Inspections.

(H) At least 60 days before starting any removal operations, the licensee shall file with the Commission, for approval, a detailed Sediment Management Plan. The Sediment Management Plan shall address the following measures: (1) minimizing

sediment erosion and transport downstream of the dam during the draining of the reservoir; (2) pausing demolition at the completion of the initial notch excavation and again at the completion of each 3 to 4 foot stage; (3) minimizing sediment erosion and transport downstream of the dam during the demolition process by controlled operational flows; (4) removal of sediment after the reservoir is lowered below the sediment surface, and removal of sediment from the forebay area to allow access to the powerhouse for demolition; (5) a best management plan to address local erosion and sediment stability issues at the completion of demolition; (6) proper disposal of removed sediment; and (7) stabilization of sediments left after removal while the site is revegetated.

The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, North Carolina Department of Environmental and Natural Resources, North Carolina Wildlife Resource Commission, North Carolina Division of Water Resources, and the North Carolina Division of Water Quality. The licensee shall include with the plan documentation of consultation, copies of agency comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to 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.

The Commission reserves the right to require changes to the plan. 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, including any changes required by the Commission.

A copy of the approved plan shall be sent to the Commission's Division of Dam Safety and Inspections-Atlanta Regional Office Regional Engineer and to the Director, Division of Dam Safety and Inspections.

(I) In all proposed actions involving construction in or near waterways, the licensee shall follow the construction practices contained in Appendix B of this order, which sets out the incidental take terms and conditions to implement reasonable and prudent measures of the U.S. Fish and Wildlife Service (FWS) to protect the Appalachian elktoe mussel.

(J) Before starting removal of the project works, the licensee shall review and approve the design of contractor-designed cofferdams and deep excavations and shall make sure construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days before starting construction of the cofferdam, the

licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections (D2SI) – Atlanta Regional Office and two copies to the Commission (one of these copies shall be a copy to the Director, D2SI), of the approved cofferdam construction drawings and specifications and the letters of approval.

(K) During removal activities, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections (D2SI) – Atlanta Regional Office and two copies to the Commission (one of these copies shall be a copy to the Director, D2SI), of monthly progress reports.

(L) At least 60 days before starting any removal operations, the licensee shall file with the Commission, for approval, a fish monitoring plan. The plan shall include measures for monitoring fish stranding within the impoundment during drawdown, and implementation of recovery measures in the reservoir reach for any fish stranded during the dam removal process. Monitoring fish stranding shall commence with the drawdown and continue until the reservoir is emptied.

The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, North Carolina Department of Environmental and Natural Resources, North Carolina Wildlife Resource Commission, North Carolina Division of Water Resources, and the North Carolina Division of Water Quality. The licensee shall include with the plan documentation of consultation, copies of agency comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to 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.

The Commission reserves the right to require changes to the plan. 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, including any changes required by the Commission.

A copy of the approved plan shall be sent to the Commission's Division of Dam Safety and Inspections-Atlanta Regional Office Regional Engineer and to the Director, Division of Dam Safety and Inspections.

(M) The licensee shall implement the "*Final Memorandum of Agreement Among the Federal Energy Regulatory Commission and the North Carolina State Historic Preservation Officer regarding the Surrender of License and the Removal of the Dam*

and Powerhouse for the Dillsboro Hydroelectric Project in Jackson County, North Carolina" executed on September 19, 2006.

(N) The licensee shall survey the areas surrounding the former impoundment and revegetate areas with a high potential for erosion with a conservation seed mix appropriate for the area to reduce the likelihood of colonization by invasive species. Within 60 days of draining the reservoir, the licensee shall file with the Commission a report describing its efforts to implement this requirement and indicate if and when any mitigative actions were taken.

(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 public boat launch and gravel parking area in the vicinity of the Tuckasegee Water and Sewer Authority's property.

The construction plan shall include, but not be limited to: (1) final designs of the boat launch and designated gravel parking area; (2) a schedule for the implementation of the facilities; (3) measures for soil erosion and sedimentation control during construction; and (4) a discussion of how the needs of the disabled were considered in the planning and design of each recreation facility.

The licensee shall prepare the construction plans after consultation with the North Carolina Department of Environment and Natural Resources, Jackson County and the Town of Dillsboro. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan, and specific descriptions of how the comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the parties to comment and to 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.

The Commission reserves the right to require changes to the plan. 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, including any changes required by the Commission.

A copy of the approved plan shall be sent to the Commission's Division of Dam Safety and Inspections-Atlanta Regional Office Regional Engineer and to the Director, Division of Dam Safety and Inspections.

(P) Within 30 days of completing project removal and site restoration, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections (D2SI) – Atlanta Regional Office and two copies to the Commission (one of these copies shall be a copy to the Director, D2SI), of a final report which demonstrates that the project facilities have been removed and the project site restored in accordance with the approved plans.

(Q) Authority is reserved to the Commission to modify the conditions of the surrender as may be required by changed circumstances.

(R) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days from issuance of this order, pursuant to section 313(a) of the Federal Power Act, 16 U.S.C. § 825(l). The licensee's failure to file a request for rehearing shall constitute acceptance of the terms of the surrender.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

APPENDIX A

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 Duke Power to surrender the hydroelectric license for the Dillsboro dam and powerhouse on the Tuckasegee River in the Little Tennessee River Basin, in Jackson County, North Carolina, pursuant to an application filed on the 17 day of May of 2005.

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 materials and as described in the Public Notice. 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:

<u>Sediment and Erosion Control</u>

1. 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.
d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.

2. 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 FERC Permit 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;

3. 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;

<u>Continuing Compliance:</u>

4. 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 Federal Energy Regulatory Commission, provide public notice in accordance with 1 5A 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, shall be provided to the Federal Energy Regulatory Commission for reference in any Permit issued by that agency and shall also become conditions of the FERC Permit for the project;

Other conditions:

5. It is understood that the surrender of this license and subsequent removal of the Dillsboro dam are necessary measures to provide compensatory mitigation for the unavoidable impact to other waters by the applicant for other hydroelectric relicensing projects t are being reviewed by the Division of Water Quality and other agency stakeholders. These projects may include Lake Glenville, Little Tuckasegee, Tanessee Creek, Wolf Creek, Cedar Cliff, Bear Lake, Nantahala, East and West Fork of the Tuckasegee River, Queens Creek and White Oak Creek.

6. The applicant must provide a detailed dam removal and monitoring plan with the submittal of a 401 Certification for the 404 Permit needed to physically remove the Dillsboro dam. If the U.S. Army Corps of Engineers determines that a 404 Permit (and subsequently a 401 Certification) is not needed for this dam removal, then the applicant must still submit a detailed dam removal and monitoring plan for written DWQ approval before the dam is removed. In either case, this plan must be based on the Final Environmental Assessment and Biological Assessment dated May 2004 as included in the application for 401 Certification.

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 FERC Permit.

APPENDIX B – Incidental Take Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the licensee must comply with the following terms and conditions, which implement the reasonable and prudent measures described previously and outline required reporting and/or monitoring requirements. These terms and conditions are nondiscretionary and apply to the Tuckasegee River subbasin.

1. The Licensee will notify the FWS at least 2 weeks in advance of demolition so that a biologist from our staff can be present at the preconstruction meeting to cover permit conditions and discuss any questions the contractor has regarding implementation of these measures in order to minimize impacts or to avoid the take of Appalachian elktoes.

2. The Licensee will ensure that a qualified aquatics biologist is present at critical times to monitor certain phases of demolition of the Dillsboro Dam, including, but not limited to, initial clearing, when any in-channel work is conducted, and when temporary work accesses are removed.

3. Upon completion of demolition of the Dillsboro Dam, the temporary access fills will be removed to the natural grade, and the area will be planted with native grasses and/or tree species as appropriate.

4. Activities in the floodplain will be limited to those absolutely necessary to conduct the demolition. Areas used for borrow, demolition, or construction by-products will not be located in wetlands or the 100-year floodplain. No stone or fill materials will be obtained or purchased from any unauthorized floodplain or in-channel sources.

5. All construction equipment should be refueled outside the 100-year floodplain or at least 200 feet from all water bodies (whichever distance is greater) and should be protected with secondary containment. Hazardous materials, fuel, lubricating oils, or other chemicals will be stored outside the 100-year floodplain or at least 200 feet from all water bodies (whichever distance is greater), preferably at an upland site.

6. Riparian vegetation, especially large trees, will be maintained within the Project boundaries to the maximum extent possible.

7. If riparian areas are disturbed, they will be revegetated with native woody species as soon as possible.

8. The relocation of mussels at the Dillsboro Dam and tailwater vicinity will occur during low flow (likely early summer), after Appalachian elktoe spawning; exact dates to be determined in consultation with the FWS and NCWRC.

9. Demolition of the Dillsboro Dam will occur during low flow (likely early summer), after Appalachian elktoe discharge of glochidia; exact dates to be determined in consultation with the FWS and NCWRC.

10. The Licensee will provide an opportunity for the FWS to review and approve the plans for mussel relocation, developed and implemented by FERC and its Licensee, for the Appalachian elktoe in the Tuckasegee River. The plan will detail appropriate collection methods, tagging and recapture, handling and transportation of individuals, relocation after demolition, and monitoring protocols.

11. The Licensee will provide a report to the FWS for each monitoring period outlined in the relocation plan. In addition, a complete report of the data taken during the relocation and a visual survey 1 month after relocation will be required.

12. The Licensee will develop a detailed demolition plan that addresses the timing, methods, and disposition for dam removal. Due diligence should be used to contain demolition materials and remove them from the river. A standard oil boom should be in place downstream of the dam prior to reservoir drawdown or any other attempts to remove the Project works with power equipment. Provisions should be made to dispose of any material collected on the boom.

13. Drawdown rates should not vary more than 20 percent from the inflow to the reservoir. During drawdown, the outflow of the reservoir should be no more than 20 percent above the inflow. We recommend that the Licensee maintain regular estimates of the total inflow to the reservoir base during drawdown and more often during upstream generation changes and/or precipitation events in the headwaters. If there are changes in the estimated inflow to the reservoir, the gates should be adjusted accordingly.

14. During drawdown, turbidity readings should be collected at two points and should be compared every quarter hour, one at the inflow to the reservoir and the other immediately downstream of the reservoir, probably upstream of Scotts Creek. We will then be able to detect increases in turbidity from within the reservoir. Increases of reservoir outflow greater than 20 NTU above reservoir inflow should

trigger a pause in the drawdown to allow fine sediments to settle and be removed. Additionally, a silt curtain should be used to contain sediment within the reservoir and immediately downstream. All sediments captured by the silt curtain will be removed to an approved location outside the stream.

15. Because no vegetation will be present on the newly exposed shoreline along the margins of the Dillsboro reservoir, appropriate measures should be taken (as it is exposed), to minimize the erosion of these disturbed areas, to stabilize them as soon as possible, and to establish vegetation as soon as these areas are ready for it. More than likely, the emerging slopes of the river valley would be stabilized and revegetated in bands as the water level is being lowered in the reservoir. Some erosion from these areas will occur in spite of the control measures, largely because vegetation will not provide its maximum protection until between 5 and 10 years after it was planted. In the interim, biodegradable fabrics should be used to stabilize the areas prone to slumping, caving, or subsidence until they can be stabilized with vegetation.

16. A plan for monitoring the physical characteristics of the river will be reviewed and agreed to by FERC and the FWS prior to the beginning of demolition, with enough lead time to record a baseline for the target parameters. The intent of the monitoring is to characterize any changes to mussel habitat as a result of the demolition and removal activities. Additionally, a decision to move the relocated mussels back to their original location will be based, in part, on the suitability of the habitat after demolition. This monitoring will provide critical information for making that decision.

17. The Licensee will provide a report to us for each monitoring period outlined in the monitoring plan detailed above.

18. Demolition cannot proceed until the FWS has approved the mussel relocation plan and sediment management plan.