YADKIN PROJECT (FERC No. 2197) RELICENSING NEGOTIATIONS

**AGREEMENT IN PRINCIPLE TO DEVELOP
A RELICENSING SETTLEMENT AGREEMENT
(June 23, 2006)**

Part I

A) Overview and Intent

1) Alcoa Power Generating Inc. (APGI) filed an Application for a Major New License (Application) for its Yadkin Hydroelectric Project (Project) (FERC Project No. 2197) with the Federal Energy Regulatory Commission (FERC) on April 25, 2006. Information on the ongoing impacts of the Project was developed through studies scoped and performed in the three-stage relicensing process and is included in the Application to FERC.

2) This Agreement in Principle (AIP) was developed by certain Authorized Representatives and Participants of Parties (as defined in the Yadkin Meetings and Negotiations Protocol and referred to herein collectively as "the Parties") involved in the relicensing of the Project. The intent of this AIP is to:

a) Provide an agreed on basis for the development of a comprehensive and legally enforceable relicensing settlement agreement (RSA), including draft license articles, to be submitted to FERC by December 31, 2006;
b) Outline all necessary protection, mitigation and enhancement (PME) measures to address Project effects related to the continuing operation of the Project that will be included in the RSA (with the exception of fish passage issues which are governed by a statutorily mandated process and, if agreed upon, will be addressed in a separate AIP that will be incorporated into the RSA); and
c) Provide the necessary assurances to APGI regarding future financial obligations and other licensing-related matters specifically addressed herein.

The Signatories to this AIP recognize and agree that the AIP is not legally binding and does not give rise to any enforceable rights in contract. This AIP outlines all the elements of an agreement among the Signatories that will be expressed in greater detail in a RSA which will be legally binding on its future signatories.

3) The Parties have negotiated this AIP with the intent that it will lead to a RSA that satisfies all legal obligations of all governmental agencies with statutory rights or duties regarding the Project and/or mandatory conditioning authority over the Project. The Signatories recognize that any Signatory that is also a governmental agency with statutory rights or obligations, including, but not limited to mandatory conditioning authority, must abide by all applicable procedural and substantive laws and rules in the exercise of such authority in order to issue lawful, mandatory conditions or recommendations, and such Party has not compromised its authority by agreeing in principle to terms and conditions that it may advocate before other Parties. Nothing in this AIP (e.g., Part I(A)(6)) or in a

subsequent RSA shall diminish, modify, or otherwise affect the statutory or regulatory authorities of the agencies involved, including those with mandatory conditioning authority.

4) Subject to paragraph 14(c) of this Part, all communications by Signatories to this AIP with FERC, including recommendations pursuant to Sections 10(a), 10(j) and 18 of the Federal Power Act (FPA), and all communications by Signatories to this AIP with the North Carolina Department of Environment and Natural Resources (NCDENR), including any of its divisions, regarding the water quality certification process shall be consistent with the commitments made in this AIP; provided that a Signatory is not bound with respect to fish passage unless it signs the related AIP on that issue. Consistent with paragraph 3 above, the Signatories understand that the certification process must follow certain procedures required by statutes and regulations, and there can be no assurance that the conditions in the final certificate issued by the North Carolina Division of Water Quality (NCDWQ) to the Licensee will conform to the commitments made in this AIP.

5) It is acknowledged by all Signatories to this AIP that the issuance by FERC or any governmental agency with jurisdiction and mandatory conditioning authority of any terms and conditions that materially increase the overall costs and burdens of the final RSA on any Party may give rise to a right for such Party to withdraw from the RSA after a timely dispute resolution process which will be set forth in the RSA; provided that FERC's inclusion of the following within APGI's New License shall not be construed as a material increase: a) standard license articles in the L-Form, b) language reserving FERC's authority throughout the license term to require changes to plans or other requirements of the Licensee relating to environmental or recreational issues, and c) any reopener clause (as opposed to actual terms and conditions that materially increase the overall costs and burdens of the final RSA) within the conditions of a mandatory conditioning authority.

6) The terms and conditions summarized in this AIP are intended as a comprehensive, although general, good faith offer toward settlement of issues related to relicensing of the Project, i.e., all of the issues that will be finalized in the RSA are addressed in this AIP at some level of detail. Therefore, except as allowed under paragraph 14(c) of this Part, Signatories to this AIP agree not to raise new or additional issues or issues that are not addressed in this AIP during the development of the RSA or before FERC; provided that a Signatory is not bound with respect to fish passage unless it signs the related AIP on that issue. The signatories to this AIP also acknowledge that this AIP is preliminary in nature and final settlement is contingent upon the development of a final RSA with detailed license condition language that is agreeable to the Signatories to this AIP and the final RSA will serve to define the specific terms, conditions, recommendations and comments that will be offered to FERC in lieu of the operating proposal and certain PME measures included in APGI's Application.

7) Once negotiations on the terms of this AIP have been completed, the AIP will be presented to the Parties for signature for a 30 day period. After the close of the signature period, those Parties that choose to sign this AIP may agree to modify the substantive provisions of the AIP to match the collective interests and needs of the actual AIP Signatories, which may include deletion of provisions beneficial to non-signatories. The signatories to this AIP anticipate that a similar process may be undertaken to modify the RSA to match the interests and needs of the RSA Signatories.

8) Final agreement to this AIP is subject to the review and approval of the management and/or board of directors of APGI and Alcoa Inc. Final agreement is also contingent upon

approval by the authorized management official of each Party that elects to consider signing this AIP.

9) The Signatories to this AIP acknowledge and agree to support APGI's efforts to achieve a comprehensive RSA for relicensing of the Project. In the event that a comprehensive RSA with all the Parties having claimed status under the Meetings and Negotiations Protocol cannot be reached, the Signatories to this AIP will pursue the development of a final RSA for the issues covered by this AIP. In the event that certain Signatories to this AIP elect not to sign a final RSA, the remaining Signatories to this AIP may develop and sign a final RSA. In that event, after giving written notice of their withdrawal, the non-signatories would be free to exercise any rights they may have before FERC or the courts.

10) The Signatories to this AIP understand that most of the substantive provisions of this AIP, once included in a RSA and accepted by FERC, will be enforceable as license articles by FERC, but that other provisions (as determined by FERC or a court of competent jurisdiction) may not be within FERC's jurisdiction. However, as the RSA will have the status of a contract among and between the Signatories, such other provisions (such as commitments of land) will be enforceable as a matter of contract law. The Signatories to this AIP acknowledge that the Signatories to the final RSA will have provided consideration for this contract by compromising rights and remedies they could assert before FERC in this relicensing proceeding. The Signatories to this AIP anticipate that the RSA shall also bind all Signatories to perform any commitments made by those entities.

11) In addition to the substantive provisions of the RSA addressing Project operations and PME proposals and specific draft license articles, the Signatories to this AIP agree that the final RSA should include, among other terms, the following standard terms and conditions necessary for a complete agreement: effective date of obligations, dispute resolution, force majeure, venue and controlling law, notices and communications, enforceability, actions upon execution, and signatory authority.

12) It is understood and acknowledged by the Signatories to this AIP that all rights necessary or desirable to operate, manage and maintain the Project and to engage in power and utility operations (consistent with this AIP) are reserved by APGI.

13) This AIP will become effective upon execution by the Signatories and will remain effective through December 31, 2006, or until:

a) A final RSA that supersedes this AIP is executed by some or all of the Signatories and filed at FERC, or
b) A date beyond December 31, 2006, is agreed to by the Signatories to allow continued efforts to develop a final RSA.

14) The Signatories to this AIP agree to the following procedural items with respect to FERC's relicensing process during the term of this AIP:

a) APGI will file this AIP along with an explanatory statement that provides a brief summary of efforts to date by the Parties to reach agreement, a brief summary of the AIP, and a request that FERC allow sufficient time for the Signatories to this AIP to negotiate and file a final RSA by December 31,

2006, unless such deadline is extended, if necessary, with concurrence by FERC that the modified submittal date is acceptable.

b) The Signatories to this AIP agree that once the signing period has closed and this AIP is finalized APGI will file this AIP with FERC. The Signatories further agree that the filing of this AIP with FERC does not violate the Meetings and Negotiations Protocol. Consistent with the Meetings and Negotiations Protocol, however, any statements made or positions taken whether orally or in writing during the negotiation of this AIP that are not included in this AIP are covered by the Meetings and Negotiations Protocol and shall remain confidential to the extent allowed by law. Furthermore, the Signatories to this AIP acknowledge that the Meetings and Negotiations Protocol provides that those Parties who choose not to sign this AIP (and who should follow the Protocol's withdrawal procedures) or sign the AIP but later withdraw from final settlement negotiations will continue to be bound by the confidentiality requirements (Section C.5) of the Protocol.

c) The Signatories to this AIP note that on June 9, 2006 FERC issued an "Errata Notice and Revised Schedule" providing corrections to its May 10 "Notice of Application Tendered for Filing" of APGI's Application. Among other things, the Errata Notice provided the opportunity for the Parties and other interested persons in the Yadkin relicensing to recommend additional scientific studies regarding APGI's application. All communications by Signatories to FERC related to this AIP shall be consistent with the terms and commitments in the AIP while it is effective, provided that in the interim, until the RSA replaces the AIP or December 31, 2006, whichever is sooner, the Signatories may file a protective intervention and reserve their rights to oppose the license or otherwise exercise their rights.

d) APGI will not oppose the intervention of any of the Signatories to this AIP in FERC's relicensing proceeding, provided such intervention is consistent with the terms of paragraph 14(c), above.

15) The Signatories to this AIP acknowledge that the new operating proposal and PME measures contained in this AIP will, once expressed in a new FERC License and in an RSA, increase APGI's costs during the new license term. The Signatories also acknowledge that APGI will use its good faith estimates listed in the attached table (Attachment 1) to define the costs of its commitments that can be and are capped and to illustrate the cost of its other commitments in any final settlement offer presented to FERC and/or in any State water quality certification proceeding. The Signatories also acknowledge that APGI will use the costs in the attached table (as may be amended in the RSA process) as a baseline to determine whether any subsequent FERC or State water quality certification action has materially increased the overall costs and burdens of the final RSA on APGI. This AIP does not bind other Signatories with respect to such use of the cost estimates.

All monetary amounts in this AIP and Attachment 1 are in 2006 U.S. Dollars, unless otherwise stated, and such sums which are to be escalated shall be escalated as of January 1 of each following year (beginning January 1, 2009) according to a formula based on the Gross Domestic Implicit Price Deflator, for the term of the new license.

B) Signature

The signing of this AIP is a good faith indication by the Signatories to this AIP that they support this AIP and commit to developing a final RSA with implementing draft license articles consistent with the terms of this AIP. By signing this AIP, the Signatories further agree that, upon agreement by a Party's negotiators to the final RSA, the Party's negotiators will advocate the RSA to his or her principal in order to secure the execution of that final RSA by such Party. It is understood and agreed that only Parties that are Signatories to this or a related AIP will be invited to participate in the drafting of the RSA and draft license articles to be submitted to FERC. Notwithstanding this commitment, the advocacy of a Party that is an agency with mandatory conditioning authority or a procedure required by law may be limited by section A(3) above.

C) Specific Project Operations and PME Provisions

The Signatories to this AIP believe that, for the purposes of outlining a final RSA, the following specific operations description and PME measures will adequately address resource issues and effects associated with the Project during the new license term; provided that fish passage will be addressed in a related AIP. The Signatories also anticipate that the RSA will include a binding commitment on behalf of all Signatories to the RSA to support the RSA, to the extent allowed by law, in all comments, conditions, filings and all other communications with FERC and all relevant state and federal agencies during the course of the relicensing proceeding.

Part II – Federal Energy Regulatory Commission (FERC) Related Issues

A) Project Reservoir Operations

1) Reservoir Operating Guides

a) High Rock

APGI will operate High Rock Reservoir in accordance with a guide curve such that the reservoir water level would be maintained within 4 feet (ft) of full (not below elevation 619.9 ft – all elevations are USGS datum) between April 1 and October 31 of each year, and within 10 ft of full (not below 613.9 ft) between November 1 and March 31 of each year, except as needed in order to maintain minimum flows, or as provided under the Low Inflow Protocol (LIP) or Hydro Project Maintenance and Emergency Protocol (HPMEP). The months of March and November will be utilized to transition between the 4 foot and 10 foot guides, with water levels increasing or decreasing, as applicable, generally along a straight line (Attachment 2). APGI can pass through the guide curve as needed to maintain downstream minimum flows or as provided under the LIP or HPMEP, but whenever the reservoir water level falls below the guide, APGI will reduce its generation at High Rock to the daily average flow equivalent of the minimum flow requirement at Falls plus up to 25% (up to 1250 cfs, 1875 cfs, or 2500 cfs, depending on the time of the year).

b) Tuckertown
APGI will operate Tuckertown Reservoir with reservoir fluctuations of 3 ft or less (not below elevation 561.7 ft), except as needed to meet minimum flows, or as provided in the HPMEP.

c) Narrows
APGI will operate Narrows Reservoir with reservoir fluctuations of 6.6 ft or less (not below elevation 503.2 ft). Further drawdowns may be necessary in order to maintain minimum flows, or as provided in the LIP or HPMEP.

d) Falls
APGI will operate Falls Reservoir with reservoir fluctuations of 4 ft or less (not below elevation 328.8 ft), except as needed to meet minimum flows, or as provided in the HPMEP.

2) Voluntary Reservoir Stabilization for Fish Spawning

APGI will continue its voluntary efforts to stabilize reservoir elevations during the spring spawning season April 15 – May 15 by endeavoring to maintain reservoir water levels no lower than -1.0 feet of the elevation of the reservoir on April 15. APGI's compliance with this effort will be demonstrated solely by reporting resulting reservoir water levels achieved at each reservoir during the spawning period in a letter to NC Wildlife Resources Commission (NCWRC) each year. The letter report will provide an explanation of any conditions encountered during that period that resulted in APGI not maintaining the target water levels.

B) Project Instream Flows (Downstream Flows)

1) Minimum Flows

APGI will operate the Project so as to provide a minimum flow from the Falls Development of 1000 cubic feet per second (cfs) from June 1 through January 31, 2000 cfs from February 1 through May 15, and 1500 cfs from May 16 through May 31, on a daily average basis. APGI will implement the required minimum flows no later than 6 months following the effective date of a new license.

APGI will monitor flows from both the Falls or Narrows and High Rock developments. At Falls, daily average flows within -5% of the applicable minimum (1000, 1500 or 2000 cfs, depending on the time of the year) will be allowed and will be considered compliant so long as the applicable minimum flow is achieved on a weekly average basis. APGI will develop a Flow Monitoring and Compliance Plan for both developments in consultation with Progress Energy (Progress), the U.S. Geological Survey (USGS), and other resource agencies. APGI will pursue an agreement with the USGS to install flow gages downstream of Falls or Narrows and High Rock developments. If such an agreement cannot be achieved, responsibility for installing and operating flow monitors reverts to APGI. A draft of the flow monitoring plan will be submitted to NCDWQ as part of the 401 Application. A final flow monitoring plan will be filed with FERC and NC Division of Water Quality (NCDWQ) within 6 months of the effective date of a new license.

2) Flow Shaping

APGI will work with Progress, state and federal fishery agencies, water resource agencies, and other parties with relevant expertise, to develop a procedure to allow Progress to provide two flow shaping periods (a 14 day period and a 10 day period) between February 1 and May 15 to enhance downstream spawning conditions in the lower river below Progress' Blewett Falls development. APGI will participate in an annual meeting with this group to consider flow and hydrologic conditions expected during the upcoming spawning season, and to plan the voluntary actions to be taken by both Progress and APGI to provide the periods of flow shaping. The same meeting will be used to review the results of Progress' and APGI's efforts in the previous year to create periods of flow shaping. For its part, in advance of the flow shaping periods, APGI will communicate with Progress the expected generation/flow release schedule for the period, and APGI will endeavor to meet that generation schedule for the duration of the flow shaping period. In the event that unexpected hydrologic conditions, or other conditions, such as those spelled out in the HPMEP, occur during the flow shaping period, APGI will communicate with Progress any required change in the planned generation/release schedule for the remainder of the flow shaping period.

APGI will not be required to attempt to match Yadkin Project outflow to inflow during the flow shaping period, nor will APGI be required to provide an instantaneous minimum flow release from the Yadkin Project during the flow shaping period. APGI will be under no obligation to alter its operations in any way during these periods if the state and federal agencies and Progress are unable to come to an agreement on what measures are to be undertaken by Progress to achieve the two flow shaping periods.

3) Low Inflow Protocol

APGI will operate the Project in accordance with a Low Inflow Protocol (LIP). Key elements of the LIP include defined stages of low inflow conditions, the measures to be undertaken by the parties to the Protocol (including hydropower generation and other water users within and downstream of the Project) under each stage, and communications procedures. (Attachment 3)

C) Hydro Project Maintenance and Emergency Protocol

APGI will operate the Project in accordance with a Hydro Project Maintenance and Emergency Protocol (HPMEP). The objectives of the HPMEP are to define emergency, equipment failure and maintenance situations under which certain license conditions may be impractical or even impossible to meet and that may need to be suspended or modified temporarily to avoid taking unnecessary risks and outline the general approach that would be taken to mitigate impacts to license conditions and communicate with resource agencies and other affected parties. Key elements of the HPMEP include provisions for facility maintenance, dam safety emergencies, voltage or capacity emergencies, planned and unplanned reservoir drawdowns, and expected or existing high flow events. (Attachment 4)

D) Water Quality

1) Tailwater Dissolved Oxygen Improvement Measures

This section presents concepts and continuing activities intended to provide input into the formal 401 Water Quality Certification processes to be conducted by the North Carolina Division of Water Quality (NCDWQ). APGI will undertake a series of Project modifications designed to increase dissolved oxygen (DO) concentrations and enhance water quality in the four Project development tailwaters (Attachment 5). Modifications to Project structures and equipment for the purposes of improving DO levels in powerhouse flow releases that are required as part of the RSA will require the approval of NCDWQ and FERC before installation can begin. This AIP does not replace the required 401 Water Quality Certification processes that must be administered by NCDWQ.

The DO enhancement program will be directed first to increase DO concentrations downstream of Narrows and High Rock dams, and to monitor results to determine what DO enhancement might still be needed in the tailwaters at Tuckertown and Falls dams. The DO enhancement will be achieved through the installation of aeration technology in conjunction with a planned unit refurbishment/upgrade program. Unit refurbishment and upgrade provides the opportunity to install aeration technology at the dams in a cost effective manner. Following the implementation of all water quality enhancement modifications (Attachment 5), APGI will operate the Project in accordance with its 401 Certification to meet applicable water quality standards. If at any time during the term of the new license, after all required water quality enhancement modifications have been completed, state water quality standards are not being met as a result of APGI's hydroelectric operations, APGI shall immediately consult with NCDWQ as appropriate to develop a plan to implement corrective actions. This plan may include making additional modifications and/or undertaking other mitigation. APGI shall implement the plan as approved by NCDWQ and/or FERC.

The proposed schedule for unit refurbishment/upgrade reflects APGI's best business case and includes the consideration of many factors such as the age and current physical condition of the existing generating units, the time needed for design, engineering and construction, the timing of planned unit outages (during construction) and associated loss of generation, the timing and availability of capital budget within Alcoa, and the expected DO enhancement associated with installation of aeration technology. Under the proposed Unit Refurbishment/Upgrade and DO Enhancement Schedule (Attachment 5) refurbishment/upgrade of Narrows Units 1 and 3 and High Rock Units 1, 2 and 3 will occur between 2008 and 2012, at which time appropriate aeration technology will be added (Narrows Unit 2 will be completed under the existing license).

At Narrows, the most appropriate and cost-effective technology will be the installation of aeration valves on the draft tube cones (similar to those already installed on Unit 4). At High Rock, the best aeration technology will be the installation of new aerating turbines, with "through-the-runner" aeration capability. The determination about whether additional DO enhancement measures are needed to further improve DO conditions in the Falls and Tuckertown tailwaters will be made after installation of aeration technology is completed at Narrows and High Rock, and after the DO conditions in those tailwaters have been monitored and studied for a period of two years, respectively. In the event that DO conditions in the Falls and Tuckertown tailwaters do not meet applicable state water quality standards for DO after all required water quality enhancement modifications have been completed at Narrows and High Rock, APGI will develop an Action Plan and

schedule to address aeration needs at Falls and Tuckertown, as noted in Attachment 5. The Action Plans for Falls and Tuckertown would be filed for approval by NCDWQ in accordance with the overall schedule in Attachment 5. More detailed plans for DO monitoring, study and reporting are also provided in Attachment 5.

2) Water Quality Operations

APGI will operate the new aeration technology as it is installed at each development to enhance DO concentrations in the tailwater. As units are refurbished/upgraded and aeration technology installed (as described above), APGI will operate the refurbished/upgraded units on a "first on–last off" basis, subject to unit availability, so as to maximize the DO benefit obtained from the available aeration technology. The period of aeration operations will begin no later than May 1 of each year and will continue through November 30 of each year, during the term of the new license. However, if at any time during the term of the new license, APGI can demonstrate through studies/monitoring that DO conditions have changed, APGI can discuss with NCDWQ the possibility of reducing the period of aeration operations.

3) Dissolved Oxygen Monitoring Plan and Reports

APGI will prepare a Dissolved Oxygen Monitoring Plan that will be in effect for the term of the new license. The DO Monitoring Plan will be developed in consultation with NCDWQ and other appropriate resource agencies. APGI will initiate work on a draft DO Monitoring Plan and QAPP in 2006, and a draft DO Monitoring Plan and Quality Assurance Project Plan (QAPP) will be filed with NCDWQ as part of the 401 Application. A final DO Monitoring Plan will be filed with NCDWQ and FERC for final approval within 6 months of the effective date of the new license. The primary component of the DO Monitoring Plan will be the operation of four (4) continuous DO/temperature monitors (one in each tailwater), for the period May 1 through November 30 of each year. The monitors will track changes in DO conditions resulting from the addition and operation of aeration technology at each of the refurbished/ upgraded units. DO and temperature data will be reported to NCDWQ on an annual basis, and provisional data will also be made available to NCDWQ, as requested. As noted above, as part of the monitoring plan, APGI will conduct two studies, to cover up to two low DO seasons, designed specifically to investigate the effectiveness of aeration technology installed and operating at Narrows, on the DO conditions in the Narrows and Falls tailwaters, and the effectiveness of aeration technology installed and operating at High Rock on DO conditions in the High Rock and Tuckertown tailwaters. (Attachment 5)

E) Recreation

1) Recreation Plan

APGI will prepare a Recreation Plan for the Project that will be in effect for the term of the new license. The Recreation Plan will outline certain new facilities or existing facility modifications or improvements that have been agreed to by the Parties to this AIP to be undertaken by APGI as requirements of the new FERC license. The Plan will include a schedule for the improvements and will also provide information on maintenance activities to be undertaken by APGI at public recreation sites. The Plan will also identify the role of other Parties to this AIP in supporting the license mandated facility improvements and

maintenance outlined in the Plan. Work on the Plan will begin upon issuance of the new FERC license, and the Plan will be filed with FERC for approval within 24 months of the effective date of a new license.

2) Recreation Facility Improvements

APGI will undertake certain public recreation facility enhancements at the Yadkin Project as outlined in Attachment 6. These proposed recreation facility improvements will be incorporated into the Recreation Plan.

- ADA improvements at up to 10 existing public recreation sites
- Addition of portable toilets at several existing recreation sites
- Addition of two ADA compliant fishing piers, one each at existing public recreation sites on High Rock and Tuckertown Reservoirs
- Improvements to tailrace fishing access at High Rock and Tuckertown
- Improvements to state standard of existing Falls Dam portage trail within 10 years of the effective date of a new FERC license. Improvements to state standard of existing portage trails at High Rock, Tuckertown, and Narrows dams within 20 years of the effective date of a new license, unless NCDENR agrees recreational data demonstrates insufficient demand by non-motorized boaters.
- Develop and operate a new public recreation site with a swim beach on the Rowan County side of High Rock Reservoir
- Addition of 10 hardened, dispersed camp sites, located throughout the Project area
- Replace Highway 49 Boat Access Area (when needed)

3) Recreation Facility Operation and Maintenance

APGI will continue to operate and maintain its 26 public recreation sites located throughout the Yadkin Project. In addition, APGI will operate and maintain a new public recreation site proposed for development on the Rowan County side of High Rock Reservoir and the ten (10) new hardened dispersed camp sites.

4) Recreation Facility Closures

As requested by the City of Salisbury, due to safety and security concerns, APGI will close the Pump Station Boat Access. APGI's role in closing the site will be limited to removing its Part 8 and safety signage.

F) Shoreline Management

1) Shoreline Management Plan (SMP) Modifications

APGI will make certain modifications to the Yadkin Project Shoreline Management Plan. The existing Yadkin SMP was filed with FERC in July 1999. FERC issued an order approving the SMP in November 2000. Modifications to the SMP were made and filed with FERC in March 2001 and July 2002. The changes to the SMP agreed to will maintain the environmental protection, mitigation and enhancement measures reflected in the SMP as originally conceived and approved by FERC, state and federal resource agencies and APGI.

APGI will make modifications to the Specifications for Private Recreation Facilities and the Shoreline Stewardship Policy, both appendices to the existing SMP, in the following areas:

- Lot width for individual and shared piers in subdivisions developed prior to May 1, 1987
- Overall pier length
- Minimum and maximum pier dimensions for stationary, ramp, and floating sections
- Minimum water depth necessary for a new pier
- Use of alternative construction materials in pier construction
- Boat lifts and boat lift covers
- Installation of on-pier structures (gazebos/shelters) over the stationary section of the pier
- Number of watercraft to be accommodated by the pier
- Vegetation management in the 100-foot forested setback to establish a view corridor
- Sitting areas within the setback

The specifics of the proposed language modifications are attached (Attachment 7). Any provisions in the existing (July 2002) SMP that are not addressed in the attached language remain unchanged and in full force and effect.

Proposed modifications to the SMP (Attachment 7) will be implemented within 3 months of the effective date of a new FERC license and the revised SMP will be filed with FERC for final approval within 24 months of the effective date of the new license, or as soon as practicable.

2) SMP Review and Amendment

The SMP will be reviewed and further amendments considered no less often than ten years after the approval of the amended SMP and every ten years thereafter. More frequent amendments to the SMP may be proposed at APGI's discretion, e.g., when significant new resource protection or pier construction methods or materials are identified.

3) Fees

APGI has the right to and FERC encourages licensees to recover the cost of administering SMP programs through permit fees.

G) Cultural Resources

APGI will prepare a Historic Properties Management Plan (HPMP). The HPMP will be prepared in consultation with NC State Historic Preservation Office (NCSHPO), the Catawba Indian Tribe, the Badin Historic Museum, and other organizations with an interest in cultural issues at the Project. Work on a draft HPMP will begin within six (6) months of the signing of this AIP, and a final HPMP will be filed with FERC for approval no later than within 12 months of the effective date of the new license.

H) Fish Passage

APGI will participate in a cooperative, basin wide effort to restore certain diadromous fish species to relevant portions of the Yadkin-Pee Dee River basin that were part of the historic range for these species. APGI's participation in these restoration efforts will focus on American eel and American shad. The details of the cooperative restoration effort for these two species will be covered in a separate Agreement in Principle for a Diadromous Fish Restoration Implementation Plan. Work on the Diadromous Fish Restoration Implementation Plan is currently in progress and should be completed in 2006. Once completed, the Diadromous Fish Restoration Implementation Plan will provide the basis for fish passage prescriptions made in accordance with Section 18 and recommendations made in accordance with Section 10(j) of the Federal Power Act. The US Fish and Wildlife Service (USFWS), NC Wildlife Resources Commission (NCWRC) and SC Department of Natural Resources (SCDNR) agree to continue to involve APGI in the development and execution of the final Implementation Plan.

Conceptually, APGI's contribution to the restoration effort through the Implementation Plan will be a financial contribution to be used to support monitoring, experimental stocking and interim fish passage measures to be undertaken cooperatively by APGI, Progress Energy, the USFWS, NCWRC and SCDNR, as part of the restoration effort.

I) Other Protection, Mitigation and Enhancement Measures

1) Rare, Threatened, Endangered (RTE) Species and Habitat Protection

APGI will prepare an RTE Species Management Plan for the Project. The RTE Species Management Plan will be prepared in consultation with USFWS, NCWRC, NC Natural Heritage Program, and other agencies and organizations with an interest in RTE species and habitats at the Project. Work on the Plan will begin upon issuance of the new FERC license, and the Plan will be filed with FERC for approval within 24 months of the effective date of the new license. The RTE Species Management Plan will outline specific actions to be taken by APGI during the term of the new license to monitor and protect RTE species and their habitats. The primary elements of the Plan will be as follows:

a) APGI will continue to monitor the status of Bald Eagles at the Yadkin Project. Bald Eagle surveys will be undertaken annually until such time that the Bald Eagle is removed from the Endangered Species List. Results of the annual eagle nesting survey will be reported to the USFWS and NCWRC annually.

b) APGI will cooperate with the USFWS and NC Rare Plant Program to monitor the status of the Yadkin River Goldenrod populations below the Narrows and Falls dams. In addition, APGI will work with the USFWS and NCWRC to pursue establishment of a protected area downstream of Narrows Dam and possibly downstream of Falls Dam.

c) APGI will provide funding of up to the equivalent of $10,000 annually to work cooperatively with NCWRC to periodically monitor freshwater mussel populations in the Falls tailwater.

2) Invasive, Exotic Aquatic Species Management

APGI will work in cooperation with the NC Division of Water Resources (NCDWR) and NCWRC to monitor invasive exotics of concern and undertake control activities, as needed. The primary focus of the monitoring program will be on invasive aquatic plants, such as hydrilla, but will also consider other invasive aquatic species that may become established in the reservoirs, such as the Chinese mystery snail. APGI will help fund efforts to be undertaken by NCDWR or NCWRC to survey the Yadkin Project reservoirs periodically for the presence and extent of invasive, exotic aquatic species of concern. If at any time NCDWR or NCWRC determines the presence of invasive exotics in any of the Yadkin Project reservoirs to an extent that is of concern to the agencies, APGI will work with NCDWR and NCWRC to identify and undertake appropriate control actions on a cost-share basis.

3) Transmission Line Habitat Management Plan

The Project includes two transmission line corridors: the approximately one (1) mile long Narrows transmission line corridor, and the approximately two (2) mile long Falls transmission line corridor. APGI will continue its current vegetation management practices along these transmission line corridors. To address concerns expressed by resource agencies about certain aspects of transmission line corridor management and its effects on wildlife habitat, APGI will develop, in consultation with resource agencies, a Transmission Line Corridor Management Plan and file it with FERC within 24 months of the effective date of a new license.

J) License Term

Due to the significant investment associated with the PME measures and APGI's unit rehabilitation and upgrade program, the Parties will agree in the RSA to support a new license term of 50 years.

Part III - Non-FERC Issues

A) Water Quality and Aquatic Resource Enhancement

1) High Rock Total Maximum Daily Load (TMDL) Process

NCDWQ has reported that portions of High Rock Reservoir do not meet state water quality standards for turbidity and chlorophyll a, and has listed High Rock Reservoir as non-attainment waters under Section 303 (d) of the Clean Water Act. Such listing requires that NCDWQ establish TMDLs for pollutants entering High Rock Reservoir. NCDWQ has initiated the TMDL process and has established a preliminary schedule for the process that concludes with the establishment of TMDLs about 2012. NCDWQ has indicated that APGI's participation in the TMDL process will be critical to its success. Accordingly, APGI will actively participate in the planned High Rock Reservoir TMDL process, including providing in-kind services and participation in water quality sampling efforts at a one time cost not to exceed $50,000. In addition, if during the term of the new license, other TMDLs are required for the Yadkin River or its tributaries within the Yadkin FERC project boundary, APGI will participate in those processes.

B) Recreation Enhancement and Land Protection

1) Recreation

a) APGI will donate to the Town of Badin certain lands adjacent to the existing Badin Boat Launch site. The donated land is to be used for the development of a public park. The land donation will be made to the Town on condition that the Town or other party assumes responsibility for construction, maintenance and operation of any public recreation facilities developed at this site.

b) APGI will provide annual funding for the term of a new license to assist the USFS with O&M and capital improvement needs at the six public recreation sites in Uwharrie National Forest that provide direct access to the Yadkin Project reservoirs (Badin Lake Campground, Cove Boat Ramp, Kings Mountain Point, Deep Water Trail Access, Holt's Cabin, Badin Lake Hiking Trail). The amount of annual funding represents APGI's entire commitment for these purposes.

c) APGI will provide annual funding for the life of a new license to assist the NCWRC with O&M and capital improvement needs at seven NCWRC public recreation sites located around the Yadkin Project (Bringle Ferry Boat Access, Flat Creek Boat Access, Flat Creek Fishing Access, Old Whitney Fishing Pier, Old Whitney Boat Access, Circle Drive, Lakemont Boat Access). The amount of annual funding represents APGI's entire commitment for these purposes.

d) APGI will support of the Yadkin-Pee Dee River Trail by providing a one-time donation of $40,000 improvements to the river trail or maintenance of river trail facilities located in close proximity to the Project.

e) To the degree that APGI or its parent company, Alcoa Inc. (Alcoa) has property rights, and considers abandoning the railroad line that runs from Halls Ferry Junction and along the western shore of Narrows Reservoir into Badin, it will first discuss with Stanly County and NC Department of Parks and Recreation the interest in evaluating the line for the "Rails to Trails" program at that time. APGI or Alcoa will provide a right of first refusal to the State of North Carolina for this railroad line under the condition that ownership can revert to APGI or Alcoa upon notice by the companies.

f) If NCDENR elects to make improvements to any of the Yadkin Project portage trails, as outlined in Part II, Paragraph E(2), prior to APGI, APGI will reimburse actual, reasonable expenses incurred by NCDENR. In that case, APGI will reimburse on or before the 10 or 20 year dates noted in Paragraph E(2).

2) Recreation Safety and Enforcement

APGI will work with NCWRC to identify appropriate sites for the installation by NCWRC of boathouse facilities to be used by NCWRC for enforcement purposes on High Rock and Narrows reservoirs. APGI will make a one-time contribution of $50,000 to NCWRC to assist with the development of the two boathouse facilities. APGI will also provide

NCWRC with annual funding to assist with the installation and maintenance of buoys and other hazard markers/signs on the four Yadkin Project reservoirs.

3) Land Protection

a) APGI will make available for sale approximately 1400 acres[1] (5.7 miles of shoreline) of non-Project land located in the vicinity of Narrows and Falls reservoirs to the State of North Carolina for the future expansion of Morrow Mountain State Park (Attachment 8). The lands will be offered at a price to be negotiated between APGI and the State of North Carolina according to a mutually agreeable process, with the price to be included in the RSA. Ownership of lands in the immediate vicinities of Narrows and Falls dams deemed essential to Project security will be retained by APGI.

b) APGI will make available for sale to an appropriate entity (e.g., land trust, state agency, or counties) approximately 2400 acres[1] (31 miles of shoreline) of non-Project land located along the eastern shore of Tuckertown Reservoir for gamelands, recreation, or conservation purposes (Attachment 9). Generally, the sales price will be the fair market value of the property interest transferred, with the price to be included in the RSA. Ownership of lands in the immediate vicinities of High Rock and Tuckertown dams deemed essential to Project security will be retained by APGI.

c) APGI will make available for sale to an appropriate entity (e.g., land trust, state agency, or counties) approximately 2500 acres[1] (45 miles of shoreline) of non-Project land located along or in close proximity to High Rock Reservoir, primarily north of the Interstate 85 bridges for gamelands, recreation, or conservation purposes (Attachment 10). Generally, the sales price will be the fair market value of the property interest transferred, with the price to be included in the RSA.

d) For the three land protection sales noted in Paragraphs 3(a) through 3(c) above, two of the sales must be completed within three years of the effective date of the new license and the other sale must be completed within five years of the effective date of the new license. If the foregoing time table is not met, these provisions of the RSA expire.

e) APGI will donate certain lands totaling approximately 275 acres[1] (18 miles of shoreline) to the USFS for inclusion in the Uwharrie National Forest within three years of the effective date of the new license (Attachment 11). Lands to be donated include:

- The approximately 100 acre[1] Pear Tree Island;
- A strip of APGI-owned property located along the shore of Narrows and Falls reservoirs between the Yadkin Project boundary and the Uwharrie National Forest boundary; and,
- Certain lands located along the eastern bank of the river downstream of Falls Dam that include the Doershuck archaeological site, but that are not within the existing FERC project boundary for either the Yadkin Project or the Yadkin Pee-Dee River Project.

f) APGI will donate to Rowan County approximately 80 acres[1] (3.5 miles of shoreline) of certain non-Project lands located on the western shore of High Rock Reservoir that are currently being leased by the County as part of the Eagle Point Nature Preserve and Park within three years of the effective date of the new license. (Attachment 12)

[1] Land acreage is estimated in this Agreement in Principle. More precise legal descriptions of any land to be conveyed or encumbered will be developed for the final relicensing settlement agreement.

C) Local Community Enhancement

1) City of Salisbury

APGI commits to continuing to work with the City of Salisbury to find mutually agreeable solutions to its flooding and sedimentation issues, its land and public safety issues and its water management issues, among others. APGI and the City have discussed and will continue to discuss a cost-effective mix of legal, commercial, regulatory and non-regulatory solutions to those issues, and will explore cost-sharing of those options. APGI and the City desire to reach an agreement that will allow the resolution of some or all of the City's issues to be incorporated into the Yadkin RSA and filed with FERC.

2) City of Albemarle, Town of Badin, Stanly County

a) APGI will represent to FERC its desire to raise the maximum withdrawal limit at Albemarle's water intakes on Tuckertown and Narrows reservoirs to 30 million gallons per day (MGD). In addition, APGI is willing to eliminate the surcharge for water withdrawals below 11 MGD averaged over one month.

b) APGI's parent company, Alcoa Inc., agrees to sell three vacant lots around the Badin Library building at fair market value. Alcoa will make available for sale of additional property including the Alcoa Conference Center and other nearby land. The Town of Badin will receive the first opportunity to purchase the Conference Center and surrounding land.

c) As outlined above, APGI is considering the sale of certain APGI property to the State of North Carolina for the future expansion of Morrow Mountain State Park. Stanly County has indicated an interest in owning certain facilities that may be located on these lands, including potable water tanks and lines. APGI is willing to donate the water tanks and lines to the Badin Water/Sewer District, but that action will have to be carefully coordinated with NCDENR as part of the negotiation for sale of the APGI lands.

Part IV - Attachments

The following attachments are part of this AIP:

Attachment 1 – AIP Estimated Cost Summary

Attachment 2 - High Rock Operating Guide

Attachment 3 - Low Inflow Protocol (Draft)

Attachment 4 - Hydro Project Maintenance and Emergency Protocol (Draft)

Attachment 5 – Yadkin Project Proposed Unit Refurbishment/Upgrade and DO Enhancement Schedule

Attachment 6 – Proposed Recreation Facility Enhancements

Attachment 7 - Modifications to Yadkin Project Specifications for Private Recreation Facilities and the Shoreline Stewardship Policy for Inclusion in Revised Shoreline Management Plan

Attachment 8 – Proposed Morrow Mountain State Park Expansion Land (Map)

Attachment 9 – Proposed Eastern Shore of Tuckertown Reservoir Land (Map)

Attachment 10 – Proposed Upper High Rock Reservoir Land (Map)

Attachment 11 – Proposed Uwharrie National Forest Land (Map)

Attachment 12 – Proposed Eagle Point Nature Preserve & Park Land (Map)

Attachment 1
AIP Estimated Cost Summary
Revised 6/23/06

AIP Section	New Measures Proposed (added costs)	Estimated Annual Cost	Estimated One-Time Cost
Part II	**FERC Issues**		
(A)(1)	Operate High Rock in accordance with a guide curve that maintains reservoir within 4 ft of full 4/1-10/31 and within 10 ft of full 11/1-3/31, with March and November as transition months, except as needed to meet minimum flow requirements, LIP or HPMEP. Operate Narrows typically within 6.6 ft of full year round, except as needed to meet minimum flow requirements, LIP or HPMEP. Operate Tuckertown and Falls within 3.0 ft and 4.0 ft., respectively, except as needed to meet minimum flow requirements or HPMEP.	$452,000 [(a)] (in conjunction with minimum flow and LIP requirements)	
(B)(1)	Operate the Yadkin Project so as to provide a daily average minimum flow of 1000 cfs June 1 - January 31, 2000 cfs February 1 - May 15, and 1500 cfs from May 16 - May 31.		
(B) (1)	Prepare and implement a Flow Monitoring Plan for the Project.	$100,000	$50,000
(B)(2)	Participation in providing two flow normalization periods below Blewett Falls	Unknown	Unknown
(B)(3)	Operate the Project in accordance with Low Inflow Protocol.		
(D)(1)	In conjunction with refurbishment/upgrade of generation units, installation of aeration technology at High Rock (aerating turbines) and Narrows (draft tube valves) to improve tailwater DO conditions.		$2,550,000
(D)(2)	Operate units with aeration technology at Narrows and High Rock as needed during the period 5/1-11/30 each year	$330,000 [(b)]	
(D)(3)	Prepare a Dissolved Oxygen Monitoring Plan that will include the following provisions: • Operate four continuous DO/temperature monitors in each of the Project tailwaters. • Report annually to NCDWQ. • Conduct special studies of DO conditions below Falls and Tuckertown, respectively.	$150,000	$50,000
(E)(1)	Prepare a Recreation Plan for the Project		$50,000
(E)(2)	Undertake certain measures to enhance public recreation at the Project (to be outlined in Recreation Plan): • ADA improvements at up to 10 public recreation sites ($90,000) • Addition of portable toilets at several existing recreation sites ($10,000 annually) • Addition of ADA compliant fishing piers to existing sites on High Rock and Tuckertown	$10,000	$912,000

AIP Section	New Measures Proposed (added costs)	Estimated Annual Cost	Estimated One-Time Cost
	Reservoirs ($50,000) • Improvements to tailrace fishing access at High Rock and Tuckertown ($235,000) • Improvements to existing portage trails at all four dams, over the term of new license ($300,000) • Develop and operate a new public recreation site with a swim beach on the Rowan County side of High Rock Reservoir. ($100,000) • Addition of 10 hardened, dispersed camp sites ($12,000) • Replace Highway 49 Boat Access Area (when needed) ($125,000)		
(E)(3)	Additional O&M associated with proposed new facilities and upgrades	$45,000	
(F)(1)	Modification to the Yadkin SMP		$100,000
(F)(2)	Periodic (every 10 years) review of SMP	$2,500 ($25,000 every 10 years)	
(G)	Prepare and implement HPMP		$50,000
(H)	Prepare and implement Cooperative Diadromous Fish Restoration Implementation Plan	Unknown	Unknown
(I)(1)	Prepare RTE Species Management Plan ($50,000) including provisions for certain RTE enhancement measures: • Annual bald eagle nesting surveys ($12,000 annually) • Cooperative YRGR monitoring program ($5,000 annually) • Cooperative with NCWRC, periodic mussel monitoring in Falls tailwater (not to exceed $10,000 annually or $50,000 every 5 years)	$27,000	$50,000
(I)(2)	Work cooperatively with NCDWR and NCWRC to monitor and manage aquatic IEASs at the Project.	$25,000[(c)]	
(I)(3)	Prepare and implement a Transmission Line Corridor Management Plan for the Yadkin Project transmission lines.		$10,000
	Additional APGI administrative costs associated with new compliance requirements.	$300,000	
Part III	**Non FERC Issues**		
(A)(1)	Participate in NCDWQ's High Rock TMDL Process and assist with 2 yr sampling program	$20,000	$50,000
(B)(1)(a)	Donate to the Town of Badin land adjacent to Badin Boat Launch		$5,000
(B)(1)(b)	Assist USFS with six UNF recreation sites ($5,000 per site, annually)	$30,000[(d)]	
(B)(1)(c)	Assist NCWRC with seven public recreation sites ($5,000 per site, annually)	$35,000[(d)]	
(B)(1)(d)	Assist with support of the Yadkin-Pee Dee River Trail with a one time donation to the Yadkin-Pee Dee River Trail Association		$40,000
(B)(2)	Assist NCWRC with the cost of constructing	2,500[(d)]	$50,000

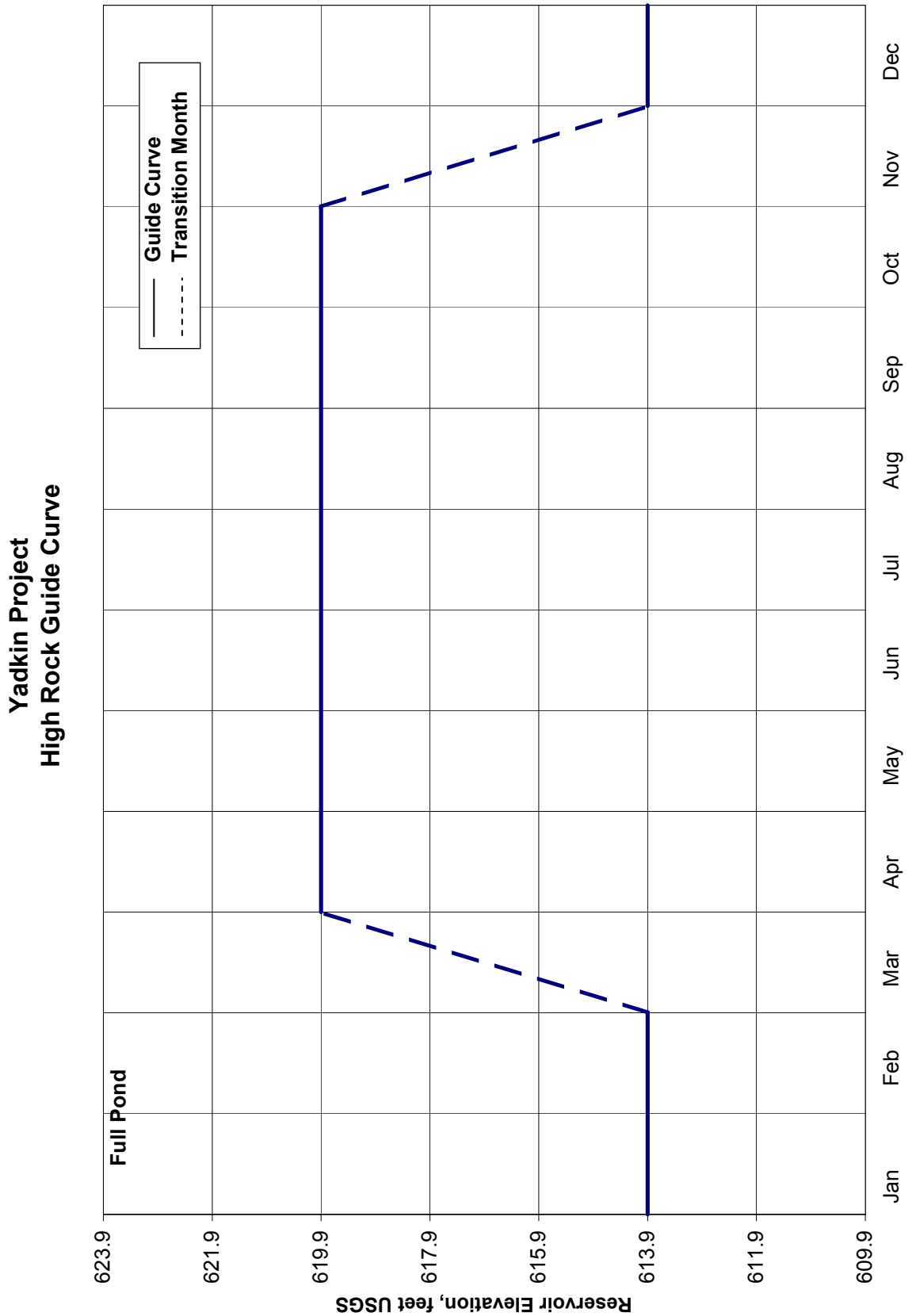
AIP Section	New Measures Proposed (added costs)	Estimated Annual Cost	Estimated One-Time Cost
	boat houses for enforcement use on High Rock and Narrows Reservoirs ($25,000 per boathouse). Provide annual funds to NCWRC to support safety activities.		
(B)(3)	Anticipated administrative costs associated with transfer of lands as proposed: • Sale of 1400 acres for Morrow Mountain SP expansion • Sale of 2400 acres of land on the eastern shore of Tuckertown for gamelands • Sale of 2500 acres of High Rock shoreline lands north of I85 bridge • Donate Pear Tree Island, shoreline strip, and Doershuck site lands to USFS • Donate Eagle Point Nature Preserve leased lands to Rowan County		$200,000
(C)(2)	Albemarle/Badin/Stanly municipal enhancements: • Raise maximum withdrawal to 30 MGD at Albemarle's water intakes and eliminate water withdrawal surcharge below 11 MGD ($35,000 annually in lost revenue) • Sell 3 vacant lots to Badin • Donate water tanks and lines to Badin	$35,000	$30,000
TOTAL NEW COSTS		**$1,564,000**	**$4,197,000**
	Proposed Measures to Be Continued (no added costs)		
Part III (A)(2)	Continue voluntary operation of reservoirs during the fish spawning season (April 15-May 15) to try to maintain water levels within range of full pool and -1.5 feet of the elevation of the reservoir on April 15.	$10,000	
Part II (E)(3)	Continue to operate and maintain its public recreation areas on each of the four Project reservoirs.	$500,000	
TOTAL NEW AND CONTINUED COSTS		**$2,074,000**	**$4,197,000**

a) Costs based on 2004 Southern, Into energy pricing index. All other costs reported in 2006 dollars.

b) Assumes that no DO enhancement will be required at Falls and Tuckertown. The added cost of operating DO enhancement at Tuckertown is estimated to be $300,000 per year. The added cost of operating DO enhancement at Falls is estimated to be $100,000.

c) These funds will be available on a cost-share basis for either monitoring or for exotics management.

d) Funding amount to be escalated as of January 1 of each following year (starting in January 2009) according to a formula based on the Gross Domestic Product Implicit Price Deflator, for the term of the new license.


Yadkin Project
High Rock Guide Curve
Guide Curve
Transition Month
Full Pond
Reservoir Elevation, feet USGS
623.9
621.9
619.9
617.9
615.9
613.9
611.9
609.9
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Attachment 3

DRAFT
Low Inflow Protocol
for the
Yadkin & Yadkin-Pee Dee River Hydroelectric Projects

PURPOSE

The purpose of this Low Inflow Protocol (LIP) is to establish procedures for adjusting operations during periods of low inflow to the Yadkin Hydroelectric Project owned and operated by Alcoa Power Generating Inc. (Alcoa-Yadkin) and the Yadkin-Pee Dee River Hydroelectric Project owned by Carolina Power & Light Company and operated by Progress Energy Carolinas, Inc. (PE) (collectively, the Licensees). The LIP is based on the assumption that parties with interests in the water storage in the projects will share responsibility to conserve the limited water supply.

OVERVIEW

The LIP will be implemented during periods when there is not enough water flowing into the projects' reservoirs to meet the projects' instream flow requirements while maintaining reservoir levels within normal ranges. The LIP provides trigger points and operating procedures that the Licensees will follow for the Yadkin and Yadkin-Pee Dee River Hydroelectric projects. This LIP also specifies water withdrawal reduction measures for other water users in portions of the Yadkin-Pee Dee River Basin.

The Licensees will provide flow from storage in project reservoirs to support power production and to provide Required Minimum Instream Flows in accordance with their respective Federal Energy Regulatory Commission (FERC) licenses. During periods of normal inflow, reservoir levels will be maintained within normal operating ranges. During times that inflow is not adequate to provide required instream flows and maintain reservoir levels within normal operating ranges, the Licensees will reduce discretionary releases for hydroelectric generation. If reservoir storage drops and climatology or hydrologic conditions worsen until trigger points defined in this document are reached, the Licensees will implement the provisions of this protocol and begin meeting with the designated agencies and water users to discuss the LIP. As conditions worsen, progressive stages of the LIP will allow additional use of the available water storage inventory, allow reductions in instream flow releases and require reductions in water withdrawals.

The goal of this staged LIP is to take the actions needed in the Yadkin-Pee Dee River Basin to delay the point at which available water storage is fully depleted. The LIP is intended to provide additional time to increase the probability that precipitation will restore streamflow and reservoir levels to normal ranges. The amount of additional time that is gained during the LIP depends on the diagnostic accuracy of the trigger points, the amount of regulatory flexibility each of the Licensees has to operate their projects, and the effectiveness of the Licensees and the water users in working together to implement required actions and achieve significant water use reductions. Water users in the Yadkin-Pee Dee River Basin not subject to this LIP must comply with all applicable State and local drought response requirements.

Implementation of this LIP and movement between the various stages are based on measurements of Stream Gage Three-Month Rolling Average Flow, U. S. Drought Monitor Three-Month Numeric Average, and the elevation of water in the projects' reservoirs. The calculation of these triggers and specific thresholds associated with each stage of the LIP are detailed in this document.

Recognizing that improvements to the LIP may be identified during the new license period, the LIP will be re-evaluated periodically and, if appropriate, modified. Decisions on modifications will be made on a consensus basis by the Licensees and the States of North Carolina and South Carolina after consultation with other members of the Yadkin-Pee Dee River Basin Drought Management Advisory Group (YPD-DMAG).

KEY DEFINITIONS, FACTS, AND ASSUMPTIONS

1. Low Inflow Period – A period of time when there is not enough water flowing into the projects' reservoirs to meet the projects' Required Minimum Instream Flows while maintaining reservoir levels within Normal Operating Ranges.

2. Required Minimum Instream Flows – Flows that will be provided to meet certain downstream needs unless operating under the LIP or implementation of maintenance or emergency operation plans. The new FERC licenses for the Yadkin and Yadkin-Pee Dee River projects will specify Required Minimum Instream Flows.

3. Public Information System – The Licensees will develop and provide information on reservoir water levels, project releases, usability of public access areas, reservoir inflows, meteorological forecasts, Stream Gage Three-Month Rolling Average Flow calculations, U.S. Drought Monitor Three-Month Numeric Average calculations, LIP status, and implementation of maintenance or emergency operation plans on their respective websites.

4. Stream Gage Three-Month Rolling Average Flow – The three-month rolling average of streamflow at the following USGS stream gages calculated on the last day of each month:

    - Yadkin River at Yadkin College (02116500)
    - South Yadkin River near Mocksville (02118000)
    - Abbotts Creek at Lexington (02121500)
    - Rocky River near Norwood (02126000)
    - Little River near Star (02128000)

    This flow will be calculated at the end of each month by averaging the monthly average of the current month and the two preceding months. The sum of the three-month rolling average for these five gage stations will be compared to the Historic Stream Gage Three-Month Rolling Average Flow.

5. Historic Stream Gage Three-Month Rolling Average Flow – The monthly average flow for the period of record 1974 through 2003 for the five designated stream gages will be used to calculate the historic three-month rolling average flow the last day of each month of the year by averaging the monthly average flow for each month and the preceding two months. The use of the period of record 1974 through 2003 to calculate the historic three-month rolling average flow will be evaluated every five years during the review of the LIP (Item 18).

6. Full Pond (Normal Maximum Elevation) – Full Pond is the level of a reservoir (measured in feet, USGS datum) that corresponds to the point at which water would first begin to spill from each reservoir's dam if the Licensees take no action. The full pond elevation corresponds to the lowest point along the top of the spillway (including flashboards) for reservoirs without flood gates; and to the lowest point along the top of the flood gates for reservoirs that have flood gates. The Full Pond elevations for the Yadkin and Yadkin-Pee Dee projects' reservoirs are listed in Table 1.

Table 1. Full Pond or Normal Maximum Elevation

Reservoir	Full Pond Elevation (feet, USGS datum - NGVD 1929)
High Rock	623.9
Tuckertown	564.7
Narrows	509.8
Falls	332.8
Tillery	278.2
Blewett Falls	178.1

7. Normal Operating Range for Reservoir Levels – The band of reservoir levels within which the Licensees normally attempt to maintain a given reservoir on a given day. Each reservoir has its own specific Normal Operating Range, bounded by Full Pond elevation and Normal Minimum Elevation. If net inflows to the reservoir are within a reasonable tolerance of the average or expected amounts, hydro project equipment is operating properly, and if maintenance or emergency operation plans have not been implemented, reservoir level excursions outside of the Normal Operating Range should not occur.

8. Normal Minimum Elevation – (NME) The level of a reservoir (measured in feet, USGS datum) that defines the bottom of the reservoir's Normal Operating Range for a given day of the year. Normal Minimum Elevations for the Yadkin and Yadkin-Pee Dee projects' reservoirs are listed in Table 2.

Table 2. Normal Minimum Reservoir Elevations (feet, USGS datum - NGVD 1929)

Month	High Rock	Tucker-town	Narrows	Falls	Tillery	Blewett Falls
Full Pond	**623.9**	**564.7**	**509.8**	**332.8**	**278.2**	**178.1**
Jan	613.9	561.7	506.8	328.8	273.2	172.1
Feb	613.9	561.7	506.8	328.8	273.2	172.1
Mar	transition	561.7	506.8	328.8	275.7	172.1
Apr	619.9	561.7	506.8	328.8	275.7	172.1
May	619.9	561.7	506.8	328.8	275.7	172.1
Jun	619.9	561.7	506.8	328.8	275.7	172.1
Jul	619.9	561.7	506.8	328.8	275.7	172.1
Au	619.9	561.7	506.8	328.8	275.7	172.1
Sep	619.9	561.7	506.8	328.8	275.7	172.1
Oct	619.9	561.7	506.8	328.8	275.7	172.1
Nov	transition	561.7	506.8	328.8	275.7	172.1
Dec 1-15	613.9	561.7	506.8	328.8	275.7	172.1
Dec 16-31	613.9	561.7	506.8	328.8	273.2	172.1

9. LIP Stage Trigger Elevations – The High Rock reservoir elevations that, in combination with either the U.S. Drought Monitor Three-Month Numeric Average or Stream Gage Three-Month Rolling Average Flow, will trigger the various LIP Stage 0, Stage 1, Stage 2, Stage 3 or Stage 4.

10. Public Water System - For the purposes of this Low Inflow Protocol, a public water system is any publicly or privately owned water system that supplies potable water to the public having an instantaneous withdrawal capacity of one million gallons per day or more, and withdraws from storage in the Yadkin or Yadkin-Pee Dee hydroelectric projects' reservoirs.

11. Non-public Water User- For the purposes of this Low Inflow Protocol, a non-public water user is any publicly or privately owned water withdrawer that withdraws water for uses other than supplying potable water to the public, having an instantaneous withdrawal capacity of one million gallons per day or more, that withdraws from storage in the Yadkin or Yadkin-Pee Dee hydroelectric projects' reservoirs.

12. U.S. Drought Monitor – A synthesis of multiple indices, outlooks and news accounts that represent a consensus of federal and academic scientists concerning the drought status of all parts of the United States. Typically, the U.S. Drought Monitor indicates intensity of drought as D0-Abnormally Dry, D1-Moderate, D2-Severe, D3-Extreme and D4-Exceptional. The current U.S. Drought Monitor and explanatory material can be found at http://www.drought.unl.edu/dm/monitor.html.

13. U.S. Drought Monitor Three-Month Numeric Average – If the U.S. Drought Monitor has a designation ranging from D0 to D4 as of the last day of a month for any part of the Yadkin-Pee Dee River Basin that drains to the Blewett Falls development, the basin will be assigned a numeric value for that month. The numeric value will equal the highest U.S. Drought Monitor designation (e.g. D0=0, D1=1, D2=2, D3=3 and D4=4) for any part of the Yadkin-Pee Dee River Basin draining to Blewett Falls development as of the last day of the month. A normal condition in the basin, defined as the absence of a drought designation, will be assigned a numeric value of negative one (-1). A running average of the numeric values of the current month and previous two months will be calculated at the end of the month and designated as the U.S. Drought Monitor Three-Month Numeric Average for purposes of this Low Inflow Protocol.

14. Critical Reservoir Elevation – The level of water in a reservoir (measured in feet, USGS datum) below which a Public Water System intake, Non-public Water User's intake, or hydropower plant located on the reservoir cannot operate under normal conditions. Critical Reservoir Elevations are defined Table 3.

Table 3. Critical Reservoir Elevation

Reservoir	Critical Reservoir Elevation (feet USGS Datum - NGVD 1929)	Type
High Rock	599.9 (24 ft below full pool)	Power Production
Tuckertown	560.7 (4 ft below full pool)	Public Water Supply
Narrows	486.8 (23 ft below full pool)	Public Water Supply
Falls	322.8 (10 ft below full pool)	Power Production
Tillery	268.2 (10 ft below full pool)	Public Water Supply
Blewett Falls	168 (10.1 ft below full pool)	Public Water Supply/Power Production

15. Critical Flow – The minimum flow releases from the hydroelectric projects that are necessary to prevent long-term or irreversible damage to aquatic communities consistent with the resource management goals and objectives for the affected stream reaches and necessary to provide some basic level of water quality maintenance in affected river reaches. For the purposes of this LIP, the Critical Flows are:
    - Falls Development – the Critical Flow from the Falls Development is equal to 770 cfs measured on a daily average basis.
    - Tillery Development – the Critical Flow from the Tillery Development is the same as Required Instream Flow.
    - Blewett Falls Development – the Critical Flow from the Blewett Falls Development is 925 cfs measured on an instantaneous basis.

16. Organizational Abbreviations – Organizational abbreviations include Alcoa Power Generating Inc. (Alcoa-Yadkin), Progress Energy (PE), NC Department of Environment and Natural Resources (NCDENR), North Carolina Division of Water Resources (NCDWR), North Carolina Division of Water Quality (NCDWQ), North Carolina Wildlife Resources Commission (NCWRC), South Carolina Department of Natural Resources (SCDNR), South Carolina Department of Health and Environmental Control (SCDHEC), the United States Fish and Wildlife Service (USFWS), High Rock Lake Association (HRLA), Badin Lake Association (BLA), and South Carolina Pee Dee River Coalition (SCPDRC).

17. Yadkin-Pee Dee River Basin Drought Management Advisory Group (YPD-DMAG) – Membership on the YPD-DMAG is open to at least one representative from each of the following organizations that are signers of the final settlement agreement leading to each Licensees' new FERC license:

    - Alcoa-Yadkin
    - PE
    - NCDENR - DWR
    - NCDENR - DWQ
    - NCWRC
    - SCDNR
    - SCDHEC
    - USFWS
    - Duke Power
    - HRLA
    - BLA
    - Lake Tillery homeowners representation
    - SCPDRC
    - All owners of a public water system intake or a non-public water user's intake that withdraw from storage in one of the Yadkin River or Yadkin-Pee Dee River projects' reservoirs.

    The Licensees will share the responsibility to notify the NCDENR-DWR and SCDNR (collectively, State Agencies) of a Low Inflow Condition. The State Agencies will share responsibility to coordinate with the YPD-DMAG including notifying, setting agendas, leading discussion, and providing call/meeting summaries. Regardless of the Low Inflow Condition, coordination will include a meeting, convened annually by the State Agencies during April, to reacquaint representatives, review prior year activities, discuss data input from public water system intake owners and non-public water users, and discuss other issues relevant to the LIP. Membership in the YPD-DMAG may be expanded based on a consensus of the members. The State Agencies will maintain an active roster of the YPD-DMAG, will prepare meeting summaries of all YPD-DMAG meetings, and will make these meeting summaries available to the public.

18. Revising the LIP -- During the new license period, the YPD-DMAG will be convened at least once every five (5) years by the State Agencies to review and, if necessary, update the LIP. Modifications to the Licensees' responsibilities under the LIP, if any, will be determined by consensus of the Licensees and the States of North Carolina and South Carolina (specifically NCDWR, NCDWQ, SCDNR, SCDHEC) after consultation with other members of the YPD-DMAG. FERC approval of such modifications may be required. Modifications to the responsibilities of other members (not FERC licensees) of the YPD-DMAG under the LIP, if any, will be determined by consensus of those members after consultation with the Licensees. Approved modifications will be incorporated through revision of this LIP. The YPD-DMAG may appoint an *ad hoc* committee to consider issues relevant to the LIP. An issue such as the substitution of a regional drought monitor for the U.S. Drought Monitor, if developed in the future, is an example of an item that may be considered.

19. Consensus – Consensus is reached when all appropriate parties can "live with" the expected outcome or proposal being made.

20. Water Withdrawal Data Collection and Reporting – The owners of all intakes impacted by this protocol are to comply with water use reporting requirements of the appropriate State Agencies. The YPD-DMAG can request and should receive relevant water use information from the appropriate state agency or directly from the owners of individual intakes.

21. Drought Response Plan Updates – All public water supply intake owners and non-public water users subject to this LIP will review and update their drought response plans, or develop a plan if they do not have one, to ensure compliance and coordination with this LIP, including the authority to enforce the provisions outlined herein. Nothing in this LIP is intended to prevent public water systems or non-public water users from taking more restrictive actions or from complying with any applicable law or regulation.

22. Relationship Between the LIP and maintenance & emergency plans – Maintenance & emergency plans outline the general approach the Licensees will take under certain emergency, equipment failure and maintenance situations to continue practical and safe operation of the projects, to mitigate any related impacts to license conditions, and to communicate with resource agencies and the affected parties. Under these plans, temporary modifications to Required Minimum Instream Flow releases, and the reservoir level operating ranges are allowed. Lowering levels of project reservoirs caused by situations addressed under these plans will not invoke implementation of this LIP. Also, if the LIP has already been implemented at the time that a situation covered by these plans is initiated, the Licensee may suspend implementation of the LIP until the maintenance or emergency situation has been eliminated. The Licensees may, however, choose to continue with the LIP if desirable. Notification will be provided by the Licensees to the State Agencies as soon as practicable.

PROCEDURE

A Low Inflow Watch or Low Inflow Condition will be triggered by the combination of conditions defined in Table 4. The LIP will be implemented at Stage 0 and, if the combination of conditions become more severe, the Drought Stage will increase in one-Stage increments. The Licensees and other water users will follow the procedure set forth in this section regarding communications and adjustments to hydropower and instream flow releases and other water demands.

Table 4. Summary of LIP Triggers

Stage	High Rock Reservoir Elevation		US Drought Monitor Three-Month Numeric Average		Stream Gage Three-Month Rolling Average as a percent of the Historical Average
0	< Normal Min Elev	**and either**	≥ 0	**or**	< 48 %
1	< NME minus 1 ft	**and either**	≥ 1	**or**	< 41 %
2	< NME minus 2 ft	**and either**	≥ 2	**or**	<35 %
3	< NME minus 3 ft	**and either**	≥ 3	**or**	<30 %
4	< ½ (NME minus Critical Elevation)	**and either**	≥ 4	**or**	<30 %

The adjustments to hydropower and instream flow releases set forth in Table 5 will be initiated on a monthly basis and are designed to equitably allocate the impacts of reduced water availability in accordance with the purpose statement of this LIP. Initiation of this LIP will be based on analysis of the trigger conditions on the first day of each month. Reservoir water elevation as of midnight between the last day of the previous month and the first day of the current month will be used in combination with the U.S. Drought Monitor Three-Month Numeric Average and the Stream Gage Three-Month Rolling Average Flow to determine the need to declare a Low Inflow Watch or change the stage of Low Inflow Conditions.

Table 5. Normal and Reduced Required Minimum Instream Flows, cfs

Stage	Falls			Blewett		
	Feb–May 15	May 16-31	Jun - Jan	Feb–May 15	May 16-31	Jun - Jan
Normal	2000	1500	1000	2400	1800	1200
0	2000	1500	1000	2400	1800	1200
1	1450	1170	900	1750	1400	1080
2	1080	950	830	1300	1150	1000
3	770	770	770	925	925	925
4	Additional measures may be determined by consensus of the Licensees and State Agencies. FERC approval of any additional measures may be required.					

Stage 0 - Low Inflow Watch:

The Licensees will monitor reservoir elevations, the US Drought Monitor and the designated stream gages and will declare a Stage 0 - Low Inflow Watch for the month if the following conditions are present on the first of the month:

- The High Rock Reservoir elevation is below the Normal Minimum Elevation.

AND EITHER

- The U.S. Drought Monitor Three-Month Numeric Average for the Yadkin-Pee Dee River Basin draining to Blewett Falls Development is greater than or equal to zero.

OR

- The Stream Gage Three-Month Rolling Average Flow for the monitored stream gages is less than 48% of the Historic Stream Gage Three-Month Rolling Average Flow

When a Stage 0 – Low Inflow Watch is declared:

The Licensees will notify the YPD-DMAG of a Stage 0, Low Inflow Watch. The State Agencies will activate the YPD-DMAG and initiate monthly meetings or conference calls to be held on the Monday before the second Tuesday. Monthly discussions will:

a. Review provisions of this LIP
b. Clarify communication channels between YPD-DMAG members
c. Review hydrological status of the basin
d. Review the roles of each YPD-DMAG member and discuss their plans for responding if a Low Inflow Condition is declared
e. Review information reporting by YPD-DMAG members, including a storage history and forecast from the Licensees, a water use history and forecast from each water user on the YPD-DMAG, and state-wide drought response status (including, but not limited to, impact to water quality, fisheries, wildlife, etc.) from the member agencies.
f. Public communications.

Stage 1 - Low Inflow Condition:

The Licensees will monitor reservoir elevations, the US Drought Monitor and the designated stream gages and will declare a Stage 1 – Low Inflow Condition for the month if the following conditions are present on the first of the month:

- The prior month LIP condition was Stage 0.
- The High Rock Reservoir elevation is more than 1 ft below the Normal Minimum Elevation.

AND EITHER

- The U.S. Drought Monitor Three-Month Numeric Average for the Yadkin-Pee Dee River Basin draining to Blewett Falls Development is greater than or equal to 1.

OR

- The Stream Gage Three-Month Rolling Average Flow for the monitored stream gages is less than 41% of the Historic Stream Gage Three-Month Rolling Average Flow

When a Stage 1 Low Inflow Condition is declared:

1. The Licensees will:
   a. Reduce Instream Flow releases as detailed in Table 5 for each project within seven days after designating a Stage 1 Low Inflow Condition. The resulting levels of flows will be designated as the LIP Stage 1 Required Instream Flows. To meet the LIP Stage 1 Required Instream Flows:
      - APGI will supplement Project inflows by drawing from High Rock and Narrows reservoirs approximately equally on a foot-per-foot basis below the Normal Minimum Elevation.
      - PE will supplement Project inflows by drawing from either Tillery or Blewett Falls as required.

   b. Update websites to account for the impacts of the LIP on flow releases, reservoir levels and usability of public access areas.
   c. Provide public water system intake owners and non-public water users with weekly updates on reservoir levels and inflow of water into the projects' reservoirs.
2. The Licensees will notify the YPD-DMAG of a Stage 1, Low Inflow Condition. If they have not already done so, the State Agencies will activate the YPD-DMAG and initiate monthly meetings or conference calls to be held on the Monday before the second Tuesday. Monthly discussions will:

   a. Review provisions of this LIP
   b. Clarify communication channels between YPD-DMAG members
   c. Review hydrological status of the basin
   d. Review the roles of each YPD-DMAG member and discuss their plans for responding if a Low Inflow Condition is declared

e. Review information reporting by YPD-DMAG members, including a storage history and forecast from the Licensees, a water use history and forecast from each water user on the YPD-DMAG, and state-wide drought response status (including, but not limited to, impact to water quality, fisheries, wildlife, etc.) from the member agencies.

f. Public communications.

3. Owners of public water supply intakes will complete the following activities within 14 days after a Stage 1 - Low Inflow Condition is declared:

   a. Notify their water customers of the low inflow condition through public outreach and communication efforts.

   b. Request that their water customers implement voluntary water use restrictions, in accordance with their drought response plans. At this level, the goal is to reduce water withdrawals by approximately 5% from the amount that would otherwise be expected. These restrictions may include:

      - Reduction of lawn and landscape irrigation to no more than two days per week (i.e. residential, multi-family, parks, streetscapes, schools, etc).
      - Reduction of residential vehicle washing.

   c. Provide a status update to the YPD-DMAG on actual water withdrawal trends and discuss plans for moving to mandatory restrictions, if they are required.

4. Nonpublic Water Users on the YPD-DMAG will complete the following activities within 14 days after a Stage 1 - Low Inflow Condition is declared:

   a. Notify their employees and/or customers of the low inflow condition,

   b. Request that their employees and customers conserve water through reduction of water use, electric power consumption, and other means, and

   c. Institute in-house conservation consistent with their drought management plan and minimize consumptive uses to the extent feasible.

Stage 2 – Low Inflow Condition:

The Licensees will monitor reservoir elevations, the US Drought Monitor and the designated stream gages and will declare a Stage 2 – Low Inflow Condition for the month if the following conditions are present on the first of the month:

- The prior month LIP condition was Stage 1.
- The High Rock Reservoir elevation is more than 2 ft below the Normal Minimum Elevation.

AND EITHER

- The U.S. Drought Monitor Three-Month Numeric Average for the Yadkin-Pee Dee River Basin draining to Blewett Falls Development is greater than or equal to 2.

OR

- The Stream Gage Three-Month Rolling Average Flow for the monitored stream gages is less than 35% of the Historic Stream Gage Three-Month Rolling Average Flow

When a Stage 2 Low Inflow Condition is declared:

1. The Licensees will:
   a. Reduce Instream Flow releases as detailed in Table 5 for each project within seven days after designating a Stage 2 - Low Inflow Condition. The resulting levels of flows will be designated as the LIP Stage 2 Required Instream Flows. To meet the LIP Stage 2 Required Instream Flows:
      - APGI will supplement Project inflows by drawing from High Rock and Narrows reservoirs approximately equally on a foot-per-foot basis below the Normal Minimum Elevation.
      - PE will supplement Project inflows by drawing from either Tillery or Blewett Falls as required.

   b. Update websites to account for the impacts of the LIP on flow releases, reservoir levels and usability of public access areas.
   c. Provide public water system intake owners and non-public water users with bi-weekly (twice each week) updates on reservoir levels and inflow of water into the system.
   d. Continue participation in monthly or more frequent meeting or conference calls of the YPD-DMAG
2. Owners of public water supply intakes will complete the following activities within 14 days after the Stage 2 - Low Inflow Condition is declared:
   a. Notify their water customers of the continued low inflow condition and movement to more stringent mandatory water use restrictions through public outreach and communication efforts.
   b. Require that their water customers implement mandatory water use restrictions, in accordance with their drought response plans. At this level, the goal is to reduce water

withdrawals by approximately 10% from the amount that would otherwise be expected. These restrictions may include:

- Limiting lawn and landscape irrigation to no more than one day per week (i.e. residential, multi-family, parks, streetscapes, schools, etc).
- Eliminating residential vehicle washing.
- Limiting public building, sidewalk, and street washing activities except as required for safety and/or to maintain regulatory compliance.
- Limiting construction uses of water such as dust control.
- Limiting flushing and hydrant testing programs, except to maintain water quality or other special circumstances.
- Eliminating the filling of new swimming pools.
- Enforce mandatory water use restrictions through the assessment of penalties.
- Encourage industrial/manufacturing process changes that reduce water consumption.
- Provide a status update to the YPD-DMAG on actual water withdrawal trends.

3. Nonpublic Water Users on the YPD-DMAG will complete the following activities within 14 days after the Stage 1 - Low Inflow Condition is declared:
   a. Notify their employees and/or customers of the low inflow condition through public outreach and communication efforts.
   b. Request that their employees and customers conserve water through reduction of water use, electric power consumption, and other means.
   c. Institute in-house conservation consistent with their required drought management plans and minimize consumptive uses to the extent feasible.

Stage 3 - Low Inflow Condition:

The Licensees will monitor reservoir elevations, the US Drought Monitor and the designated stream gages and will declare a Stage 3 – Low Inflow Condition for the month if the following conditions are present on the first of the month:

- The prior month LIP condition was Stage 2.
- The High Rock Reservoir elevation is more than 3 ft below the Normal Minimum Elevation.

AND EITHER

- The U.S. Drought Monitor Three-Month Numeric Average for the Yadkin-Pee Dee River Basin draining to Blewett Falls Development is greater than or equal to 3.

OR

- The Stream Gage Three-Month Rolling Average Flow for the monitored stream gages is less than 30% of the Historic Stream Gage Three-Month Rolling Average Flow

When a Stage 3 Low Inflow Condition is declared:

1. The Licensees will:
   a. Reduce Instream Flow releases to designated Critical Flows as detailed in Table 5. To meet the Critical Instream Flows:
      - APGI will supplement Project inflows by drawing from High Rock and Narrows reservoirs approximately equally on a foot-per-foot basis below the Normal Minimum Elevation.
      - PE will supplement Project inflows by drawing from either Tillery or Blewett Falls as required.

   b. Update websites to account for the impacts of the LIP on flow releases, reservoir levels and usability of public access areas.
   c. Provide public water system intake owners and non-public water users with bi-weekly (twice each week) updates on reservoir levels and inflow of water into the system.
   d. Continue participation in monthly or more frequent meeting or conference calls of the YPD-DMAG

2. Owners of public water supply intakes will complete the following activities within 14 days after the Stage 3 Low Inflow Condition is declared:
   a. Notify their water customers of the continued low inflow condition and movement to emergency water use restrictions through public outreach and communication efforts. At this level, the goal is to reduce water usage by approximately 20% from the amount that would otherwise be expected.

   b. Restrict all outdoor water use.

c. Implement emergency water use restrictions in accordance with their drought response plans, including enforcement of these restrictions and assessment of penalties.

d. Prioritize and meet with their commercial and industrial large water customers and meet to discuss strategies for water reduction measures including development of an activity schedule and contingency plans.

e. Prepare to implement emergency plans to respond to water outages.

3. Non- public Water Users on the YPD-DMAG will complete the following activities within 14 days after a Stage 3 – Low Inflow Condition is declared:

a. Continue informing their customers of the low inflow condition through public outreach and communication efforts.

b. Request that their customers conserve water through reduction of water use, electric power consumption, and other means.

Stage 4 - Low Inflow Condition:

The Licensees will monitor reservoir elevations, the US Drought Monitor and the designated stream gages and will declare a Stage 4 – Low Inflow Condition for the month if the following conditions are present on the first of the month:

- The prior month LIP condition was Stage 3.

- The High Rock Reservoir elevation is below one half the distance between the Normal Minimum Elevation and the Critical Elevation.

AND EITHER

- The U.S. Drought Monitor Three-Month Numeric Average for the Yadkin-Pee Dee River Basin draining to Blewett Falls Development is greater than or equal to 4.

OR

- The Stream Gage Three-Month Rolling Average Flow for the monitored stream gages is less than 30% of the Historic Stream Gage Three-Month Rolling Average Flow

When a Stage 4 Low Inflow Condition is declared:

The Licensees will notify the State Agencies to convene the YAD-DMAG within 5 days after the declaration of the Stage 4 Low Inflow Condition for discussion to determine if there are any additional measures that can be implemented to:

- reduce water withdrawals;
- reduce water releases from the projects; or
- use additional reservoir storage without creating more severe regional problems.
- work together to develop plans and implement any additional measures identified above.
- communicate conditions to the public.

Additional measures may be determined by consensus of the Licensees and State Agencies. FERC approval of any additional measures may be required.

Recovery from the Low Inflow Protocol

Recovery from the LIP will be triggered by any of the three following conditions:

- All three of the triggers associated with the lower numbered LIP Stage must be met or exceeded before returning reservoir levels and flows to that less restrictive LIP Stage, Low Inflow Watch, or Normal Conditions.

OR

- High Rock Reservoir levels return to at or above the Normal Minimum Elevation **PLUS** 2.5 ft.

OR

- High Rock Reservoir levels return to at or above the Normal Minimum Elevation for 2 consecutive weeks.

When any of these three conditions occurs:

1. The Licensees will:

    - If reservoir levels slowly return to their normal ranges, the LIP recovery will be a general reversal of the staged approach described above.
    - If at any time High Rock Reservoir elevations return to at or above the Normal Minimum Elevation **PLUS** 2.5 ft, the LIP will be discontinued and the Licensees may return to normal releases.
    - If at any time High Rock Reservoir elevations return to at or above the Normal Minimum Elevation for 2 consecutive weeks, the LIP will be discontinued and the Licensees may return to normal releases.

2. The Licensees will notify the YPD-DMAG members within 5 days following attainment of any of the conditions necessary to return to a lower stage of the LIP, Low Inflow Watch, or Normal Conditions or normal flow releases. Changes to less restrictive Stages will be made:

    - on the first of each month if a slow recovery is indicated; or
    - immediately if High Rock Reservoir elevations are at or above the Normal Minimum Elevation **PLUS** 2.5 ft.
    - immediately if High Rock Reservoir elevations are at or above the Normal Minimum Elevation for 2 consecutive weeks.

3. The Licensees will update their websites to account for the impacts of the LIP on reservoir levels and usability of public access areas.

Attachment 4

DRAFT
Yadkin Project
Hydro Project Maintenance & Emergency Protocol (HPMEP)

Introduction

Under some emergency, equipment failure and maintenance situations, certain license conditions may be impractical or even impossible to meet and may need to be suspended or modified temporarily to avoid taking unnecessary risks. The objectives of this protocol are to define the most likely situations of this type, identify the potentially impacted license conditions and outline the general approach that the Licensee will take to mitigate the impacts to license conditions and to communicate with the resource agencies and affected parties.

Note: Due to the potential variability of these abnormal situations, this protocol is not intended to give an exact step-by-step solution path. It will, however, provide basic expectations for the Licensee's approach to dealing with the situation. Specific details will vary and will be determined on a case-by-case basis as the protocol is being enacted.

The Licensee will review the requirements of this HPMEP each time it is used and will consult with the organizations listed in Key Facts and Assumptions Number 13, below, if the Licensee determines revisions are warranted.

Key Facts and Assumptions

1. Instream Flows – Assume that the New License for the Yadkin Project will include minimum flow requirements.

2. Public Information System – Assume that the Licensee will maintain public information readily available on its website and phone system.

3. Full Pond Elevation – Also referred to simply as "full pond", this is the level of a reservoir that corresponds to the point at which water would first begin to spill from the reservoir's dam if the Licensee took no action. This level corresponds to the lowest point along the top of the flood gates. The Full Pond Elevation is the Normal Maximum Elevation. The Full Pond Elevations for the Yadkin Project reservoirs are:

Reservoir	Full Pond Elevation (USGS - ft. above Mean Sea Level)
High Rock	623.9
Tuckertown	564.7
Narrows	509.8
Falls	332.8

4. Normal Minimum Elevation – The level of a reservoir measured in ft above Mean Sea Level (msl) that defines the bottom of the reservoir's Normal Operating Range for a given day of the year. If inflows and outflows to the reservoir are kept within some reasonable tolerance of the average or expected amounts, hydro project equipment is operating properly and no protocols for abnormal

conditions have been implemented, reservoir level excursions below the Normal Minimum Elevation should not occur.

5. Normal Operating Range for Reservoir Levels – The band of reservoir levels within which the Licensee normally attempts to maintain a given reservoir that it operates on a given day. Each reservoir has its own specific Normal Operating Range, and that range is bounded by a Normal Maximum Elevation (full pond) and a Normal Minimum Elevation. If inflows and outflows to the reservoir are kept within some reasonable tolerance of the average or expected amounts, hydro project equipment is operating properly and no protocols for abnormal conditions have been implemented, reservoir level excursions outside of the Normal Operating Range should not occur. Assume that the New License for the Yadkin Project will include the Normal Operating Ranges for Reservoir Levels.

6. Most Likely Situations - The following table identifies the most likely situations when this protocol will be enacted and the license conditions that would most likely be impacted:

		Potentially Impacted License Conditions	
Situation	**Indications**	**Flows Releases from Project**	**Normal Operating Range for Reservoir Levels**
Hydro Unit Maintenance	Maintenance will require hydro unit shutdown.	X	X
Maintenance of Normal Means of Providing Minimum Flow	Maintenance will require interruption of scheduled minimum releases from normal locations.	X	
Dam Safety Emergency	Red Alert or Yellow Alert (i.e. dam failure has occurred, is imminent or a potential failure situation is developing) is declared per Emergency Action Plan or other dam safety concern is identified.	X	X
Voltage or Capacity Emergency	A voltage or capacity emergency is declared by the electric grid security authority.	X	X
Reservoir Drawdown Beyond Normal Minimum Elevation due to maintenance, emergency or other reasons (not due to low inflow)	The reservoir level at a reservoir is significantly below Normal Minimum Elevation	X	X
Expected or existing high inflow event	The reservoir level at a reservoir is significantly below the Normal Minimum	X	X

		Potentially Impacted License Conditions	
Situation	**Indications**	**Flows Releases from Project**	**Normal Operating Range for Reservoir Levels**
	Elevation		

7. Returning to Normal - Some of the above situations can impact the Licensee's ability to operate the hydro project in the most efficient and safest manner for power production. The Licensee will therefore endeavor in good faith to repair existing hydro project equipment and facilities and return them to service within a reasonable period of time, commensurate with the severity of the equipment / facility repair requirements.

8. Incidental Maintenance – Maintenance of hydro project works that are very brief in nature or that require minimal, if any, deviation from normal license conditions. For the purposes of this protocol, maintenance of hydro project works that do not require deviation from any license conditions related to minimum flows or the Normal Operating Ranges for reservoir levels or are less than 24 hours in duration are considered Incidental Maintenance and, except for the identified notification for Incidental Maintenance that impact minimum flows, are exempt from the requirements of this protocol.

9. Notification Guidance

   a. Scheduled Maintenance that affects license conditions - Once a likely maintenance schedule has been established, the Licensee will endeavor in good faith to provide as much advance notice as possible to the affected parties identified in this protocol.

   b. Unscheduled Maintenance and Emergencies that affect license conditions - It is not possible for the Licensee to assure any level of advance notice. For these situations, the Licensee will endeavor in good faith to inform the affected parties identified in this protocol within some reasonable amount of time after the situation has been identified.

10. Preparation for High Inflow Events – With modern forecasting, it is more possible than ever to predict large precipitation events and to increase generation hours to reduce reservoir levels in order to mitigate the potential for spilling and downstream high water. Typically, this type of advance action is taken from 1 to 5 days before the expected arrival of the storm. It is assumed that the Normal Operating Ranges of reservoir levels may not include adequate flexibility (i.e. band width) to allow for this type of reservoir level reduction under heavy inflow circumstances, and therefore, allowances are made in the protocol to lower reservoir levels below the Normal Minimum Elevations if needed in preparation for such events.

11. Relationship Between this Protocol and the Low Inflow Protocol – The Low Inflow Protocol (LIP) provides for deviations from the minimum flow requirements and deviation from the Normal Operating Ranges for reservoir levels when water demands on the reservoirs substantially exceed net inflow. Lowered reservoir levels caused by situations addressed under this HPMEP will not invoke implementation of the LIP. Also, if the LIP has already been implemented at the time that a situation covered by this HPMEP is initiated, the Licensee will typically suspend implementation of the LIP until the HPMEP situation has been eliminated. The Licensee may however choose to continue with the LIP if needed.

12. Critical Flows – The minimum instream flow releases from the Falls Development that may be necessary to prevent long-term or irreversible damage to aquatic communities consistent with the resource management goals and objectives.

Since the normal minimum flows are for aquatic species habitat, the Critical Flows are related to and expected to be lower than the normal minimum flows required by the New License. For the purposes of the LIP, it is assumed that the Critical Flows are as follows:

Falls Dam - the Yadkin River below the Falls Development:
[later] cubic feet per second (cfs) total.

13. Organizational abbreviations - Organizational abbreviations include Alcoa Power Generating Inc. (Alcoa-Yadkin), Progress Energy (PE), NC Department of Environment and Natural Resources (NCDENR), North Carolina Division of Water Resources (NCDWR), North Carolina Division of Water Quality (NCDWQ), North Carolina Wildlife Resources Commission (NCWRC), the United States Fish and Wildlife Service (USFWS).

14. Voltage and Capacity Emergencies – The Yadkin transmission system is interconnected to the Duke Power transmission system and the Progress Energy transmission system. If system reliability is at risk due to Voltage and Capacity Emergencies, the ability to provide secure and continuous electric service becomes compromised. The electric grid security authority continuously monitors the electric transmission system. Therefore, for the purposes of this protocol, a voltage or capacity emergency shall exist when declared by the electric grid security authority.

15. Human Health and Safety and Electric System Integrity are of Utmost Importance – Nothing in this protocol will limit the Licensee's ability to take any and all lawful actions necessary at the Yadkin Project to protect human health and safety, protect its equipment from major damage, and ensure the stability of the regional electric grid. It is recognized that the Licensee may take the steps that are necessary to protect these things without prior consultation or notification.

16. Large Water Intake – For the purposes of this HPMEP, a Large Water Intake is any intake (e.g. public water supply, industrial, agricultural, power plant, etc.) having a maximum instantaneous capacity greater than or equal to one Million Gallons per Day (MGD), the FERC approval level for new intakes.

17. Critical Elevation – The level of water in a reservoir (measured in feet, USGS) below which a large water intake located on the reservoir cannot operate. The Critical Elevations are the Critical Reservoir Elevations defined in the LIP.

General Approach to Abnormal Situations

A. Hydro Unit Maintenance

1. Mitigating Actions
   a. Scheduled Unit Maintenance
      To the extent practical, the Licensee will avoid scheduling unit maintenance that would impact minimum flow releases from the Project, unless it is likely that the equipment condition will cause damage or unscheduled unit maintenance if repairs are delayed.

   b. Unscheduled Unit Maintenance

      Minimum Flow Releases – If the maintenance affects equipment that provides the normal method of providing minimum flows, then the Licensee will endeavor in good faith to restore some or all of the minimum flows as soon as practicable.

2. Communication with Resource Agencies and Affected Parties

   a. Scheduled Unit Maintenance
      1) Direct Consultation - If the Scheduled Unit Maintenance will affect any required flow release or Normal Operating Range for Reservoir Levels, the Licensee will consult with the NCDENR, NCWRC, PE, and USFWS, as soon as approximate maintenance schedule dates are determined, but at least 10 days prior to beginning any reservoir draw down or the unit maintenance. The Licensee will consult with North Carolina State Historic Preservation Officer (NCSHPO) if the maintenance will affect cultural resources. The Licensee will notify the FERC after consultation with agencies. If the maintenance will require a reservoir drawdown below the Critical Elevations of a Large Water Intake located in a reservoir, the Licensee will notify the owner of the intake. The Licensee will consider options suggested by the identified agencies and organizations that could lessen the impact of the maintenance.

      2) General Notification – If the maintenance will affect any downstream flow release or Normal Operating Range for Reservoir Levels, at least 10 days before beginning any reservoir draw down or the unit maintenance, the Licensee will add the appropriate messages to its public information website and/or its reservoir level phone system to inform the general public of the maintenance and draw down schedule.

   b. Unscheduled Unit Maintenance
      1) Direct Notification - If the Unscheduled Unit Maintenance will affect any required flow release or Normal Operating Range for Reservoir Levels, the Licensee will notify the NCDENR, NCWRC, PE, USFWS, and FERC as soon as possible after the unscheduled maintenance begins, but no longer than 5 days afterwards. If the maintenance will require a reservoir drawdown below the Critical Elevations of a Large Water Intake located in a reservoir, the Licensee will notify the owner of the intake.

      2) General Notification – If the maintenance will affect any required flow release or Normal Operating Range for Reservoir Levels, as soon as possible after the unscheduled maintenance begins but no longer than 5 days afterwards, the Licensee will add the appropriate messages to its public information website and its reservoir level phone system to inform the general public of the maintenance and draw down schedule.

3) Direct Consultation – If the maintenance will affect any required flow release or Normal Operating Range for Reservoir Levels, the Licensee will consult with the NCDENR, NCWRC, PE, USFWS as soon as possible after the unscheduled maintenance begins, but no longer than 10 days afterwards. The Licensee will consult with NCSHPO if the maintenance will affect cultural resources. The Licensee will notify the FERC after consultation with agencies. The Licensee will consider options suggested by the identified agencies and organizations that could lessen the impact of the maintenance.

B. Maintenance of the Normal Means of Providing Minimum Flows

1. Mitigating Actions
   a. Scheduled Maintenance
      1) Scheduling - To the extent practical, the Licensee will avoid scheduling maintenance that would impact the ability of the Licensee to release minimum flows from the Project, unless it is likely that the equipment condition will cause damage or an unscheduled maintenance condition if repairs are delayed.

      2) Providing Minimum Flows - If the maintenance cannot avoid impacting minimum flows from the Project, then the Licensee will endeavor in good faith to restore some or all of the minimum flows as soon as practicable.

      3) Avoid Falling Below the Critical Flows – To the extent practical, the Licensee will avoid falling below any of the Critical Flows as noted above. If it is determined that 100% exceedance of the Critical Flows cannot reasonably be achieved, the Licensee will work with the resource agencies to monitor any potential aquatic species impacts in the affected reach below Falls Dam.

   b. Unscheduled Maintenance
      1) Providing Minimum Flows - If the maintenance cannot avoid impacting minimum flows from the Project, then the Licensee will endeavor in good faith to restore some or all of the minimum flows as soon as practicable.

      2) Avoid Falling Below the Critical Flows – To the extent practical, the Licensee will avoid falling below any of the Critical Flows as noted above. If it is determined that 100% exceedance of the Critical Flows cannot reasonably be achieved, the Licensee will work with the resource agencies to monitor any potential aquatic species impacts in the affected reach below Falls Dam.

2. Communication with Resource Agencies and Affected Parties
   a. Scheduled Maintenance
      1) Direct Consultation – If the Scheduled Maintenance cannot avoid impacting minimum flows from the Project, the Licensee will consult with the NCDENR, NCWRC, PE, and USFWS, as soon as approximate maintenance schedule dates are determined, but at least 10 days prior to beginning the maintenance. The Licensee will notify the FERC after consultation with agencies. The Licensee will consider options suggested by the identified agencies and organizations that could lessen the impact of the maintenance.

      2) General Notification – If the maintenance will affect any required flow release, at least 10 days before beginning the maintenance, the Licensee will add the appropriate messages to its public information website and its reservoir level phone system to inform the general public of the maintenance.

b. Unscheduled Maintenance

1) Direct Notification - If the Unscheduled Maintenance cannot avoid impacting minimum flows from the Project, the Licensee will notify the NCDENR, NCWRC, PE, USFWS, and FERC as soon as possible after the unscheduled maintenance begins, but no longer than 5 days afterwards.

2) Direct Consultation – If the maintenance cannot avoid impacting minimum flows from the Project, the Licensee will consult with the NCDENR, NCWRC, PE, USFWS as soon as possible after the unscheduled maintenance begins, but no longer than 10 days afterwards. The Licensee will notify the FERC after consultation with agencies. The Licensee will consider options suggested by the identified agencies and organizations that could lessen the impact of the maintenance.

C. Dam Safety Emergency

1. Mitigating Actions

Safety Must Come First – If a Red Alert or Yellow Alert is declared per the Licensee's Emergency Action Plan, or other dam safety concerns arise, the Licensee may modify or suspend any relevant conditions immediately and for as long as necessary to restore the dam to a safe condition.

2. Communication with Resource Agencies and Affected Parties

a. Direct Notification – Conducted strictly in accordance with the Licensee's Emergency Action Plan. In cases where dam safety concerns arise that are not a Red Alert or Yellow Alert per the Licensee's Emergency Action Plan, consultation with resource agencies and affected parties will occur as soon as possible, after the dam safety concern arises.

b. Once Dam Safety Conditions Have Stabilized – The Licensee will add the appropriate messages to its public information website and/or its reservoir level phone system to inform the general public of the situation and any expected return to normal operation.

D. Voltage and Capacity Emergencies

1. Mitigating Actions

a. Suspension of the Normal Operating Range for Reservoir Levels – If a voltage or capacity emergency (as defined above) occurs, the Licensee may modify or suspend reservoir level operating limitations immediately and for as long as necessary if doing so would allow additional hydro station operation that is needed to restore the electric grid to a stable condition.

b. Conserving Water for Power Generation - If a voltage or capacity emergency (as defined above) occurs and if it is expected to continue for an extended period of time (e.g. two weeks or more), the Licensee may reduce minimum flows to the Critical Flows (as defined above) if taking such action is necessary to maintain the water inventory in Project reservoirs for use during the voltage and capacity emergency. During a voltage and capacity emergency, the Licensee will not conserve water for power generation strictly as a cost avoidance measure, but only to assist in addressing the emergency.

2. Communication with Resource Agencies and Affected Parties

a. Direct Notification - The Licensee will notify the NCDENR, NCWRC, PE, USFWS and FERC as soon as possible following a deviation from license conditions for voltage or capacity emergency reasons. The Licensee will notify the NCSHPO if cultural resources are affected.

b. General Notification - Within 5 days following the start of the emergency deviation, the Licensee will add the appropriate messages to its public information website and its reservoir level phone system to inform the general public of the situation and any expected dates for return to normal operations.

c. Direct Consultation – The Licensee will consult with the NCDENR, NCWRC, PE, and USFWS as soon as possible following a deviation from license conditions for voltage or capacity emergency reasons. The Licensee will consult with downstream water users if they are affected by the Voltage and Capacity Emergency through reduced downstream flows. The Licensee will consult with the NCSHPO if cultural resources are affected. The Licensee will notify the FERC after consultation with agencies. If the emergency will require a reservoir drawdown below Critical Elevations that affect the operations of a Large Water Intake located in a reservoir, the Licensee will notify the owner of the intake. The Licensee will consider options suggested by the identified agencies and organizations that could lessen the impact of the emergency.

E. Reservoir Drawdown

1. Mitigating Actions
   a. Planned Drawdowns
      1. Scheduling - To the extent practical, the Licensee will avoid scheduling reservoir drawdowns that would impact the ability of the Licensee to release minimum flows from the Project.

      2. Alternative Means to Provide Minimum Flows - If the drawdown cannot avoid impacting minimum flows from the Project, then the Licensee will endeavor in good faith to restore some or all of the minimum flows as soon as practicable.

      3. Avoid Falling Below the Critical Flows – To the extent practical, the Licensee will avoid falling below any of the Critical Flows as noted above. If it is determined that 100% exceedance of the Critical Flows cannot reasonably be achieved, the Licensee will work with the resource agencies to monitor any potential aquatic species impacts in the affected reach below Falls Dam.

   b. Unplanned Drawdowns
      1. Alternative Means to Provide Minimum Flows - If the drawdown cannot avoid impacting minimum flows from the Project, then the Licensee will endeavor in good faith to restore some or all of the minimum flows as soon as practicable.

      2. Avoid Falling Below the Critical Flows – To the extent practical, the Licensee will avoid falling below any of the Critical Flows as noted above. If it is determined that 100% exceedance of the Critical Flows cannot reasonably be achieved, the Licensee will work with the resource agencies to monitor any potential aquatic species impacts in the affected reach below Falls Dam

2. Communication with Resource Agencies and Affected Parties
   a) Planned Drawdowns
      1) Direct Consultation – The Licensee will consult with the NCDENR, NCWRC, PE, and USFWS as soon as approximate dates are determined, but at least 10 days prior to

beginning the drawdown. The Licensee will consult with the NCSHPO if the drawdown will affect cultural resources. If the drawdown will go below Critical Elevations that affect the operations of a large water intake located in a reservoir, the Licensee will consult with the owner of the intake. The Licensee will notify the FERC after consultation with agencies. The licensee will consider options suggested by the identified agencies and organizations that could lessen the impact of the drawdown.

2) General Notification – If the reservoir drawdown will cause the reservoir to be out of the Normal Operating Range for Reservoir Levels, at least 10 days before beginning any drawdown, the Licensee will add the appropriate messages to its public information website and its reservoir level phone system to inform the general public of the drawdown schedule.

b) Unplanned Drawdowns

1) Direct Notification - If the drawdown cannot avoid impacting minimum flows from the Project, the Licensee will notify the NCDENR, NCWRC, PE, USFWS, and FERC, if affected by the drawdown, but no longer than 5 days afterwards.

2) Direct Consultation – If the drawdown cannot avoid impacting minimum flows from the Project, the Licensee will consult with the NCDENR, NCWRC, PE, and USFWS as soon as possible, but no longer than 10 days afterwards. The Licensee will notify the FERC after consultation with agencies. The Licensee will consider options suggested by the identified agencies and organizations that could lessen the impact of the drawdown.

F. Expected or Existing High Inflow Event

1. Mitigating Actions

As outlined in Key Facts and Assumptions Numbers 9 and 14, the Licensee may reduce reservoir levels significantly below the Normal Minimum Elevation in preparation for high inflow events in order to minimize the effects of spilling. The reservoir levels may be below Normal Minimum Elevations for as long as necessary to minimize the effects of spilling and to manage reservoir elevations during high inflow events.

2. Communication with Resource Agencies and Affected Parties

a. Direct Notification - The Licensee will notify the NCDENR, NCWRC, PE, USFWS and FERC as soon as possible following a deviation from license requirements for an existing or expected high inflow event. If the drawdown will go below Critical Elevations that affects the operations of a Large Water Intake located in a reservoir, the Licensee will consult with the owner of the intake.

b. General Notification – As soon as possible after the Licensee determines that deviation from license requirements are needed due to an existing or expected high inflow event, the Licensee will add the appropriate messages to its public information website and its reservoir level phone system to inform the general public of the situation and any expected dates for return to normal operations.

Attachment 5

Yadkin Project Proposed Unit Refurbishment/Upgrade and DO Enhancement Schedule

Revised 6/23/06

Year	High Rock	Tuckertown	Narrows	Falls	Monitoring/Reporting
Actions Completed					
2000-2005	*- Engineering studies and model tests for refurbishment/upgrade of High Rock Units 1, 2 and 3.*		- Refurbishment/upgrade of Unit 4 with addition of two aeration valves to unit draft cone.		
Existing License					
2006	*- Engineering studies and model tests for refurbishment/upgrade of High Rock Units 1, 2 and 3.*	*- Engineering studies for generator rewinds of all three Tuckertown units.*	*- Engineering studies and model tests for refurbishment/upgrade of Narrows Units 1, 2, and 3.*		- Continuous DO/temp monitoring 5/1-11/30 at existing stations in all four tailwaters.
2007	*- Engineering and runner model tests for High Rock units continue.*	*- Engineering and design for the Tuckertown generator rewinds with preliminary turbine testing (Index test).*	*- Detailed engineering continues and procurement for Narrow Units 1 and 2.*		-Continuous DO/temp monitoring 5/1-11/30 at existing stations in all four tailwaters. - File Draft DO Monitoring and QAPP with NCDWQ as part of 401 Application.
2008	*Procurement cycle for High Rock turbine upgrades.*	*Turbine model development and testing.*	- Complete refurbishment/ upgrade of Unit 2 with addition of two aeration valves to the unit draft cone similar to those on Unit 4 by 03/31/08.[1]	*- Engineering studies for generator upgrades of all three Falls units with preliminary turbine testing (Index test).*	- Continuous DO/temp monitoring 5/1-11/30 at existing stations in all four tailwaters. - File Final DO Monitoring Plan for approval by NCDWQ and FERC.
New FERC License[2]					
2009	*Finalize contracts for High Rock upgrades and begin outage work.*		- Complete refurbishment/ upgrade of Unit 1 with addition of two aeration valves to the unit draft cone similar to those on Unit 4 by 12/31/09.	*Unit 1 outage for generator rewind.*	- Implement NCDWQ approved DO Monitoring Plan. - File annual DO monitoring data report with NCDWQ by March 1 of the following year.[3]
2010	- Complete refurbishment/ upgrade of Unit 3. As part of this refurbishment, APGI will install a "through the blade" aerating turbine by 12/31/10.[4]		- Complete refurbishment/ upgrade of Unit 3 with addition of two aeration valves to the unit draft cone similar to those on Unit 4 by 12/31/10.	*Unit 2 outage for generator rewind.*	- Monitoring in accordance with DO Monitoring Plan.
2011	- Complete refurbishment/ upgrade of Unit 2. As part of this refurbishment, APGI will install a "through the blade" aerating turbine by 12/31/11.			*Unit 3 outage for generator rewind.*	- Monitoring in accordance with DO Monitoring Plan. - Initiate special study (up to 2 years) to evaluate the effectiveness of the aeration at Narrows on DO levels being discharge from Falls (2011-2012)

Year	High Rock	Tuckertown	Narrows	Falls	Monitoring/Reporting
2012	- Complete refurbishment/ upgrade of Unit 1. As part of this refurbishment, APGI will install a "through the blade" aerating turbine by 12/31/12.			*- Engineering studies and model tests for Falls turbine upgrades.*	- Monitoring in accordance with DO Monitoring Plan. -Complete second year of 2-year study of effectiveness of aeration at Narrows on DO at Falls by 12/31/12 and file report with NCDWQ by 3/1/13.
2013				*Procurement cycle for Falls turbine upgrades.*	-File 2 year Narrows/Falls DO study report with NCDWQ by 3/1/13. - If 2-year study does not demonstrate compliance at Falls, file an action plan for DO enhancement at Falls by 12/31/13. -Initiate special study (up to 2 years) to evaluate the effectiveness of aeration at High Rock on DO levels being discharged from Tuckertown (2013-2014).[5]
2014				- Refurbishment/upgrade of Unit 1 with aeration technology if needed in accordance with Falls Action Plan.	- Monitoring in accordance with DO Monitoring Plan. - Complete second year of 2-year study of High Rock/Tuckertown DO by 12/31/14 and file report with NCDWQ by 3/1/15.
2015				- Refurbishment/upgrade of Unit 2 with aeration technology if needed in accordance with Falls Action Plan.	- Monitoring in accordance with DO Monitoring Plan. - If 2-year study does not demonstrate compliance at Tuckertown, file an action plan for DO enhancement at Tuckertown by 12/31/15.
2016		- Refurbishment/upgrade of Unit 1. Initiate installation of aeration technology, if needed, in accordance with Tuckertown Action Plan.		- Refurbishment/upgrade of Unit 3 with aeration technology if needed in accordance with Falls Action Plan.	- Monitoring in accordance with DO Monitoring Plan.
2017		- Refurbishment/upgrade of Unit 2.			- Monitoring in accordance with DO Monitoring Plan.
2018		- Refurbishment/upgrade of Unit 3.			- Monitoring in accordance with DO Monitoring Plan.

Note: Engineering work, and other activities that are being undertaken by APGI as part of the overall refurbishment and upgrade program that are integral to the overall program schedule, but that are not specific commitments being made as part of APGI's plan to improve Yadkin Project tailwater DO conditions are shown in italics.

1 As aeration technology is added to each unit at Narrows, APGI will operate that unit with aeration "on" between May 1 and November 30 of each year. As refurbishments are completed on the Narrows units, APGI will operate the units with aeration installed on a first on-last off basis, subject to unit availability.

2 This schedule is based upon the assumption of a new FERC license being issued in 2008.

3 Beginning in 2009, APGI will conduct water quality monitoring in the four Project tailwaters in accordance with a NCDWQ-approved QAPP as part of the proposed Dissolved Oxygen Monitoring Plan. Results of each calendar year of monitoring will be provided to NCDWQ in the form of an annual report which will be filed with NCDWQ no later than March 1 of the following year.

4 As aeration technology is added to each unit at High Rock, APGI will operate that unit with aeration "on" between May 1 and November 30 of each year. As refurbishments are completed on the High Rock units, APGI will operate the units with aeration installed on a first on-last off basis, subject to unit availability.

5 The study of the effectiveness of aeration at High Rock on DO levels being discharged from Tuckertown may be initiated a year earlier (in 2012), if refurbishments to High Rock Unit 1 are completed early enough in 2012, so that the study could be done during the summer of 2012.

Attachment 6
Proposed Recreation Facility Enhancements
Revised 6/23/06

Project Recreation Site Facility Upgrades and Improvements

1) APGI will make improvements at up to 10 of its public recreation sites to make the facilities more ADA (Americans with Disabilities Act) compatible. A preliminary list of sites that can most readily be made to comply with ADA standards and that would benefit recreation users the most is provided in Table 1. A final list of sites and the improvements necessary to make the sites ADA compatible, will be determined in consultation with resource agencies and the surrounding Counties, and will be included in a Recreation Plan for the Project.

Table 1
Preliminary List of APGI's Public Recreation Sites
That Can Most Readily Be Made to Comply with ADA Standards

Site Name	Reservoir	Improvements Needed to Achieve Barrier-Free Accessibility
Buddle Creek Boat Access Area	High Rock	ADA parking signage; accessible bathroom; accessible pathway; accessible picnic table
Dutch Second Creek Boat Access	High Rock	ADA parking spaces; ADA parking signage; accessible bathroom; accessible pathways
Badin Boat Access	Narrows	ADA parking spaces; ADA parking signage; transition plates; accessible bathroom; accessible picnic table; accessible pathways
Riles Creek Recreation Area	Tuckertown	ADA parking space; ADA parking signage; accessible bathroom; accessible pathways
Falls Boat Access	Falls	ADA parking space; ADA parking signage; dock abutment; courtesy floating dock
Highway 601 Access Area	High Rock	ADA parking space; ADA parking signage; dock abutment; courtesy floating dock; accessible pathways
Badin Lake Swim/Picnic Area	Narrows	ADA parking spaces; ADA parking signage; accessible bathroom; accessible picnic tables; accessible pathways
Flat Swamp Boat Access	High Rock	ADA parking space; ADA parking signage; accessible bathroom; accessible picnic table; accessible pathways
Southmont Boat Access Area	High Rock	ADA parking spaces; ADA parking signage; accessible bathroom; accessible picnic table; accessible pathways

2) APGI will provide and maintain new portable toilet facilities at several of its existing public recreation sites, where such facilities are not currently available. A preliminary list of sites where portable toilets will be added is provided in Table 2. A final list of sites where portable toilets will be added will be determined in consultation with resource agencies and the surrounding Counties, and will be included in a Recreation Plan for the Project.

Table 2
Preliminary List of APGI Recreation Sites
Where New Portable Toilets will be Added

Site Name	Reservoir	Number of Toilets to be Added
York Hill Boat Access	High Rock	1
Dutch Second Creek Boat Access	High Rock	1 - 2
Riles Creek Recreation Area	Tuckertown	1
Lakemont Access Area	Narrows	1

3) APGI will install two (2) ADA compliant fishing piers at existing APGI public access areas. One of the fishing piers will be installed on High Rock Reservoir and the other on Tuckertown Reservoir. The final location of the new fishing piers will be determined in consultation with resource agencies and the surrounding Counties.

4) APGI will make modifications to the existing tailwater fishing areas located at the High Rock and Tuckertown tailwaters. The exact nature of these modifications is yet to be determined, but the concept would be to provide facilities that allow improved access to the tailwater areas for fishing, with special consideration given to public safety and facility security issues. Conceptual plans for these facility modifications will be developed in consultation with the resource agencies, with guidance from FERC staff.

5) APGI will make improvements to North Carolina standards at the existing portage trails at each of the four Project dams. Portage trail improvements will be spread over the new license. Improvements to the Falls Dam portage trail will be made within ten years of the effective date of the new license. Improvements to the High Rock, Tuckertown and Narrows portage trails will be made within 20 years of the effective date of the new license, unless NCDENR agrees that recreational use data demonstrates insufficient demand by non-motorized boaters. Conceptual designs for the portage trail improvements will be developed in consultation with NCDENR and other resource agencies.

New Project Recreation Facilities

1) APGI will develop a new public recreation site with a swimming area and beach on the Rowan County side of High Rock Reservoir. The final location of the new recreation site will be determined by APGI and will be on non-Project land currently owned by APGI. Some portion of APGI's Price Road property is presently under consideration. Conceptual plans for this new recreation site will be developed in consultation with Rowan County, NCDENR, NCWRC, and other resource agencies.

2) APGI will install up to ten "hardened" (or platform) campsites dispersed throughout the Project area. Specific locations for the proposed campsites will be determined by

APGI in consultation with resource agencies, the surrounding Counties, and other parties with relevant expertise. Preferred locations would be those that meet the following minimum criteria: 1) located on APGI-owned Project or non-Project land, 2) located in areas not prone to flooding, 3) located away from existing public recreation sites, 4) accessible by water or by trail, 5) sites conducive for use primarily by non-motorized watercraft, 6) sites distributed throughout the Project so as to support use of the Project reservoirs as part of the Yadkin-Pee Dee River Trail, and 7) sites conducive with the safety and security of the Project and Project facilities.

Replacement Project Recreation Facilities

Boating access to the lower part of Tuckertown Reservoir is currently provided at an access area located immediately off of Highway 49, in the vicinity of the Highway 49 Bridge. While the facility is located primarily on property owned by APGI, parking for the site is located in the NCDOT Highway 49 right-of-way. APGI is aware that NCDOT has plans to widen Highway 49 in this area sometime within the next 10-15 years. It is likely that when that widening occurs that the existing site would have to be closed due to lack of parking. APGI proposes that at the time of the Highway 49 widening, it will replace the existing boat launch with a similar facility located elsewhere on the lower portion of Tuckertown Reservoir. A final determination on the site of the new facility will be made by APGI, and the design of the new facility will be carried out in consultation with NCWRC and other resource agencies.

Attachment 7 – Modifications to Yadkin Project Specifications for Private Recreation Facilities and the Shoreline Stewardship Policy for Inclusion in Revised Shoreline Management Plan

I. Private Recreation Facility Specifications - General

F. All other activities undertaken in the reservoirs or along the shoreline within the Federal Energy Regulatory Commission (FERC)-licensed Project boundary (Project Boundary) or on the Yadkin-Managed Buffer, including installation or maintenance of shoreline erosion control measures, pathways, sitting areas, utilities, or irrigation equipment; vegetation removal; and excavation require a written activity permit from Yadkin before work begins. An onsite meeting between the adjoining property owner and a Yadkin representative is mandatory before Yadkin will issue a written activity permit. See the Stewardship Policy for procedures and requirements related to activity permits. In some cases, the permission for other activities may be included in a construction permit or private recreation facility permit.

III. New Recreation Facilities

All new private piers, including replacement structures, must meet the following specifications. Construction of new launch ramps, boat houses, sun-decks, and other "on-pier" structures, other than conforming boat lifts, boat lift covers, and on-pier gazebos/shelters, is not permitted.

A. Individual and Shared Piers

1. Lot Width — The adjoining property (applicant's lot) must have a minimum shoreline lot width of 200 feet as measured by extending the adjoining property owner's side lot lines to the normal full-pool elevation of the reservoir (655-foot contour[2] on High Rock Reservoir and 541.1-foot contour[2] on Narrows Reservoir). For subdivisions developed prior to May 1, 1987, an individual pier may be granted for a lot with a minimum shoreline width of 50 feet (as measured above) provided Yadkin's other minimum eligibility requirements are satisfied.

   Two adjoining shoreline lots of 100 feet minimum shoreline width each (measurement as described above) may share a pier. For subdivisions developed prior to May 1, 1987, a shared pier may be granted for two adjoining shoreline lots with a total combined shoreline width of 50 feet (as measured above) provided Yadkin's other minimum eligibility requirements are satisfied. Shared piers must be located on or close to the adjoining property line.

[2] All contour elevations are Yadkin datum.

2. Water Depth — Piers must be constructed such that they have access to a minimum water depth of 6 feet within 75 feet of the shoreline as measured from the normal full-pool elevation of the reservoir (655-foot contour[2] on High Rock Reservoir and 541.1-foot contour[2] on Narrows Reservoir).

3. Cove Width — Piers cannot be located in coves less than 100 feet in width at normal full-pool elevation, and piers may not extend more than 25% of the width of the cove at normal full-pool elevation.

4. Piers with Floating Sections — The pier must have a floating section for ingress/egress to watercraft. The remainder of the pier may include stationary and ramp sections.

5. Private Individual or Shared Pier Dimensions:

    i) Total maximum pier length — 75 feet or 25% of the width of a cove at normal full-pool elevation. Yadkin may require the pier to be less than 75 feet in total length for purposes of safety, navigation, and ingress/egress.
    ii) Total maximum square footage – 1,100 square feet (for an individual or shared pier)
    iii) Stationary Section
        a) Maximum width — 12 feet
        b) Minimum width — 5 feet
    iv) Floating Section
        a) Minimum total area – 144 square feet
    v) Ramp Section (the following only apply if the ramp is constructed of pressure treated lumber)
        a) Minimum width — 4 feet
        b) Maximum width — 6 feet
        c) Maximum length — 16 feet

6. Pier Location — A pier will be located as near as possible to the middle of the applicant's lot(s), and the pier should not encroach across the extended adjoining property owner's side lot lines. In cases where there is aquatic vegetation (e.g., water willow) present along the shoreline adjacent to the applicant's lot, piers must be located as far from the vegetation as possible without encroaching on the neighboring property. In cases where piers cannot be located away from aquatic vegetation, piers must meet the criteria described in Section IV, below.

7. Pier Construction — Piers must be constructed of pressure-treated lumber and pilings, grade marked by the American Wood Preservers' Bureau. Proposals to use materials other than pressure treated lumber will be reviewed on a case by case basis and may require approval of a MSDS sheet

from the material manufacturer and written approval from Yadkin. The construction permit will constitute written approval from Yadkin. Other materials must meet the standards cited in these Specifications and must be installed according to manufacturer's specifications. Only manufactured plastic-encased floatation devices will be permitted as floatation. All piers must meet all applicable County and State building codes.

8. Handrails — Handrails are required on stationary and walkway ramp sections of pier and must meet North Carolina State Building Code Standards.

9. Reflectors — 2-inch minimum diameter blue colored reflectors must be placed at 10-foot intervals along all sides of the pier.

10. Boat Lifts —

    i) Boat lifts must be mounted on the floating portion of a pier. If the boat lift is located inside of a boat slip, the lift may have supports resting on the reservoir bottom, so long as the area affected is incorporated into the total allowable maximum pier footprint.
    ii) Boat lift covers must be pre-fabricated and designed specifically for piers. Covers can be no more than 10 feet in height above the deck and can be used to cover the area of the boat slip only. No asphalt roofing material will be allowed.

11. On-Pier Structures – Gazebos/shelters may be installed over the stationary section of the pier provided the overall square footage of the structure does not exceed 240 square feet. Such structures must be open-sided (not screened). The roof pitch should be no more than 3/12, with the bottom of the outer edges of the roof no less than seven feet above the pier surface to allow for boater visibility through the structure. No asphalt roofing material will be allowed. All applicable county and state building requirements must be satisfied. No decks, sitting areas, or other on roof structures will be permitted on the gazebo/shelter.

12. Plans must be submitted for each proposed pier. Yadkin reserves the right of final approval or denial of any proposed pier design.

13. Shared pier applicants are individually and jointly responsible for compliance with these Specifications, the Stewardship Policy, and all other applicable Yadkin policies, procedures, and requirements. Failure of one applicant to comply therewith may render both lots ineligible for a shared pier and subject to other enforcement, as provided in Section VI, below.

Shoreline Stewardship Policy

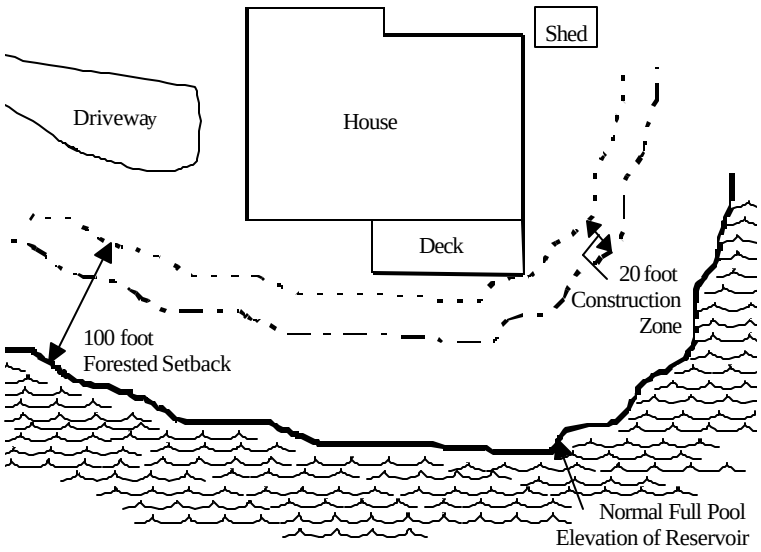
III. 100-foot Forested Setback Requirement

A. Specifications

For all lots in new subdivisions platted and recorded on or after July 1, 1999, as a condition of eligibility for private individual piers, shared piers, or use of, or private access to the Project lands and waters across, the Yadkin-Managed Buffer, Yadkin requires satisfaction of the following minimum specifications for a 100-foot forested setback:

1. All structures (including but not limited to buildings, houses, driveways, roof overhangs, decks, porches, patios, cantilevered decks, stairs, posts, columns, fences, retaining walls, landscaping walls, and gazebos), unless otherwise allowed in III.A.2 and III.A.3, must be set back at least 100 feet from the reservoir shoreline. The setback will be maintained as a forested area. The 100-foot forested setback will be measured along the ground surface from the normal full-pool elevation of the reservoir to the nearest structure(s) (see Figure 1).

Figure 1
100-foot Forested Setback



100-foot Forested Setback —All structures (including but not limited to buildings, houses, driveways, roof overhangs, decks, porches, patios, cantilevered decks, stairs, posts, columns, fences, retaining walls, landscaping walls, and gazebos), unless otherwise allowed in III.A.2 or III.A.3, must be set back at least 100 feet from the reservoir shoreline. A septic field or well, however, will be allowed in the 100-foot forested

setback to the extent that installation does not require removal of any vegetation other than as permitted in Section III.A.5, below. In addition, the 100-foot forested setback requirement does not apply to a pathway to a pier, an irrigation system, etc., that has been permitted by Yadkin in accordance with this Policy. The 100-foot forested setback will be measured along the ground surface from the normal full-pool elevation of the reservoir to the nearest structure(s).

20-foot Construction Zone — A 20-foot-wide construction zone will be permitted to intrude into the 100-foot forested setback to accommodate construction. Vegetation may be removed in the construction zone, but that portion of the construction zone intruding into the setback must be revegetated upon completion of the construction.

Vegetation Removal — Vegetation removal on the adjoining property owner's property is allowed within the 100-foot forested setback in accordance with Section III.A.5. No vegetation removal is allowed on the Yadkin-Managed Buffer without a written permit from Yadkin.

2. A septic field or well will be allowed in the 100-foot forested setback to the extent that installation does not require removal of any vegetation other than as permitted in Section III.A.5, below. In addition, the 100-foot forested setback requirement does not apply to a pathway to a pier, an irrigation system, etc., that has been constructed pursuant to a written permit issued by Yadkin in accordance with this Policy.

3. A sitting area may be permitted within the 100-foot setback. The sitting area must be at ground level, must not exceed 200 square feet, and must have a pervious surface (e.g. pressure-treated wood, gravel, or uncemented brick, rock, stone, or paving blocks).

4. Variances will be granted only when a lot is unbuildable. Unbuildable means the inability to build the minimum size house required by the subdivision's restrictive covenants, or an 1,800 square foot home, if no minimum house size is specified, behind the 100-foot forested setback.

   In instances where compliance with the 100-foot forested setback requirement would render a lot unbuildable, Yadkin may, but is not required to, approve variances granting a lesser setback on a lot-by-lot basis that would provide the maximum possible setback, which in no case will be less than 50 feet. For lots where Yadkin approves a setback of less than 100 feet, Yadkin will also designate an appropriate construction zone for that lot.

5. Vegetation in the 100-foot forested setback must be maintained as it existed prior to development.
   i) Fallen trees (blow-down), fallen limbs, and fallen branches may be removed, but all leaf litter (leaves, pine needles, etc.) must remain.

ii) No lap trees, trees, or vegetation of any type overhanging the reservoirs or within the reservoirs may be removed without specific permission from Yadkin.

iii) Any tree that poses an imminent threat to life or property may be removed.

iv) Within 30 feet of tributaries that drain into the reservoir, no living vegetation, or dead vegetation root structure may be removed.

To provide opportunity for improved water views, adjoining property owners may remove one hundred percent (100%) of trees less than two inches in diameter (measured one foot above ground level). Fifty percent (50%) of other vegetation less than 5 feet in height may be removed. In addition to the above, living limbs may be removed up as much as fifty percent (50%) of the height of the tree as necessary (dead limbs of any height may be removed on trees). If the above measures do not provide satisfactory views of the reservoir, the property owner may remove, with Yadkin's written permission, additional trees up to six inches in diameter within a 30-ft wide corridor. The adjoining property owner may be required to re-vegetate the view corridor with low-growing native species to minimize overland erosion.

6. Removal of any vegetation from any portion of the 100-foot forested setback within the Yadkin-Managed Buffer requires a written permit from Yadkin. For adjoining property owners in new subdivisions who satisfy the above requirements on their property, vegetation removal from the Yadkin-Managed Buffer will generally be considered, by written permit, in accordance with the criteria listed under Section III.A.5. Failure to secure a permit from Yadkin prior to removing any vegetation from the Yadkin-Managed Buffer, or removal in any manner other than as permitted by Yadkin, is subject to enforcement as set forth in Section XIV below.

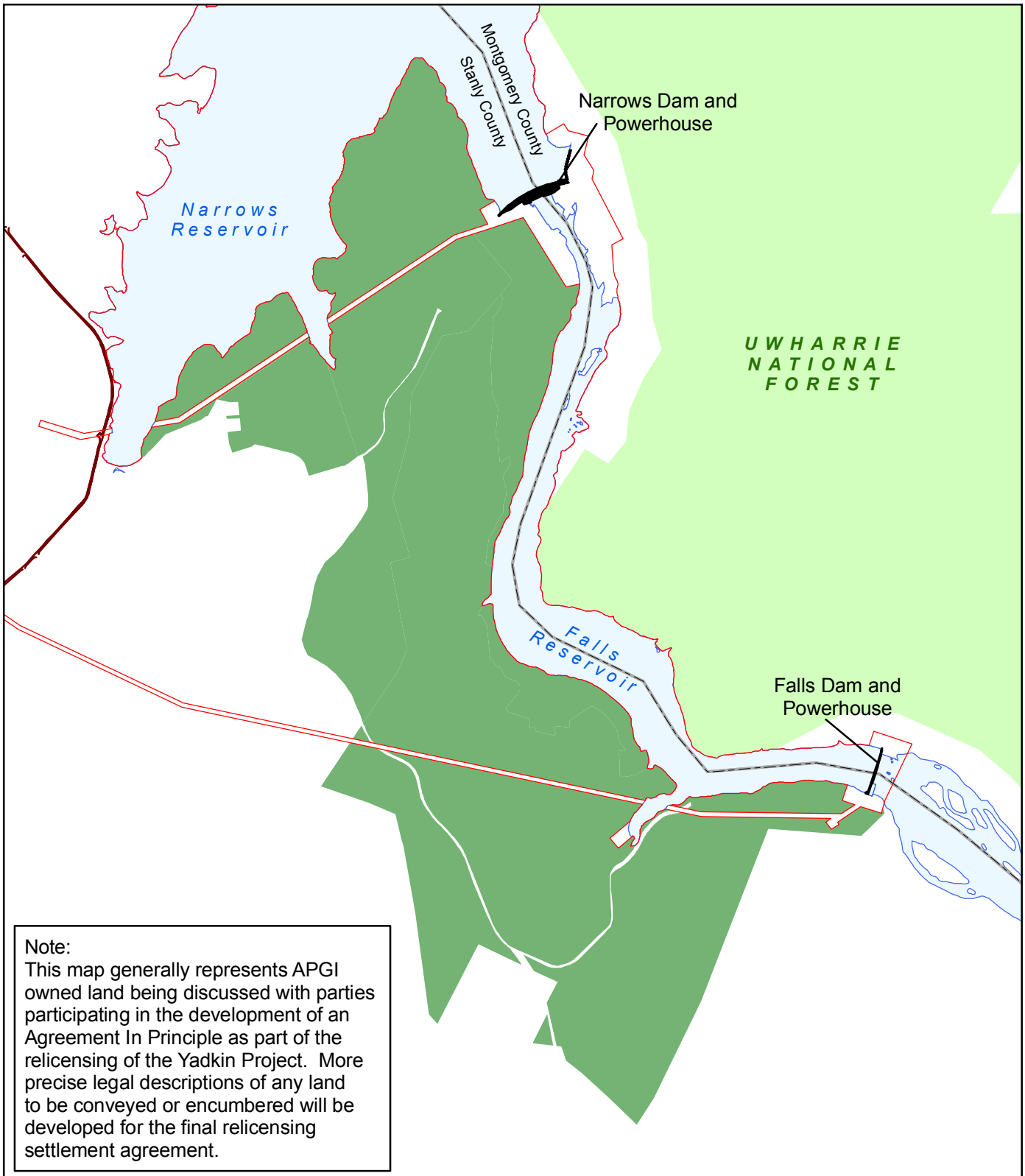
7. In a permit to construct a private individual or shared pier (see Yadkin's Specifications for Private Recreation Facilities), Yadkin may allow movement or removal of identified lap trees where necessary for construction or installation of the facilities. In cases where removal is necessary, Yadkin will require replacement of the lap trees along the same stretch of shoreline at a 2:1 replacement to removal ratio.

8. For any lot in a new subdivision subject to the 100-foot forested setback requirement set forth above, the primary sanction for failure to comply with this requirement is a loss of eligibility for: (i) a private (individual or shared) permit within the Project Boundary (i.e., on a reservoir); and (ii) use of, or private access to the Project lands and waters across, the Yadkin-Managed Buffer. Once an adjoining property owner in a subdivision to which these setback requirements apply has a permitted private pier, subsequent removal of vegetation from the 100-foot forested setback, other than as allowed under the above criteria, is also subject to enforcement as set forth in Section XIV below.

9. In no case may management of the 100-foot forested setback be inconsistent with the requirements of North Carolina's watershed protection rules and county watershed protection ordinances.

XV. Voluntary Guidelines for Timbering Operations

[Note: APGI proposes to delete Section XV of the Shoreline Stewardship Policy (Voluntary Guidelines for Timbering Operations) because most of the protective measures are already contained in the 100-ft Forested Setback Requirement (Section III of the Shoreline Stewardship Policy).]



Note:
This map generally represents APGI owned land being discussed with parties participating in the development of an Agreement In Principle as part of the relicensing of the Yadkin Project. More precise legal descriptions of any land to be conveyed or encumbered will be developed for the final relicensing settlement agreement.

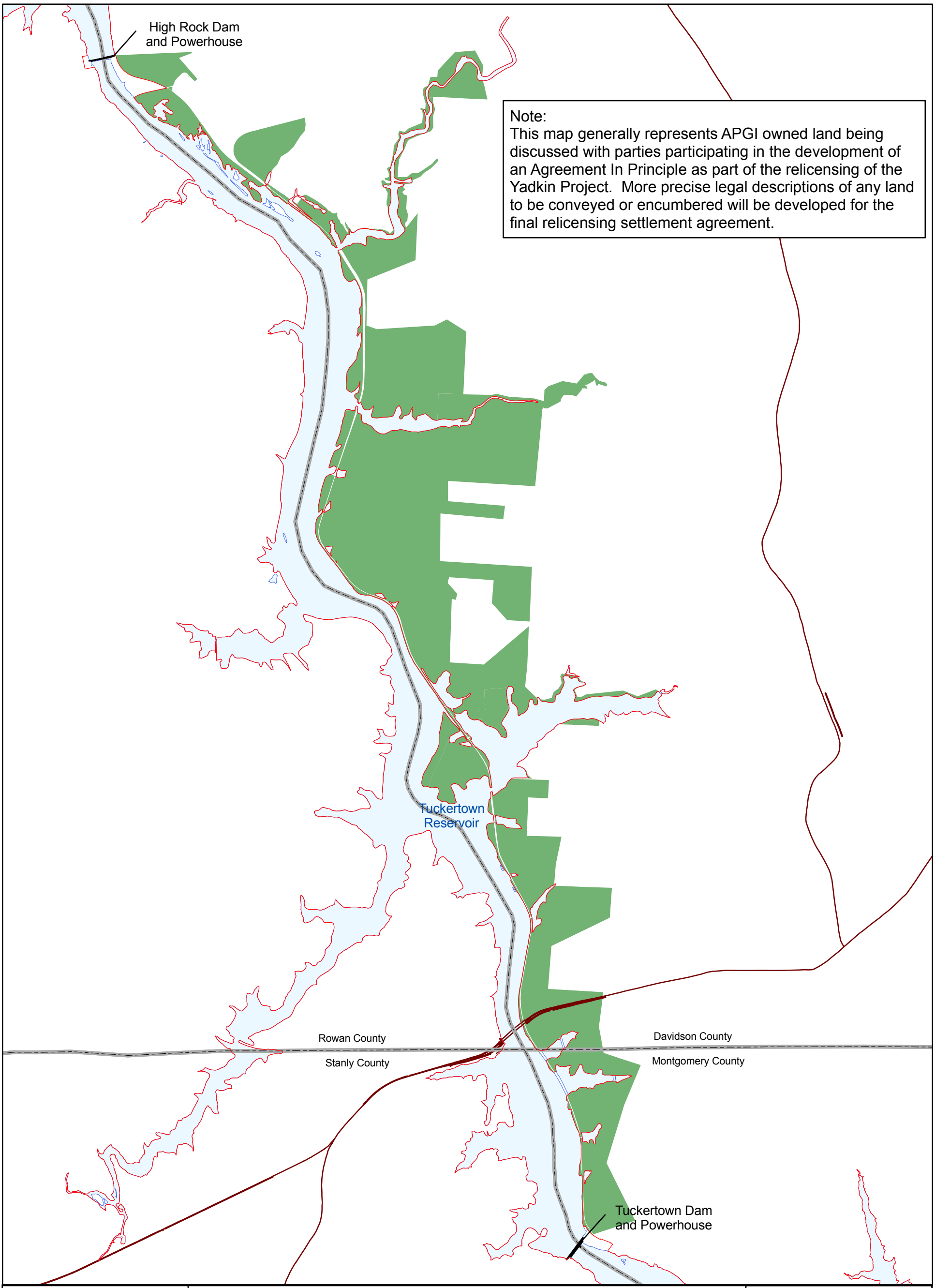
FERC Project Boundary
Roads
County Boundaries
Uwharrie National Forest
Reservoirs
Non-project Yadkin property proposed for sale/transfer

Alcoa Power Generating Inc. - Yadkin Division
Proposed Morrow Mountain State Park Expansion Land

0 0.25 0.5 0.75 1 Miles

June 2006

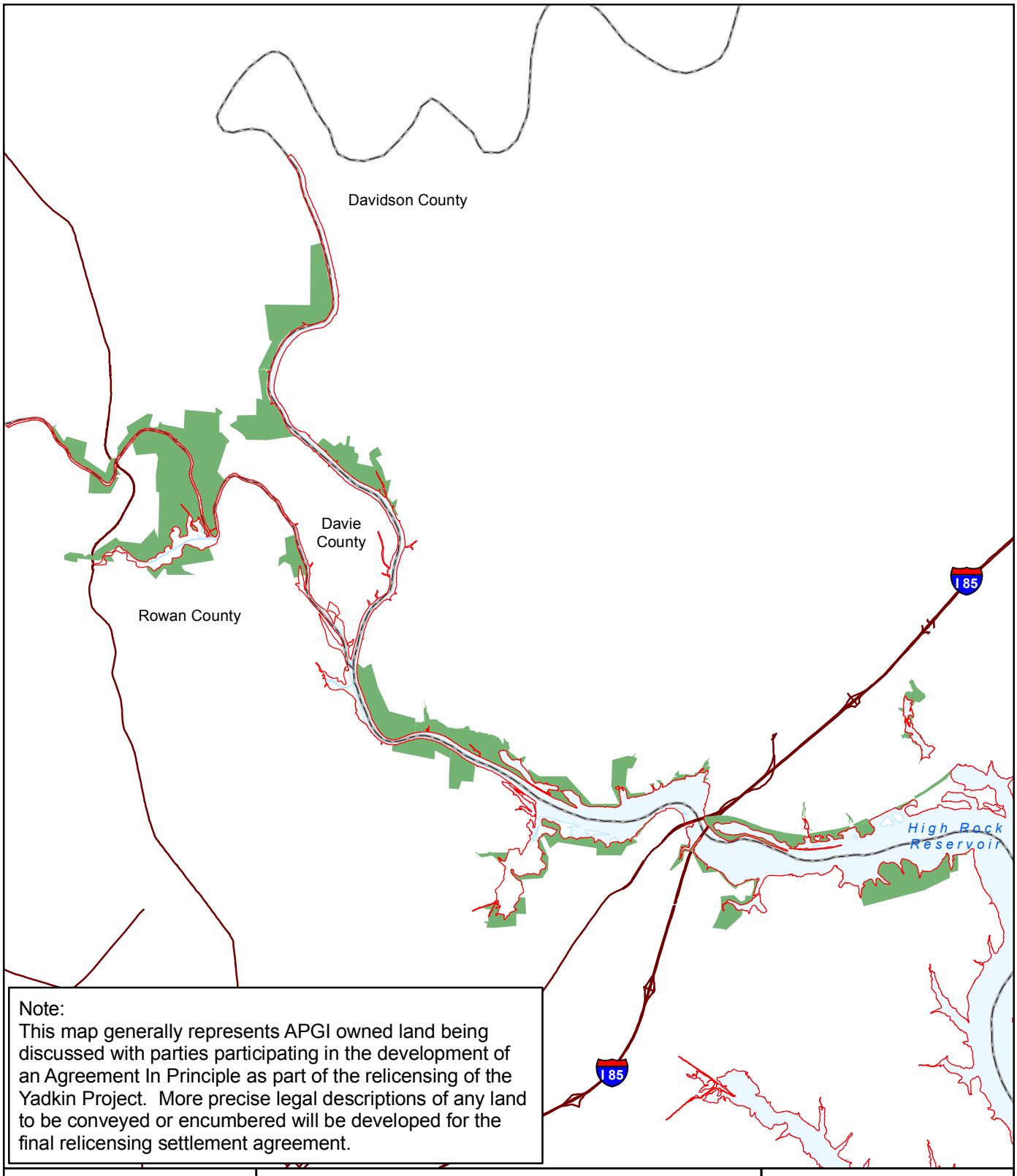
Attachment 8



Alcoa Power Generating Inc. - Yadkin Division
Proposed Eastern Shore Tuckertown Reservoir Land

June 2006

Attachment 9



Note:
This map generally represents APGI owned land being discussed with parties participating in the development of an Agreement In Principle as part of the relicensing of the Yadkin Project. More precise legal descriptions of any land to be conveyed or encumbered will be developed for the final relicensing settlement agreement.

FERC Project Boundary
Roads
County Boundaries
Reservoirs
Non-project Yadkin property proposed for sale/transfer

Alcoa Power Generating Inc. - Yadkin Division
Proposed Upper High Rock Reservoir Land

0 0.5 1 2 3 4 Miles

June 2006

Attachment 10

Davidson County
Montgomery County
Randolph County
Stanly County
Tuckertown Reservoir
Tuckertown Dam and Powerhouse
Narrows Reservoir
Pear Tree Island
Uwharrie National Forest
Narrows Dam and Powerhouse
Falls Reservoir
Falls Dam and Powerhouse
Tillery Reservoir

Note:
This map generally represents APGI owned land being discussed with parties participating in the development of an Agreement In Principle as part of the relicensing of the Yadkin Project. More precise legal descriptions of any land to be conveyed or encumbered will be developed for the final relicensing settlement agreement.

Major Roads
County Boundaries
Reservoirs
Non-Project Yadkin property proposed for sale/transfer
Uwharrie National Forest

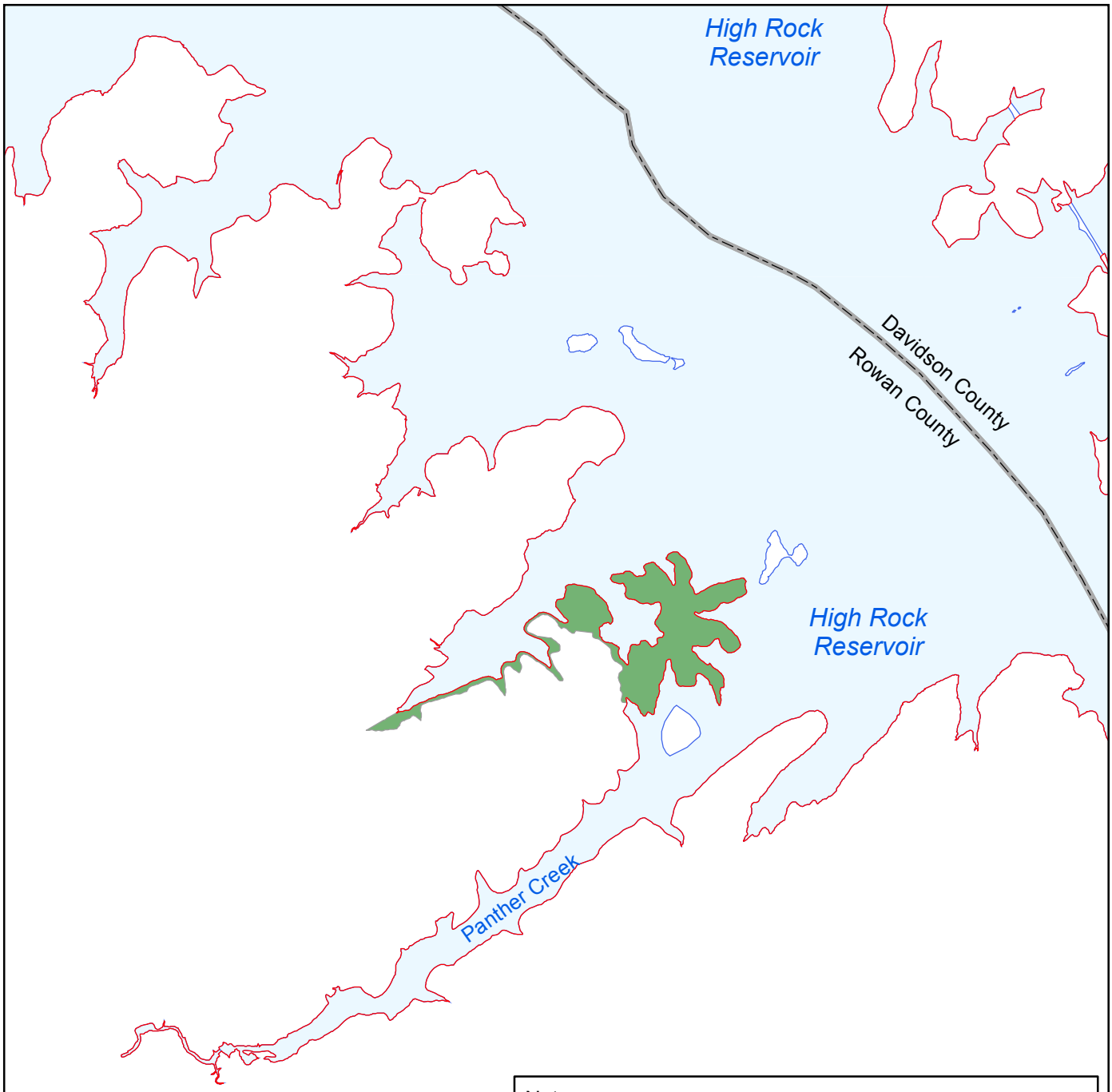
Alcoa Power Generating Inc. - Yadkin Division
Proposed Uwharrie National Forest Land

N
W E
S

0 0.5 1 1.5 2 Miles

June 2006

Attachment 11



Note:
This map generally represents APGI owned land being discussed with parties participating in the development of an Agreement In Principle as part of the relicensing of the Yadkin Project. More precise legal descriptions of any land to be conveyed or encumbered will be developed for the final relicensing settlement agreement.

FERC Project Boundary
County Boundaries
Reservoirs
Non-project Yadkin property proposed for sale/transfer

Alcoa Power Generating Inc. - Yadkin Division
Proposed Eagle Point Nature Preserve & Park Land

0 0.25 0.5 0.75 1 Miles

June 2006

Attachment 12

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

Alcoa Power Generating Inc., Yadkin Division

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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American Rivers

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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Badin Lake Association

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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Badin Museum

Signature: _____

Print: _____

Title: _____

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RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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Catawba Indian Tribe

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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City of Albemarle

Signature: _____

Print: _____

Title: _____

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RELICENSING NEGOTIATIONS

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June 23, 2006

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City of Salisbury

Signature: _____

Print: _____

Title: _____

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RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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Concerned Property Owners High Rock Lake

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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Davidson County

Signature: _____

Print: _____

Title: _____

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RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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Duke Power

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

High Rock Business Owners Group

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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High Rock Lake Association

Signature: _____

Print: _____

Title: _____

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RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

Montgomery County

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

National Park Service

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

North Carolina Division of Water Quality

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

North Carolina Division of Water Resources

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

North Carolina Wildlife Resources Commission

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

Pee Dee River Coalition

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

Piedmont Boat Club

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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Progress Energy

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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Rowan County

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

Salisbury/Rowan Association of Realtors

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

SaveHighRockLake.org

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

South Carolina Coastal Conservation League

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

South Carolina Department of Health and Environmental Control

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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South Carolina Department of Natural Resources

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

Stanly County

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

The Land Trust for Central North Carolina

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

The Nature Conservancy

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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Town of Badin

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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United States Environmental Protection Agency

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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United States Fish and Wildlife Service

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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United States Forest Service

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

Uwharrie Point Community Association

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

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Yadkin Pee Dee Lakes Project

Signature: _____

Print: _____

Title: _____

YADKIN PROJECT (FERC NO. 2197)
RELICENSING NEGOTIATIONS

FINAL AGREEMENT IN PRINCIPLE TO DEVELOP A RELICENSING SETTLEMENT AGREEMENT

June 23, 2006

Signature Page

Yadkin Pee Dee Relicensing Coalition

Signature: _____

Print: _____

Title: _____