Comprehensive Relicensing Agreement

for the

Catawba-Wateree Hydro Project
FERC Project No. 2232

December 22, 2006

Signature Copy
Revision 1

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STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

DUKE ENERGY CAROLINAS, LLC

AGREEMENT

THIS AGREEMENT ("Agreement" or "Final Agreement"), made and entered into as of December 22, 2006, by and between DUKE ENERGY CAROLINAS, LLC, with its principal place of business in Mecklenburg County, North Carolina ("the Licensee"); ALEXANDER COUNTY, NORTH CAROLINA; AMERICAN WHITEWATER; AREA II SOIL & WATER CONSERVATION DISTRICTS; BOWATER INCORPORATED; BURKE COUNTY, NORTH CAROLINA; CALDWELL COUNTY, NORTH CAROLINA; CAROLINA CANOE CLUB; CATAWBA COUNTY, NORTH CAROLINA; CATAWBA INDIAN NATION; CATAWBA INDIAN NATION TRIBAL HISTORIC PRESERVATION OFFICE; CATAWBA LANDS CONSERVANCY; CATAWBA REGIONAL COUNCIL OF GOVERNMENTS; CATAWBA VALLEY HERITAGE ALLIANCE; CATAWBA-WATEREE RELICENSING COALITION; CENTRALINA COUNCIL OF GOVERNMENTS; CHESTER METROPOLITAN DISTRICT; CITY OF BELMONT, NORTH CAROLINA; CITY OF CAMDEN, SOUTH CAROLINA; CITY OF CHARLOTTE, NORTH CAROLINA; CITY OF GASTONIA, NORTH CAROLINA; CITY OF HICKORY, NORTH CAROLINA; CITY OF MORGANTON, NORTH CAROLINA; CITY OF MOUNT HOLLY, NORTH CAROLINA; CITY OF ROCK HILL, SOUTH CAROLINA; CRESCENT RESOURCES, LLC; DUKE ENERGY CORPORATION; FOOTHILLS CONSERVANCY; GASTON COUNTY, NORTH CAROLINA; GREAT FALLS HOMETOWN ASSOCIATION; HARBORTOWNE MARINA; INTERNATIONAL PAPER; IREDELL COUNTY, NORTH CAROLINA; KERSHAW COUNTY, SOUTH CAROLINA; KERSHAW COUNTY CONSERVATION DISTRICT; LAKE JAMES HOMEOWNERS; LAKE WATEREE ASSOCIATION; LAKE WYLIE MARINE COMMISSION; LANCASTER COUNTY WATER & SEWER DISTRICT; LINCOLN COUNTY, NORTH CAROLINA; LUGOFF-ELGIN WATER AUTHORITY; MCDOWELL COUNTY, NORTH CAROLINA; MECKLENBURG COUNTY, NORTH CAROLINA; MOUNTAIN ISLAND LAKE ASSOCIATION; MOUNTAIN ISLAND LAKE MARINE COMMISSION; NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES WITH ITS DIVISIONS OF FOREST RESOURCES, PARKS AND RECREATION, WATER QUALITY, AND WATER RESOURCES; NORTH CAROLINA WILDLIFE FEDERATION; NORTH CAROLINA WILDLIFE RESOURCES COMMISSION; R&N MARINA; SOUTH CAROLINA DEPARTMENT OF ARCHIVES AND HISTORY; SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES; SOUTH CAROLINA DEPARTMENT OF PARKS, RECREATION AND TOURISM; SOUTH CAROLINA ELECTRIC & GAS; SOUTH CAROLINA WILDLIFE FEDERATION; SPRINGS GLOBAL US, INC.; TOWN OF DAVIDSON, NORTH CAROLINA; TOWN OF GREAT FALLS, SOUTH CAROLINA; TOWN OF VALDESE, NORTH CAROLINA; TROUT UNLIMITED, INC.; UNION COUNTY, NORTH CAROLINA; WATEREE HOMEOWNERS ASSOCIATION – FAIRFIELD COUNTY; WESTERN PIEDMONT COUNCIL OF GOVERNMENTS; YORK COUNTY, SOUTH CAROLINA; YORK

COUNTY CULTURE & HERITAGE COMMISSION; WILLIAM B. CASH; SHIRLEY M. GREENE; FRANK J. HAWKINS; TIMOTHY D. MEAD; MERLIN F. PERRY; JOSEPH W. ZDENEK; (collectively "Stakeholders"), (all referenced Stakeholders and the Licensee collectively "Parties" provided the duly authorized representative of each signs this Agreement), provides as follows:

WITNESSETH

WHEREAS, pursuant to a license issued by the Federal Energy Regulatory Commission (“FERC") (FERC Project No. 2232), the Licensee operates a hydroelectric power project, known as the Catawba-Wateree Project (the "Project") which is situated on the Catawba and Wateree rivers in the North Carolina counties of Alexander, Burke, Caldwell, Catawba, Gaston, Iredell, Lincoln, McDowell, and Mecklenburg and in the South Carolina counties of Chester, Fairfield, Kershaw, Lancaster, and York, the Project consisting primarily of the following major components (See the Exhibit K drawings from the existing FERC license for the Catawba-Wateree Project, which describe the Project Boundaries in more specific detail, including but not limited to some tailrace and bypassed stream reaches and various rights-of-way.):

a) The Bridgewater Development consisting principally of three un-gated dams, two un-gated spillways, an intake structure, and powerhouse, the dams impounding the Catawba River, Paddy Creek, and Linville River to form Lake James;

b) The Rhodhiss Development consisting principally of a dam with an un-gated mass-concrete ogee spillway, an integral concrete intake-powerhouse, and concrete gravity non-overflow bulkheads, the dam impounding the Catawba River to form Lake Rhodhiss;

c) The Oxford Development consisting principally of a dam with a powerhouse, an integral intake structure, a gated spillway and an overflow spillway section, and concrete gravity non-overflow bulkheads at both ends of the spillway, the dam impounding the Catawba River to form Lake Hickory;

d) The Lookout Shoals Development consisting principally of a dam with a powerhouse with an integral intake structure, an un-gated mass-concrete spillway, concrete gravity non-overflow bulkheads, and an earthen embankment, the dam impounding the Catawba River to form Lookout Shoals Lake;

e) The Cowans Ford Development consisting principally of a concrete dam with an integral intake structure and powerhouse, a gated spillway, non-overflow concrete bulkheads at both ends of the dam, and earthen embankments between the bulkheads and natural topography, the dam and earthen embankments impounding the Catawba River to form Lake Norman;

f) The Mountain Island Development consisting principally of a dam with a powerhouse, an integral intake structure, an un-gated spillway, two bulkheads, and an earthen embankment, the dam impounding the Catawba River to form Mountain Island Lake;

g) The Wylie Development consisting principally of a dam with a powerhouse, an integral intake structure, a spillway with gated and un-gated sections, bulkheads, and an earthen embankment, the dam impounding the Catawba River to form Lake Wylie;

h) The Fishing Creek Development consisting principally of a dam with a powerhouse, an integral intake structure, a gated spillway and an overflow spillway section, and a bulkhead, the dam impounding the Catawba River to form Fishing Creek Reservoir;

i) The Great Falls-Dearborn Development consisting principally of two powerhouses with separate intake structures separated by a concrete un-gated dam, with a non-overflow bulkhead section that extends to the west abutment near the Dearborn Powerhouse and to the east abutment near the Great Falls Powerhouse diverting water from the original alignment of the Catawba River via a canal on the west side of the river, with two concrete overflow diversion spillways (the Great Falls Diversion Dam on the east side of Mountain Island and the Great Falls Headworks on the west side of Mountain Island), creating two bypassed reaches and the Great Falls-Dearborn Dam impounding the Catawba River to form the Great Falls Reservoir;

j) The Rocky Creek-Cedar Creek Development consisting principally of two powerhouses (the Rocky Creek Powerhouse and the Cedar Creek Powerhouse) with separate intake structures separated by a concrete dam with a gated and overflow spillway section, the dam impounding the Catawba River at the confluence with Rocky Creek to form the Cedar Creek Reservoir; and

k) The Wateree Development consisting principally of a dam with a powerhouse, an integral intake structure, an un-gated spillway, a bulkhead, and an earthen embankment, the dam impounding the Wateree River to form Lake Wateree;

WHEREAS, beginning in June 2003, the Licensee and the Stakeholders, plus AMERICAN RIVERS; CATAWBA RIVERKEEPER FOUNDATION, INC.; CLEAN WATER SOUTH CAROLINA; LAKE JAMES ENVIRONMENTAL GROUPS; SOUTH CAROLINA COASTAL CONSERVATION LEAGUE; TOWN OF CORNELIUS, NORTH CAROLINA; WESTERN NORTH CAROLINA ALLIANCE; JOHN S. CARTER; DONALD R. PRIVETT; SARAH P. WILLIAMS; and CYNTHIA M. WOOD; formally met as the Catawba-Wateree Hydroelectric Project Stakeholder Teams (“Teams”) to begin the process of developing a non-binding agreement-in-principle with regard to the issues related to the relicensing of the Project;

WHEREAS, on July 21, 2003, the Licensee filed a timely Notice of Intent with the FERC to apply for a new license for the Project;

WHEREAS, by April 17, 2006, the Licensee and the Stakeholders, plus CATAWBA RIVERKEEPER FOUNDATION, INC.; CLEAN WATER SOUTH CAROLINA; LAKE JAMES ENVIRONMENTAL GROUPS; TOWN OF CORNELIUS, NORTH CAROLINA; WESTERN NORTH CAROLINA ALLIANCE; JOHN S. CARTER; DONALD R. PRIVETT; and CYNTHIA M. WOOD, signed the non-binding Agreement-in-Principle (“AIP”) concerning most substantive matters of interest to them related to the relicensing of the Project, and the Licensee and the Stakeholders indicated in said AIP their desire to work together to convert the AIP into this binding Agreement, and AMERICAN RIVERS, SOUTH CAROLINA COASTAL CONSERVATION LEAGUE, and SARAH P. WILLIAMS, by their authorized signatures on said AIP, indicated that they opposed certain portions of the AIP and would not participate in the development of this binding Agreement but were afforded the opportunity to become Parties;

WHEREAS, SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL, UNITED STATES BUREAU OF INDIAN AFFAIRS, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, and UNITED STATES FISH AND WILDLIFE SERVICE also participated in many of the meetings of the Teams and were afforded the opportunity to become Parties to this Agreement;

WHEREAS, on August 29, 2006, the Licensee filed an application consistent with this Agreement in all respects with the FERC for a new license ("New License") for the Project;

WHEREAS, on August 29, 2006, the Licensee also filed the original of this Comprehensive Relicensing Agreement, dated August 12, 2006, and the accompanying Explanatory Statement with the FERC;

WHEREAS, on or before December 31, 2006, the Licensee will file this December 22, 2006 version of the Comprehensive Relicensing Agreement that incorporates revisions to the August 12, 2006 version made in accordance with Paragraph 24.2 of this Agreement for the limited purposes of correcting minor errors and reflecting accurately only the Parties' benefits and obligations and will file an appropriately revised Explanatory Statement;

WHEREAS, because this reformed version of the Comprehensive Relicensing Agreement does not materially change the August 12, 2006 original version of the Comprehensive Relicensing Agreement, the signatures by the Parties' duly authorized representatives on the August 12, 2006 original version are still applicable to this December 22, 2006 version of the Comprehensive Relicensing Agreement;

WHEREAS, within 60 days following the FERC's issuance of its Notice of Ready for Environmental Analysis, the Licensee will file an application consistent with this Agreement in all respects with the North Carolina Division of Water Quality for a Water Quality Certification and with the South Carolina Department of Health and Environmental Control for a Water Quality Certification for the Project pursuant to §401 of the Clean Water Act, as amended;

WHEREAS, the Licensee's Application for New License includes proposed facilities and actions to protect, mitigate, and enhance day-use and camping recreational opportunities at the Project's reservoirs, day-use activities along certain Catawba-Wateree River reaches and tailraces, flow regimes for certain river reaches and tailraces, water quality in certain river reaches and tailraces, cultural resources, rare, threatened or endangered species, and provide enhanced communication of reservoir levels and flow releases, and other resource enhancement initiatives;

WHEREAS, the Parties agree that generating power at the Project's powerhouses and providing recreation flow releases into the river reaches, as well as providing for minimum instream flows in certain river reaches, and managing the reservoirs' levels and flows for improved public water supply, fish habitat enhancement and other purposes are all important uses of the limited waters of the Catawba and Wateree rivers and their tributaries, and that the terms of this Agreement strike a reasonable balance among these uses and provide a basis for the Parties' concurrence in the issuance of a New License for the Project to the Licensee, subject to the terms, covenants and provisions of this Agreement;

WHEREAS, the Parties agree that sharing the burden during periods of low inflow and maintenance and emergency conditions is important, and that the Low Inflow Protocol for the Catawba-Wateree Project (Appendix C) and the Maintenance and Emergency

Protocol for the Catawba-Wateree Project (Appendix D) are reasonable compromises by the Parties to define operational changes during these time periods;

WHEREAS, the Parties understand that certain governmental Parties have independent statutory responsibilities and processes that may result in mandates that are not consistent with the terms of this Agreement, but that it is nonetheless necessary to preserve the integrity and independence of those responsibilities and processes, and this Agreement specifically does so;

WHEREAS, there are terms, phrases and abbreviations specific to the Stakeholder Process that led to this Agreement and the significant terms, phrases and abbreviations are defined in Appendix E and Appendix G;

WHEREAS, this Agreement is the culmination of the Parties' desires, as set forth in the April 17, 2006 AIP, to draft from the AIP a binding agreement that includes the intent of the Parties, and this Agreement faithfully sets forth in more detail and specificity, in contractual terms, the concepts described and to which the Parties agreed in the AIP with mutually agreeable adjustments as negotiated by the Parties after the AIP was signed;

WHEREAS, the Parties have now reached full agreement on the resolution of all the material resource matters identified and at issue in the New License for the Project, specifically including but not limited to clean, reliable and affordable electric power generation; watershed and hydro operation practices that protect and sustain the quality and quantity of the waters of the Catawba-Wateree River Basin; a well-managed and adequate water supply to serve the region for years to come; safe and sufficient access for users of motorized and non-motorized boats and areas for swimming, fishing, hiking, sightseeing, camping and other recreation opportunities; improved coordination between the Licensee and local governments; opportunities to support tourism; balanced shoreline uses to accommodate diverse interests including undisturbed areas; selected river-reach sections with improved flow conditions to support fisheries and other wildlife; conservation of the fish and wildlife resources as well as the habitats supporting those resources; and protection of cultural resources, all of which result in the Parties relinquishing certain arguments and potential outcomes in exchange for the certainty of the agreed-upon terms and conditions;

NOW, THEREFORE, IN CONSIDERATION of all other actions and undertakings as set forth herein below, the Parties contract and agree as follows:

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RESOURCE AGREEMENTS

The Parties agree that, except for the provisions in Appendix A, the provisions in this Agreement should not be incorporated into the terms of the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project. The Parties have listed their proposed License Articles in each relevant section and have provided the specific language of the proposed License Articles in Appendix A.

1.0 Agreements on Full Consensus

1.1 The Parties acknowledge that: (i) they have participated fully in the activities of the Catawba-Wateree Stakeholder Process and have a good understanding of the issues resolved herein; (ii) this Agreement is developed from and is consistent with the AIP signed by the Parties on April 17, 2006 except to the extent that it contains mutually agreeable adjustments as negotiated by the Parties after the AIP was signed; (iii) they are requesting that the FERC issue a license for the Project with a term of not less than 40 years, nor more than 50 years; (iv) they are in agreement with the entirety of this Agreement; (v) they understand that the Licensee will file this Agreement with the FERC, the North Carolina Division of Water Quality (NCDWQ), and the South Carolina Department of Health and Environmental Control (SCDHEC) for these agencies' consideration as they process applications for the New License and the 401 Water Quality Certifications for the Project; and (vi) the Licensee will also request that the FERC, the NCDWQ, and the SCDHEC act consistently with the terms of this Agreement in issuing their licenses, certifications, and orders for the Project.

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2.0 Reservoir Elevation Agreements

2.1 The Parties recommend that the following proposed License Articles, the full text of which are provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

2.1.1 ARTICLE – Reservoir Elevations

2.1.2 ARTICLE – Spring Reservoir Level Stabilization Program

2.1.3 ARTICLE – Flow and Reservoir Elevation Monitoring

2.2 Spring Reservoir Level Stabilization Program

2.2.1 Temperature Monitoring Locations – The Parties agree that the surface water temperature monitoring locations for the proposed Spring Reservoir Level Stabilization Program License Article for lakes James, Norman, Wylie and Wateree shall be the following:

2.2.1.1 Lake Wateree – The Licensee shall work in cooperation with Lake Wateree State Park representatives to implement a monitoring program at the park.

2.2.1.2 Lake Wylie – Catawba Nuclear Station in an area outside any significant temperature influence of the station.

2.2.1.3 Lake Norman – McGuire Nuclear Station in an area outside any significant temperature influence of the station or the Licensee shall work in cooperation with Lake Norman State Park representatives to implement a monitoring program at the park.

2.2.1.4 Lake James – The Licensee shall work in cooperation with Lake James State Park representatives to implement a monitoring program at the park.

2.2.1.5 In the event that any of these locations is no longer available for this monitoring or state park representatives are unwilling to conduct this monitoring, the Licensee shall consult with the North Carolina Wildlife Resources Commission or the South Carolina Department of Natural Resources, as appropriate, to identify a mutually acceptable alternative monitoring location.

2.2.2 Coordination with Wateree Spring Stable Flows – If the Licensee cannot operate the Project to provide the Spring Stable Flow Periods at Wateree as set forth in Section 4.8 of this Agreement and also maintain the Lake Wateree reservoir level as specified in the proposed Spring Reservoir Level Stabilization Program License Article, then the Licensee shall suspend the Spring Reservoir Level Stabilization Program at Lake Wateree for that calendar year in accordance with Paragraph (B) of the proposed Spring Reservoir Level Stabilization Program License Article.

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3.0 Recreation Flow Agreements

3.1 The Parties recommend that the following proposed License Article, the full text of which is provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

3.1.1 ARTICLE – Recreational Flows

3.2 Annual Recreational Flow Schedule Planning

3.2.1 Coordination of Meeting – In accordance with Paragraph (H) of the proposed Recreational Flows License Article, the Licensee shall have lead responsibility to: (i) work with the organizations identified in Paragraph 3.2.2 that are Parties to this Agreement to establish the invitee list for the Annual Recreational Flow Schedule Planning meeting; (ii) coordinate logistics including scheduling the meeting with at least thirty days notice; and (iii) lead meeting discussions and provide meeting summaries.

3.2.2 Meeting Invitees – The following organizations that are also Parties to this Agreement shall determine the invitees to the Annual Recreational Flow Schedule Planning meeting: the Licensee; American Whitewater; appropriate federal/state agencies including, but not limited to: North Carolina Department of Environment and Natural Resources, North Carolina Wildlife Resources Commission, South Carolina Department of Parks, Recreation and Tourism, South Carolina Department of Natural Resources; appropriate local governments for each section of the river; appropriate local outfitters; Carolina Canoe Club; Great Falls Hometown Association; North Carolina Wildlife Federation; South Carolina Wildlife Federation; and Trout Unlimited.

3.2.3 Annual Recreational Flow Release Adjustments – The Licensee plus a majority of the invitees in attendance at the Annual Recreational Flow Schedule Planning meeting must agree to the discretionary flow release dates and any adjustment to the flows or schedules included in the proposed Recreational Flows License Article before the Licensee implements the recreational flow releases. Any adjustments from the recreational flows or schedule included in the proposed Recreational Flows License Article that are agreed to at the annual planning meeting are temporary and shall apply only to the designated calendar year.

3.3 Permanent Recreational Flow Release Adjustments – Any permanent changes to flows or schedules included in the proposed Recreational Flows License Article may be considered in conjunction with the implementation of future Recreation Use and Needs Studies or other recreational review group recommendations. The Annual Recreational Flow Schedule Planning meetings should provide information on whether permanent changes may be needed. The Parties acknowledge that any permanent changes to the recreational flows or schedules included in the proposed Recreational Flows License Article will require modification of this Agreement as described in Paragraph 24.0 and will require FERC review and approval prior to implementation.

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4.0 Habitat Flow Agreements

4.1 The Parties recommend that the following proposed License Articles, the full text of which are provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

4.1.1 ARTICLE – Minimum Flows

4.1.2 ARTICLE – Wylie High Inflow Protocol

4.1.3 ARTICLE – Flow and Water Quality Implementation Plan

4.1.4 ARTICLE – Flow and Reservoir Elevation Monitoring

4.2 Submitting the Flow and Water Quality Implementation Plan during the Section 401 Certification Process – The Parties agree that the Licensee shall file the Flow and Water Quality Implementation Plan (FWQIP) (see Appendix L), supplemented with any engineering and construction details the Licensee determines are needed, with the NC Division of Water Quality (NCDWQ) and the SC Department of Health and Environmental Control (SCDHEC) during the 401 Water Quality Certification processes, as the recommended flow and water quality implementation plan.

4.3 Submitting the Flow and Water Quality Implementation Plan to the FERC – The Parties agree that the FWQIP, supplemented with any engineering and construction details the Licensee determines are needed, filed by the Licensee with the FERC pursuant to the proposed Flow and Water Quality Implementation Plan License Article, will contain any specific implementation requirements of any 401 Water Quality Certifications issued pursuant to the relicensing process.

4.4 Approval of a New Powerhouse or Valve System at the Bridgewater Development – The Licensee shall consult with the appropriate resource agencies and file for FERC approval of either a new powerhouse or a valve system at the Bridgewater Development and for approval of a 401 Water Quality Certification as required for the construction of the new powerhouse or valve system at the Bridgewater Development.

4.5 North Carolina Flow Mitigation Package – The Parties agree to the following North Carolina Flow Mitigation Package to mitigate for unavoidable Project impacts to the Paddy Creek Bypassed Reach, the Oxford Regulated River Reach, Lookout Shoals Regulated River Reach, and the Mountain Island Bypassed Reach.

4.5.1 Conservation Easements – The Licensee shall mitigate for these impacts by providing 100-ft wide perpetual conservation easements (measured horizontally from the top of the bank) on approximately 22 bank miles of the Johns, Catawba, and Linville rivers combined, and approximately 6.6 total bank miles of 1st and 2nd order tributaries to the Catawba River. These easements, affecting approximately 343 acres of land, shall be transferred to the State of North Carolina, or a land trust if the State of North Carolina so chooses, within 18 months following the issuance of the New License and the closure of all rehearing and administrative challenge periods related to water quality and to water quantity, including reservoir levels and Project flow releases. The land areas covered by these easements shall not be included within the FERC Project Boundaries. See Appendix I for map (tiles) depicting the approximate locations of these easements and Appendix O for a conceptual outline of the conservation easements.

4.5.2 Associated Public Access, Open Space and Trails Planning – The Parties further agree that, in July 2006, the North Carolina Department of Environment and Natural Resources (NCDENR) convened a small, focused team including representatives from the Licensee, Crescent Resources, LLC, and NCDENR. This team shall endeavor in good faith to develop a plan which identifies mutually agreeable options to provide for (i) additional public access; (ii) open space or ecological networks, and (iii) continuity of planned and existing trails on and/or adjoining properties that will include the conservation easements identified in this Section 4.5. NCDENR, the Licensee, or Crescent Resources, LLC may also consult independently with state and federal resource agencies, local governments, or any other entities for input. This team shall follow a mutually agreed-to process that establishes principles and goals for addressing design, easement, access, and acquisition issues. This process shall be completed no later than March 1, 2008 and is expected to result in additional public access and open space in some of the North Carolina conservation easements that will provide additional ecological networks and trail connections linking Wilson Creek, Johns River and/or the Bridgewater Regulated River Reach beyond the public access, open space and trails identified in Section 10.27. At the completion of the planning process, but not later than March 1, 2008, NCDENR will notify the Parties to this Agreement, pursuant to Section 29.0, of the results of the planning process, including identifying whether or not the planning process has resulted in a level of public access, open space and trail opportunities along the Johns River and the Bridgewater Regulated River Reach that is acceptable to the NCDENR.

4.5.3 Results of Public Access, Open Space and Trails Planning – If this planning process does not result in a level of public access, open space and trail opportunities along the Johns River or the Bridgewater Regulated River Reach that is acceptable to the NCDENR, then, after receiving notice to that effect from the NCDENR, any Party may request that the FERC require the Licensee to provide additional public access, open space, and trails beyond those identified in Section 10.27, but only along the Bridgewater Regulated River Reach and/or the Johns River (as applicable), and any Party to this Agreement may support or oppose such requests in the FERC evaluation process. However, if this planning process does result in a level of public access, open space and trail opportunities along the Johns River and the Bridgewater Regulated River Reach that is acceptable to the NCDENR, as will be identified in the NCDENR's notice to the Parties, then no Party to this Agreement shall make or support requests to the FERC to require the Licensee to provide additional public access, open space or trails beyond those identified in Section 10.27.

4.6 South Carolina Flow Mitigation Package – The Parties agree to the following South Carolina Flow Mitigation Package to mitigate for unavoidable Project impacts to the Wylie Regulated River Reach, the Great Falls Long and Short Bypassed Reaches, and the Wateree Bypassed Reach.

4.6.1 Conservation Easements – The Licensee shall mitigate for these impacts by providing 100-ft wide perpetual conservation easements (measured horizontally from the top of the bank) on approximately 5.5 bank miles of the Catawba River. These easements, affecting approximately 67 acres of land, will be transferred to the South Carolina Department for Natural Resources (SCDNR), or a land trust if the SCDNR so chooses, within 18 months following

the issuance of the New License and the closure of all rehearing and administrative challenge periods related to water quality and to water quantity, including reservoir levels and Project flow releases. The land areas covered by these easements shall not be included within the FERC Project Boundaries. The easement below the Wylie Development shall also incorporate the trail identified in Paragraph 10.27.23.1. See Appendix I for map (tiles) depicting the approximate locations of these easements and Appendix O a conceptual outline of the conservation easements.

4.6.2 Mitigation Fund – The Parties further agree that, within one year following the issuance of the New License and the closure of all rehearing and administrative challenge periods related to water quality and to water quantity, including reservoir levels and Project flow releases, the Licensee shall provide a one-time contribution of $1 million to the South Carolina Department of Natural Resources (SCDNR) to create the Catawba-Wateree Hydroelectric Project Fish and Wildlife Mitigation and Enhancement Fund. Activities eligible for support from this fund will include survey and inventory, research, and population enhancement of fish and wildlife in the Catawba-Wateree River Basin, to include rare, threatened or endangered species; biodiversity protection and enhancement, and environmental outreach programs.

4.7 Conservation Easement Conditions – The Licensee shall continue to consult with the applicable North Carolina and South Carolina resource agencies and any land trusts designated by such agencies to hold the easements to convert the conceptual easement outline in Appendix O into the signature copies of mutually acceptable recordable conservation easements for the applicable properties. The target date for preparing these recordable easements shall be December 31, 2006, except that the easement documents for the North Carolina easements may be modified again after the completion of the associated planning process identified in Paragraph 4.5.2. The easement documents shall be signed by the applicable entities and filed by the Licensee for recording with the applicable local government offices not later than 18 months following the issuance of the New License and the closure of all rehearing and administrative challenge periods related to water quality and to water quantity, including reservoir levels and Project flow releases. The Parties further agree that, if Crescent Resources, LLC, the NCDENR, and the Licensee concur with any modifications of the Conceptual Conservation Easement Outline (Appendix O) for the North Carolina easements resulting from the planning process in Paragraph 4.5.2, and these modifications are not inconsistent with the terms of this Agreement, the Licensee will provide notice to all Parties, and any such modifications to Appendix O will automatically become incorporated as a term of this Agreement.

4.8 Wateree Spring Stable Flow Periods

4.8.1 The Licensee shall implement a Spring Stable Flow Periods Protocol at the Wateree Development as set forth in this Section 4.8, only if inflows are sufficient to allow implementation without unreasonably affecting the Licensee's operation as determined by the Licensee.

4.8.2 Time Period – Unless operating in accordance with the Low Inflow Protocol or the Maintenance and Emergency Protocol, the Licensee shall endeavor in good faith to provide in each full calendar year for the term of the New License two ten-day periods of stable flow from the Wateree Development.

The first ten-day period shall be between February 15 and April 1; the second 10-day period shall be between April 1 and May 15.

4.8.3 Wateree Development Operations – In the event that the Licensee has to change hydro unit operational configurations at the Wateree Powerhouse during a ten-day stable flow period to maintain Lake Wateree reservoir levels within the Normal Operating Ranges specified in the proposed Reservoir Elevations License Article, the Licensee shall maintain the changed hydro unit operational configuration for at least eight consecutive hours before making any additional changes.

4.8.4 Coordination with the Spring Reservoir Level Stabilization Program – If the Licensee cannot operate the Project to provide the Spring Stable Flow Periods and also maintain Lake Wateree reservoir level as specified in the proposed Spring Reservoir Level Stabilization Program License Article, then the Licensee shall suspend the Spring Reservoir Level Stabilization Program at Lake Wateree for that calendar year in accordance with Paragraph (B) of the proposed Spring Reservoir Level Stabilization Program License Article.

4.8.5 Annual Report – Beginning in January of the second full calendar year of the term of the New License, the Licensee shall provide an annual report documenting the flow releases from Wateree Development occurring between February 15 and May 15 during the preceding calendar year to the South Carolina Department of Natural Resources (SCDNR), the United States Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS). The Licensee shall also consult with these agencies in January of each year to review results from the previous spring, to evaluate inflows to Lake Wateree, to identify specific numbers of hydro units to operate for the stable flow release, and to target specific dates for stable flows during the upcoming spring.

4.8.6 Possible New License Amendment – Ten years after the FWQIP modifications are completed at the Wateree Development, the Licensee shall consult with the USFWS, NMFS, and the SCDNR on a proposed license article for the Wateree Spring Stable Flow Periods. If the Licensee and these agencies reach consensus on the wording of a proposed license article, the Licensee shall: (i) provide notice to all Parties advising them of the proposed license article and the Licensee's intent to file it with the FERC; and (ii) file the proposed license article with the FERC for approval as an amendment to the New License. All Parties agree that the filing of this proposed license article will not constitute or require modification to this Agreement and that any Party may be involved in the FERC's public process for assessing the article. All Parties agree that, if the Licensee and the USFWS, NMFS and SCDNR are unable to reach consensus on the terms of the proposed license article within 90 days following their initial consultation meeting, then the Parties will not propose a license article addressing Wateree Spring Stable Flow Periods during the term of the New License.

4.9 Wateree Floodplain Inundation

4.9.1 Procedure – Following periods of high natural inflow occurring between February 1 and May 31 that create spill flow conditions at Wateree Dam, the Licensee shall endeavor in good faith to operate the Wateree Hydro Station to gradually reduce floodplain inundation in the Wateree Regulated River

Reach to approximate natural inflow conditions until Lake Wateree reservoir level returns to within one foot above or below the Normal Target Elevation, unless the Licensee is operating in accordance with the Maintenance and Emergency Protocol or the Low Inflow Protocol. If the Licensee cannot operate the Project to implement this activity and also maintain the Lake Wateree reservoir level as specified in the proposed Spring Reservoir Level Stabilization Program License Article, then the Licensee shall suspend the Spring Reservoir Level Stabilization Program at Lake Wateree for that calendar year in accordance with Paragraph (B) of the proposed Spring Reservoir Level Stabilization Program License Article.

4.9.2 Possible New License Amendment – Ten years after the FWQIP modifications are completed at the Wateree Development, the Licensee shall consult with the USFWS, NMFS, and the SCDNR on a proposed license article for the Wateree Floodplain Inundation. If the Licensee and these agencies reach consensus on the wording of a proposed license article, the Licensee shall: (i) provide notice to all Parties advising them of the proposed license article and the Licensee's intent to file it with the FERC; and (ii) file the proposed license article with the FERC for approval as an amendment to the New License. All Parties agree that the filing of this proposed license article will not constitute or require modification to this Agreement and that any Party may be involved in the FERC's public process for assessing the article. All Parties agree that, if the Licensee and the USFWS, NMFS and SCDNR are unable to reach consensus on the terms of the proposed license article within 90 days following their initial consultation meeting, then the Parties will not propose a license article addressing Wateree Floodplain Inundation during the term of the New License.

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5.0 Water Use Agreements

5.1 The Parties recommend that the following proposed License Article, the full text of which is provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

5.1.1 ARTICLE – Flows Supporting Public Water Supply and Industrial Processes

5.2 Voluntary Coordination until Issuance of the New License – The Licensee shall continue to voluntarily coordinate with water users to share the water supply on an informal basis or in accordance with the Existing License and other existing agreements until the issuance of the New License and the closure of all rehearing and administrative challenge periods related to water quality and to water quantity, including Project flow releases and reservoir levels.

5.3 Results of Relicensing Models – The Parties acknowledge that modeling and evaluation have predicted that, for the New License term, the flow releases anticipated from the Bridgewater, Wylie, and Wateree developments are expected to meet existing and projected future (Year 2058) water use needs, as identified in Appendix H, for intakes located in the downstream Regulated River Reaches below these developments. In addition, the modeling predicted that, during the New License term, the reservoir levels set forth in the proposed Reservoir Elevations License Article including Critical Reservoir Elevations identified in the Low Inflow Protocol (see Appendix C), are expected to meet the existing and projected future (Year 2058) water use needs, on a per-reservoir basis, as identified in Appendix H for water use needs located on the Project's reservoirs. These studies also predicted that the operating parameters contained in this Agreement, modeled using CHEOPS[1] with the Low Inflow Protocol included in the model, provide reservoir levels and flows that are expected to meet at least the current minimum requirements to support water intake operations identified by the Licensee and the other water users as projected through the Year 2058. The Parties also acknowledge that those minimum requirements, along with facts, assumptions, and analytical capabilities may be subject to change and review during the term of the New License.

5.4 Closure or Abandonment of Water Withdrawal Facilities – The Parties agree that, during the term of the New License, before any Large Water Intake facility located within the FERC Project Boundaries is permanently abandoned or closed, the Licensee shall require the entity owning the affected facility to consult with the appropriate resource agencies, the Licensee, and the applicable local government entities to determine if another entity desires to assume full responsibility for the Large Water Intake facilities located within the FERC Project Boundaries. If, within 180 days following this consultation, the intake owner has not identified another entity that will take full responsibility for management of the intake facility, the Licensee shall require the entity owning the intake to provide, for the Licensee's approval, a written plan to remove or retire the portion of the intake that is inside the FERC Project Boundaries.

5.5 Expansion, Modification, and Replacement of Water Intakes – The Parties acknowledge that nothing in this Agreement supersedes the right of any water intake

[1] CHEOPS is a computer-based hydroelectric operations model that assesses the impacts of simulated hydroelectric project operating conditions on flows and reservoir levels.

owner to seek FERC authorization to expand, modify, or replace an existing water intake or to add a new water intake located within the FERC Project Boundaries. The Parties agree, however, that water intake owners shall be required to consult directly with the Licensee and at least initiate the Licensee's lake-use permitting process (i.e., provide the Licensee with a substantially complete lake-use permit application and obtain the Licensee's initial comments) prior to seeking FERC authorization, and the Licensee shall respond to a water intake owner's substantially complete application and provide initial comments within 90 days of the submission of such application. If no response is made by the Licensee within 90 days, the water intake owner may directly petition FERC for authorization to expand, modify or replace an existing water intake or to add a new intake.

5.6 Responsibilities of Agencies and the Licensee during Review of Water Supply Projects – The Parties acknowledge that nothing in this Agreement shall be construed to restrict any agency's or the Licensee's statutory right or duty to review, approve, condition, or deny any water supply project, or to restrict the agencies' or the Licensee's rights or duties to conduct a review or investigation or to require the submission of studies, data, or other information as required or authorized by law.

5.7 Agreements related to Water Withdrawers Located on Regulated River Reaches

5.7.1 Flows to Support Water Withdrawers – The Parties agree that, except for temporary variances when the Licensee is operating in accordance with the Maintenance and Emergency Protocol or in accordance with Stage 4 of the Low Inflow Protocol, the Licensee shall provide flows from Project developments that will meet or exceed the flow requirements in the proposed Flows Supporting Public Water Supply and Industrial Processes License Article except for the 1,000 cfs flow identified in the Article at River Mile 120 (the Bowater Pulp and Paper Mill) which may not be met when operating in Stages 1 through 4 of the Low Inflow Protocol.

5.8 Agreements Related to Future Water Withdrawal Increases

5.8.1 Use of Relicensing Study Findings in Proposed Water Withdrawal Approval Processes – The Parties acknowledge that the water quantity effects of water intakes located on Project reservoirs and downstream Regulated River Reaches have been evaluated during the relicensing process based on the facts, conditions, assumptions, and analytical tools and methods available at that time. This evaluation considered the capacities of existing intakes and projected increases in withdrawals through the Year 2058 (see Appendix H for a listing by reservoir and by regulated river reach of the total water withdrawals, total water returns and the net consumptive losses (or gains in the case of Fishing Creek Reservoir, Great Falls Reservoir and Cedar Creek Reservoir)). The Parties acknowledge that, in the regulated river reaches, dissolved oxygen (DO) and temperature were evaluated for specific upstream reservoir releases. While the riverine withdrawals were accounted for in the water budget for each reservoir, they were not subtracted at particular nodes associated with their location for water quality modeling. To avoid duplication of effort in the evaluation and permitting of future water intake expansions and additions, the Parties agree that any Party that applies for any authorization to initiate or increase any water withdrawal may submit any studies developed by the Licensee during relicensing of the Catawba-Wateree Hydroelectric Project to

support the application. The Parties understand that, as is common practice, the reviewing agencies, the Licensee, and the applicant may work together prior to the submission of an application to identify any deficiencies in the draft application, including deficiencies in the supporting studies. Current law and regulation generally require that a reviewing agency and the Licensee review all timely and relevant materials properly submitted in support of an application, and that a reviewing agency and the Licensee may require that further information be submitted upon determining that further information is necessary to complete the review, but such determination cannot be arbitrary or capricious. With regard to such determinations, the water withdrawal applicant is encouraged to demonstrate, and if so the reviewing agency or the Licensee must consider, whether:

5.8.1.1 The net consumptive loss (based on average annual rates) resulting from the proposed intake for the reservoir on which the intake is located is less than zero (0 mgd); or

5.8.1.2 The proposed intake will not cause the net consumptive losses for the reservoir on which it will be located to exceed the net consumptive losses projected in Appendix H (based on average annual rates) for that reservoir for the Year 2058; and

5.8.1.3 There have been no significant changes in facts, conditions, or established analytical tools or methods that create a substantial possibility that the relicensing studies are no longer valid as to the new request.

5.8.2 Cumulative Water Use – The Licensee shall maintain information on cumulative water use from Project reservoirs beginning in 2006 and continuing throughout the term of the New License and shall make the information available to water intake owners and governmental agencies upon their request. The Licensee shall require all owners of Large Water Intakes located within the FERC Project Boundaries to report to the Licensee, on an annual basis in million gallons per day (MGD), their average monthly water withdrawals from and flow returns to the Project or its tributary streams that drain to Lake Wateree. The Licensee shall maintain a database of this information including the Licensee's own non-hydro water use records (i.e., water uses due to thermal power generation). These annual withdrawal summaries will be in writing, certified for accuracy by a professional engineer or other appropriate official, and will be provided to the Licensee by January 31 of each year for the preceding calendar year beginning in 2007. This information may be used to determine if future increased water withdrawals would be within the projections of the Water Supply Study conducted during the relicensing process and filed with the FERC as part of the Licensee's Application for New License for the Project.

5.9 Agreements Related to Easements or Permits from the Licensee

5.9.1 Easements and Permits – For the term of the New License, the Licensee shall continue using easements or permit documents as the mechanism for granting its approval for use of Project property for new, Large Water Intakes or modifications to existing Large Water Intakes located within FERC Project Boundaries. The Licensee shall submit lake-use permit

applications that are completed in a timely manner and in accordance with its Shoreline Management Guidelines to the FERC when necessary.

5.9.2 Term and Key Provisions for Easements and Permits – The Parties acknowledge that the term for easements or permits for Large Water Intakes executed after January 1, 2006, shall be the term of the New License, unless a shorter term is required by the Licensee or is specified by a FERC order to adequately address issues raised during the lake-use permit application process. The Licensee also agrees to negotiate in good faith with applicants for Large Water Intake approvals within the FERC Project Boundaries whose applications are received by the Licensee late during the term of the New License (e.g., final ten years) to identify any mutually agreeable easement or permit conditions that will provide the Large Water Intake Owner with adequate assurance, within the Licensee's ability to provide such assurance, that their intake facility, if approved by the Licensee, will be able to continue operation beyond the term of the New License. The Parties further agree that easements or permits for Large Water Intakes executed after January 1, 2006, shall not contain any provision that is inconsistent with the following provisions:

5.9.2.1 The Licensee maintains that it has the necessary authority and rights under state and federal law to charge a fee, consistent with any contract or other limitations that may be in place, to water withdrawers with intakes located within the FERC Project Boundaries or with intakes that benefit from storage provided by Project reservoirs and the Licensee will reserve any such rights in any easements or permits it issues;

5.9.2.2 An applicant requesting such a permit or easement shall not be required to concede that the Licensee has such alleged authority and shall not be required to waive any rights relative to the Licensee's alleged authority to charge withdrawal fees under state or federal law; and

5.9.2.3 The applicant, as a condition of the easement or permit, shall be required to comply with the terms and conditions of the Low Inflow Protocol for the Catawba-Wateree Project.

5.9.3 Large Water Intakes that are in Compliance – The Parties acknowledge that, for any Large Water Intake that remains in substantial compliance with its existing easement or permit agreement with the Licensee, as well as with any associated FERC orders, the existing easement or permit agreement will remain in effect until it expires. Additional easements or permits and/or a license amendment may be required if the water intake owner proposes a modification to or a change of ownership of the water withdrawal facility.

5.9.4 Large Water Intakes that are not in Compliance – The Licensee agrees and the other Parties acknowledge that any Party owning a Large Water Intake that is not in substantial compliance with its existing easement or permit agreement with the Licensee or any associated FERC orders shall modify the intake, execute or revise an easement/permit, or take other actions needed to achieve compliance in a timely manner. The Licensee shall inform the Large Water Intake owner about the substantial non-compliance and shall meet promptly with the Large Water Intake owner to determine if the non-compliance actually exists and to discuss the specific steps that must be taken to achieve

compliance. The Licensee shall provide a reasonable time to comply with an agreed-upon remedial plan, if it is determined that there is non-compliance. The Large Water Intake owner shall complete the applicable portions of the lake-use permitting process (potentially including FERC review) prior to modifying the facility or executing the easement or permit. The Large Water Intake owner shall complete the applicable portions of the lake-use permit application and provide it to the Licensee within 90 days after notice of non-compliance is received by the intake owner, unless an alternative, mutually acceptable time period is negotiated.

5.9.5 Large Water Intakes with no Easements or Permits from the Licensee – Any Party owning a Large Water Intake that is located within a Project reservoir that does not have an executed easement or permit from the Licensee, or otherwise have a valid claim of right pursuant to a deed, easement, permit or other authorization, shall obtain a new easement/permit to reach compliance in a timely manner. Prior to exercising any rights under this provision, the Licensee shall notify the Large Water Intake owner and provide an opportunity to negotiate such easement or permit. The Large Water Intake owner shall complete any applicable portions of the lake-use permitting process (potentially including FERC review) prior to obtaining the easement or permit, and the Licensee shall act promptly and reasonably in responding to the intake owner's need for a new easement or permit, including the filing of such application to the FERC, to allow water to be withdrawn and/or the provision of facilities as needed by the public. The Large Water Intake owner shall complete the applicable portions of the lake-use permit application and provide it to the Licensee within 90 days after notice is received by the intake owner, unless an alternative, mutually acceptable time period is negotiated.

5.10 Agreements Related to Water Withdrawal Fees

5.10.1 Parties that are owners of Large Water Intakes, including the Licensee, shall convene before or during January 2007 to form a voluntary organization called the Catawba-Wateree Basin Water Management Group (WMG) to pursue initiatives that improve water and energy conservation, drought management, and water quality in the Catawba-Wateree River Basin. (See Appendix N for the recommended description of the WMG.) All Eligible Participants (see Appendix N) will be invited to participate in the WMG and, as provided below, to participate in its benefits and responsibilities.

5.10.2 The Parties acknowledge that many of the Eligible Participants (see Appendix N) met regularly during 2005 and 2006 to develop a recommended organization, purpose, and procedures for the WMG as described in Appendix N to serve as a guide for the development of the WMG pursuant to Paragraph 5.10.1. The Parties further acknowledge that WMG Members in Good Standing may revise the organization, purpose, and structure or even disband the WMG by the decision processes established by its Members but that any revisions to the organization, purpose, and structure of the WMG prior to December 31, 2012 will leave the WMG substantially in the form described in Appendix N. All Parties agree that revisions to the organization, purpose, and structure of the WMG or disbanding the WMG will not constitute or require modification to this Agreement.

5.10.3 The Parties agree that, to be a Member in Good Standing of the WMG, the Member must be current in paying its dues, in substantial compliance with any FERC orders affecting the Project and applicable Licensee easements and permits, and be engaged in good faith in fulfilling the purpose and objectives of the WMG including among other things complying with the Low Inflow Protocol. The WMG will ultimately determine whether a Member is in good standing.

5.10.4 Members in Good Standing of the WMG shall not be charged water withdrawal fees by the Licensee during the term of the New License.

5.10.5 The Licensee maintains that water withdrawal fees may be assessed by the Licensee to Water Withdrawers that are not Members in Good Standing of the WMG. The Water Withdrawal Fees will be consistent with the New License's Joint-Use Article.

5.10.6 The Parties acknowledge that the Licensee maintains that it has the necessary authority and rights under state and federal law to assess a fee, consistent with any contract or other limitations that may be in place, to Water Withdrawers with intakes located within the FERC Project Boundaries or with intakes that benefit from storage provided by Project reservoirs. The act of signing this Agreement and becoming a Party thereto does not constitute recognition by any Party that the Licensee has such alleged authority. No Party waives any rights to challenge the Licensee's alleged authority to assess water withdrawal fees under state or federal law, by entering into this or any other related relicensing agreement.

5.10.7 The Parties to this Agreement that are also Eligible Participants for the WMG as identified in Appendix N agree to consider becoming and remaining members in Good Standing of the WMG for the term of the New License, regardless of whether or not they remain a Party to this Agreement.

5.11 Existing Water Withdrawals and Effluent Discharges – The Parties acknowledge that the Licensee included in its Application for New License a table(s) that identifies existing conditions with regard to Large Water Intakes and effluent discharges located within the FERC Project Boundaries.

6.0 Low Inflow Protocol Agreements

6.1 The Parties recommend that the following proposed License Article, the full text of which is provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

6.1.1 ARTICLE – Low Inflow Protocol for the Catawba-Wateree Project

6.2 Human Health and Safety and the Integrity of the Public Water Supply and Electric Systems are of Utmost Importance – Nothing in the Low Inflow Protocol (LIP) (see Appendix C) shall limit the Licensee's ability to take any and all lawful actions necessary at the Project to protect human health and safety, protect its equipment from major damage, protect the equipment of the Large Water Intake owners from major damage, and ensure the stability of the regional electric grid and public water supply systems. The Parties acknowledge that the Licensee may take the steps that are necessary to protect these things without prior consultation or notification. Likewise, nothing in the LIP will limit the States of North Carolina and South Carolina from taking any and all lawful actions necessary within their jurisdictions to protect human health and safety. It is recognized that North Carolina and South Carolina may also take the steps necessary to protect these things without prior consultation or notification.

6.3 No Abrogation of Statutory Authority – It is agreed and understood by all Parties that the South Carolina Department of Natural Resources (SCDNR) must operate under the statutory authority of its drought response statutes, and nothing in this Agreement or LIP shall require the SCDNR to take any action that exceeds its authority under their drought response statute.

6.4 Revising the LIP – The Parties agree that, during the term of the New License, the Catawba-Wateree Drought Management Advisory Group (CW-DMAG) shall evaluate and revise the LIP periodically to ensure continuous improvement of the LIP and its implementation. These evaluations and revisions will be considered at least once every five (5) years during the New License term. Revisions must be approved by a consensus of the participating CW-DMAG members. If the participating members cannot reach consensus, then the dispute resolution procedures set forth in Section 31.0 of this Agreement shall apply. Approved revisions will be incorporated through revision of the LIP and the Licensee shall file the revised LIP with the FERC. If any revisions of the LIP require amendment of the New License, the Licensee shall: (i) provide notice to all Parties advising them of the proposed license article amendment and the Licensee's intent to file it with the FERC; (ii) submit the revision request to the North Carolina Division of Water Quality (NCDWQ) and/or the South Carolina Department of Health and Environmental Control (SCDHEC) for formal review and approval as may be required by any reopener conditions of the respective state's 401 Water Quality Certification for the Project; and (iii) file a license amendment request for FERC approval. During this process, the CW-DMAG may appoint ad hoc committees to address issues and revisions relevant to the LIP. All Parties agree that the filing of a revised LIP by the Licensee will not constitute or require modification to this Agreement and that any Party may be involved in the FERC's public process for assessing the revised LIP.

6.5 CW-DMAG Meeting Summaries – The Licensee shall prepare meeting summaries of all CW-DMAG meetings and shall make these meeting summaries available to the public by posting on its Web site.

6.6 Drought Response Plan Updates – All Large Water Intake Owners shall review and update their Drought Response Plans or Ordinances (or develop a plan or ordinance if they do not have one) by June 30, 2007 and within 180 days following the acceptance by the FERC of any future LIP revisions during the term of the New License to ensure compliance and coordination with the LIP, including the authority to enforce the provisions outlined herein, provided that the requirements of the LIP are not inconsistent with state law.

7.0 Maintenance and Emergency Protocol Agreements

7.1 The Parties recommend that the following proposed License Article, the full text of which is provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

7.1.1 ARTICLE – Maintenance and Emergency Protocol for the Catawba-Wateree Project

7.2 Human Health and Safety and the Integrity of the Public Water Supply and Electric Systems are of Utmost Importance – Nothing in the Maintenance and Emergency Protocol (MEP) (see Appendix D) shall limit the Licensee's ability to take any and all lawful actions necessary at the Project to protect human health and safety, protect its equipment from major damage, protect the equipment of the Large Water Intake owners from major damage, and ensure the stability of the regional electric grid and public water supply systems. The Parties acknowledge that the Licensee may take the steps that are necessary to protect these things without prior consultation or notification. Likewise, nothing in the MEP will limit the States of North Carolina and South Carolina from taking any and all lawful actions necessary within their jurisdictions to protect human health and safety. It is recognized that North Carolina and South Carolina may also take the steps necessary to protect these things without prior consultation or notification.

7.3 Revising the MEP – The Licensee shall review the requirements of the MEP each time it is used and shall consult with the organizations listed in the MEP if the Licensee determines that revisions are warranted. The Licensee shall file the revised MEP with the FERC, including filing a license amendment request if the Licensee determines that the amendment is needed. If any revisions of the MEP require amendment of the New License, the Licensee shall provide notice to all Parties advising them of the proposed license article amendment prior to filing the license amendment request for FERC approval. All Parties agree that the filing of a revised MEP by the Licensee will not constitute or require modification to this Agreement and that any Party may be involved in the FERC's public process for assessing the revised MEP.

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8.0 Public Information Agreements

8.1 The Parties recommend that the following proposed License Article, the full text of which is provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

8.1.1 ARTICLE – Public Information

8.2 Unless noted otherwise, the Licensee shall provide the information described in this Section 8.0 beginning within 180 days following the FERC's issuance of the New License and closure of all rehearing and administrative challenge periods related to public information and continuing throughout the term of the New License.

8.3 The Licensee shall provide public information in English and universal signage (with symbols), unless otherwise specified herein.

8.4 The Licensee shall provide an annual media advisory for newspaper editors to consider for publication to promote public awareness about the Web site and phone line described in the proposed Public Information License Article.

8.5 Reservoir Level Information – In addition to and on the same schedule as the information listed in the proposed Public Information License Article, the Licensee shall provide the following information about reservoir levels.

8.5.1 Reservoir Level Variability – Explain on its Web site that reservoir levels can vary depending on the location on the reservoir.

8.5.2 Special Messages – If an abnormal situation other than those described in the Low Inflow Protocol or Maintenance and Emergency Protocol occurs or is planned, and if such abnormal situation will require deviating from the Normal Target Elevation on a reservoir by more than two feet for more than seven consecutive days, information regarding the deviation and the reason(s) for it will be provided on the Licensee's Web site and toll-free telephone system.

8.6 River Flow Information – In addition to and on the same schedule as the information listed in the proposed Public Information License Article, the Licensee shall provide the following information about Project flow releases into Regulated River Reaches.

8.6.1 Near-term Forecasted Flow Releases – The near-term flow release forecasts will be updated once per day, generally during the hours between 8 pm and midnight. The near-term forecasted releases will be subject to change without notice, but will provide river users with the best available representation of the Licensee's planned and ongoing operations.

8.6.2 Flow Arrival and Recession Times – In addition, except for periods of operation in the Maintenance and Emergency Protocol (MEP) or other situations involving spill flows from the Project, the Licensee's Web site will also show the approximate times when Project flow releases will arrive and recede at the following locations on the Catawba-Wateree River: Watermill Road Access Area (RM 271.7), Morganton Greenway (RM 266.8), Rock Hill River Park (RM 137.4), Catawba Indian Reservation (RM 127.6), Landsford Canal State Park (RM 120.0), and Highway 1/Highway 601 Landing (RM 69.4). The Licensee shall establish an automated system to update these arrival and recession times on a

frequent basis (e.g., every 1 to 2 hours) throughout the day based on actual hydro unit operating conditions.

8.6.3 Selected Streamflow and Groundwater Monitors – The Licensee shall include hotlinks on its Web site for the United States Geological Survey (USGS) streamflow gages and groundwater monitoring wells identified in the proposed Funding for USGS Streamflow Gages License Article, Paragraph 10.27.5.2 and Paragraph 15.6.1.

8.6.4 Special Messages – If the Licensee is operating in accordance with the Low Inflow Protocol (LIP) and/or the MEP, the Licensee shall adjust flow release information and provide special messages on the Licensee's Web site and toll-free telephone system consistent with actions outlined by the LIP and/or MEP.

8.7 Public Recreation Facility Information – The Licensee shall provide information to the public to support safe and effective use of public recreation facilities at the Project including appropriate signage at Project access areas. This information will be available in print as well as on the Licensee's Web site. This information will include, but will not necessarily be limited to, the following for public recreation facilities owned by the Licensee, as well as for many of those not owned by the Licensee:

8.7.1 Maps showing facility names, locations, and access road information;

8.7.2 General types of amenities available at each site;

8.7.3 Facility operational schedules;

8.7.4 General safety messages (including information about boat wakes, island use policies, etc.) and points of contact for boating safety education;

8.7.5 Points of contact (phone numbers, email addresses, Web site addresses, if available) for more specific information about identified facilities;

8.7.6 Links to Web sites that provide local weather service advisories;

8.7.7 Links to Web sites that provide NC and SC agencies' fishing, hunting and boating regulations; and

8.7.8 General information for property owners adjoining the Project.

8.8 Historic Canoe Trail Map – The Licensee shall develop a historic canoe trail map of the South Carolina portion of the Catawba River. The canoe trail map will begin at the Ft. Mill Access Area and end at the lower take-out at Landsford Canal State Park or the Highway 9 Bridge. The canoe trail map will be developed in consultation with the Catawba Indian Nation Tribal Historic Preservation Office, the South Carolina Department of Parks, Recreation and Tourism, the South Carolina Department of Archives and History, local governments, and others identified by the Licensee in consultation with these entities. The map will be completed and made available for public distribution within three years following the issuance of the New License and the closure of all rehearing and administrative challenge periods related to public information.

8.9 Recreation Reports – The Licensee shall make the biennial Recreation Activities Status Reports (see Paragraph 10.20.1) and the FERC Form 80 Reports (see Paragraph 10.20.2) available on its Web site.

8.10 CW DMAG Meeting Summaries – The Licensee shall make the meeting summaries for the Catawba-Wateree Drought Management Advisory Group (as identified in Paragraph 6.5) available on its Web site.

8.11 FERC Public Safety Plans – The Parties agree to the following improvements to the FERC Public Safety Plans.

8.11.1 Warning Devices – The Licensee shall maintain the appropriate warning devices for Project structures that it owns in accordance with its FERC Public Safety Plans as may be modified from time-to-time throughout the term of the New License.

8.11.2 Spanish Language Signage – In addition to signage in English and any universal symbols, the Licensee shall install signage written in Spanish in the tailrace areas to warn Spanish-speaking people of the potential for rapidly rising water. This Spanish signage will be installed within one year following the FERC's acceptance of the revised Public Safety Plans.

8.11.3 Horns at Bridgewater and Oxford – The Licensee shall modify its existing horns or install new horns at the Bridgewater and Oxford developments to improve warnings of changes in river flow due to hydro station operation provided to users of the Bridgewater Access Area and Catawba County's Riverbend Park. The Bridgewater modification will be completed during the powerhouse replacement with a new powerhouse or valve system. The Oxford modification will be completed within one year following the FERC's acceptance of the revised Public Safety Plans.

8.11.4 Riverbend Park Warning System – Additionally, the Licensee shall fund, install and maintain the warning system in the vicinity of Catawba County's Riverbend Park as part of the FERC Public Safety Plan. The Licensee shall consult with the park staff at Riverbend Park to help determine the best location that balances benefits to river users with maintenance and operational needs. Following consultation with the park staff at Riverbend Park, the Licensee will revise its Public Safety Plan and submit it to the FERC for acceptance prior to making the physical changes. The physical changes will be made within one year following the FERC's acceptance of the revised Public Safety Plan.

8.11.5 Public Safety Plan Revisions – The Licensee shall revise its Public Safety Plans to incorporate the Spanish signage and the warning system improvements at the Bridgewater and Oxford developments and file the Plans with the FERC for their acceptance by December 31, 2007. The Licensee shall also incorporate in these revised Plans any changes necessary to implement the facility exclusion zones specified in Paragraph 14.1.

8.11.6 Access Area Signage – Signage at all Project access areas, whether new or existing, will be designed and installed consistent with the Licensee's Access Area Signage Program Guidelines, which will incorporate the National Water Safety Congress and FERC Public Safety Guidelines.

8.11.7 Demographic Changes – At least every ten years after the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to public information for the term of the New License, the Licensee shall consult with local governments, state demographers, and marine commissions to identify any demographic changes that may require additional languages for signage. Based on that consultation, the Licensee will

determine any signage modifications that are necessary and will incorporate those changes into its FERC Public Safety Plans. The Licensee shall implement any signage modifications within one year following FERC's acceptance of the Public Safety Plan revisions.

8.12 Emergency Public Information – When requested, the Licensee shall provide links, with advisory topic titles, to local and state government and marine commission Web sites that provide advisories related to reservoir or river-related issues such as boating safety, swimming advisories, or fish consumption advisories in the special message sections of its Web site. Government agencies desiring to have such links must provide phone and email contacts to the Licensee and must register with the appropriate Licensee personnel.

8.13 Responsibilities for Emergency Notifications – When providing emergency notifications to government agencies in accordance with the Emergency Action Plan filed with the FERC, the Licensee shall be responsible for the timely and accurate dissemination of these notifications. Government agencies, however, will remain responsible for the accuracy of their advisories and for ensuring that their advisories are updated or removed as appropriate.

8.14 High Water Conditions

8.14.1 Within 60 days following issuance of the New License, the Licensee shall provide special messages on its Web site and toll-free telephone system about reservoir level information addressing high water conditions as defined in the MEP. During the time in which any Project reservoir's level is above full pond elevation and rising, this information will include projections for reservoir level crest range, time estimates for cresting, and high water updates approximately every six hours. The Licensee's Web site and toll-free telephone system will also explain that, depending on the location on the reservoir, water elevations could be substantially above (e.g., five feet or more) levels recorded at the dam. A generic graphical description demonstrating this variance will be provided on the Licensee's Web site.

8.14.2 When providing high water notifications to government agencies, in the event that the Licensee gets a bounce-back e-mail or a phone line is busy, the Licensee shall keep trying until they contact a primary or secondary contact.

8.15 Public Communications Technology Reviews – The Parties agree that technology used to provide public communication should be reviewed during the term of the New License. Therefore, at least every five years after the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to public information for the term of the New License, the Licensee shall review its use of phone and Web-based communication to determine if new, commonly accepted, reliable and cost-effective technologies should be added to or replace its communications tools.

8.16 List of Parties for Notice – For the term of the New License, the Licensee shall maintain the official list of Parties for the purpose of giving notice under this Agreement (see Section 29.0) and make the list available to the other Parties via its Web site and other appropriate means.

9.0 Cultural Resources Agreements

9.1 The Parties recommend that the following proposed License Article, the full text of which is provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

9.1.1 ARTICLE – Historic Properties

9.2 Subject to the standards set forth in "Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects" prepared by the FERC in 2002 and jointly issued by the FERC and the Advisory Council on Historic Preservation, the Parties agree that the Historic Properties Management Plan (HPMP) filed by the Licensee with its Application for New License contained the following.

9.2.1 Historic Hydroelectric Structures Management

9.2.1.1 Goal – The Licensee shall manage all of the Project Historic Hydroelectric Structures with the goal of ensuring that the facilities retain their outward historic features.

9.2.1.2 Categorical Exclusions – The Licensee, in consultation with the appropriate State Historic Preservation Offices (SHPOs), shall develop a listing of Categorical Exclusions for activities associated with the maintenance of the dams, modifications to the powerhouses, and modifications to equipment and support structures necessary to operate the hydro stations.

9.2.1.3 SHPO Consultation – In the event that the Licensee plans activities at Project Historic Hydroelectric Structures that are not Categorical Exclusions, the Licensee shall consult with the appropriate SHPO to identify an appropriate course of action.

9.2.1.4 THPO Consultation – The Licensee shall consult with the Catawba Indian Nation (CIN) Tribal Historic Preservation Office (THPO) regarding proposed alterations of Historic Hydroelectric Structures only if ground-disturbing activities are associated with the proposed activity.

9.2.1.5 Cowans Ford NRHP Eligibility – The Licensee, in consultation with the North Carolina SHPO, shall reassess the National Register of Historic Places (NRHP) eligibility of the Cowans Ford Development in Year 2015.

9.2.2 Management of Historic Properties

9.2.2.1 Monitoring – The Licensee shall establish a monitoring program in consultation with the SHPOs and CIN THPO to monitor archaeological sites located within the FERC Project Boundaries that are Historic Properties (HP).

9.2.2.2 Artifact Collecting – The Licensee shall not authorize artifact collecting within the FERC Project Boundaries and, as requested by state and local law enforcement personnel, shall cooperate to deter such artifact collecting and to prosecute offenders.

Artifacts include both pre-contact resources such as, but not limited to, points, potsherds, and worked stone, as well as historic period resources such as ceramics, glass, and foundation stones.

9.2.2.3 Large, Extended Drawdowns – The Licensee shall enter into consultation with the appropriate SHPO and THPOs to identify needed actions to protect archaeological and historic sites that might be exposed if large, extended drawdowns of Project reservoirs are planned.

9.2.2.4 Confidentiality of Site Locations – The Licensee shall not provide information about the location of archaeological and historic sites within the FERC Project Boundaries, except to the SHPOs and THPOs. However, the Licensee may provide location information, after consulting with the SHPO and THPOs, to adjoining landowners requesting lake use permits.

9.2.2.5 Consultation during Lake Use Permitting – The Licensee shall implement the requirements for consultation with the SHPOs and the THPOs and other HP protection measures identified in the revised Shoreline Management Guidelines (SMG) (see Appendix J).

9.2.2.6 The Licensee shall continue to consult with the SHPOs and THPOs on future revisions to the Shoreline Management Plan (SMP) and SMG to ensure that HP are appropriately considered.

9.2.2.7 Protecting Newly Discovered Historic Properties – The Licensee shall consult with the appropriate SHPO and THPO to develop management plans for any newly discovered HP located within the FERC Project Boundaries during the term of the New License. Such plans may include modifying the SMP shoreline classification maps in consultation with the SHPOs and THPOs as described in Section 12.0.

9.2.2.8 Management Plans – The Licensee shall implement site-specific management plans as described in Section 9.3 for sites 38CS235, 38CS307, 31BK427**, 38CS321, 38CS339, 38YK427, 38LA475, and the Overmountain Victory National Historic Trail.

9.2.3 Public Education

9.2.3.1 The Licensee shall develop both a Web site and printed material for distribution to the public providing information about the history of the Project area, the history of the Catawba-Wateree Project, and the importance of not disturbing archeological and historic resources. This information shall be developed in consultation with the SHPOs and the THPOs within the first five years following issuance of the New License and the closure of all rehearing and administrative challenge periods related to cultural resources. The Licensee shall also provide this information to museums and cultural centers when requested.

9.2.3.2 The Licensee shall provide informational signs about the Project Historic Hydroelectric Structures within the first five years

following issuance of the New License and the closure of all rehearing and administrative challenge periods related to cultural resources.

9.2.4 Traditional Cultural Properties – If during the term of the New License Traditional Cultural Properties are identified by federally recognized Native American Tribes as being affected by Project operations, the Licensee shall consult with the applicable tribes to identify appropriate management plans.

9.2.5 Culturally Significant Plant Species – The Licensee shall consult with the CIN THPO to locate populations of culturally significant plants identified during relicensing studies within the FERC Project Boundaries. When such plants are located on Project lands that are owned by the Licensee, the Licensee shall provide access to tribal members for harvesting of such plants as long as these activities are not inconsistent with law or the Species Protection Plans described in Section 11.0.

9.3 Site Specific Management Plans

9.3.1 Site 38CS235 (Fishing Creek Development) – Following issuance of the New License and the closure of all rehearing and administrative challenge periods related to cultural resources, the Licensee shall offer to lease this sacred site to the CIN THPO at nominal cost for the term of the New License. During the term of the lease, the Licensee shall provide $15,000 total per year to the CIN THPO to support monitoring of the site. In the event that individuals are apprehended looting the site, the Licensee shall support the prosecution of the offenders. In the event that the CIN does not enter into a lease agreement with the Licensee or if the lease agreement is terminated for any reason during the term of the New License, the Licensee shall not be obligated to pay the above-mentioned funding to the CIN and shall consult with the South Carolina SHPO and the CIN THPO to develop an alternative, mutually agreeable management plan.

9.3.2 Dearborn Armory (Site 38CS307) – Great Falls-Dearborn Development

9.3.2.1 Conservation Easement – The Licensee shall place a permanent conservation easement on the armory site to be held by a South Carolina state agency. The South Carolina Department of Parks, Recreation and Tourism (SCDPRT) shall hold the easement, contingent upon SCDPRT entering into an Access Area Improvement Initiative (AAII) lease of Dearborn Island. The easement shall be established during the first five years following issuance of the New License and the closure of all rehearing and administrative challenge periods related to cultural resources and recreation. In the event that SCDPRT does not enter into an AAII lease of Dearborn Island, the South Carolina Department of Natural Resources (SCDNR) shall hold the easement.

9.3.2.2 NRHP Nomination – SCDPRT, the South Carolina Department of Archives and History (SCDAH), and the Licensee shall work cooperatively to develop a NRHP nomination for Dearborn Armory no later than five years following issuance of the New License

and the closure of all rehearing and administrative challenge periods related to cultural resources.

9.3.2.3 Site Management Plan – Provided that SCDPRT enters into an AAII lease of Dearborn Island, SCDPRT shall consult with the SCDAH to develop a site management plan consistent with the goals of protecting the site and educating the public about the history of the Dearborn Armory. During the first five years following issuance of the New License and the closure of all rehearing and administrative challenge periods related to cultural resources and recreation, the Licensee shall provide funding not to exceed $50,000 to SCDPRT to support the development of this plan, including archaeological investigations of the armory site. During the second five years following issuance of the New License and the closure of all rehearing and administrative challenge periods related to cultural resources and recreation, the Licensee shall provide additional funding not to exceed $50,000 to SCDPRT to assist in the implementation of the management plan.

9.3.2.4 Interpretive Signage – Provided that SCDPRT enters into an AAII lease of Dearborn Island, during the second five years following issuance of the New License and the closure of all rehearing and administrative challenge periods related to cultural resources and recreation, the Licensee shall provide funding not to exceed $10,000 to SCDPRT to develop interpretative signage at a new state park on Dearborn Island and shall transfer artifacts collected during previous archaeological surveys at the Dearborn Armory site to SCDPRT for incorporation into interpretive displays.

9.3.2.5 Vegetation Management – The Licensee shall provide funding not to exceed $20,000 to SCDPRT for clearing vegetation that threatens the stability of the armory site. The funding shall be provided in 2008.

9.3.2.6 Public Education – During the first five years following issuance of the New License and provided that SCDAH is a Party to this Agreement, the Licensee shall provide funding not to exceed $15,000 to the SCDAH's Archives and History Foundation to support the development of a "Teaching with Historic Places" module for the site. SCDAH shall maintain the module in accordance with the Teaching with Historic Places program.

9.3.2.7 Historic Resources – Provided that SCDPRT enters into an AAII lease of Dearborn Island, the Licensee shall work with SCDPRT to provide historic photographs, drawings and other materials suitable for interpreting the development of the hydroelectric facilities located in the vicinity of the Town of Great Falls. SCDPRT shall use such materials in a visitor's center or other displays at a new state park at Dearborn Island.

9.3.2.8 All funding to SCDPRT by the Licensee to support activities at the Dearborn Armory site is contingent upon SCDPRT being a Party to this Agreement and entering into an AAII lease with the Licensee for Dearborn Island. If SCDPRT is not a Party to this

Agreement or does not enter into an AAII lease of Dearborn Island, the Licensee shall consult with the SCDAH to develop an appropriate management plan for the Dearborn Armory site, but the Licensee has no obligation to provide the funding described in this Section 9.3.2 to SCDPRT.

9.3.3 Site 31BK427** (Bridgewater Development) – The Licensee shall lease the island containing this gravesite to the North Carolina Division of Parks and Recreation (NCDPR) for management as part of Lake James State Park as described in Paragraph 10.27.1.2. The NCDPR shall monitor site 31BK427** at the Bridgewater Development at least annually during the term of the lease and report any disturbances to the Licensee. If NCDPR does not enter into a lease agreement with the Licensee for the island, the Licensee will manage the site in accordance with the HPMP.

9.3.4 Overmountain Victory National Historic Trail (OVNHT) (Bridgewater Development) – The Licensee shall install educational signs, developed in consultation with the National Park Service and Burke County, NC, about the OVNHT at the entrance points for the historic trail route within the FERC Project Boundaries.

9.3.5 Sites 38CS321 (Fishing Creek Development); 38CS339 (Great Falls-Dearborn Development) – To mitigate for Project-related effects at these two sites, the Licensee shall provide the funding for the Mulberry Site described in Section 9.3.6. No additional management activities will be included in the HPMP for these two sites. The activities in Section 9.3.6 are dependent upon the willingness of the property owners to allow such activities to occur. If the property owners are not in agreement with both the project plan and scope (see Paragraph 9.3.6.2) and the Licensee's funding level as described in Section 9.3.6, or if SCDAH is not a Party to this Agreement, the Licensee shall not provide the funding in Section 9.3.6. Instead, the Licensee shall either stabilize or conduct data recovery efforts at sites 38CS321 and 38CS339 in consultation with the SCDAH and the CIN THPO.

9.3.6 Site 38KE12 (Mulberry site) – Wateree Regulated River Reach

9.3.6.1 If SCDAH is a Party to this Agreement, the Licensee shall provide a total of $400,000 ($150,000 per year for the first two years of the project and $100,000 for the third year of the project) to support the efforts of the Wateree Archaeological Research Program (WARP) at Mound A of the Mulberry site (38KE12), a site of national significance located on private property. The Licensee's cost-share funding for this project shall be provided only when a project plan and scope have been developed that are acceptable to the property owners, SCDAH, and the Licensee, and after the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to cultural resources, and after the FERC's approval of the HPMP. In addition, the Licensee's funding shall not be provided until WARP has obtained consensus from all interested federally recognized Indian Tribes on a treatment plan for addressing human remains and associated grave goods inadvertently encountered during the project.

9.3.6.2 This project plan will be administered by the WARP. No more than 15 percent of the Licensee's funding can be used to offset WARP's overhead costs. An Advisory Committee will provide input to WARP and technical review of the project scope, technical reports, and publications of project findings. Membership of the Advisory Committee shall include representatives of, but is not necessarily limited to, WARP, SCDAH, the South Carolina Institute of Archaeology and Anthropology (SCIAA), SCDNR, the CIN THPO, other interested federally recognized Indian Tribes, and at least three professional archaeologists with related experience. The WARP shall develop a written project plan and scope that shall include, but not necessarily be limited to, the following:

9.3.6.2.1 Clearly defined scope of work;

9.3.6.2.2 A schedule for completing the project within five years of its initiation;

9.3.6.2.3 Funding sources in addition to the Licensee if the costs of the scope of work will exceed the Licensee's funding level; and,

9.3.6.2.4 Contractual obligations upon the WARP.

9.3.6.3 If the WARP is unwilling or unable to accept the funding described in this section or to administer the study, the Advisory Committee will identify another entity to administer the project that is acceptable to the property owners, SCDAH, and the Licensee.

9.3.6.4 If SCDAH is a Party to this Agreement, the Licensee shall also provide $100,000 to SCDAH's Archives and History Foundation to monitor erosion rates at the site. This funding may also be used to investigate other associated sites in the Catawba-Wateree River Basin. The Licensee will provide this funding within one year following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to cultural resources, and the FERC's approval of the HPMP.

9.3.6.5 The Parties agree that any additional funding from the Licensee to support work at the Mulberry site during the term of the New License is at the sole discretion of the Licensee.

9.3.7 <u>Sites 38YK427 (Wylie Development); 38LA475 (Wateree Development)</u> – To mitigate for Project-related effects, the Licensee shall provide $40,000 per year for two years to support the University of North Carolina Research Laboratory of Archaeology's (UNCRLA) Catawba Project. The Licensee and its lessees shall not implement any further monitoring or data recovery activities in conjunction with these sites. The funding shall begin within one year following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to cultural resources, the CIN THPO's concurrence with UNCRLA's plan and scope of work, and FERC approval of the HPMP. In the event that either UNCRLA cannot conduct the work or the CIN THPO does not agree with the work plan and scope, then, in lieu of providing this funding to UNCRLA, the Licensee shall develop treatment

plans for sites 38YK427 and 38LA475 in consultation with SCDAH and the CIN THPO.

9.4 The Licensee and the CIN THPO agree that current management activities adequately address all Traditional Cultural Properties (TCP) within the Project's Area of Potential Effect at this time.

9.5 The Parties agree that sites 38LA467, 38LA468, 38LA469, 38LA470, 38LA471, 38LA473, 38LA474 shall be leased at nominal cost to SCDPRT for the term of the New License. SCDPRT, in consultation with the CIN THPO and SCDAH, shall develop a management plan for these sites.

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10.0 Public Recreation Agreements

10.1 The Parties recommend that the following proposed License Articles, the full text of which are provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

10.1.1 ARTICLE – Recreation Management Plan

10.1.2 ARTICLE – Recreation Planning

10.2 Construction Schedule, Additions to RMP, and Access Area Ownership – The Licensee shall complete the construction of all public recreation facilities required under this Agreement during the first 20 years following the FERC's approval of the Recreation Management Plan (RMP) filed pursuant to the proposed Recreation Management Plan License Article. The Parties agree that the Licensee may add recreational amenities or facilities to the Recreation Management Plan whether or not the amenities or facilities are identified in this Agreement. The Parties agree that recreation needs after this first 20 years shall be identified as described in the proposed Recreation Planning License Article and in Paragraph 10.20.4. Except for access areas that are closed for lack of use or closed for relocation in accordance with Paragraph 10.17 or as stated otherwise herein, the Licensee shall hold all Licensee-owned access areas in fee-simple ownership for the term of the New License.

10.3 Planning Basis for Picnic Facilities, Camping, Restrooms, and Swimming – The Parties acknowledge that the final designs for the access areas described in this Agreement will depend on the characteristics of each access area site. The Parties further acknowledge that, unless otherwise specified in this Agreement, the planning basis for these access areas was for picnic facilities to include up to 25 picnic tables, some with a fire ring or pedestal grill; camping areas to include up to 50 sites; restrooms to typically include at least one for men and one for women; and swimming areas to include approximately one-half acre of sandy beach with adjoining shallow water areas and no provisions for lifeguards.

10.4 Maintenance Agreement with NCWRC – Prior to the expirations of the Existing License and the current NCWRC agreement for maintenance of boat launching, public fishing areas, and parking facilities at the Licensee's access areas in North Carolina, both of which expire August 31, 2008, the Licensee and the North Carolina Wildlife Resources Commission (NCWRC) shall negotiate a similar maintenance agreement for the term of the New License. The maintenance agreement shall include: (i) all facilities subject to the current maintenance agreement; (ii) the maintenance of certain newly constructed facilities in North Carolina identified in Section 10.27 of this Agreement as such new facilities are constructed; and (iii) may also include management of selected Licensee-owned islands within the Project reservoirs in North Carolina. If for any reason the NCWRC and the Licensee cannot agree to a new maintenance agreement, the Licensee shall ensure the maintenance of the boat launching, public fishing areas, and parking facilities that would have been under the NCWRC maintenance agreement.

10.5 Wildlife Viewing Feasibility – The Licensee shall evaluate the need for and feasibility of including wildlife viewing facilities at appropriate Licensee-owned public access areas that will be within the FERC Project Boundaries as a part of the site-specific conceptual design process following FERC approval of the RMP. Where found to be needed and feasible, the Licensee or its access area lessees shall provide such

wildlife viewing facilities. The Licensee and the NCWRC or the South Carolina Department of Natural Resources (SCDNR) as appropriate will consider the capability and suitability of the site to support wildlife viewing opportunities and shall jointly determine the need and feasibility for the facilities.

10.6 Bank Fishing at Licensee-owned Access Areas – The Licensee shall ensure that the shoreline of all Licensee-owned access areas remains open for bank fishing for the term of the New License, except for those minimal shoreline areas where bank fishing is restricted for safety reasons, management problems, or to avoid conflicts with other access area users. The Licensee, in consultation with the NCWRC or the SCDNR, shall designate with appropriate signage those portions of shoreline at the Licensee-owned access areas where bank fishing is prohibited.

10.7 Facilities Investments at Licensee-owned Access Areas – This Agreement contemplates the Licensee's entering into Access Area Improvement Initiative (AAII) leases with partners at suitable Licensee-owned access areas. The Parties acknowledge that Licensee-funded facilities will belong to the Licensee, while the facilities for which construction was funded by an AAII lessee will belong to the lessee.

10.8 Expanding the AAII – The Parties acknowledge that the Licensee may lease Licensee-owned access areas in addition to those identified for AAII lease in this Agreement to AAII partners for the development and management of public recreation facilities.

10.9 Use of Licensee-owned Islands – The Licensee shall ensure that all Licensee-owned islands located on the Project reservoirs or in the regulated river reaches will remain open for the term of the New License for any permissible day-use public recreation activity, such as fishing, wading, picnicking, hiking and hunting, except for islands that are specifically designated otherwise in the FERC-approved RMP or the Licensee's Shoreline Management Guidelines (SMG) (see Appendix J Shoreline Management Plan (SMP)), or islands that are restricted by state or local public health, safety or law enforcement authorities, or islands that the Licensee determines should be off limits due to issues related to cultural resource protection, wildlife protection or safety, security or management concerns. The Parties understand that camping on islands located in Project reservoirs and regulated river reaches is authorized only on specific Licensee-owned islands as noted in the Licensee's SMG or FERC-approved RMP, or as specifically provided for in any AAII lease.

10.10 Signage – The Licensee shall provide appropriate signage at Licensee-owned access areas and trails. These signs may include, but are not necessarily limited to, safety advisories, facility operation schedules, and phone numbers for additional information. Signs will be consistent with the National Water Safety Congress and FERC Public Safety Guidelines, will include universal signage symbols where appropriate, and will include Spanish in the tailraces in accordance with Paragraph 8.11.2.

10.11 Construction, Approvals and Permits – The Parties acknowledge that construction of the public recreation facilities described in this Section 10.0 and in the proposed Recreation Management Plan License Article is contingent upon the ability of the Licensee and/or other recreation facility providers to obtain any necessary federal, tribal, state or local government approvals or permits required. If any of the facilities are not completed because of the inability to obtain such permits or approvals, then the Licensee and/or other recreation facility providers shall endeavor in good faith to construct comparable facilities as a replacement within a reasonable time schedule. The Licensee and/or other recreation facility providers shall endeavor in good faith to find a

suitable location and obtain the necessary approvals and permits for such replacement facilities that are acceptable to and approved by the FERC, if FERC approval is required.

10.12 Construction Feasibility – The Parties acknowledge that construction of the public recreation facilities described in this Section 10.0 is contingent upon the ability of the Licensee and/or other recreation facility providers to design and construct the facilities consistent with accepted recreation facility standards, user safety, and public infrastructure security requirements. If any of the facilities are not completed because of feasibility problems, then the Licensee and/or other recreation facility providers shall endeavor in good faith to provide appropriate replacement alternatives to be constructed within a reasonable time schedule for which they can obtain the necessary permits and approvals, including FERC approval, if FERC approval is required.

10.13 Facilities Subject to Security Concerns – In establishing the final location, design and operation of any public recreation facilities proposed in the vicinity of powerhouses, dams and other power generation or electric transmission support facilities, pipelines for transporting petroleum products, public bridges and public water system intakes, the Parties agree that the Licensee and/or other recreation facility providers shall consider security issues relative to those important elements of public infrastructure and shall not create security risks that are unacceptable to the entities with management responsibility for the public infrastructure elements.

10.14 ADA Requirements – The Licensee shall ensure that all facilities constructed at the Licensee-owned access areas, whether constructed by the Licensee or others, comply with the Americans with Disabilities Act (ADA) requirements.

10.15 Facility Standards – For all Licensee-owned access area construction projects, the Licensee and/or other recreation facility providers shall comply with applicable federal, state and local rules, regulations, building and zoning codes, and public safety design standards. In addition, the Licensee and/or other recreation facility providers shall use reasonable best efforts to construct all facilities at Licensee-owned access areas using Low Impact Development practices for storm water management. For all Licensee-owned access area projects, the Licensee shall also design and construct, as is practicable, the areas to retain vegetation, maintain natural habitat, provide a natural view from the water, and use shielded lighting where lighting is provided. The Licensee shall ensure that all leases and agreements entered into with agencies or other entities for development and/or maintenance of Licensee-owned access areas will include these provisions.

10.16 Public Access Requirement to Receive Licensee Funds or Duke Energy Properties – If the Licensee's funds will be used for construction of public recreation facilities on property owned by others, the Licensee shall require prior written agreements from those landowners of public recreation land requiring that the Licensee-funded facilities shall remain open to the general public for public recreation purposes for the term of the New License, unless facility closure and/or property use conversion becomes unavoidable or desirable to support other public need projects (e.g., the property on which the facilities are located is taken for a public road expansion during the term of the New License). The written agreement between the Licensee and the entity receiving the Licensee's funding shall identify procedures to be used in these closure situations which may include, among other things, requirements to reimburse all or a portion of the Licensee's funding or to replace the Licensee-funded facilities that will be closed. If under this Agreement the Licensee's funds will be used to purchase land for public recreation and/or compatible long-term conservation or if a Duke Energy

business unit will transfer its property to another entity for those purposes, similar written agreements (typically in the form of deed restrictions on the subject property) shall be required prior to providing the Licensee's funds or transferring title to the subject property to establish the intention for the property to remain open to the general public for public recreation purposes for the term of the New License and to identify procedures to be used in any future closure situations.

10.17 Property Rights for Public Access – The Licensee shall retain the necessary property rights to keep Licensee-owned access areas open for public recreation use for the term of the New License. However, if it is necessary or desirable to close any Licensee-owned access area during the term of the New License for reasons other than a lack of use, the Licensee shall provide appropriate alternatives acceptable to and approved by the FERC, if FERC approval is required, in the same general vicinity of the Project reservoir or regulated river reach or bypassed reach before closing the original access area. The Licensee shall consult with the appropriate tribes, federal and state resource agencies, local governments, and organizations regarding the closure of the existing access area and the selection and design of the replacement access area.

10.18 Actual Facility Construction versus Schedules – If, due to extenuating circumstances, the Licensee cannot meet the scheduled construction dates for any of its access area construction projects that are included in the RMP, then it may request a time extension from the FERC. If these access area construction projects are identified in this Agreement but not included in the RMP, then the Licensee shall notify the Final Agreement Committee (see Section 26.0) to consider recommending a time extension prior to being subject to an alleged breach of this Agreement. The Licensee shall require AAII lessees in the terms of their leases to make every effort to maintain the facilities construction schedules as noted in this Agreement and as agreed to in their AAII leases. If any AAII lessee falls more than 24 months behind its stated construction schedule, the Licensee shall evaluate the lessee's state of compliance with the terms of its lease and decide if lease termination is advisable. If the lease is terminated because of non-compliance with the terms of the lease, then Paragraph 10.24 shall apply.

10.19 Alternative Facilities Plans – If the Licensee works out an alternative agreement with another entity (e.g., a state park, a local park, an AAII partner) to construct comparable facilities in the same general vicinity of the applicable reservoir or river reach and on a similar or more aggressive schedule, and these facilities are actually constructed, then the Parties agree that these comparable facilities will also meet the Licensee's obligations. If such alternative facilities are planned, the Licensee shall consult with the appropriate tribal, federal, state and local agencies and organizations and file a supplement to the RMP for FERC approval if the original or alternative facilities are included in the RMP.

10.20 Continued Project Recreation Planning – The Parties recognize the importance and value of continued recreation planning consultation among the Licensee, appropriate tribes, federal and state resource and parks and recreation agencies, local governments, and recreation-based organizations. The Parties also recognize that, during the RMP's 20-year planning horizon, unanticipated Project-related recreation needs may be identified and/or it may be determined that planned or existing recreation facilities are no longer needed. To respond to these possibilities, the Licensee shall conduct the following activities.

10.20.1 Recreation Activities Status Report – The Licensee shall post to its Web site the biennial status report developed in accordance with the proposed

Recreation Management Plan License Article and shall inform all Parties of its availability.

10.20.2 FERC Form 80 Reports – The Licensee shall post the FERC Form 80 Reports on its Web site and inform all Parties of their availability.

10.20.3 Seven-year Meetings of Recreation Specialist Parties – In the seventh year and again in the fourteenth year following the FERC's issuance of the New License, the Licensee shall convene a workgroup of recreation professionals and recreation-based interest groups within the Catawba-Wateree River Basin, including but not limited to recreation-based organizations that are Parties to this Agreement. The workgroup will review the Recreation Activities Status Reports and the FERC Form 80 Reports plus other existing data that describe Project-related recreation use including the NC and SC State Comprehensive Outdoor Recreation Plans, local comprehensive land-use plans, and available recreation studies. The workgroup will also review the remaining recreation activities required by the RMP and this Agreement. The Parties acknowledge that changes can be made to the RMP or the recreation activities required by this Agreement as a result of the workgroup's recommendations, but only if all the Parties to this Agreement affected by the recommendations including the Licensee agree that the changes are needed and are acceptable, and if the FERC approves any applicable proposed changes. The workgroup shall first make its best effort to offset any additional costs to the Licensee for changes the workgroup deems necessary by adjusting the scope and schedule, by providing additional partnerships, or by making other adjustments to the remaining activities in the 20-year RMP or this Agreement. In any case, if the offsets are not adequate to cover the costs of the changes, the Licensee's additional cost of changes to the RMP or recreation activities required by this Agreement as suggested by the workgroup over the initial 20-year planning window may not exceed $2 million per each seven-year review increment. Any portion of the $2 million of additional potential investment that is not allocated by a seven-year review will not carry over into the next review. If in any seven-year review the organizations (including the Licensee) affected by a suggested change to the RMP substantially disagree about whether that change should be adopted by the workgroup, then the workgroup shall implement dispute resolution under the procedures in Section 31.0 of this Agreement. However, the Parties acknowledge that, whatever changes are recommended or result from dispute resolution, all changes in that seven-year review shall not exceed $2 million additional cost to the Licensee.

10.20.4 Future Revisions to the RMP – Prior to each supplement to the RMP required by the proposed Recreation Management Plan License Article, the Licensee shall convene a workgroup similar in design to the Recreation Use and Needs Study Team formed to support the Project's relicensing to:

10.20.4.1 Conduct a recreation use and needs assessment;

10.20.4.2 Identify any additional public recreation facility needs at the Project as agreed to by the workgroup; and

10.20.4.3 Develop a supplement to the RMP and file the supplement with the FERC for approval. The supplement will describe in detail the activities agreed to by consensus, as defined in Paragraph 31.1.2, by the workgroup including construction schedules and how these

new facilities as well as existing facilities will be operated and maintained. The Licensee shall implement the RMP supplement once the necessary approvals are obtained.

10.20.5 Prior to filing with the FERC any RMP revisions or supplements or any related New License amendments as noted in this Paragraph 10.20.5, the Licensee shall provide notice to all Parties advising them of the pending FERC filing and shall make the pending RMP revision or supplement or the pending New License amendment available to the Parties for at least 30-days review and comment. The Licensee shall consider any comments it receives from the Parties during the comment period and shall address the comments received in its FERC filing. All Parties agree that the filing of a RMP revision or supplement or a related New License amendment request by the Licensee will not constitute or require modification of this Agreement and that any Party may be involved in the FERC's public process for assessing the Licensee's filing.

10.21 Duke Energy Support for Land Acquisition by Other Entities – Approximately 3,450 acres of land that is owned by Crescent Resources, LLC is expected to be purchased by entities other than the Licensee with support from Duke Energy in accordance with this Agreement (see Paragraphs 10.27.5.4 and 10.27.15.3). The Parties agree that these land areas are being purchased for public recreation purposes and/or for permanent land conservation uses. The Parties agree that, unless stated otherwise in Section 10.0, all lands identified in this Section 10.0 to be acquired from Crescent Resources, LLC by other entities with support from Duke Energy must be under purchase option by December 31, 2007, and the purchase must be complete by August 1, 2009. Provided Crescent Resources, LLC is a Party to this Agreement, Crescent Resources, LLC agrees to remain a willing seller of the Johns River Gameland tract (approximately 2,882 acres, see Paragraph 10.27.5.4) and the Mountain Creek Park tract (approximately 600 acres, see Paragraph 10.27.15.3) through August 1, 2009, and Crescent Resources, LLC further agrees that, between the effective date of this Agreement and December 31, 2007, it will only sell the Johns River Gamelands and Mountain Creek Park tracts to the entities identified in this Agreement as the intended purchasers. Purchasing entities may request an extension of the August 1, 2009 purchase completion date, but any such extensions must be justified and must be negotiated with and approved by the Duke Energy business unit that owns the subject property. If any portion of the Johns River Gamelands (see Paragraph 10.27.5.4) is not under purchase option or acquired by these dates, then, unless otherwise specified in this Agreement, the Licensee shall add to the land conservation funding identified in Section 14.5 for the State of North Carolina an amount of funding equivalent to the unused Duke Energy support.

10.22 Recreation Amenity Locations – Section 10.27 and the proposed Recreation Management Plan License Article detail the recreation enhancements, amenities, and financial contributions that have been agreed to as part of this Agreement. The general locations of existing recreation facilities and new recreation facilities are identified on a map tile series titled Catawba-Wateree Public Recreation Amenities and Other Key Land Areas (See Appendix I).

10.23 Submittal of AAII Lease Requests to the FERC – The Parties acknowledge that all AAII lease requests for Licensee-owned access areas that are within the FERC Project Boundaries of the New License must be filed by the Licensee with the FERC for approval. The Licensee shall file along with its RMP any conceptual site plans meeting the standards of the AAII that have been developed by potential AAII lessees for

activities set forth in this Agreement and request, with the filing of its RMP, that these leases be approved by the FERC. Should a potential AAII lessee desire to have its plans considered for approval by the FERC at the same time as the RMP, the lessee must submit its plans to the Licensee within eight (8) months following the FERC's issuance of the New License. All other AAII lease requests shall be submitted to the FERC for approval in accordance with the AAII procedures.

10.24 Actions if an AAII Lease does not Exist – Parties to this Agreement that are specifically identified by name in Section 10.0 as potential AAII lessees acknowledge that they knew of no reason at the time of their signing of this Agreement that they will be unable or unwilling to enter into such AAII leases and are agreeing to consider the AAII leases of the subject access areas in good faith, including consideration of developing the identified facilities, but the AAII lessees are only obligated to construct and operate the specific facilities identified in AAII leases that they sign. If an AAII lease for an access area that is proposed for inclusion in the FERC Project Boundaries as described in Section 10.27 is not executed or ceases to exist for any reason, the Parties acknowledge that the Licensee reserves the right to: (i) enter into an AAII lease with a different entity to implement the same activities or a modified set of activities with the same or different schedule; and (ii) change the schedule for implementing these activities but shall not delay the activities by more than one five-year period (see Section 10.27). The Parties agree that, if the Licensee determines that such a schedule is to be modified and the modification must be approved by the FERC in accordance with Paragraph (E) of the proposed Recreation Management Plan License Article, then the Licensee shall amend its RMP in accordance with the proposed Recreation Management Plan License Article and that no Party shall oppose such modifications in schedule.

10.25 Waterfowl Hunting on the Catawba River – The Parties acknowledge that the Licensee, NCDENR, NCWRC and the North Carolina Wildlife Federation have worked together and developed a plan to address waterfowl hunting in the Catawba River in the vicinity of the North Bend Recreation Land (Paragraph 10.27.3.1), North Bend Access Area (Paragraph 10.27.3.2), Catawba-Linville River Confluence Recreation Land (Paragraph 10.27.3.3), and the Paddy Creek Recreation Land (Paragraph 10.27.3.4).

10.26 Cultural Resource Evaluation of Bridgewater Properties – Prior to the conveyance to the State of North Carolina of any of the properties identified for the North Bend Recreation Land (Paragraph 10.27.3.1), North Bend Access Area (Paragraph 10.27.3.2), Catawba-Linville River Confluence Recreation Land (Paragraph 10.27.3.3), or Paddy Creek Recreation Land (Paragraph 10.27.3.4) and prior to the identification of the final layout for the Overmountain Victory National Historic Trail (OVNHT) easement/corridor provided in Paragraph 10.27.4.2, the Licensee shall perform a cultural resources field evaluation of the subject property in consultation with the National Park Service, Burke County, NC, the North Carolina State Historic Preservation Office (NCSHPO), the North Carolina Department of Environment and Natural Resources (NCDENR) and the NCWRC and provide the final evaluation report to the same agencies. However, if the NCDENR is not a Party to this Agreement, the Licensee shall limit its cultural resources field evaluation to only those areas considered for location of the OVNHT easement/corridor provided in Paragraph 10.27.4.2.

10.27 Site-Specific Recreation Amenities – The Parties agree that the RMP filed by the Licensee in accordance with the proposed Recreation Management Plan License Article shall be consistent with the schedule and measures for those activities set forth herein.

The indicated time periods for the activities included in the RMP shall begin upon the FERC's approval of the RMP.

The Parties agree that activities and measures not addressed in the proposed Recreation Management Plan License Article shall not be included in the RMP filed by the Licensee. These activities and measures not included in the RMP shall be implemented in accordance with this Section 10.27.

10.27.1 Bridgewater Development – First Five-Year Period

10.27.1.1 Black Bear Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Licensee shall offer to McDowell County, NC, and McDowell County, NC shall consider, an AAII lease to provide trails, cabins, primitive camping, and picnicking.

If McDowell County, NC leases the access area from the Licensee through the AAII, the Parties agree that McDowell County, NC may fulfill its lease obligations by entering into a sublease with a commercial business. The NCWRC shall develop the fishing pier included in the proposed Recreation Management Plan License Article if a suitable location is identified. If the NCWRC and the Licensee jointly determine that a fishing pier is not feasible at this site, the AAII lessee shall provide a bank fishing trail. The Parties agree that the AAII lease shall also include maintenance of all facilities, except that the boating access facilities[2] and fishing pier, if one is constructed, shall be maintained under the NCWRC maintenance agreement described in Paragraph 10.4.

If the NCWRC does not revise its maintenance agreement as described in Paragraph 10.4, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the fishing pier and bank fishing trail included in the proposed Recreation Management Plan License Article. If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the trails, primitive camping, and picnicking facilities included in the proposed Recreation Management Plan License Article. The Licensee shall be under no obligation to provide cabins.

If McDowell County, NC is a Party to this Agreement, the Licensee shall facilitate discussions about trail-easement agreements between McDowell County, NC and (i) the owner of Bear Cliff Development, (ii) the Sunset Development Homeowner's Association, and (iii) Crescent Resources, LLC to establish a connecting trail easement from Black Bear Access Area to the proposed Lake James Loop Trail at the McDowell County/Burke County, NC line. This trail easement shall not be included in the FERC Project Boundaries.

[2] The term "boating access facilities" includes the boat ramp(s), courtesy dock(s), parking lot, any lighting, and grounds in the vicinity of these facilities, throughout Section 10.0 unless otherwise specified.

10.27.1.2 Lake James State Park and Islands Management Zone – All measures identified for the Lake James State Park and Islands Management Zone in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.2 Bridgewater Development – Second Five-Year Period

10.27.2.1 New Linville Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period if Burke County, NC transfers approximately 10 acres of land adjacent to the existing Linville Access Area in fee-simple ownership to the Licensee. Construction of any facilities identified in the proposed Recreation Management Plan License Article shall be done in accordance with a Burke County-approved site plan. The new boating access facilities including the access road shall be maintained under the NCWRC maintenance agreement described in Paragraph 10.4. The Licensee shall maintain the vault toilet. The Licensee agrees that Burke County, NC may include in the deed conveying the property from Burke County, NC to the Licensee a reversion clause so that fee-simple ownership of the 10-acre tract will revert back to Burke County, NC if the recreation use of the 10-acre tract as defined in this Paragraph 10.27.2.1 is terminated.

If Burke County, NC does not transfer the property or if the Linville Canoe/Kayak Access Area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the measures included in the proposed Recreation Management Plan License Article for this access area.

10.27.2.2 Linville Canoe/Kayak Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period, provided that the development of the New Linville Access Area occurs as noted in Paragraph 10.27.2.1. The Licensee shall offer to Burke County, NC, and Burke County, NC shall consider, an AAII lease to maintain all facilities.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the measures included in the proposed Recreation Management Plan License Article for this access area.

10.27.2.3 Lake James Loop Trail – Within ten years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation and provided that Burke County, NC is a Party to this Agreement, the Licensee shall provide funding, not to exceed $500,000, to Burke County, NC to construct up to a total of five miles, including the dam portion (length to be determined based on engineering feasibility), of the planned Lake James Loop Trail. If Burke County, NC is not a Party, these funds shall be provided to NCDENR for the same purpose provided NCDENR is a Party to this Agreement. The location of trail portions

other than those crossing the dams shall be determined by Burke County, NC (or NCDENR). The Licensee shall develop a suitable management agreement between the Licensee and Burke County, NC (or NCDENR) for managing the Lake James Loop Trail portion crossing the dams. Except for the portions of the Lake James Loop Trail that cross the dams or cross any of the Licensee-owned public access areas adjoining Lake James, the trail segments constructed shall not be included in the FERC Project Boundaries.

If either Burke County, NC or NCDENR is a Party to this Agreement, the Licensee shall include segments of the Lake James Loop Trail crossing the dams or within the FERC Project Boundary at Lake James in the RMP with construction scheduled to occur during the second five-year period, but only if the Licensee determines that these trail segments are feasible. If neither Burke County, NC nor NCDENR is a Party to this Agreement, the Licensee shall have no obligation to provide the funding described in this Paragraph 10.27.2.3.

10.27.2.4 Pocket Park at Dam for Lake James Loop Trail – All measures identified for this area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period.

10.27.3 Bridgewater Regulated River Reach – First Five-Year Period

10.27.3.1 North Bend Recreation Land – Within five years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, provided that the NCDENR is a Party to this Agreement, Duke Energy shall convey approximately 550 acres of property adjacent to the Catawba River at the second Powerhouse Road Bridge downstream of the Bridgewater Powerhouse to the NCDENR for public recreation and compatible permanent conservation. NCDENR shall develop and manage the property to provide multiple public recreation opportunities for the term of the New License. This area shall not be included in the FERC Project Boundaries. The Parties acknowledge that the Licensee may use portions of the property as borrow areas to support the ongoing Bridgewater Dam Upgrade Project. To continue completion of this important dam upgrade, the Licensee may, at its sole discretion, delay the conveyance of all or a portion of this property to the NCDENR pending completion of the Bridgewater Dam Upgrade Project. The borrow areas shall be reclaimed prior to conveyance. The Parties agree that the conservation easements (see Appendix O) identified in the North Carolina Flow Mitigation Package (see Paragraph 4.5.) shall remain in place. This property may also include an easement or corridor for the term of the New License for approximately 3.5 miles for the Overmountain Victory National Historic Trail (OVNHT) corridor as noted in Paragraph 10.27.4.2. The Licensee shall identify the easement or corridor location in consultation with the National Park Service, Burke County, NC, the NCSHPO, NCDENR, and the NCWRC. This property may also include conservation easements or deed restrictions to protect any

populations of dwarf-flowered heartleaf (*Hexastylis naniflora)* currently existing on the property.

If the NCDENR is not a Party to this Agreement, Duke Energy shall have no obligation to transfer the lands identified in this Paragraph 10.27.3.1.

10.27.3.2 North Bend Access Area – Within five years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, provided that the NCWRC is a Party to this Agreement, Duke Energy shall convey approximately 10 acres of property adjacent to the Catawba River at the second Powerhouse Road Bridge downstream of the Bridgewater Powerhouse to the NCWRC and the Licensee shall provide up to $225,000 to NCWRC to develop and maintain a trailered-boat access, bank fishing, and parking area on that property.

If the NCWRC is not a Party, then Duke Energy shall have no obligation to convey the property to NCWRC and the Licensee shall have no obligation to provide the funding support in this Paragraph 10.27.3.2, but the Licensee shall acquire the approximately 10 acres of property and develop a trailered-boat ramp, bank fishing, and parking area. All Licensee-constructed facilities shall be maintained under the NCWRC maintenance agreement described in Paragraph 10.4.

This area shall not be included in the FERC Project Boundaries.

10.27.3.3 Catawba-Linville River Confluence Recreation Land – Within five years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, provided that the NCDENR is a Party to this Agreement, Duke Energy shall convey approximately 420 acres of property adjacent to the Catawba River in the vicinity of the confluence of the Catawba River Bypassed Reach and the Bridgewater Regulated River Reach to the NCDENR for public recreation and compatible permanent conservation. NCDENR shall develop and manage the property to provide multiple public recreation opportunities for the term of the New License. This area shall not be included in the FERC Project Boundaries. The Parties agree that the conservation easements (see Appendix O) identified in the North Carolina Flow Mitigation Package (see Paragraph 4.5.) shall remain in place.

If the NCDENR is not a Party to this Agreement, Duke Energy shall have no obligation to transfer the lands identified in this Paragraph 10.27.3.3.

10.27.3.4 Paddy Creek Recreation Land – Within five years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, provided that the NCDENR is a Party to this Agreement, Duke Energy shall convey approximately 275 acres of property downstream of the Paddy Creek and Linville dams to the NCDENR for public recreation and

compatible permanent conservation. The property shall be developed and managed by the NCDENR to provide multiple public recreation opportunities for the term of the New License. This area shall not be included in the FERC Project Boundaries. The Parties acknowledge that the Licensee is using portions of the property as borrow areas to support the ongoing Bridgewater Dam Upgrade Project. To continue completion of this important dam upgrade, the Licensee, may, at its sole discretion, delay the conveyance of all or a portion of this property to the NCDENR pending completion of the Bridgewater Dam Upgrade Project. The borrow areas shall be reclaimed prior to conveyance. The Parties agree that the conservation easements (see Appendix O) identified in the North Carolina Flow Mitigation Package (see Paragraph 4.5.) shall remain in place. The Parties further agree that this property shall also include an easement or corridor for the term of the New License for approximately 2.5 miles of the Overmountain Victory National Historic Trail corridor as noted in Section 10.27.4.2. The Licensee shall identify the easement or corridor location in consultation with the National Park Service, Burke County, NC, the NCSHPO, the NCDENR, and the NCWRC. This property may also include conservation easements or deed restrictions to protect any populations of dwarf-flowered heartleaf (*Hexastylis naniflora)* currently existing on the property.

If the NCDENR is not a Party to this Agreement, Duke Energy shall have no obligation to transfer the lands identified in this Paragraph 10.27.3.4.

10.27.3.5 Muddy Creek Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.3.6 Morganton Weir Take-out Area – Within five years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, provided that the City of Morganton, NC is a Party to this Agreement, the Licensee shall provide funding up to $125,000 to the City of Morganton, NC for the City to develop a trailered-boat ramp and approximately ten gravel parking spaces upstream in the immediate vicinity of the Morganton Weir. Provided that security issues can be satisfactorily addressed and provided that the City of Morganton, NC can arrange for the ongoing maintenance of the ramp and support facilities, the City of Morganton, NC shall provide the necessary land and any other support facilities (e.g., restrooms, road enhancements) to develop and maintain the site. This area shall not be included in the FERC Project Boundaries.

If the City of Morganton, NC is (i) not a Party to this Agreement; or (ii) elects not to develop and manage the Take-out Area for any reason and the security issues can be satisfactorily addressed, these funds shall be provided to NCDENR for the same purpose provided NCDENR is a Party to this Agreement. NCDENR will also arrange for the ongoing maintenance of the ramp and support facilities. If neither

the City of Morganton, NC nor NCDENR is a Party to this Agreement or if neither the City nor NCDENR is willing to develop and manage the Take-Out Area, the Licensee shall have no obligation to provide the funding set forth in this Paragraph 10.27.3.6.

10.27.4 Bridgewater Regulated River Reach – Second Five-Year Period

10.27.4.1 Bridgewater Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period.

10.27.4.2 Lake James-to-Morganton OVNHT Corridor – Within ten years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, provided that Burke County, NC is a Party to this Agreement, the Licensee shall provide funding up to $600,000 to the County to develop approximately six miles of the Overmountain Victory National Historic Trail (OVNHT). The Licensee shall also acquire easements or corridors (not to exceed 300 feet in width) on the North Bend Recreation Land tract, the Paddy Creek Recreation Land tract and other lands in the vicinity of Linville Dam for approximately six miles total of the OVNHT corridor, and these easements or corridors shall be for the term of the New License. If Burke County, NC is not a Party to this Agreement or elects not to receive the funding, this funding shall be provided to the NCDENR, if the NCDENR is a Party to this Agreement, for construction and operation of the six miles of trail. With the exception of that portion of the trail that crosses the Bridgewater Access Area and Portage, the six miles of trail and six miles of trail corridor shall not be included in the FERC Project Boundaries.

If entities other than the Licensee pay the cost of developing and operating all of the OVNHT in Burke County, NC, the Licensee shall add up to $600,000 to the North Carolina Land Conservation Support (see Section 14.5.1).

If (i) Burke County, NC is a Party to this Agreement; (ii) NCDENR is a Party to this Agreement; or (iii) other entities pay the cost of OVNHT development and operation, the Licensee shall include segments of the OVNHT that cross the Bridgewater Access Area and Portage in its RMP with construction to occur within ten years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, but only if the Licensee determines that these trail segments are feasible.

If neither Burke County, NC nor NCDENR is a Party to this Agreement and if no other entities pay the cost of developing and operating the six miles of OVNHT, the Licensee shall have no obligation to acquire the easements or corridors or provide the funding described in this Paragraph 10.27.4.2.

10.27.4.3 Watermill Road Access Area – Within ten years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, the

Licensee shall provide funding up to $65,000 to the Town of Glen Alpine, NC to modify the existing canoe/kayak access facility to better accommodate trailered boats in addition to canoes and kayaks and provided that construction of the facilities and management of the site shall be provided by the Town of Glen Alpine, NC. This access area shall not be included in the FERC Project Boundaries.

10.27.5 Rhodhiss Development – First Five-Year Period

10.27.5.1 Corpening Bridge Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The boating access facilities shall be maintained under the NCWRC maintenance agreement described in Paragraph 10.4.

10.27.5.2 Wilson Creek Access Area – Within five years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, provided that Caldwell County, NC is a Party to this Agreement, the Licensee shall acquire 50 to 100 acres of land along Wilson Creek between Adako Road and the confluence of Wilson Creek with the Johns River and offer an AAII lease to Caldwell County, NC for development and management of camping, canoe/kayak access, parking, trails, and restrooms by the County. Provided that Caldwell County, NC leases the site, the Licensee shall also develop bank fishing and picnic facilities. Caldwell County, NC will consider the AAII lease and, provided that the County leases the site and the County, or its designee, agrees to fund the annual maintenance cost of a new United States Geological Survey (USGS) streamflow gage for the term of the New License, the Licensee shall, concurrent with development of the bank fishing and picnic facilities at the Wilson Creek Access Area, pay for the initial construction of a new USGS streamflow gage on Wilson Creek in the vicinity of Adako Road. Caldwell County, NC shall manage this access area and maintain all facilities. This access area shall not be included in the FERC Project Boundaries.

If Caldwell County, NC is not a Party to this Agreement or elects not to lease the site, the Licensee shall be under no obligation to fund or implement any of the activities specified in this Paragraph 10.27.5.2.

10.27.5.3 Upper Johns River Access Area – Within five years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, provided that Caldwell County, NC is a Party to this Agreement, the Licensee shall provide funding up to $125,000 to Caldwell County, NC to develop an additional canoe/kayak access with parking at a location to be acquired by the County on the Johns River, upstream of its confluence with Wilson Creek. However, if Caldwell County, NC is able to acquire the property and develop the facilities at this location without assistance from the Licensee during that five years, the Licensee's funding may be used to develop the facilities specified in Paragraph 10.27.5.2 at Wilson Creek Access Area within five years

following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation. Caldwell County, NC shall develop and manage this access area and maintain all facilities. This access area shall not be included in the FERC Project Boundaries.

If Caldwell County, NC is not a Party to this Agreement or elects not to develop any facilities at this site, the Licensee shall be under no obligation to provide the funding described in this Paragraph 10.27.5.3.

10.27.5.4 Johns River Gameland – Between the effective date of this Agreement and August 1, 2009, provided that the NCWRC is a Party to this Agreement, Duke Energy shall support the acquisition by the Foothills Land Conservancy and/or the NCWRC of up to 2,882 acres in the vicinity of the confluence of the Johns River and Lake Rhodhiss for public recreation and compatible permanent conservation. The NCWRC shall develop and manage the property for gamelands. The approximately 25 acres of bog turtle habitat located in Burke County, NC in the Bristol Creek Watershed (tributary to Lake Rhodhiss) on the Johns River Gameland tract shall be managed by the NCWRC provided the NCWRC is a Party to this Agreement and the NCWRC acquires the portion of the Johns River Gamelands tract that includes this bog turtle habitat. If the NCWRC does not acquire the portion of the Johns River Gamelands tract that includes this bog turtle habitat, then the NCWRC shall have no obligation to protect the subject bog turtle habitat. This gamelands tract shall not be included in the FERC Project Boundaries. Duke Energy's financial support for this acquisition shall consist of a reduction in the purchase price of $915 per acre purchased up to $2,640,000 if the total tract is purchased.

10.27.5.5 Conley Creek Access Area (Sawmills Veterans Park) – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Licensee shall offer to revise its existing AAII lease with the Town of Sawmills, NC for the Town to maintain the trail constructed at the site by the Licensee in accordance with the proposed Recreation Management Plan License Article. All boating access facilities and the existing public fishing pier shall be maintained under the NCWRC maintenance agreement described in Paragraph 10.4.

If the Town does not accept the revised AAII lease, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the approximately two miles of trail included in the proposed Recreation Management Plan License Article.

10.27.5.6 Rhodhiss Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.5.7 Rhodhiss Dam Canoe Portage – All measures identified for this access area in the proposed Recreation Management Plan

License Article shall be scheduled to occur during the first five-year period.

10.27.6 Rhodhiss Development – Third Five-Year Period

10.27.6.1 Castle Bridge Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the third five-year period.

10.27.7 Oxford Development (Lake Hickory) – First Five-Year Period

10.27.7.1 First Lake Hickory Swimming Area – The Parties agree that construction of one of the swimming areas included in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period and shall be at Wittenburg Access Area if the Licensee, in its sole discretion, determines it to be feasible. If it is not feasible to develop a swimming area at the Wittenburg Access Area, the Parties agree that the Licensee shall develop a swimming area elsewhere on Lake Hickory.

10.27.8 Oxford Development (Lake Hickory) – Second Five-Year Period

10.27.8.1 Wittenburg Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period. The Licensee shall offer to Alexander County, NC, and Alexander County, NC shall consider, an AAII lease to provide additional day-use facilities and maintain all new facilities. All boating access facilities and the existing public fishing pier shall be maintained under the NCWRC maintenance agreement described in Paragraph 10.4.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for this area. The Licensee shall be under no obligation to provide any additional day-use facilities beyond those identified in the proposed Recreation Management Plan License Article.

10.27.8.2 Dusty Ridge Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period. The Licensee shall offer to revise the existing AAII lease with Alexander County, NC to include maintaining the additional Licensee-provided facilities identified in the proposed Recreation Management Plan License Article. Alexander County, NC shall consider entering into the revised AAII lease.

If Alexander County, NC does not accept the revised AAII lease, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the measures included in the proposed Recreation Management Plan License Article.

10.27.9 Oxford Development (Lake Hickory) – Third Five-Year Period

10.27.9.1 Lovelady Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the third five-year period. The proposed fishing pier shall be maintained under the NCWRC maintenance agreement described in Paragraph 10.4.

10.27.9.2 Long Shoals Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the third five-year period. The Licensee shall offer to the City of Hickory, NC, and the City of Hickory, NC shall consider, an AAII lease for development and maintenance of additional day-use recreation facilities that may include, but are not limited to, a picnic area, walking trails and restrooms.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the measures included in the proposed Recreation Management Plan License Article for this access area. The Licensee shall be under no obligation to provide a picnic area, walking trails or restrooms.

10.27.10 Oxford Development (Lake Hickory) – Fourth Five-Year Period

10.27.10.1 Oxford Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the fourth five-year period. The Licensee shall market an AAII lease to commercial operators for development and management of a multi-use recreation area including, but not limited to, a RV campground with bathhouse and dump station, marine pump-out, primitive campground, paved parking, picnic facilities, bank fishing, trails and restrooms. All boating access facilities and the existing public fishing pier shall be maintained under the NCWRC maintenance agreement described in Paragraph 10.4.

If the access area is leased, and if the Licensee develops a swimming area at this location, the AAII lease shall include maintaining the swimming area. If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the primitive campground, paved parking, picnic facilities, bank fishing, trails and restrooms included in the proposed Recreation Management Plan License Article and the Licensee shall be under no obligation to provide a RV campground, bathhouse, dump station, or marine pump-out.

10.27.10.2 Second Lake Hickory Swimming Area – The Parties agree that construction of one of the swimming areas included in the proposed Recreation Management Plan License Article shall be scheduled to occur during the fourth five-year period at a location determined by the Licensee to be feasible.

10.27.11 Oxford Regulated River Reach – Third Five-Year Period

10.27.11.1 Oxford Tailrace Fishing Area – All measures identified for this area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the third five-year period. The public fishing area constructed in accordance with the proposed Recreation Management Plan License Article shall be maintained under the NCWRC maintenance agreement as described in Paragraph 10.4. If this maintenance agreement is not revised, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for this area.

10.27.11.2 Oxford Dam Canoe Portage – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the third five-year period.

10.27.12 Lookout Shoals Development – First Five-Year Period

10.27.12.1 Upper Lookout Shoals Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.12.2 Riverbend Park/Upper Lookout Shoals Trail – Provided that Catawba County, NC is a Party to this Agreement, the Licensee shall provide funding up to $220,000 to Catawba County, NC to assist the County in its acquisition and development of a 50-foot wide easement for approximately 1.5 miles of walking/hiking trail between Riverbend Park and the new Upper Lookout Shoals Access Area. Catawba County, NC shall develop and maintain the walking trail. The walking trail shall not be included in the FERC Project Boundaries.

If Catawba County, NC is not a Party to this Agreement, these funds shall be provided to NCDENR to acquire the easement for and develop this trail, provided NCDENR is a Party to this Agreement. NCDENR would also maintain the walking trail. If neither Catawba County, NC nor NCDENR is a Party to this Agreement, the Licensee shall be under no obligation to provide the trail funding in this Paragraph 10.27.12.2.

10.27.12.3 Lookout Shoals Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.13 Lookout Shoals Tailrace – Third Five-Year Period

10.27.13.1 Lookout Shoals Tailrace Fishing Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the third five-year period. The public fishing area facilities shall be maintained under the NCWRC maintenance agreement as described in Paragraph 10.4. If this maintenance agreement is not revised, the

Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for this area.

10.27.14 Lookout Shoals Tailrace – Fourth Five-Year Period

10.27.14.1 Lookout Shoals Dam Canoe Portage – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the fourth five-year period.

10.27.15 Cowans Ford Development (Lake Norman) – First Five-Year Period

10.27.15.1 Hunsucker Park – Within five years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, and provided that the Town of Catawba, NC or another public entity acquires the necessary public easement across private property and enters into an AAII lease of the Licensee's property on the south side of Lyle Creek near Hunsucker Park, the Licensee shall develop picnic facilities, approximately 0.5 miles of trail, a trailered-boat access facility, and paved or gravel parking on the Licensee's property. The lessee shall maintain all facilities. In addition, provided that the lessee's operations and management plan for the park is acceptable, the Licensee shall incorporate its property on the north side of Lyle Creek in the lease.

If neither the Town of Catawba, NC nor another public entity accepts the AAII lease, the Licensee shall be under no obligation to implement the activities set forth in this Paragraph 10.27.15.1.

10.27.15.2 Lake Norman State Park Management Zone – All measures identified for this area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.15.3 Mountain Creek Park – Between the effective date of this Agreement and August 1, 2009, provided that Catawba County, NC is a Party to this Agreement, Duke Energy shall support acquisition of up to 600 acres of property by Catawba County, NC for public recreation and/or compatible permanent conservation at the mouth of Mountain Creek. Duke Energy's financial support for this acquisition shall consist of a reduction in the purchase price of $1,900 per acre purchased up to $1,140,000 if the total tract is purchased. Facility development may include a canoe/kayak launch, trails, bank fishing, campgrounds, swimming, restrooms, and other water-based recreation facilities to be developed and maintained by Catawba County, NC. This park tract shall not be included in the FERC Project Boundaries.

If Catawba County, NC is not a Party to this Agreement or does not acquire the property, then Duke Energy shall have no obligation to provide the acquisition support described in this Paragraph 10.27.15.3. Instead, the Licensee shall submit a revision to its RMP to include the acquisition of 20 to 30 acres (to be included in the

FERC Project Boundaries) and the provision of a canoe/kayak launch, restrooms, fishing pier, swimming area, and paved parking at this location with construction scheduled to occur within the first five-year period.

10.27.15.4 Beatty's Ford Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period, provided that Lincoln County, NC continues its existing AAII lease of the access area. If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the facilities included in the proposed Recreation Management Plan License Article for this access area.

10.27.15.5 Hagers Creek Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. If the Licensee develops a fishing pier at the site, it shall be maintained under the NCWRC maintenance agreement described in Paragraph 10.4.

The Licensee shall market the site to commercial operators for an AAII lease for development and management of a multi-use recreation area including, but not limited to, trails, bank fishing, picnic facilities, RV campground with bathhouse and dump station, marine pump-out, restrooms, and additional paved parking. The lessee shall be responsible for any additional site development and management, including facility maintenance.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the trails, bank fishing area, picnic facilities and restrooms included in the proposed Recreation Management Plan License Article. The Licensee shall be under no obligation to provide a RV campground, bathhouse, dump station, or marine pump-out.

10.27.15.6 Lake Norman Trail Planning Assistance – Within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods, the Licensee shall provide technical assistance to facilitate any needed bicycle route crossings of the FERC Project Boundaries and use of Licensee-owned access areas along the North Carolina Department of Transportation's proposed Lake Norman Bike Route.

10.27.15.7 Lake Davidson Park – Provided that the Town of Davidson, NC is a Party to this Agreement, the Licensee shall provide funding up to $130,000 to the Town to acquire additional adjoining property and/or develop a canoe/kayak launch and a fishing pier at Lake Davidson Park within five years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation. The Town shall provide any additional recreation facilities and shall maintain all facilities. This site shall not be included in the FERC Project Boundaries. If the Town of Davidson,

NC is not a Party to this Agreement or decides not to acquire any additional adjoining property and/or develop the launch and fishing pier, the Licensee shall be under no obligation to provide this funding.

10.27.16 Cowans Ford Development (Lake Norman) – Second Five-Year Period

10.27.16.1 Stumpy Creek Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period. The Licensee shall offer to Iredell County, NC, and the County shall consider, a revision to its existing AAII lease to allow the County to develop and maintain a walking trail and restrooms and maintain its existing athletic field complex and boating access facilities for the term of the New License.

The Licensee and Iredell County, NC shall jointly develop the site plan for locating these new facilities identified in the proposed Recreation Management Plan License Article for this access area.

If Iredell County, NC does not develop trails and restrooms, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the measures included in the proposed Recreation Management Plan License Article for this access area.

10.27.16.2 Little Creek Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period. The Licensee shall offer to Lincoln County, NC, and Lincoln County, NC shall consider, an AAII lease allowing the County to provide additional day-use facilities such as picnic facilities. The lessee shall maintain all new facilities. The Licensee shall be under no obligation to provide additional day-use facilities beyond those identified in the proposed Recreation Management Plan License Article.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the measures included in the proposed Recreation Management Plan License Article for this access area. The Licensee shall be under no obligation to provide additional day-use facilities such as picnic facilities.

10.27.17 Cowans Ford Development (Lake Norman) – Third Five-Year Period

10.27.17.1 Island Point Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the third five-year period. The Licensee shall market to commercial operators an AAII lease for development and management of a multi-use recreation area including, but not limited to, trails, bank and/or pier fishing, picnic facilities, swimming, RV camping with bathhouse and dump station, boating access facilities, restrooms and marine pump-out. The Licensee and Catawba County, NC shall form a small workgroup of

parties that represent the public interest at this area to participate in developing the site plan. Conceptual plan development will be coordinated with Catawba County, NC. The lessee shall be responsible for all site development and management and facility maintenance, except that the boating access facilities and fishing pier, if one is developed, shall be maintained under the NCWRC maintenance agreement described in Paragraph 10.4.

If the NCWRC does not revise its maintenance agreement as described in Paragraph 10.4, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the boat access facilities, bank fishing trail and fishing pier included in the proposed Recreation Management Plan License Article for this access area. If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the trail, picnic facilities, swimming area, and restrooms included in the proposed Recreation Management Plan License Article for this access area. The Licensee shall be under no obligation to provide RV camping, bathhouse, dump station, or marine pump-out.

10.27.18 Cowans Ford Development (Lake Norman) – Fourth Five-Year Period

10.27.18.1 Cowans Ford Dam Portage and Overlook – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the fourth five-year period.

10.27.19 Mountain Island Development – First Five-Year Period

10.27.19.1 Highway 73 Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.19.2 Lucia Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Licensee shall offer to the NCDENR Division of Forest Resources' Mountain Island Educational State Forest, and NCDENR Division of Forest Resources shall consider, an AAII lease for the management of the access area and the maintenance of all facilities.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the measures included in the proposed Recreation Management Plan License Article for this access area.

10.27.19.3 Mountain Island Lake Trails Planning Assistance – Within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, the Licensee shall provide trails planning and technical assistance to state and local governments to connect existing multi-use trail systems that are located on the east side of the reservoir (at locations such as Latta Plantation, Rural Hill Park, Cowans Ford

Wildlife Refuge) and to the cities of Belmont, Gastonia and Mount Holly, NC and the State Educational Forest located on the west side of the reservoir.

10.27.20 Mountain Island Development – Second Five-Year Period

10.27.20.1 Riverbend Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period. The Licensee shall offer to the City of Mount Holly, NC and the City of Mount Holly, NC shall consider, an AAII lease for development and maintenance of additional recreation facilities that may include, but are not limited to, a campground, bank fishing, swimming area, fishing pier, bathhouse, and restrooms.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the measures except the restrooms included in the proposed Recreation Management Plan License Article for this access area. The Licensee shall be under no obligation to provide a bathhouse or campground.

10.27.20.2 Mountain Island Dam Canoe Portage – All measures identified for this area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period.

10.27.21 Wylie Development – North Carolina – First Five-Year Period

10.27.21.1 Dutchmans Creek Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Licensee shall offer to the City of Mount Holly, NC, and the City of Mount Holly, NC shall consider, an AAII lease to manage the access area and maintain all new facilities.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for all measures included in the proposed Recreation Management Plan License Article for this access area.

10.27.21.2 Saddler Island – All measures identified for this island in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Parties agree that the AAII lease offered by the Licensee to the U.S. National Whitewater Center shall include provisions that the Center shall agree to (i) use the approximately 37-acre island for individual and group environmental education and outdoor recreation; and (ii) develop the site in coordination with the North Carolina Wildlife Federation. If the Island is not leased, the Licensee shall be under no obligation to provide any recreational or environmental education program at the Island.

10.27.21.3 Upper Wylie Access Area – Provided that Mecklenburg County, NC is a Party to this Agreement and that Mecklenburg

County, NC owns and provides suitable land at the Highway 74 Bridge, the Licensee shall provide to the County up to $435,000 for the County to construct a double-lane concrete boat ramp with metal courtesy dock and paved and lighted parking for up to 100 vehicles and trailers within five years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation. The County shall maintain the boating access facility.

If Mecklenburg County, NC is not a Party to this Agreement, chooses not to receive the funding, or does not build the subject access area in the first five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, then the Licensee shall make its funding (up to $435,000) available to other state or local government entities within ten years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation for the construction of these public boating access facilities at another location in the portion of Lake Wylie that is north of Allen Steam Station (preferably near the Highway 74 Bridge). The state or local government entity must provide suitable land that it owns in fee simple, and must agree to maintain the facilities for the term of the New License. Regardless of the location, this Upper Wylie Access Area shall not be included in the FERC Project Boundaries.

If no state or local government entity provides suitable land, the Licensee shall be under no obligation to provide the funding in this Paragraph 10.27.21.3.

10.27.21.4 South Point Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Licensee shall market to commercial operators an AAII lease for development of a multi-use recreation area including, but not limited to, RV camping with bathhouse and dump station, marine pump-out, trails, fishing pier and bank fishing, picnic facilities, swimming area, restrooms, and additional paved parking. The lessee shall be responsible for all site development and management and maintenance of the new facilities except that any boating access facilities or fishing piers developed at the site shall be maintained under the NCWRC maintenance agreement described in Paragraph 10.4.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the measures included in the proposed Recreation Management Plan License Article for this access area. The Licensee shall be under no obligation to provide RV camping, bathhouse, dump station, or marine pump-out.

10.27.22 Wylie Development – South Carolina – First Five-Year Period

10.27.22.1 Buster Boyd Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.22.2 York County EMS – Within five years following FERC issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, the Licensee shall offer to lease approximately one acre of its property in York County, SC to a state or local governmental entity for the term of the New License for dedicated access to Lake Wylie for marine law enforcement and emergency response and include in the lease a provision that the leasing entity will develop and maintain all approved facilities. This property shall not be included in the FERC Project Boundaries.

If the property is not leased, the Licensee shall be under no obligation to provide the one acre of land.

10.27.22.3 Allison Creek Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Licensee shall offer to York County, SC, and York County, SC shall consider, an AAII lease for management of the access area and maintenance of all facilities, including the existing boating access facilities, and, provided that York County, SC leases the access area, the Licensee shall also develop a RV campground with bathhouse, dump station, and marine pump-out. The lessee may develop additional recreation facilities if it agrees to maintain them and receives prior written approval from the Licensee.

If this access area is not leased, the Licensee shall be under no obligation to provide a RV campground, bathhouse, dump station, or marine pump-out. If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the restrooms, picnic facilities, paved parking, and trail included in the proposed Recreation Management Plan License Article for this access area.

10.27.22.4 Rock Hill Park – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Licensee shall offer to the City of Rock Hill, SC, and the City of Rock Hill, SC shall consider, an AAII lease to develop picnic facilities, a swimming area, restrooms and parking and maintain all facilities in the new access area containing approximately 17 acres of land across the cove from, and adjacent to, the City's water intake, and install a security fence between the access area and the Wylie Hydro Station property.

If the property is not leased, the Licensee may, in accordance with Paragraph 10.24, revise the implementation schedule in its RMP for

the measures included in the proposed Recreation Management Plan License Article for this site.

10.27.23 Wylie Regulated River Reach – First Five-Year Period

10.27.23.1 Upper Wylie Regulated River Reach Trail – Provided that the conservation easement established under Paragraph 4.6 allows development and public use of a trail, the Licensee shall develop a trail up to four feet in width and approximately one mile in length on property located downstream of the Fort Mill Access Area along the eastern bank of the river within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation. Any portion of the trail that is not on the Fort Mill Access Area shall not be included in the FERC Project Boundaries. The Licensee shall offer to York County, SC or the holder of the conservation easement established in Paragraph 4.6, and those entities shall consider, an agreement to maintain the Upper Wylie Regulated River Reach Trail and to limit access from the trail to the river to a small number of nodes selected by the Grantor of the conservation easement along the trail. If York County, SC or the holder of the conservation easement established in Paragraph 4.6 elects not to maintain the trail, the Licensee shall be under no obligation to implement the activities in this Paragraph 10.27.23.1.

10.27.23.2 Catawba Indian Reservation or Highway 5 Canoe/Kayak Access – Provided that the Catawba Indian Nation and the Catawba Indian Nation Tribal Historic Preservation Office are both Parties to this Agreement, the Licensee shall either provide funding up to $165,000 to the Catawba Indian Nation Tribal Historic Preservation Office to develop a canoe/kayak access facility and gravel parking area at the Catawba Indian Reservation, or the Licensee shall develop the facility, within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation. The Catawba Indian Nation Tribal Historic Preservation Office shall maintain the access facility. The Catawba Indian Nation Tribal Historic Preservation Office shall provide all needed archaeological survey work to support the development of the facility.

If for any reason this site is not developed as planned, then, in lieu of providing funding or developing the access facility at the Catawba Indian Reservation, the Licensee shall acquire the necessary property rights and develop and maintain a canoe/kayak access facility with associated gravel parking in the vicinity of the Highway 5 Bridge within ten years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation. Neither site shall be included in the FERC Project Boundaries.

10.27.23.3 Landsford Canal State Park Access Area – Provided that the South Carolina Department of Parks, Recreation and Tourism (SCDPRT) is a Party to this Agreement and that SCDPRT provides

any needed road enhancements and long-term facility maintenance, the Licensee shall provide funding not to exceed $265,000 to SCDPRT for the development of a canoe/kayak access facility, gravel parking area to accommodate up to 50 cars, and a vault toilet within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation. This area shall not be included in the FERC Project Boundaries.

If SCDPRT is not a Party to this Agreement, does not provide any needed road enhancements, or does not agree to maintain the facilities, the Licensee shall have no obligation to provide the funding included in this Paragraph 10.27.23.3.

10.27.23.4 Landsford Canal State Park Management Zone – The Licensee shall offer to SCDPRT, and SCDPRT shall consider, a nominal-cost lease for the term of the New License for the Landsford Canal State Park management zone (up to 300 horizontal feet lakeward or in the riverbed areas adjoining the state park) within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation. Provided the SCDPRT leases Culp Island from the Licensee in accordance with Paragraph 10.27.23.5, this zone shall also include the riverbed around Culp Island.

10.27.23.5 Culp Island – Within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, the Licensee shall offer to SCDPRT, and SCDPRT shall consider, an AAII lease for the term of the New License to manage Culp Island as part of Landsford Canal State Park. Prior to executing the lease for Culp Island, SCDPRT shall consult with the Catawba Indian Nation Tribal Historic Preservation Office and the Licensee on a management plan for archeological resources of Culp Island, and the lease shall include any appropriate management requirements.

If for any reason SCDPRT does not enter into a lease to manage the island, the Licensee shall retain ownership of the island for the term of the New License. The island shall not be included in the FERC Project Boundaries.

10.27.24 Wylie Regulated River Reach – Second Five-Year Period

10.27.24.1 Fort Mill Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period. The Licensee will market the access area for an AAII lease to develop additional recreation facilities and maintain all the facilities.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the picnic facilities included in the proposed Recreation Management Plan License Article for this access area.

10.27.24.2 Simpson Island – The Licensee shall retain ownership of Simpson Island for the term of the New License. Provided that York County, SC is a Party to this Agreement and York County, SC acquires and develops a park on land adjacent to the Island, the Licensee shall, within ten years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, provide funding up to $265,000 to York County, SC for the County to develop a canoe/kayak access facility and picnic shelter on the County's property. The County shall maintain all facilities within the park. The Licensee shall offer to York County, SC, and York County, SC shall consider, an AAII lease to manage Simpson Island and maintain any facilities on the Island. Neither Simpson Island nor the County park property shall be included in the FERC Project Boundaries.

If York County, SC is not a Party to this Agreement or does not acquire the property described in this Paragraph, the Licensee shall have no obligation to provide the funding described in this Paragraph 10.27.24.2 or lease Simpson Island to the County.

10.27.25 Fishing Creek Development – First Five-Year Period

10.27.25.1 Springs Park – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Licensee shall offer to Lancaster County, SC an AAII lease for management of the new access area and maintenance of all facilities. The Parties agree that the Licensee may, at its sole discretion, retire the existing Cane Creek Access Area and sell its property there when the Springs Park site is open.

10.27.26 Fishing Creek Development – Second Five-Year Period

10.27.26.1 Fishing Creek Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period. The Licensee shall offer to Chester County, SC an AAII lease to manage the access area, provide additional recreation facilities, and maintain all facilities.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the measures included in the proposed Recreation Management Plan License Article.

10.27.27 Fishing Creek Development – Fourth Five-Year Period

10.27.27.1 Highway 9 Access Area – Within 20 years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, provided that an entity executes an agreement to (i) provide approximately 1 to 5 acres of suitable property; (ii) provide support facilities including roads and parking; and (iii) maintain all facilities, the Licensee, shall provide to this entity up to $215,000 to develop a new trailered-boat

ramp, courtesy dock, and restrooms at a site other than, but in the vicinity of, the existing Highway 9 Landing operated by SCDNR. Neither the existing SCDNR site nor any new site funded by the Licensee shall be included in the FERC Project Boundaries.

10.27.28 Fishing Creek Tailrace – Second Five-year Period

10.27.28.1 Fishing Creek Tailrace Fishing Area – All measures identified for this area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period.

10.27.29 Great Falls-Dearborn Development – First Five-Year Period

10.27.29.1 Highway 200 Bridge Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.30 Great Falls-Dearborn Development – Second Five-Year Period

10.27.30.1 Lower Great Falls Reservoir Canoe/Kayak Launch – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period. The Licensee shall also offer to the SCDPRT, and the SCDPRT shall consider, an AAII lease to manage the access area and maintain the facilities. If the SCDPRT does not enter into the lease, the Licensee shall maintain the facilities.

10.27.31 Great Falls Long Bypassed Reach – First Five-Year Period

10.27.31.1 Great Falls Diversion Dam Portage – All measures identified for this portage in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.31.2 Great Falls Reservoir Boating Safety – All measures identified for boating safety in the Great Falls Reservoir in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.32 Great Falls Short Bypassed Reach – First Five-Year Period

10.27.32.1 Great Falls Headworks Portage – All measures identified for this portage in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.32.2 Great Falls Headworks-to-Cedar Creek Reservoir Portage – All measures identified for this area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.33 Rocky Creek-Cedar Creek Development – First Five-Year Period

10.27.33.1 Cedar Creek Reservoir Island Improvements – All actions associated with the leases identified for these islands in the proposed

Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Parties agree that the AAII lease offered by the Licensee to SCDPRT (see Paragraph 9.3.2.3) shall include provisions that SCDPRT shall consult with the Licensee and SCDAH to develop a facilities and resources management plan for the Dearborn Armory site (see Paragraph 9.3.2.3), and Great Falls/Cedar Creek Island complex by the end of the second five-year period. In the management plan SCDPRT shall include a facility development schedule that will be reviewed and updated periodically, but at least every ten years, in consultation with the Licensee and SCDAH.

If SCDPRT is a Party to this Agreement and the Licensee concurs with the management plan, the Licensee shall provide one million dollars ($1 million) to SCDPRT for activities specified in Section 9.3.2, and to fund start-up costs for the new state park on Dearborn Island. The Licensee's funding shall be provided to SCDPRT within ten years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, according to a schedule to be developed as part of the management plan.

Provided that the SCDPRT is a Party to this Agreement and the SCDPRT leases the Great Falls/Cedar Creek Islands, the Licensee shall offer to SCDPRT, and SCDPRT shall consider, a nominal-cost lease for the term of the New License for the state park management zone (up to 300 horizontal feet lakeward or in the riverbed areas adjoining the state park) within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation.

If SCDPRT is a Party to this Agreement and SCDPRT leases Dearborn Island from the Licensee for a new state park and leases the Lower Great Falls Reservoir Canoe/Kayak Launch, the Licensee shall construct an ADA-compliant pedestrian bridge from the Lower Great Falls Reservoir Canoe/Kayak Launch to Dearborn Island. The Parties acknowledge that the Licensee shall not be obligated to construct the canoe/kayak launch or pedestrian bridge until such time that the Licensee in its sole discretion determines that all safety concerns related to these structures have been resolved.

If the pedestrian bridge is constructed, SCDPRT shall construct an ADA-compliant trail to the pedestrian bridge, additional trails on Dearborn Island, and other facilities as provided for in the approved management plan, beginning in the second five-year period. The SCDPRT shall maintain the pedestrian bridge.

If SCDPRT is not a Party to this Agreement or elects not to lease the Great Falls/Cedar Creek Island complex, the Licensee: (i) may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for the measures included in the proposed Recreation Management Plan License Article; (ii) shall have no obligation to provide the funding described in this Paragraph

10.27.33.1; and (iii) shall have no obligation to construct the pedestrian bridge from Great Falls, SC to Dearborn Island.

10.27.34 Rocky Creek - Cedar Creek Development – Second Five-Year Period

10.27.34.1 Mudcat Inn Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period. The Licensee shall also offer to the Town of Great Falls, SC, and the Town of Great Falls, SC shall consider, an AAII lease to manage the access area and maintain the facilities. If the Town of Great Falls, SC does not enter into the lease, the Licensee shall maintain the facilities.

10.27.35 Wateree Development – First Five-Year Period

10.27.35.1 Wateree Creek Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.35.2 Molly Creek Park – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Licensee shall market to commercial operators an AAII lease for development and management of a multi-use recreation area including, but not limited to a swimming area, RV campground, bathhouse, dump station, marine pump-out, paved parking, restrooms, trails, bank and pier fishing, picnic facilities, and boat access. The lessee shall be responsible for all site development and management including facility maintenance.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for all facilities development included in the proposed Recreation Management Plan License Article for this site. The Licensee shall be under no obligation to provide a RV campground, a bathhouse, dump station, or marine pump-out.

10.27.35.3 Lake Wateree State Park Management Zone – All measures identified for the Lake Wateree State Park Management Zone in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period.

10.27.35.4 East Wateree Access Improvements – Provided that Kershaw County, SC is a Party to this Agreement and that Kershaw County, SC acquires in fee-simple ownership suitable property that adjoins the Licensee's property on the east side of Lake Wateree, the Licensee shall provide funding to Kershaw County, SC (up to $900,000 total), within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, for the County to construct two motorized boat ramps with a courtesy dock, paved and lighted parking, and a swimming area with bathhouse and paved parking on the County-acquired property to improve public access to the east

side of Lake Wateree. Kershaw County, SC shall manage the access area and shall maintain all facilities. This new access area shall not be included in the FERC Project Boundaries.

If Kershaw County, SC is not a Party to this Agreement, or if the County does not acquire suitable property in fee-simple ownership that adjoins the Licensee's property on the east side of Lake Wateree within that first five years, then the Licensee shall make its funding, up to $900,000 total, available, within ten years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation, to other state or local governments that will agree to provide these public recreation amenities. If no state or local government agrees to provide these amenities, the Licensee shall be under no obligation to provide these funds described in this Paragraph 10.27.35.4.

10.27.35.5 Lake Wateree Recreation Lands – Provided that the SCDNR and SCDPRT are both Parties to this Agreement, Duke Energy shall convey approximately 800 acres of land adjoining the Heritage Project, Cedar Creek Access Area and Lake Wateree to the SCDNR for public recreation and compatible permanent conservation within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to recreation. These agencies agree that these lands will be used as a wildlife management area, a state park, or a combination of both. This area shall not be included in the FERC Project Boundaries. If SCDPRT decides to manage some or all of this property as a state park and SCDNR concurs, then the Licensee and SCDPRT shall also enter into a nominal-cost lease for the term of the New License for a lake management zone (up to 300 horizontal feet lakeward from full pond elevation) along the shoreline adjoining the park lands.

If either SCDNR or SCDPRT is not a Party to this Agreement, then Duke Energy shall have no obligation to implement the measures set forth in this Paragraph 10.27.35.5.

10.27.35.6 Colonels Creek Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the first five-year period. The Licensee shall offer to Fairfield County, SC an AAII lease for additional recreation development and management including maintenance of all facilities.

If the access area is not leased, the Licensee may, in accordance with Paragraph 10.24, change the implementation schedule in its RMP for all measures, except the courtesy dock, included in the proposed Recreation Management Plan License Article for this access area.

10.27.36 Lake Wateree – Second Five-Year Period

10.27.36.1 Taylors Creek Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the second five-year period.

10.27.37 Wateree Regulated River Reach – Third Five-Year Period

10.27.37.1 Lugoff Access Area – All measures identified for this access area in the proposed Recreation Management Plan License Article shall be scheduled to occur during the third five-year period.

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11.0 Species Protection Agreements

11.1 The Parties recommend that the following proposed License Article, the full text of which is provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

11.1.1 ARTICLE – Federal Threatened and Endangered Species Protection Plans

11.2 The Parties acknowledge that, in accordance with the proposed Federal Threatened and Endangered Species Protection Plans License Article, the Licensee filed Threatened and Endangered Species Protection Plans with the FERC, for approval, with its Application for New License. These plans will be for the species listed in the proposed Federal Threatened and Endangered Species Protection Plans License Article and shall be consistent with this Section 11.2. Upon FERC approval, the Licensee will then implement these plans for the species listed in the proposed Federal Threatened and Endangered Species Protection Plans License Article. All Parties agree that the filing by the Licensee of any revised Species Protection Plan as may be required by the proposed Federal Threatened and Endangered Species Protection Plans License Article will not constitute or require modification to this Agreement and that any Party may be involved in the FERC's public processes for assessing any such revised Species Protection Plans.

11.2.1 Schweinitz's Sunflower (*Helianthus schweinitzii*) – The plan filed by the Licensee shall be consistent with the provisions of the Species Protection Plan for the Mountain Island Bypass Reach accepted by the FERC on November 28, 2000. Elements of the species protection plan are as follows:

11.2.1.1 The Licensee shall consult with the United States Fish and Wildlife Service (USFWS) and NC Natural Heritage Program prior to removal of trees and invasive vegetation in the bypassed reach.

11.2.1.2 The bypassed reach shall be maintained such that trees and invasive vegetation can be removed using hand tools to prevent the need for using mechanized equipment in the vicinity of the sunflowers.

11.2.1.3 Trees and invasive vegetation will only be removed from November through February when the sunflowers are dormant.

11.2.1.4 If necessary, the Licensee will monitor turbidity in the river channel during tree removal. If turbidity increases, work methods will be altered to decrease turbidity. The Licensee shall manage Mountain Island Lake to avoid spills while the area is disturbed unless significant rainfall makes such spills unavoidable.

11.2.1.5 The Licensee shall designate the Mountain Island Bypassed Reach as a "Natural" classification in the Shoreline Management Plan.

11.2.1.6 The Licensee shall not use broadcast herbicides in the Mountain Island Bypassed Reach without first consulting with the USFWS and the NC Natural Heritage Program. However, stump

treatment with herbicides is allowed in the Mountain Island Bypassed Reach.

11.2.2 Dwarf-flowered Heartleaf (*Hexastylis naniflora*) – The Licensee shall consult with the USFWS and the NC Natural Heritage Program and appropriately protect populations of dwarf-flowered heartleaf found at the Bridgewater Development (Lake James) within the FERC Project Boundaries or on Licensee-owned property adjoining the FERC Project Boundaries. Where the species is found within the FERC Project Boundaries, the Licensee shall place the population(s) within a protective conservation easement. Where the species is found on Licensee-owned property adjoining the FERC Project Boundaries, the Licensee shall place the population(s) within a protective permanent conservation easement or use deed restrictions as protection.

11.2.3 Bald Eagle (*Haliaeetus leucocephalus*)

11.2.3.1 The Licensee, USFWS and appropriate state agencies will share information concerning any known or newly discovered eagle nests within or adjoining the FERC Project Boundaries or within the Catawba and Wateree rivers and their associated floodplains and bottomlands from Lake James downstream to the confluence of the Wateree River with the Congaree River. The Licensee and the agencies will formulate a data-sharing system concerning this information.

11.2.3.2 The Licensee shall consult with the USFWS and the appropriate state agencies to develop and implement management plans following the USFWS's "Habitat Management Guidelines for The Bald Eagle in The Southeast Region (Appendix D of the Southeastern States Bald Eagle Recovery Plan (1987))" for eagle nest sites located within the FERC Project Boundaries or on Licensee-owned property adjoining the FERC Project Boundaries as the need arises.

11.2.3.3 Beginning within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to species protection, the Licensee, in partnership with the USFWS and appropriate federal and state agencies, shall collect new information such as new nest sites, existing status, and recruitment estimates within or adjoining the FERC Project Boundaries or within the Catawba and Wateree rivers and their associated floodplains and bottomlands from Lake James downstream to the confluence of the Wateree River with the Congaree River. The Licensee shall continue to collect this information at three-year intervals for the term of the New License and shall provide this information to the pertinent federal and state agencies for analysis.

11.2.3.4 The Licensee shall place a conservation easement on an approximately 25-acre tract of its property located on the east side of the Wateree Tailrace for the term of the New License to protect important bald eagle roosting and foraging habitat. This area shall not be included in the FERC Project Boundaries.

11.2.4 Wood Stork (*Mycteria americana*)

11.2.4.1 The Licensee, USFWS and appropriate state agencies will share information concerning any known or newly discovered foraging wood storks within or adjoining the FERC Project Boundaries or within the Catawba and Wateree rivers and their associated floodplains and bottomlands from Lake James downstream to the confluence of the Wateree River with the Congaree River. The Licensee and the agencies will formulate a data-sharing system concerning this information.

11.2.4.2 The Licensee will enhance the flood-flow duration and magnitude on the Wateree River through the operational measures described in Section 4.9. These flows can provide inundation of back sloughs and emergent wetlands within the Wateree River floodplain and bottomlands and provide potential wood stork foraging areas.

11.2.5 American Alligator (*Alligator mississippiensis*) – The Licensee shall enhance the flood flow duration and magnitude on the Wateree River through the operational measures described in Paragraph 4.9. These flows can provide inundation of back sloughs and emergent wetlands within the Wateree River floodplain and bottomlands and provide potential alligator habitat enhancements.

11.2.6 Shortnose Sturgeon (*Acipenser brevirostrum*)

11.2.6.1 The Licensee shall share any information about shortnose sturgeon occurrences or collections in the Wateree River downstream of the Wateree Dam with the National Marine Fisheries Service (NMFS) and other appropriate resource agencies.

11.2.6.2 The Licensee shall provide enhanced flow releases at the Wateree Hydroelectric Station as set forth in this Agreement. The enhanced flow release schedule was developed based on consultation with the Relicensing Aquatics Resource Committee and primarily on habitat suitability curves for shortnose sturgeon.

11.2.6.3 The Licensee shall continue its ongoing discussions with other hydro project owners and federal and state resource agencies at least through December 31, 2006, to explore potential cooperative measures for the protection, enhancement and restoration of diadromous fish species, including shortnose sturgeon (as well as American eel), in the Santee River Basin.

11.2.7 American Eel (*Anguilla rostrata*)

11.2.7.1 The Licensee shall stay informed of the activities related to the effort to list the American eel as federally threatened or endangered.

11.2.7.2 The Licensee shall reasonably cooperate with the USFWS and NMFS on current and future conservation initiatives for the American eel.

11.3 In addition to the Species Protection Plans for Federal Threatened and Endangered Species, the Licensee shall file Species Protection Plans with the NCWRC and the SCDNR as appropriate and implement management activities for the species listed in this Section 11.3, within 60 days following issuance of the New License and the closure of all rehearing and administrative challenge periods related to species protection or in a timeframe otherwise identified in this Section 11.3. The Parties agree that, except for any supporting actions (e.g., prescribed flow releases) that are identified in this Agreement in locations other than this Section 11.0, the New License shall not include license articles that require specific actions from the Licensee to protect the species listed in this Section 11.3.

11.3.1 Rocky Shoals Spiderlily (*Hymenocallis coronaria*)

11.3.1.1 The Licensee shall provide enhanced habitat suitability for the spiderlilies through the initiation of aquatic flows in the Great Falls Long Bypassed Reach and the Wylie Regulated River Reach near Landsford Canal State Park as set forth in the proposed Minimum Flows License Article.

11.3.1.2 The Licensee, in partnership with the South Carolina Department of Parks, Recreation and Tourism (SCDPRT), SCDNR and USFWS, shall prepare and implement a monitoring plan for the spiderlilies at Landsford Canal State Park. Monitoring activities for this species will be similar to the monitoring plans prepared for other regional populations (e.g., Lockhart Dam Project).

11.3.1.3 Within the Great Falls Long Bypassed Reach, the Licensee, SCDPRT, and SCDNR, shall partner with USFWS to restore and monitor the Rocky Shoals spiderlily.

11.3.2 Rafinesque's Big-eared Bat (*Corynorhinus rafinesquii*)

11.3.2.1 Within two years following the issuance of the New License and the closure of all rehearing and administrative challenge periods related to species protection, the Licensee shall place artificial roost structures for the Rafinesque's big-eared bat and other bat species at appropriate areas. The structures shall be placed initially at the Bridgewater Development and in riparian areas below the Wateree Development provided agreeable property owners can be located. Placement of additional artificial roosts will depend on information gathered from additional bat surveys (see Paragraph 11.3.2.3) and the ability of the Licensee to get property owner approvals to install the structures.

11.3.2.2 The Licensee shall discourage the removal of large, potentially hollow trees from within the FERC Project Boundaries and on Licensee-owned property adjoining the FERC Project Boundaries except where such hollow trees present a danger to persons or property. Selective cutting rather than clear cutting shall be the recommended method for areas where trees are harvested from these areas.

11.3.2.3 Within five years following the issuance of the New License and the closure of all rehearing and administrative challenge periods

related to species protection, the Licensee shall conduct additional bat surveys, including roost surveys (e.g., bridges), mist netting and acoustic surveys during the appropriate portions of two consecutive years. Following this initial survey, the Licensee shall conduct additional bat surveys during the appropriate portion of a year at three-year intervals for the term of the New License at selected areas at and near the Bridgewater and Wateree developments. The Licensee shall prepare written reports to summarize the information gathered during these bat surveys and shall provide the reports to the appropriate state and federal agencies.

11.3.3 Mussels: creeper (*Strophitus undulates*), Eastern floater (*Pyganodon cataracta*), paper pondshell (*Utterbackia imbecillis*), Eastern creekshell (*Villosa delumbis*), notched rainbow (*Villosa constricta*), brook floater (*Alasmidonta varicosa*), rayed-pink fatmucket (*Lampsilis splendida*)

11.3.3.1 The Parties agree that the enhanced flow releases included in this Agreement in the proposed Minimum Flows License Article, the Critical Flows included in the Low Inflow Protocol (see Appendix C) and the dissolved oxygen enhancements and monitoring identified in the Flow and Water Quality Implementation Plan (see Appendix L) and the Water Quality Monitoring Plan (see Appendix F) will provide flow regimes and water quality improvements that will benefit the freshwater mussel species listed in this Section 11.3.3.

11.3.3.2 Beginning within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to species protection, the Licensee shall monitor the freshwater mussel species found in the Project area at three-year intervals for the term of the New License, tracking populations and analyzing trends over time. A total of approximately 35 sample sites throughout the Project area will initially be included in this monitoring program. The Licensee shall prepare a written report after each monitoring cycle for distribution to the appropriate federal and state agencies.

11.3.4 Flat and Snail Bullheads (*Ameiurus platycephalus* and *A. brunneus*) – The Parties agree that the management objectives for these fish species are covered under Minimum Continuous Flows contained in the proposed Minimum Flows License Article.

11.3.5 Robust Redhorse (*Moxostoma robustum*) – The Licensee is a signatory to the original Robust Redhorse Conservation Committee (RRCC) Memorandum of Agreement (MOU) and shall continue to support and consult with the RRCC concerning the management and protection of this species in the Project area and its native range in Georgia, North Carolina and South Carolina. For the term of the New License, the Licensee shall continue to work cooperatively with its partners to manage and protect the robust redhorse. Support will include, but not be limited to, maintenance of active membership in the RRCC, financial support of the RRCC annual meeting, participation in field sampling activities where appropriate and support of appropriate research initiatives.

11.3.6 Heron Rookeries

11.3.6.1 The Licensee, USFWS and appropriate state agencies will share information concerning any known or newly discovered heron rookeries within or adjoining the FERC Project Boundaries or within the Catawba and Wateree rivers and their associated floodplains and bottomlands from Lake James downstream to the confluence of the Wateree River with the Congaree River. The Licensee and the agencies will formulate a data-sharing system concerning this information.

11.3.6.2 The Licensee shall provide continued management and protection of any colonial wading bird rookeries and nesting areas on all lands and waters that are within the FERC Project Boundaries or on Licensee-owned property adjoining the FERC Project Boundaries. However, if the birds abandon the nesting site for two consecutive nesting seasons, the protections afforded by this Agreement will be terminated at that location.

11.3.6.3 If any additional colonial wading bird rookeries and nesting areas are located within the FERC Project Boundaries or on Licensee-owned property adjoining the FERC Project Boundaries, the Licensee will enter into consultation with the USFWS and appropriate state agencies to develop an appropriate management and protection plan.

11.3.6.4 Beginning within five years following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods related to species protection, the Licensee, in partnership with the USFWS and appropriate federal and state agencies, shall collect heron rookery information such as new nest sites, existing status, and recruitment estimates within or adjoining the FERC Project Boundaries or within and the Catawba and Wateree rivers and their associated floodplains and bottomlands from Lake James downstream to the confluence of the Wateree River with the Congaree River. The Licensee shall continue collecting this information at three-year intervals for the term of the New License and shall provide this information to the USFWS, and other appropriate federal and state agencies for analysis. This survey will be conducted concurrently with the bald eagle nest surveys summarized in Paragraph 11.2.3.3.

11.4 Except for discussions with federal and state resource agencies that have management oversight responsibilities or discussions with adjoining property owners, the Licensee shall not communicate the location of populations of Rare, Threatened or Endangered Species or Species of Concern unless the location is already widely known (*e.g.*, the Rocky Shoals spiderlily at Landsford Canal State Park).

11.5 If a federal or state listed Rare, Threatened or Endangered Species or Species of Concern is discovered in a previously unknown area subject to the Licensee's Shoreline Management Plan, the Licensee shall consult with the USFWS and the appropriate federal and state agencies and make any necessary revisions to the shoreline classification maps or lake-use restrictions provided by the Shoreline Management Plan.

11.6 If a federal or state listed Rare, Threatened or Endangered Species or Species of Concern is discovered in a previously unknown area within the FERC Project Boundaries or the Catawba and Wateree rivers and their associated floodplains and bottomlands from Lake James downstream to the confluence of the Wateree River with the Congaree River, the Licensee shall consult with the USFWS, the appropriate federal and state agencies, and any Party to this Agreement that is likely to be directly affected to discuss potential protection and management measures.

11.7 At least annually, the Licensee shall, after consulting with the USFWS and appropriate federal and state agencies, review and update the list of state and federally listed species based on a species status change and updated distribution and occurrence information. If the update has any species that is newly listed, delisted, or has a change of status and that species is documented in the FERC Project Boundaries or within the Catawba and Wateree rivers and their associated floodplains and bottomlands from Lake James downstream to the confluence of the Wateree River with the Congaree River, the Licensee shall: (i) consult with the USFWS, appropriate state agencies, and any Party to this Agreement that is likely to be directly affected; and (ii), after consulting with these agencies and selected Parties, file any revised or additional Species Protection Plans with the appropriate state agencies. All Parties agree that the filing by the Licensee of any such revised Species Protection Plan will not constitute or require modification to this Agreement and that any Party may be involved in the state agencies' public processes for assessing revised Species Protection Plans.

11.8 Fish Passage – The Parties acknowledge that nothing in this Agreement resolves the fish passage issue under Section 18 of the Federal Power Act or the Endangered Species Act or any other legal authority. The Parties agree that the capital and O&M costs of any future fish passage measures that are taken during the term of the New License will be borne by the Licensee, and the imposition of these costs from any mandatory fish-passage prescription shall not be considered an Inconsistent Action. However, if any future mandatory prescriptions for fish passage by any Jurisdictional Body result in alteration of the flows (whether by changing the prescribed flow rates or changing the method of providing the prescribed flows specified in this Agreement) identified in the proposed Recreation Flows or Minimum Flows License Articles, or the reservoir levels identified in the proposed Reservoir Elevations License Article, or the Low Inflow Protocol referenced in the proposed Low Inflow Protocol License Article of this Agreement, and that action is an Inconsistent Act, then the Parties agree that the provisions of Section 21.0 shall apply.

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12.0 Shoreline Management Agreements

12.1 The Parties recommend that the following proposed License Articles, the full text of which are provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

12.1.1 ARTICLE – Shoreline Management Plan

12.1.2 ARTICLE – Shoreline Management Plan Review and Update Procedures

12.2 The Parties agree and acknowledge that the Licensee filed a Shoreline Management Plan (SMP) consisting of Shoreline Management Guidelines (SMG) (see Appendix J) and Shoreline Classification Maps with the Licensee's Application for New License for the Catawba-Wateree Hydroelectric Project and that the Licensee began implementing the revised SMP on September 1, 2006.

12.3 SMP Workgroup – The Parties agree that, during the first full calendar year following the issuance of the New License and the closure of all rehearing and administrative challenge periods related to shoreline and land management, and annually thereafter for the term of the New License, the Licensee shall convene a workgroup of interested stakeholders for a status-review meeting to discuss implementation of the Shoreline Management Plan including SMP classification mapping and SMG permitting criteria. These meetings will afford the workgroup the opportunity to discuss implementation of the SMP and recommend potential modifications to be considered for the periodic updates of the SMG and the ten-year updates of the SMP.

12.4 Evaluation of SMP Effectiveness – The Parties agree that, beginning in the first full calendar year following the issuance of the New License and the closure of all rehearing and administrative challenge periods related to shoreline and land management, and prior to the close of the second annual status-review meeting described in Paragraph 12.3, the Licensee shall consult with the workgroup and shall prepare a basic study methodology and a simple list of baseline review parameters with which to evaluate the effectiveness of the SMG permitting criteria in protecting near-shore and riparian habitats. This consultation shall be completed by the close of the second annual status-review meeting described in Paragraph 12.3. Nine years after the first consultation described in this Paragraph 12.4 and every ten years thereafter for the term of the New License, the Licensee shall complete this SMG effectiveness evaluation as part of the review cycles noted in Paragraph 12.5 below. Based on these evaluations, SMG revisions and/or lake-use permitting-related changes shall be made to include consensus conclusions of the workgroup. In the event that the workgroup cannot reach consensus, the Licensee shall file with the FERC comments it has received regarding modifications to the SMP including the SMG in accordance with the proposed Shoreline Management Plan Review and Update Procedures License Article.

12.5 Coordination of 20-year SMG and RMP Updates – The Licensee shall complete the 20-year Shoreline Classifications Map update and shall consider changes to the SMP, pursuant to the proposed Shoreline Management Plan Review and Update Procedures License Article, simultaneously with the Recreation Use and Needs Assessment pursuant to the proposed Recreation Planning License Article.

12.6 SMP Changes – All Parties agree that changes made to the SMP pursuant to the proposed Shoreline Management Plan License Article, the proposed Shoreline

Management Plan Review and Update Procedures License Article, Paragraph 12.4, or Paragraph 12.5 will not constitute or require modification to this Agreement and that any Party may be involved in the FERC's public process for assessing changes to the SMP.

12.7 Memorandum of Understanding – The Parties agree and acknowledge that, in September 2006, the Licensee began contacting the counties shown in Table 1 of Appendix K (Memorandum of Understanding between the Licensee and States, Counties, and Municipalities) and the states of North Carolina and South Carolina with an offer to jointly develop a voluntary memorandum of understanding (MOU) substantially in the form of the MOU template in Appendix K. The MOU addresses sharing data relevant to the SMP, the states' and counties' planning and enforcement needs, coordinating enforcement of any state or county buffer regulations, coordinating the Licensee's lake-use permit reviews with counties, municipalities and states, and confirming the authority and preeminence of county or municipality zoning in defining land uses outside the FERC Project Boundaries. All Parties agree that any signed MOU completed pursuant to this Paragraph 12.7 will not constitute or require modification to this Agreement.

13.0 Water Quality Agreements

13.1 The Parties recommend that the following proposed License Articles, the full text of which are provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

13.1.1 ARTICLE – Flow and Water Quality Implementation Plan

13.1.2 ARTICLE – Water Quality Monitoring Plan

13.2 Following the implementation of all flow delivery and water quality enhancement modifications as required by the FERC-approved Flow and Water Quality Implementation Plan (FWQIP), the Licensee shall operate the Project developments for the term of the New License in accordance with the States' 401 Water Quality Certifications.

13.3 Revision of the FWQIP – The Parties agree that, if the North Carolina Department of Environment and Natural Resources (NCDENR), the South Carolina Department of Health and Environmental Control (SCDHEC), and the Licensee concur that any revised FWQIP is an improvement to and not inconsistent with the current FWQIP and the terms of this Agreement, the Licensee will provide notice to all Parties, and any such revised FWQIP will automatically become incorporated as a term of this Agreement.

13.4 Recommended to Include FWQIP in 401 Water Quality Certifications – The Licensee shall apply to the States of North Carolina and South Carolina for Water Quality Certifications under Section 401 of the Clean Water Act and shall include with its applications the FWQIP (see Appendix L), or a FWQIP revised in accordance with Paragraph 13.3, as the recommended flow and water quality implementation plan. All Parties, except the NCDENR, agree that the FWQIP or such revised FWQIP shall be recommended to be a condition of the 401 Water Quality Certifications.

13.5 Submittal of the FWQIP to the FERC – In accordance with the proposed Flow and Water Quality Implementation Plan License Article and beginning on the effective date of the New License for the Project, except as otherwise established by law, including any Commission or judicial order, the Licensee shall file the FWQIP, supplemented with any engineering and construction details the Licensee determines are needed, with the FERC for approval. The Parties acknowledge that, except for the noted replacement of the Bridgewater Powerhouse, the Licensee shall not begin any construction required to implement the FWQIP until the FWQIP is approved by the FERC. The Parties acknowledge the possibility that the FWQIP may be modified during or superseded by the 401 Water Quality Certification processes, and that any supersedure may be an Inconsistent Act under Section 21.0.

13.6 Required Additional Equipment Modifications – If a State water quality agency requires equipment modifications in addition to those listed in the FWQIP in Appendix L to assure compliance with applicable state standards for Dissolved Oxygen (DO), the fact that such modifications are not currently specified in the FWQIP in Appendix L does not render those modifications inconsistent with this Agreement pursuant to Section 21.0. However, any equipment modifications (i) necessary to assure compliance with any other applicable State water quality standard; or (ii) prescribed to provide flow releases and/or reservoir levels, other than the flow releases and reservoir levels

specified in this Agreement, may be inconsistent with this Agreement and may be subject to review pursuant to the provisions of Sections 21.0 and 27.0.

13.7 Interim Procedures – The Parties acknowledge that the Licensee shall initiate interim changes to current operation at selected Project developments that require physical equipment additions or modifications in accordance with the FWQIP (Appendix L). The Licensee shall initiate the Interim Measures for Providing Aquatic Flow and/or DO Enhancement until Physical Modifications are Complete as identified in the FWQIP within 60 days following the issuance of the New License and closure of all rehearing and administrative challenge periods related to water quantity, including Project flow releases and reservoir levels, and water quality. The interim measures will continue at each dam or powerhouse until completion of the necessary construction at that dam or powerhouse. Unless the Licensee is operating in accordance with the Low Inflow Protocol and/or the Maintenance and Emergency Protocol, the Licensee shall operate the hydro units at the powerhouses identified for Interim Measures in Appendix L in the following manner: When the Licensee is providing flow releases, reservoir level control, and/or generation with any of these powerhouses at times that DO in the flow release from the powerhouse would be below 401 Water Quality Certification requirements, the Licensee shall operate the available hydro units with the greatest existing DO enhancement capability at that powerhouse in a first-on, last-off hierarchy and shall use all the DO enhancement capability available on all hydro units that are operated at that powerhouse if needed in its best efforts to raise DO levels.

13.8 Development of Total Maximum Daily Loads – In addition to any other requirements imposed by law, if, during the term of the New License, Total Maximum Daily Loads (TMDL) are developed within the FERC Project Boundaries or on the Catawba and Wateree rivers and their associated floodplains and bottomlands from Lake James downstream to the confluence of the Wateree River with the Congaree River for pollutants that are introduced as a direct result of operation of Project facilities, then the Licensee shall actively consult with the appropriate State agencies, including but not limited to data-sharing, modeling and sampling, to determine what, if any, role Project operations play in managing the pollutant.

13.9 Contingency Plan – If at any time during the term of the New License after all planned flow delivery and water quality enhancement modifications required in the FERC-approved FWQIP have been completed, a chronic non-compliance with 401 Water Quality Certification requirements exists as a result of the Licensee's hydroelectric operations, the Licensee shall:

13.9.1 In the annual Water Quality Compliance Report (see proposed Water Quality Monitoring Plan License Article, Paragraph(C)), document instances that the 401 Water Quality Certification requirements were not met;

13.9.2 In the annual Water Quality Compliance Report, include an assessment of the reason(s) for the chronic non-compliance and proposed or implemented corrective actions;

13.9.3 Immediately consult with SCDHEC and/or NCDWQ as appropriate to confirm the assessment of the non-compliance and the proposed corrective actions(s);

13.9.4 Continue in consultation with NCDWQ and/or SCDHEC to develop an implementation plan for corrective actions. This plan may include making additional hydro station modifications and/or mitigation. Corrective actions will

be implemented as soon as possible while being compatible with materials availability, manufacturing capacity, transportation schedules, and installation contractor availability; and

13.9.5 Implement the plan for corrective actions as approved by NCDWQ and/or SCDHEC.

13.10 Regional Water Quality Issues – If at any time during the term of the New License, the Licensee believes that its inability to comply with any terms or conditions of any 401 Water Quality Certification is not attributable to the Licensee's operations or is attributable to increased waste loadings (compared to waste loadings present at the time of Project equipment installation) from point or non-point sources, then the Licensee may provide data to NCDWQ and/or SCDHEC as appropriate to (i) help determine whether it is the Licensee's operations or other sources that are causing the Licensee's inability to comply and/or (ii) support any TMDL proceeding or other corrective actions to address these point and non-point source loadings prior to developing the corrective action plan stipulated in Paragraph 13.9.

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14.0 Other Resource Enhancement Agreements

14.1 Facility Exclusion Zones – The Parties acknowledge that the Licensee, the North Carolina Wildlife Resources Commission (NCWRC) and the South Carolina Department of Natural Resources (SCDNR) will jointly evaluate each of the Project dams and powerhouses to consider the user safety and Project security issues associated with public use of the area in the immediate vicinity of these structures (i.e., within 300 feet upstream or downstream). The evaluation will determine where suitable exclusion zones within all or a portion of this area at each location can be developed to improve recreation safety and security of Project structures in a manner that is acceptable to the NCWRC and SCDNR. The Licensee, NCWRC, and SCDNR shall work cooperatively to complete this evaluation by September 1, 2007 and to implement any mutually agreeable exclusion zones by August 31, 2008. The Licensee will also incorporate any necessary changes to its FERC Public Safety Plans to implement these exclusion zones along with revisions required under Paragraph 8.11.5.

14.2 Fish and Wildlife Habitat Enhancements

14.2.1 Additional HEP Contributions – Provided that: (i) the NCWRC and/or the SCDNR are Parties to this Agreement and (ii) the existing Habitat Enhancement Program (HEP) Memorandum of Agreement (MOA) is extended without material modification in North Carolina and/or South Carolina to cover the term of the New License, then within 18 months following the issuance of the New License and the closure of all rehearing and administrative challenge periods, the Licensee shall provide one-time contributions of $1 million each to North Carolina's and/or South Carolina's Habitat Enhancement Funds to support the protection, enhancement and creation of fish and wildlife habitat as part of the HEP. This funding may be used for activities as described in the HEP MOA at: (i) all Project reservoirs and on all lands and waters that are contiguous with the FERC Project Boundaries; (ii) bypassed stream reaches; and (iii) the Regulated River Reaches within the Catawba-Wateree River Basin. This funding contribution from the Licensee is in addition to the $80,000/yr per State that the Licensee is contributing to the HEP through and ending in 2009 and is in addition to HEP funds that may be collected from lake-use permit applicants or from other sources. Each State may use a portion of the Licensee's planned additional funding contribution to the HEP to support long-term management of the conservation easements established as part of this Agreement and/or to add to the land conservation support noted in Section 14.5 if the lead HEP agency in that State (i.e., the NCWRC or SCDNR) agrees. The lead HEP agency shall notify the Licensee by letter of its intent to pursue this option for alternative use of the Licensee's HEP funding contribution, along with the details of its choice, within six months following the FERC's issuance of the New License, so the Licensee can ensure that the correct funding amounts are provided to each State's HEP fund and land conservation support effort.

14.3 Trash/Debris Management – To help minimize the amount of non-biodegradable trash and large floating woody debris within and released from Project reservoirs, the Licensee shall do the following.

14.3.1 Annual Clean-up Event – Beginning in the first full calendar year following issuance of the New License and the closure of all rehearing and

administrative challenge periods and continuing for the term of the New License, the Licensee shall support an annual litter clean-up on the Catawba-Wateree Project reservoirs, islands and Licensee-owned public access areas. This annual clean-up may also include Licensee-selected portions of the Regulated River Reaches or bypassed reaches. The Licensee's support will consist of: (i) providing $10,000 per year to a North Carolina organization and $10,000 per year to a South Carolina organization to support clean-up events (e.g., Big Sweep) organized by that organization; and, (ii) removing trash and debris the following week that is deposited during the annual clean-up event at Licensee-owned public access areas that are pre-approved by the Licensee as trash collection points.

14.3.2 Fishing Creek Development – By December 31, 2006 the Licensee shall notify the FERC that it plans to install a trashrake at Fishing Creek Dam to remove non-biodegradable trash and large woody debris, with the goal of completing installation by December 31, 2007.

14.3.3 Trash/Debris Disposal – During the term of the New License, the Licensee shall ensure that the non-biodegradable trash or woody debris that it removes from the Project reservoirs, downstream river reaches, islands, and Licensee-owned public access areas is disposed of properly, which may include landfill deposition or recycling of non-biodegradable materials or placement of woody debris in areas that prevent the debris from becoming a navigation hazard. Dam operation may continue to include the practice of periodically passing biodegradable debris and non-biodegradable trash through trash gates. The Licensee will adjust this practice to avoid, as much as possible, the passage of such large amounts of debris at any one time as to cause a navigational hazard.

14.4 Aquatic Weed Management – For the term of the New License, the Licensee shall continue to work cooperatively with its partners to manage invasive aquatic weeds in Project reservoirs by, among other things, providing invasive aquatic weed management scientific and technical assistance. The Licensee shall assist in the development and shall share in the funding of aquatic weed management strategies approved by appropriate state resource agencies and local governments, which shall include the state aquatic weed management cost-share programs sponsored by the North Carolina Department of Environment and Natural Resources (NCDENR) and the SCDNR. Due to the variability of aquatic weed infestations from year-to-year and reservoir-to-reservoir and the need to adjust the program on a frequent basis, the Parties agree that this Agreement shall not include any proposed License Articles containing actions required to manage aquatic weeds. However, the average long-term level of effort expended by the Licensee during the term of the New License will be similar to that expended by the Licensee during the final 20 years of the term of the Existing License, indexed to account for inflation or deflation pursuant to Section 32.0.

14.5 Land Conservation Support

14.5.1 North Carolina – Provided that both the NCWRC and NCDENR are Parties to this Agreement, the Licensee shall provide $4 million to the NCWRC and/or the NCDENR to support the purchase of land in the Catawba-Wateree River Basin for public recreation, gamelands and/or compatible permanent conservation.

14.5.2 South Carolina – Provided that both the SCDNR and the South Carolina Department of Parks, Recreation and Tourism (SCDPRT) are Parties to this Agreement, the Licensee shall provide $5.32 million to the SCDNR and/or the SCDPRT to support the purchase of land in the Catawba-Wateree River Basin for public recreation, game management and/or compatible permanent conservation.

14.5.3 The Parties agree that the following considerations shall apply to the funding provided in Paragraphs 14.5.1 and 14.5.2:

14.5.3.1 The two state agencies in each state shall jointly decide which lands to acquire and shall give consideration to the final report of the Land Committee and other applicable relicensing study and resource committee reports prior to making their decision on which lands to acquire.

14.5.3.2 Criteria for Lands to be Acquired – Lands to be acquired using the funding in Paragraphs 14.5.1 and 14.5.2 shall meet the following criteria: (i) located entirely within the Catawba-Wateree River Basin; (ii) acquired in fee-simple ownership or as permanent conservation easements; (iii) will be used to provide public hunting, fishing, boating (motorized and non-motorized), camping or hiking opportunities, or some combination thereof, while also protecting areas adjoining waterways and other sensitive environmental or cultural resource areas; (iv) are being acquired at approximately fair market value; and (v) the deed for the property will include the appropriate deed restrictions or an additional written agreement will be executed between the Licensee and the purchasing entity to meet the public access requirements as identified in Paragraph 10.16.

14.5.3.3 By January 15, 2007, the Licensee shall deposit $4 million into an escrow account with a financial institution that is mutually agreeable to the Licensee and the two North Carolina state agencies for land acquisition pursuant to Paragraph 14.5.1 and $5.32 million into an escrow account with a financial institution that is mutually agreeable to the Licensee and the two South Carolina state agencies for land acquisition pursuant to Paragraph 14.5.2. Any funds remaining in either escrow account on December 31 of the third full calendar year following the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods shall be returned to the Licensee and the Licensee shall have no further obligation to provide these remaining funds to others.

14.5.3.4 Once the two state agencies in each state have jointly decided which properties they will purchase using the Licensee's funding contribution, the head of each agency shall: (i) notify, in writing, the escrow agent that the property to be acquired meets the criteria set forth in Paragraph 14.5.3.2 and (ii) provide the escrow agent with a copy of the purchase contract and the proposed deed restrictions and/or other written agreements required by Paragraph 14.5.3.2(v). The escrow agent shall determine if each property proposed for acquisition meets the criteria enumerated in Paragraph 14.5.3.2 and the applicable state agencies shall provide any additional

information that the escrow agent may need, subject to any necessary confidentiality agreements, to make this determination. After the escrow agent determines that the criteria set forth in Paragraph 14.5.3.2 are met, the escrow agent shall notify the Licensee and request authorization to release the funds to the purchasing agency. Provided that the escrow agent verifies that the criteria in Paragraph 14.5.3.2 have been met and the Licensee concurs with the wording of the proposed deed restrictions and/or other written agreements required by Paragraph 14.5.3.2(v), the Licensee shall authorize the release of funds to the purchasing agency.

14.6 Additional Resource Enhancements in the Event of a 50-Year License – The Parties agree to the following additional resource enhancements in the event that the FERC issues a 50-year New License for the Project. In the event that the FERC issues a New License with a term less than 50 years, the Parties agree that the Licensee shall be under no obligation to implement the activities described in this Section 14.6.

14.6.1 Land Conservation in North Carolina – If the term of the New License is 50 years, and provided that both the NCDENR and the NCWRC are Parties to this Agreement, the Licensee shall take the following additional actions to support land conservation interests within three years following issuance of the New License and the closure of all rehearing and administrative challenge periods:

14.6.1.1 The Licensee shall establish permanent conservation easements on approximately 12.5 total bank miles (approximately 150 total acres) of selected tributaries to the Johns River. These land areas shall not be included in the FERC Project Boundaries. The approximate locations of these areas are identified in Appendix I. The conditions of the conservation easements shall be consistent with Appendix O.

14.6.1.2 The Licensee shall contribute an additional $1.5 million for land conservation to be used as noted above in Section 14.5.1.

14.6.2 Land Conservation in South Carolina – If the term of the New License is 50 years, and provided that both the SCDNR and the SCDPRT are Parties to this Agreement, the Licensee shall take the following additional actions to support land conservation interests within three years following issuance of the New License and the closure of all rehearing and administrative challenge periods:

14.6.2.1 The Licensee shall establish permanent conservation easements on approximately 5.5 total bank miles (approximately 67 total acres) of selected portions of McDowell Creek, Cedar Creek and Rocky Creek and their tributaries, all of which are tributaries to Lake Wateree, with approximate locations identified in Appendix I. These land areas shall not be included in the FERC Project Boundaries. The conditions of the conservation easements shall be consistent with Appendix O.

14.6.2.2 The Licensee shall establish permanent conservation easements, restrictive covenants, or a combination of the two, on the east shoreline of Lake Wateree from the downstream boundary of

Cedar Creek Access Area to a point approximately 4.7 shoreline miles (as measured along the full pond contour) downstream. These conservation easements and/or restrictive covenants will provide land conservation support on a corridor extending 100 feet horizontally and upland from the full pond contour (total of approximately 57 acres). These land areas shall not be included in the FERC Project Boundaries. The approximate locations of these areas are identified in Appendix I. The conditions of the conservation easements and/or restrictive covenants shall be consistent with Appendix O.

14.6.2.3 The Licensee shall contribute an additional $1.5 million for land conservation to be used as noted above in Section 14.5.2.

14.6.3 Flood Management at Lake Wateree

14.6.3.1 The Parties agree that installing a bladder dam (similar in concept to the Bridgestone Rubber Dam Option evaluated in the Wateree High Water Level Management Study (Operations 08) conducted during the relicensing process) along the dam's spillway of sufficient height and length to provide approximately 10,000 cfs flow release capacity with the reservoir at full pond elevation will improve the Licensee's flood management capabilities at Lake Wateree, but that it will not prevent flooding on Lake Wateree above any specific elevation.

14.6.3.2 The Parties agree that the existing flood easements held by the Licensee on Lake Wateree shall remain in place.

14.6.3.3 The Parties understand that even with the bladder dam, water elevations in the upstream areas of Lake Wateree may be substantially higher during flood events than the water elevations at Wateree Dam.

14.6.3.4 The Parties agree that, except for government entities with specific statutory responsibilities at the Project related to flood management, Parties to this Agreement shall not advocate for or request the installation of other or additional flood management structural improvements at or adjoining any Project dam or reservoir prior to issuance of the New License and the closure of all rehearing and administrative challenge periods.

14.6.3.5 The Parties agree that, except for government entities with specific statutory responsibilities at the Project related to flood management, Parties to this Agreement shall not advocate for or request the installation of other or additional flood management structural improvements at or adjoining Wateree Dam or Lake Wateree for at least the first 10 years following completion of the modifications to Wateree Dam.

14.6.3.6 Provided that all of the following conditions are met, the Licensee shall modify Wateree Dam to improve its ability to manage flooding events by removing a portion of the existing concrete from the dam's crest and installing a bladder dam (similar in concept to the Bridgestone Rubber Dam Option evaluated in the Wateree High

Water Level Management Study (Operations 08) conducted during the relicensing process) along the dam's spillway, such bladder dam of sufficient height and length to provide approximately 10,000 cfs flow release capacity with the reservoir at full pond elevation.

1) Modification Feasibility – (i) Detailed engineering analysis of the dam modification to be conducted by the Licensee demonstrates that the modification is feasible; and, (ii) the Licensee is able to obtain the necessary approvals and permits, including FERC approval, to make the modification.

2) Reservoir Level Management during Construction – The approved construction technique allows construction costs to be reduced by maintaining the water level in Lake Wateree to the extent possible between the elevations of approximately 93.0 ft and 94.0 ft for the duration of the dam construction (expected to take 6 to 10 months depending primarily on weather).

3) Both the Lake Wateree Association (LWA) and the Lake Wateree Homeowners' Association (WHOA) – Fairfield County are Parties to this Agreement.

4) Community Partnerships – Both the LWA and WHOA shall actively assist the Licensee during the period beginning approximately 18 months prior to the start of construction and continuing until approximately one year following construction completion to gain support from the lake community and to help minimize the impact of the construction project on the people and resources that depend on Lake Wateree. This assistance includes in-kind services to be provided by the LWA and WHOA to support activities such as:

   a) Cultural resource studies, monitoring and looting prevention in support of the lowered reservoir levels;

   b) Fish and wildlife studies and monitoring in support of the lowered reservoir levels;

   c) Soliciting project support from members of the LWA and WHOA organizations as well as from other lake-area property owners;

   d) Soliciting project support from owners of property in the vicinity of the Wateree River downstream of Wateree Dam;

   e) Soliciting project support from the operators of businesses (public marinas, real estate companies, etc);

   f) Soliciting project support from resource agencies (e.g., SCDPRT, SCDNR, South Carolina Department of Health and Environmental Control, South Carolina Department of Archives and History, US Army Corps of Engineers, United States Fish and Wildlife Service, National Marine Fisheries Service, etc.);

   g) Soliciting project support from owners of water intakes (e.g. City of Camden, Lugoff Elgin Water Authority, any fire protection hydrants);

h) Soliciting project support from the Catawba Indian Nation and local governments; and

i) Coordinating activities that require lake-use permits from the Licensee.

14.6.3.7 Dam Modification Schedule – The dam modification shall occur on a schedule to be developed by the Licensee as part of the detailed engineering analysis and approved by the FERC. The Licensee shall file a license amendment request with the FERC including the detailed engineering analysis and schedule for approval within 18 months following the date of completion of the dam modifications at the Great Falls-Dearborn Development that are needed to provide prescribed flow releases. Completion of the construction at Wateree Dam is targeted for eight years following the date of issuance of the New License and the closure of all rehearing and administrative challenge periods.

14.6.4 The Parties agree to the following actions in the event that Lake Wateree flood management improvements do not occur:

14.6.4.1 Redirecting of Resources – Section 14.6.3 provides specific conditions that are required before the Licensee will make flood management improvements to Wateree Dam. If (i) no structural flood management improvements beyond those identified in this Agreement or those requirements that may arise as a result of the FERC's ongoing dam safety program are required at Project developments; and, (ii) the flood management improvements to Wateree Dam do not occur, then the Licensee shall contribute a total of $4 million to be divided between the Habitat Enhancement Program (HEP) fund identified in Section 14.2 and the Water Management Group (WMG) fund identified in Section 5.10 as outlined below. Provided that the NCWRC and/or the SCDNR are Parties to this Agreement and the existing HEP MOA in North Carolina and/or South Carolina is extended materially as-is for the term of the New License as noted in Paragraph 14.2.1, the Licensee shall contribute $1 million to each applicable State's HEP fund. The Licensee shall consult with the Final Agreement Committee (see Section 26.0) as well as with the decision-making boards of the HEP and WMG, prior to deciding, in its sole discretion, how to distribute the remainder of the $4 million between the HEP fund and the WMG fund. This additional funding from the Licensee, $4 million in total, will be contributed to the selected fund(s) between the ninth and twelfth full calendar years following the issuance of the New License and the closure of all rehearing and administrative challenge periods. The Licensee reserves the ability to target its funding for specific initiatives that are within the scope of the HEP and/or WMG charters.

14.6.4.2 The Parties agree that the LWA and WHOA may withdraw from this Agreement and no Party shall oppose such withdrawal.

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15.0 Gaging and Monitoring Agreements

15.1 The Parties recommend that the following proposed License Articles, the full text of which are provided in Appendix A of this Agreement, be incorporated into the New License that the Federal Energy Regulatory Commission (FERC) is expected to issue for the Project.

15.1.1 ARTICLE – Flow and Water Quality Implementation Plan

15.1.2 ARTICLE – Funding for USGS Streamflow Gages

15.1.3 ARTICLE – Flow and Reservoir Elevation Monitoring

15.1.4 ARTICLE – Water Quality Monitoring Plan

15.2 The Parties, except for the North Carolina Department of Environment and Natural Resources (NCDENR), agree that the Licensee shall include the Water Quality Monitoring Plan (WQMP) (see Appendix F) with its applications for 401 Water Quality Certifications as the recommended compliance monitoring plan. The Parties further agree that, if the NCDENR, South Carolina Department of Health and Environmental Control (SCDHEC), and the Licensee concur that any revised WQMP is an improvement to and not inconsistent with the current WQMP and the terms of this Agreement, the Licensee will provide notice to all Parties, and any such revised WQMP will automatically become incorporated as a term of this Agreement.

15.3 In accordance with the proposed Water Quality Monitoring Plan License Article, and beginning on the effective date of the New License for the Project, except as otherwise established by law, including any Commission or judicial order, the Licensee shall file the WQMP, supplemented with any engineering and construction details the Licensee determines are needed, with the FERC for approval. The Parties acknowledge that the Licensee shall not begin implementation of the WQMP until the FERC has approved the WQMP.

15.4 The Parties acknowledge that 401 Water Quality Certifications may require flow or water quality compliance reporting in addition to that described in this Section 15.0 or in the proposed Water Quality Monitoring Plan License Article.

15.5 As part of any applications for 401 Water Quality Certifications, the Licensee shall prepare a Quality Assurance Project Plan (QAPP) describing the processes and procedures to be used to ensure accuracy of water quality data.

15.6 Groundwater Monitors

15.6.1 The Parties agree that the Water Management Group (WMG) (see Appendix N) and the Catawba-Wateree Drought Management Advisory Group (CW-DMAG) (see Appendix C) will jointly develop a groundwater monitoring plan by December 31, 2007 for inclusion in the Low Inflow Protocol (see Appendix C). The Parties agree that the Water Management Group may fund or partially fund the installation cost of up to seven new groundwater monitoring wells to be identified in the groundwater monitoring plan in Year 2009 through Year 2012 and, once installed, the WMG shall fund, for the term of the New License, the annual maintenance cost of these wells plus the three existing wells. The Parties agree that the location of the new groundwater monitoring wells will be determined by the CW-DMAG (see Appendix C). A list of the three existing groundwater monitoring wells, by location, is provided in Appendix C

(Low Inflow Protocol) along with placeholders for up to seven new wells to be installed. A summary of existing and proposed groundwater monitoring wells, as well as streamflow gages, project reservoir monitors, project flow monitors, and water quality monitors, is included in Appendix M (Flow, Groundwater, and Water Quality Monitoring Summary). The Parties agree that changes to the locations or the number of groundwater monitoring wells, as determined by the CW-DMAG, will not constitute or require modification of this Agreement.

15.6.2 The Parties agree that the CW-DMAG (see Appendix C) can change the location or reduce the number of wells as they deem appropriate and such changes will not constitute or require modification of this Agreement.

GENERAL AGREEMENTS AND PROCEDURES

16.0 Effective Date and Term of Agreement

16.1 This Agreement shall become effective for all Parties on December 22, 2006. This Agreement shall remain in effect for the term of the New License for the Project and for any annual licenses issued subsequent thereto, unless terminated pursuant to Paragraph 28.0.

16.2 If a rehearing of the FERC order issuing the New License is sought by any person or entity, including any Party, any Party may request a stay of the effective date of the order and/or any other dates or articles specified in the order until the resolution of the rehearing request and the expiration of the statutory periods for appeals. Any Party may oppose such request for stay.

16.3 The Parties agree to support a New License term that is not less than 40 years nor more than 50 years.

17.0 Offer of Settlement

The Parties acknowledge that the Licensee, by July 21, 2006, circulated to all Parties a draft "Explanatory Statement," which is required by FERC rules. The Parties further acknowledge that, prior to filing the Explanatory Statement, the Licensee consulted with any Party that provided comments within 30 days of receipt of the draft Explanatory Statement and addressed the Party's comments. The Parties further acknowledge that the Licensee, upon the filing of its Application for New License, filed the August 12, 2006 version of this Agreement as an offer of settlement and the Explanatory Statement with the FERC pursuant to Rule 602 of the Rules of Practice and Procedure, 18 CFR 385.602 (2003). The Licensee shall revise the August 12, 2006 Explanatory Statement to be consistent with this December 22, 2006 version of the Agreement and file the revised Explanatory Statement and this Agreement with the FERC.

18.0 Adoption by the FERC Without Material Modification

18.1 The Parties have entered into this Agreement with the express desire and expectation that the FERC will approve this Agreement as an Offer of Settlement and issue a New License for the Project that incorporates, without material modification, the proposed License Articles in Appendix A.

18.2 Except as provided herein, the Parties agree that, if the FERC incorporates the proposed License Articles into the New License without material modification, no Party will seek rehearing of the FERC order granting the New License for any issues covered by this Agreement or support in any way any such request for rehearing by any person or entity.

18.3 The Parties have entered into this Agreement with the express understanding that each term in this Agreement, including the proposed License Articles in Appendix A, is in consideration of each other term.

19.0 Statutory Responsibilities of Federal, Tribal, State and Local Government Entities

19.1 Except as provided in this Section and elsewhere in this Agreement, by becoming Parties to this Agreement, all Parties that are governmental entities, including Tribes, believe that this Agreement is consistent with their statutory responsibilities.

19.2 Notwithstanding Paragraph 19.1, nothing in this Agreement is intended or shall be construed to restrict any Party that is a governmental agency or Tribe with specific statutory responsibilities in the relicensing process from fulfilling its obligations under any applicable local, state or federal law or regulation. Nothing in this Agreement is intended or shall be construed to restrict these agencies and Tribes from fully and objectively considering all public comments received in any regulatory process related to the Project, from conducting an independent review of the Project under applicable statutes, or from providing comments to the FERC that are necessary to meet their statutory obligations.

19.3 Notwithstanding Paragraph 19.1, nothing in this Agreement is intended or shall be construed to affect or limit in any way the authority of the State of North Carolina or the State of South Carolina pursuant to 33 U.S.C. § 1341, and related state statutes and rules, to issue a water quality certification, or to alter its water quality certification, with whatever conditions the State of North Carolina or the State of South Carolina determine should be included. For the purposes of any proceeding, decision, and action, pursuant to or in furtherance of its rights, duties and responsibilities under 33 U.S.C. § 1341, the State of North Carolina and the State of South Carolina do not assent to any fact, opinion, approach, methodology, or principle, expressly identified or otherwise implied in this Agreement. Nothing in this Agreement shall limit the right of the State of North Carolina or the State of South Carolina from enforcing its Water Quality Certification and from taking any steps, within the sole discretion of the States, to protect and defend its authority, such as by seeking rehearing of any FERC action regarding issues related to the exercise of the State's authority with regard to the respective State's Water Quality Certification.

19.4 Nothing in this Agreement is intended or shall be construed to prevent any governmental body engaged in a public process from addressing issues addressed in this Agreement when raised before such governmental body in a public proceeding; provided, however, that addressing such issues in a public proceeding shall not relieve any Party that is a governmental body from its obligations to act consistently with this Agreement.

20.0 Parties' Rights, Obligations and Restrictions During the Period when the FERC is Developing the New License and/or the NCDWQ and SCDHEC are Developing the Water Quality Certifications

20.1 Parties' Rights, Obligations and Restrictions Related to the FERC's Licensing Process for Developing the New License

20.1.1 The Parties reserve the right to be actively involved in the FERC licensing, including by intervention, in a manner consistent with this Agreement.

20.1.2 Except as allowed by Section 19.0, no Party may request or advocate, during the period of this relicensing prior to the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods, by

any activity, including but not limited to, intervention, filing comments with the FERC or any other agency, participating in public hearings or meetings, communicating with the media or in any public forum, encouraging, coaching or funding non-Parties to this Agreement, concurring with comments filed with the FERC or any agency, and communicating with or lobbying state or federal officials, any New License requirements that would, if adopted by the FERC, be an Inconsistent Act; provided however, that this prohibition does not prohibit any Party from being a dues paying member of, or making charitable contributions or donations to, any organization, unless that organization's primary purpose is the advocacy of conditions that would, if adopted by the FERC, result in an Inconsistent Act.

20.1.3 Except as allowed by Section 19.0, no Party may request or advocate, during the period of this relicensing prior to the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods, by any activity, including but not limited to, intervention, filing comments with the FERC or any other agency, participating in public hearings or meetings, communicating with the media or in any public forum, encouraging, coaching or funding non-Parties to this Agreement, concurring with comments filed with the FERC or any agency, and communicating with or lobbying state or federal officials, New License reopeners of any kind beyond those that are included in the FERC's standard Form L for hydro projects of this size; provided however, that this prohibition does not prohibit any Party from being a dues paying member of, or making charitable contributions or donations to, any organization, unless that organization's primary purpose is the advocacy of New License reopeners.

20.1.4 If, during the FERC's licensing process for developing the New License (such as upon issuance of any preliminary draft recommendations, prescriptions or conditions under Sections 18 and 10(j) of the Federal Power Act, or draft Biological Opinion under the Endangered Species Act or from a draft Environmental Assessment or Environmental Impact Statement), a Party learns that the FERC is considering imposing in the New License a requirement that, if imposed, would result in an Inconsistent Act, and that Party wishes either to (i) support that requirement and not be restricted by the terms in Paragraphs 20.1.2 or 20.1.3 and/or (ii) address the potential Inconsistent Act by rebalancing the bargained-for benefits, burdens, costs or risks and modifying this Agreement, then that Party may notify the Parties, pursuant to Section 29.0, that it wishes to support the requirement and modify this Agreement.

20.1.5 Upon receiving this notification, the Licensee shall confer with the Final Agreement Committee (FAC) and any Parties that may be affected by the potential Inconsistent Act, pursuant to Section 26.0, and the FAC, in consultation with the interested Parties, shall evaluate whether the requirement, if imposed, would or would not be an Inconsistent Act. The FAC and the interested Parties will use their best efforts to determine, by consensus opinion if the requirement would be an Inconsistent Act, including using their best efforts to reconcile any differences and to determine if and how the terms of this Agreement could be rebalanced and the Agreement modified, pursuant to Section 24.0, to be acceptable to the Parties and to the Jurisdictional Body(ies). The FAC and the interested Parties may use mediation. The Licensee, on behalf of the FAC and

the interested Parties, will notify all Parties, pursuant to Section 29.0, of the determinations and recommendations, if any, resulting from this process.

20.1.6 Pursuant to a consensus recommendation by the FAC and interested parties to modify this Agreement, and after having completed the modification pursuant to Section 24.0, to address the potential FERC requirement, the Licensee shall promptly file the Modified Agreement with the FERC, and any Party may support in the FERC's relicensing process the modified terms and conditions in the Modified Agreement. However, if this Agreement is not modified, then no Party shall support the proposed FERC requirement.

20.2 Parties' Rights, Obligations and Restrictions during the State Agencies' Processes for Developing the 401 Water Quality Certifications.

20.2.1 The Parties reserve the right to be actively involved in any Water Quality Certification processes in a manner consistent with this Agreement.

20.2.2 Except as allowed by Section 19.0, no Party except the NCDENR may request or advocate, during the period of this relicensing prior to the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods, by any activity, including but not limited to, intervention, filing comments with the FERC or any other agency, participating in public hearings or meetings, communicating with the media or in any public forum, encouraging, coaching or funding non-Parties to this Agreement, concurring with comments filed with the FERC or any agency, and communicating with or lobbying state or federal officials, any 401 Water Quality Certifications requirements or conditions that would result in an Inconsistent Act; provided however, that this prohibition does not prohibit any Party from being a dues paying member of, or making charitable contributions or donations to, any organization, unless that organization's primary purpose is the advocacy of 401 Water Quality Certifications requirements or conditions that could result in an Inconsistent Act.

20.2.3 Except as allowed by Section 19.0, no Party except the NCDENR may request or advocate, during the period of this relicensing prior to the FERC's issuance of the New License and the closure of all rehearing and administrative challenge periods, by any activity, including but not limited to, intervention, filing comments with the FERC or any other agency, participating in public hearings or meetings, communicating with the media or in any public forum, encouraging, coaching or funding non-Parties to this Agreement, concurring with comments filed with the FERC or any agency, and communicating with or lobbying state or federal officials, 401 Water Quality Certification reopeners of any kind other than a reopener for failure to comply with requirements of any 401 Water Quality Certification; provided however, that this prohibition does not prohibit any Party from being a dues paying member of, or making charitable contributions or donations to, any organization, unless that organization's primary purpose is the advocacy of 401 Water Quality Certification reopeners of any kind other than a reopener for failure to comply with requirements of any 401 Water Quality Certification.

20.2.4 If, during the NCDWQ or SCDHEC processes for developing any 401 Water Quality Certifications, a Party learns that the NCDWQ or SCDHEC is considering imposing in the New License a requirement that, if imposed, could

result in an Inconsistent Act, and that Party wishes either to (i) support that requirement and not be restricted by the terms in Paragraphs 20.2.2 or 20.2.3 and/or (ii) address the potential Inconsistent Act by rebalancing the bargained-for benefits, burdens, costs or risks and modifying this Agreement, then that Party may notify the Parties, pursuant to Section 29.0, that it wishes to support the requirement and modify this Agreement.

20.2.5 Upon receiving this notification, the Licensee shall confer with the Final Agreement Committee (FAC) and any Parties that may be affected by the potential Inconsistent Act, pursuant to Section 26.0, and the FAC, in consultation with the interested Parties, shall evaluate whether the requirement, if imposed, would or would not be an Inconsistent Act. The FAC and the interested Parties will use their best efforts to determine, by consensus opinion if the requirement would be an Inconsistent Act, including using their best efforts to reconcile any differences and to determine if and how the terms of this Agreement could be rebalanced and this Agreement modified, pursuant to Section 24.0, to be acceptable to the Parties and to the Jurisdictional Body(ies). The FAC and the interested Parties may use mediation. The Licensee, on behalf of the FAC and the interested Parties, will notify all Parties, pursuant to Section 29.0, of the recommendations, if any, resulting from this process.

20.2.6 Pursuant to a consensus recommendation by the FAC to modify this Agreement, and after having completed the modification pursuant to Section 24.0, to address the potential 401 Water Quality Certification requirement, the Licensee shall promptly file the Modified Agreement with the NCDWQ, SCDHEC and the FERC, and any Party may support the modified terms and conditions in the Modified Agreement during the process for developing the 401 Water Quality Certifications However, if this Agreement is not modified, then no Party shall support the proposed 401 Water Quality Certification requirement.

21.0 Agreements on Action Steps upon an Imposition of a Requirement by a Jurisdictional Body that is an Inconsistent Act

21.1 The Parties shall take the following actions if any Party believes that the actions of a Jurisdictional Body through the imposition of a requirement or the failure to impose any requirement on the Licensee, has resulted in an Inconsistent Act:

21.1.1 If any Party believes that the actions of a Jurisdictional Body, through the imposition of a requirement or the failure to impose any requirement on the Licensee, has resulted in an Inconsistent Act, the Party may notify the Parties.

21.1.1.1 If notice is given pursuant to Paragraph 21.1.1 the Licensee shall convene a meeting of all Parties to: (i) determine by consensus a course of action to acceptably rebalance and modify this Agreement; (ii) if agreed upon, and in coordination with other Parties as appropriate, work with the FERC and any appropriate Jurisdictional Body to pursue an alternative to the Inconsistent Act that is acceptable to all Parties and to the FERC and the Jurisdictional Body(ies); (iii) notify the Parties, pursuant to Section 29.0, to explain any proposed rebalancing; and (iv) in coordination with other Parties, as appropriate, take such other actions as the Parties may agree upon to address the Inconsistent Act. If requested by any Party,

mediation as described in Paragraph 31.2 may be used to help reach consensus.

21.1.2 If the Parties modify this Agreement, pursuant to Section 24.0, to address the Inconsistent Act, the Licensee shall promptly file the Modified Agreement with the FERC, and any Party may take actions, such as submitting comments, consistent with the Modified Agreement. However, if any Party does not support a modification of this Agreement to address the Inconsistent Act, then no Party may support the Inconsistent Act, and the Parties shall not modify this Agreement.

21.1.3 Any Party may pursue any available legal remedies (i.e., administrative or judicial review) to alter a proposed or final Inconsistent Act to conform to this Agreement whether or not that Party is simultaneously following the procedures in this Section 21.0. No Party shall oppose such legal remedies that seek only to conform the Inconsistent Act to this Agreement.

22.0 Review of Inconsistent Act Imposed by Jurisdictional Body that Substantially Negatively Affects a Party

22.1 A Party may initiate or maintain an action (e.g., administrative or judicial review), to amend an Inconsistent Act imposed by a Jurisdictional Body if the Party is substantially negatively affected by the Inconsistent Act and the Inconsistent Act conflicts with this Agreement. Because this Agreement itself is legally enforceable, the omission of any proposed License Article from any authorization (including the New License and any Water Quality Certifications), notwithstanding Paragraph 21.1.1, shall not, by itself, be deemed an Inconsistent Act that conflicts with this Agreement, but any Party may petition the issuing agency to include such Article in such authorization and may exhaust such administrative and related judicial processes. Conversely, the inclusion of any requirement of this Agreement in any authorization (including the New License and any Water Quality Certifications) shall not, by itself, be deemed an Inconsistent Act that conflicts with this Agreement, but any Party may petition the issuing agency to exclude such Article in such authorization and may exhaust such administrative and related judicial processes. No Party except the relevant Jurisdictional Body may oppose another Party's action pursuant to this Paragraph 22.1.

22.2 No Party will seek to use its status as a Party to this Agreement to establish standing or aggrieved-party status to challenge any action of any governmental agency that is also a Party to this Agreement when that governmental agency's actions are pursuant to fulfilling its statutory duties.

22.3 If after exhausting any legal reviews initiated pursuant to Paragraph 22.1 any Party still believes that the Jurisdictional Body's action or omission is an Inconsistent Act and that it is substantially negatively affected by the Inconsistent Act, then that Party may initiate withdrawal pursuant to Section 27.0 by giving notice of its intent to withdraw from this Agreement pursuant to Section 29.0. No Party may give Notice of Intent to Withdraw until all administrative and judicial challenges regarding the issue over which the Party intends to withdraw have been finally resolved and until all time periods for further administrative or judicial review have expired when that governmental agency' actions are pursuant to fulfilling its statutory duties.

23.0 Agreements on Action Steps upon Breach by Any Party

23.1 If any Party is alleged by any other Party to be in breach of this Agreement, the Party alleging the breach shall immediately notify, pursuant to Section 29.0, all Parties of the alleged breach and shall consult with the allegedly breaching Party to discuss the breach and to reach a resolution satisfactory to all Parties. To allow for consultation, no Party may seek relief from a court or any other forum, including the FERC, concerning the alleged breach until sixty days have elapsed following the notice required in the preceding sentence, except that a Party may seek relief prior to the passing of the sixty days if the Party's rights would be prejudiced by such delay.

23.2 If any Party has a credible reason to believe that it or another Party may be unable to comply with any future obligation under this Agreement, including any schedule, the Party may inform the Final Agreement Committee (FAC). The FAC will convene the potential breaching Party and any other Party or Parties for consultation pursuant to Paragraph 26.3 to attempt to ensure clear communications concerning the potential breach and to identify such other actions that may be acceptable to all the Parties that will eliminate the concern relative to the potential breach. If the FAC no longer exists, the Licensee shall assume the FAC's responsibilities in this Paragraph.

23.3 The Parties agree to use their best efforts to cure any alleged breach of this Agreement in a reasonable and timely manner. If such best efforts and consultation fail to resolve the alleged breach or alleged anticipatory breach, any Party may pursue its legal remedies for any alleged breach or alleged anticipatory breach once the sixty-day period set forth in Paragraph 23.1 has elapsed.

24.0 Modification of this Agreement

24.1 Except as provided in Paragraph 4.7 (regarding conservation easement modifications), Paragraph 13.3 (regarding FWQIP revisions), Paragraph 15.2 (regarding the Water Quality Monitoring Plan), and Paragraph 24.2 (regarding benefits and obligations conditioned on becoming Parties), any modification of any provision of this Agreement to become effective must be made in writing and, after notice of the modification is provided pursuant to Section 29.0, signed by an authorized representative of each Party except that a Party who fails to respond to such notice within 60 days shall be deemed to have consented to the proposed modification. Except as provided herein, nothing in this Agreement is intended to limit the Parties' ability to modify this Agreement.

24.2 The Parties acknowledge that, for long-term clarity of this Agreement, it may be beneficial to remove from this Agreement those benefits and obligations that were conditioned on certain entities becoming Parties to this Agreement but are no longer benefits or obligations of this Agreement because these entities did not become Parties. The Parties agree that, on the first instance of considering modification to this Agreement pursuant to this Section 24.0, the Licensee shall confer with members of the Final Agreement Committee to reform this Agreement for the limited purpose of reflecting accurately only the Parties' benefits and obligations hereunder by deleting specific benefits and obligations of entities that were signatories to the Agreement in Principle but that declined to become Parties to this Agreement. The Licensee will circulate a reformed Agreement to all Parties, pursuant to the notice provision of Paragraph 29.0, and such reformed Agreement shall automatically supersede this

Agreement unless any Party objects by giving notice to the Licensee within 60 days of notice of the reformed Agreement.

25.0 Parties' Ability to Petition the FERC or Water Quality Certification Agencies

A Party may petition the FERC to amend the New License, pursuant to any reopener condition contained in the New License, or to take any other action with regard to the Licensee or the Project or may petition the NCDWQ or SCDHEC to amend its respective Water Quality Certification, pursuant to any reopener condition included in any Certification, or to take any other action with regard to the Licensee or the Project, so long as the amendment or other action would not substantially conflict with this Agreement and would not directly result in an Inconsistent Act for any other Party. Before filing any such petition, the petitioning Party shall notify all other Parties and consult with any Party that indicates that it may be substantially negatively affected, but under no circumstance shall such consultation prevent a Party from pursuing such relief before FERC, NCDWQ, or SCDHEC within the time required by law or regulation.

26.0 Final Agreement Committee

26.1 Final Agreement Committee Membership

26.1.1 Initial Membership – The Parties shall create a Final Agreement Committee (FAC) on the effective date of this Agreement. The initial membership of the FAC shall include the members of the Final Agreement Conversion Committee (FACC), originally nominated during the relicensing process to coordinate the efforts to convert the first draft Final Agreement into the signature copy of this Agreement. The following 12 organizations will constitute the FAC's initial membership, except that any listed organization that (i) is not a Party to this Agreement; (ii) chooses not to participate in the FAC; or (iii) ceases to exist will not be a FAC member, and that organization's seat will be eliminated or filled by another appropriate Party as agreed to by the FAC: North Carolina Department of Environment and Natural Resources, North Carolina Wildlife Resources Commission, South Carolina Department of Parks, Recreation and Tourism, South Carolina Department of Natural Resources, City of Charlotte, NC, Burke County, NC, Union-Lancaster Catawba River Water Plant, Centralina Council of Governments, Carolina Canoe Club, Lake Wateree Association, Catawba-Wateree Relicensing Coalition, and the Licensee. The initial FAC members shall develop a charter and membership rotation schedule with staggered terms to afford a smooth transition from the initial FAC membership to the long-term membership described in Paragraph 26.1.2. The initial FAC members will serve until 180 days following the FERC's issuance of the New License or longer if needed to complete the transition to the long-term membership.

26.1.2 Long-term Membership – 180 days following the FERC's issuance of the New License, or at a later date if needed for a smooth transition, the initial membership of the FAC shall be replaced with the Long-term Membership. This replacement shall be in accordance with the charter and membership rotation schedule developed by the initial FAC members. Long-term Membership of the FAC shall include no more than 13 Parties to this Agreement and shall include

two permanent members: the Licensee and the Catawba Indian Nation (CIN) (provided the CIN is a Party and desires to be a FAC member). The remaining 11 membership seats will be for two-year terms and are assigned as follows: (i) one seat to a North Carolina state agency; (ii) one seat to a South Carolina state agency; (iii) two seats total for North Carolina counties, municipalities, or councils of government, with consideration given to geographic diversity; (iv) two seats total for South Carolina counties, municipalities, or councils of government, with consideration given to geographic diversity; (v) one seat to a Large Water Intake owner that supplies a North Carolina public water system; (vi) one seat to a Large Water Intake owner that supplies a South Carolina public water system; (vii) one seat to a water-dependent business, marine commission, conservation district; (viii) one seat to a non-governmental organization, and (ix) one seat to either (a) a non-governmental organization or (b) a water-dependent business, marine commission, conservation district. Initial terms may vary from one to three years to implement the staggered two-year term rotation.

26.2 FAC Purposes – The purposes of the FAC are to: (i) be a mechanism to promote clear communications among the Parties; (ii) assist in the efficient implementation of the terms of this Agreement; (iii) serve as the primary group for initial consideration of alleged breaches and Inconsistent Acts and the need to implement dispute resolution; and (iv) serve as the primary group for initial consideration of proposed future modifications to this Agreement pursuant to Paragraph 24.0.

26.3 FAC Meeting Schedule and Logistics – The FAC shall confer (i) within 10 calendar days following the issuance of any draft or final 401 Water Quality Certification, environmental assessment or environmental impact statement related to Project relicensing and the FERC's order issuing the New License; (ii) within 10 calendar days following receipt of any notice from any Party identifying an alleged Inconsistent Act by a Jurisdictional Body or the proposed withdrawal of any Party from this Agreement; (iii) within 30 calendar days following receipt of any notice from any Party identifying an alleged or potential breach of this Agreement by any Party or the need to implement dispute resolution; and (iv) any time as deemed necessary by a majority of its members, but at least annually beginning in 2007 and continuing through the term of the New License (including any annual license renewal periods). The FAC may however decide, by at least a two-thirds majority vote, to recommend a less frequent meeting schedule or to disband the FAC, with any such recommendations requiring the concurrence of a majority of the Parties to this Agreement. The Licensee shall be responsible for chairing and convening the FAC, including providing adequate notice of meetings to all FAC members and funding basic administrative services in support of the FAC's efforts. At least once every five years, the FAC shall develop a brief written self-assessment of its activities during the previous five years and consider if its services are still needed to accomplish its stated purpose.

27.0 Withdrawal from this Agreement

27.1 A Party may initiate withdrawal from this Agreement if it is substantially negatively affected by an Inconsistent Act and has followed the procedures in Section 20.0 or 21.0, as applicable, to attempt to remedy the cause for the withdrawal.

27.2 A Party may initiate withdrawal from this Agreement without following the procedures in Section 20.0 or 21.0 if it is substantially negatively affected by: (i)

withdrawal of another Party, as set forth in Paragraph 27.11; (ii) a new law or regulation that requires a Party to act in a manner that breaches this Agreement, as set forth in Section 38.0; (iii) the invalidation of a portion of this Agreement, as set forth in Paragraph 39.6; or (iv) transfer of the Existing or New License to a transferee that is not bound by all the terms of this Agreement, as set forth in Paragraph 39.15.

27.3 A Party shall initiate the withdrawal process by providing Notice of Intent to Withdraw to all Parties in accordance with Section 29.0. This Notice must include a brief, non-binding statement setting forth:

27.3.1 The date and nature of the Inconsistent Act, or other event giving rise to the right to withdraw, including a reference to the specific paragraph of this Agreement under which withdrawal is permitted; and

27.3.2 (i) If withdrawal is based on an alleged Inconsistent Act, how the alleged Inconsistent Act meets the definition of “Inconsistent Act” and how it conflicts with this Agreement; and (ii) how the alleged Inconsistent Act or event listed in Paragraph 27.2 substantially negatively affects the withdrawing Party.

27.4 If, after 60 days from the Notice of Withdrawal, no Party opposes the withdrawal, the withdrawal is final.

27.5 If any Party opposes the withdrawal, that Party shall submit a notice, pursuant to Section 29.0, to the withdrawing Party indicating that it opposes withdrawal and seeks arbitration of the Party’s right to withdraw.

27.6 Within 30 days of the notice opposing withdrawal, the withdrawing Party shall post an Arbitration Escrow Fee of $2,000. The Arbitration Escrow Fee shall be made payable to an acceptable escrow agent, which may be the Licensee, and shall bear a notation that it is to be held in escrow. Once the arbitrator is selected, the withdrawing Party shall ensure that the escrow agent may release the funds to the arbitrator upon proof of the withdrawing Party’s failure to pay its share of the arbitration costs. If the withdrawing Party fails to post the Arbitration Escrow Fee in a timely manner, it shall thereby waive its right to withdraw based on the Inconsistent Act or other event cited in the withdrawal notice.

27.7 The arbitrator shall be selected and the arbitration conducted pursuant to the procedures of the American Arbitration Association under its Commercial Arbitration Rules. The arbitrator's decision shall be binding only as to the Parties before it.

27.8 Withdrawal shall be allowed only if the arbitrator determines that the withdrawing Party substantially complied with all procedural prerequisites to withdraw specified in this Agreement and:

27.8.1 A requirement imposed by a Jurisdictional Body (i) conflicts with this Agreement and (ii) is an Inconsistent Act that substantially negatively affects the withdrawing Party; or

27.8.2 The withdrawing Party was substantially negatively affected by the withdrawal of another Party, as set forth in Paragraph 27.11; or

27.8.3 A new law or regulation requires a Party to act in a manner that breaches this Agreement, as set forth in Section 38.0, and that breach substantially negatively affects the withdrawing Party; or

27.8.4 A portion of this Agreement is invalidated which results in the withdrawing Party's being substantially negatively affected, as set forth in Paragraph 39.6; or

27.8.5 The Existing or New License is transferred to a transferee that is not bound by all the terms of this Agreement which results in the withdrawing Party's being substantially negatively affected, as set forth in Paragraph 39.15.

27.9 An effective withdrawal relieves the withdrawing Party of its performance obligations under this Agreement.

27.10 The costs of the arbitration shall be shared equally between the Party seeking withdrawal (50 percent) and the combination of Parties requesting arbitration (50 percent). The Parties shall request that the arbitrator invoice each Party separately. Any unused amounts of the Arbitration Escrow Fee will be returned to the withdrawing Party.

27.11 Upon withdrawal of any Party, any other Party (hereinafter "Second Party") may exercise its right to withdraw pursuant to the procedures set forth in this Section, except that, if the issue goes to arbitration, withdrawal shall be allowed only if the arbitrator determines that (i) the Second Party substantially complied with all procedural prerequisites to withdrawal specified in this Agreement; and (ii) the previous withdrawal of another Party will substantially negatively affect the Second Party.

27.12 No Party is required to pursue administrative or judicial remedies prior to withdrawing; however, no Party may give Notice of Intent to Withdraw until all administrative and judicial challenges, if any, regarding the issue over which the Party intends to withdraw have been finally resolved and until all time periods for further administrative or judicial review have expired. Any right to withdraw is waived if the Party does not give Notice of Intent to Withdraw within 180 days of the expiration of the last time period for administrative or judicial review of a matter related to the reason for withdrawal.

27.13 If a Party is prohibited by law from submitting to binding arbitration, then, after that Party has provided Notice of Intent to Withdraw and after another Party has given notice of its opposition to withdrawal, as set forth in Paragraph 27.4, the Party seeking to withdraw shall give notice to all Parties that it is prohibited by law from submitting to binding arbitration and shall provide with such notice evidence of the legal prohibition and shall within 30 days following provision of its notice of prohibition to submit to arbitration, file an action for declaratory judgment: (i) seeking the court's determination of its legal right to withdraw pursuant to the terms of this Agreement; and (ii) naming the Party opposing withdrawal as the defendant. The withdrawing Party shall serve notice of its filing of the declaratory judgment action on all Parties to allow any Party the opportunity to intervene. The court shall use the criteria set forth in Section 27.0 and Paragraphs cross-referenced therein to determine whether a Party seeking to withdraw is entitled to withdraw under this Agreement. If the Party seeking to withdraw fails to file an action for declaratory judgment within 30 days following its notice to the Parties of its prohibition to submit to arbitration, then it shall thereby waive its right to withdraw based on the Inconsistent Act or other event cited in the withdrawal notice.

27.14 Any opposition to any withdrawal shall be ineffective if the arbitrator determines that the Party opposing withdrawal failed to give notice to the withdrawing Party as required in Paragraph 27.5.

28.0 Termination of this Agreement

This Agreement, and all obligations arising hereunder, shall terminate and be of no further force or effect upon withdrawal of the Licensee, upon the expiration or other termination of the Term of the New License and any annual licenses issued thereafter, or upon transfer of the license to a subsequent licensee that is not bound by any part by this Agreement.

29.0 Notice

Each Party shall designate a representative for the receipt of notices. All notices required to be given under this Agreement shall be in writing and be given by personal delivery, overnight express service, or U.S. mail to each Party using the contact information set forth in this Agreement and included as Appendix B. The sender shall retain proof of posting or delivery, and notices shall be effective upon the date and time identified on the proof of posting or delivery. The Licensee will be responsible for maintaining the contact information included as Appendix B on its Web site. A Party may change the contact information or the designated representative by notifying the Licensee of such change, and such change will not be considered a modification of this Agreement. Each Party shall be responsible for providing the Licensee with their updated contact information in a timely and accurate manner. If a Party no longer exists at the time that notice is required to be given by this Agreement, notice to such Party is not required. If a Party required to give notice knows that another Party's designated representative is deceased or is no longer employed by and/or affiliated with such other Party, the Party required to give notice must make a reasonably diligent effort to provide notice to an appropriate person affiliated with such other Party. A "reasonably diligent effort" shall include notice to any person upon whom process could be served under the Federal Rules of Civil Procedure in effect at the time that notice is required to be given.

30.0 Licensed Project Cessation

30.1 In the event the Licensee decides to surrender the New License prior to its expiration or the United States takes over the Project, the Licensee agrees to take the following actions.

30.1.1 Notify all Parties pursuant to Section 29.0 and convene a meeting for all Parties no later than 30 days after its decision to surrender the Project in whole or in part, or becoming aware that the United States may take over the Project in whole or in part.

30.1.2 Notify all Parties at least 60 days prior to the Licensee filing at the Commission an application to surrender its License in whole or in part.

30.1.3 Negotiate in good faith with the North Carolina Wildlife Resources Commission, the North Carolina Department of Environment and Natural Resources, the South Carolina Department of Natural Resources, the South Carolina Department of Parks, Recreation and Tourism, and any other interested Party with the objective of ensuring continued public access to the Project reservoirs through the remaining period of the New License term for those properties designated for public access in the New License and that will continue to be owned by the Licensee.

30.1.4 Negotiate in good faith with the North Carolina Wildlife Resources Commission, the North Carolina Department of Environment and Natural Resources, the South Carolina Department of Natural Resources, South Carolina Department of Parks, Recreation and Tourism, and any other interested Party to develop a plan for managing lands and waters within the FERC Project Boundaries.

30.1.5 Negotiate in good faith with each public water supplier authorized to withdraw water from any Project reservoir to assure continued access by public water suppliers to such reservoir and other necessary facilities and land through the remaining period of the New License term.

30.1.6 Within 180 days after becoming aware that any of the Project's developments will no longer be licensed by the FERC or after filing an application with the FERC to surrender the license for any of the Project's developments, and provided the Licensee desires to close and/or sell any affected License-owned recreation land or facilities at the Project, then provide notice to all Parties that are tribal or government entities, pursuant to Section 29.0, to offer to sell the affected Licensee-owned recreation land and facilities at the appraised market value, as determined by the average of two appraisals completed in accordance with Appraisal Institute standards, one appraisal to be paid for by Licensee and the other to be paid for by the first tribal or governmental entity that notifies the Licensee, pursuant to Section 29.0, of its desire to acquire Licensee-owned recreation land and facilities. An offer to acquire such facilities by a tribal or governmental entity may be for all or any portion of such Licensee-owned recreation land and facilities.

180 days after providing such notice of an offer to sell, the Licensee shall be free to sell to any entity any affected Licensee-owned recreation land or facilities for which the Licensee does not receive an acceptable purchase option from a Party that is a tribal or government entity.

31.0 Dispute Resolution

31.1 Dispute Resolution – Except as otherwise specifically provided in this Agreement, disputes among Parties arising under or related to this Agreement or the New License shall be resolved as follows.

31.1.1 Consultation

31.1.1.1 Any Party alleging a dispute shall notify the Licensee. The Licensee shall notify all Parties pursuant to Section 29.0 and shall give notice of at least 15 days of a meeting in an effort to resolve the dispute. The Party alleging a dispute and each Party that attends such meeting or notifies all other Parties pursuant to Section 29.0 of the Party's interest in the resolution of the alleged dispute shall be considered to be an Interested Party. The meeting notice shall describe the dispute and shall provide the time and location of the meeting. All Parties agree to engage in good-faith negotiations to resolve the dispute for a period of at least 45 days ("Consultation Period") from the date of notice provided by the Party alleging a dispute in an effort to resolve the dispute; except that, in emergency situations, or if required to preclude the running of any applicable

limitations period, an Interested Party may, for good cause, seek relief prior to the expiration of the 45-day period.

31.1.1.2 The Interested Parties may agree to extend the Consultation Period up to an additional 75 days and may employ a mediator at any time. To the extent allowed by law, the Parties shall consider any applicable limitations period, whether arising by statue, regulation, contract, or otherwise to be tolled during the Consultation Period. No Party shall raise as a defense to any action, whether judicial or administrative, the running of any period of limitation, so long as the action was filed within the limitations period plus the Consultation Period.

31.1.1.3 The Consultation Period ends when the times described above expire or when all Interested Parties except one indicate that consultation is no longer useful, whichever is sooner.

31.1.2 Consensus – Upon resolution of a dispute, by agreement or otherwise, the Interested Parties shall notify all Parties of the resolution. A resolution based on consensus shall have the unanimous support of all Interested Parties and no opposition from any other Party. Any resolution that requires modification of this Agreement requires written approval signed by all Parties, pursuant to Section 24.0.

31.1.3 Remedies – If, after the Consultation Period, the Interested Parties have not reached consensus, or in the event of non-compliance for which a schedule to cure the noncompliance has been established through Consultation, the offending Party has not cured the failure within the time established, any Interested Party may seek resolution as follows:

31.1.3.1 Provisions of this Agreement that are Also Included in the New License – By petition to the FERC to enforce the License Article with which the Licensee is alleged to have failed to comply. If FERC enforces any alleged failure to comply with a License Article, such enforcement action shall be the sole remedy under this Agreement. If the FERC affirmatively declines to enforce a License Article or fails to act within a reasonable time after a petition to enforce has been filed (which includes finding that a violation occurred and failing to take enforcement action), which period of time shall not be less than 180 days from the date on which the petition was filed, then such Party may file with the FERC a petition for rehearing regarding the alleged failure and pursue any further remedies, including judicial review. Once the 180-day period has expired or FERC has affirmatively indicated that it will not take enforcement action (whichever occurs sooner), any Party may seek to enforce, by any available means, any provision of this Agreement that was also incorporated into the New License, except that any Party may file such action sooner in order to preclude the running of any applicable limitations period. If any Party has sought direct review of any FERC action related to enforcement, the Party may not seek to enforce by other means until that action is resolved and any applicable review periods have expired. Nothing in this paragraph shall limit any State's right to enforce the provisions of its Water Quality Certification.

31.1.3.2 Provisions of this Agreement that are Not Also Included in the New License – By a court or agency of competent jurisdiction.

31.2 Mediation Services

31.2.1 Any Party may propose the use of a professional mediator to facilitate dispute resolution. To initiate professional mediation, a Party shall notify all Parties pursuant to Section 29.0 and shall convene a meeting not sooner than 15 days nor more than 30 days following notice. Such notice shall state the date, time, and location of the initial meeting to consider mediation. At that initial meeting all Parties in attendance shall determine their interest in mediation. Mediation is purely voluntary, and no Party shall be compelled against its will to participate in mediation.

31.2.2 Those Parties agreeing to mediation shall execute a contractually binding agreement with a professional mediator, and such agreement shall determine both how the mediating parties will share the cost of mediation and the schedule to undertake and complete mediation. No Party that chooses not to participate in mediation shall be responsible for any costs related to mediation. No mediated resolution shall modify this Agreement unless all the Parties so modify this Agreement pursuant to Section 24.0.

32.0 Adjustment for Inflation / Deflation

32.1 Unless otherwise indicated in this Agreement, all costs or payment amounts in this Agreement that are specified in dollars shall be as stated in this Agreement until January 1, 2013 at which time these dollar amounts shall be adjusted on an annual basis starting on January 1, 2013 and January 1 of each following year according to the following formula:

AD = (D x (NGDP)) / IGDP

Where:

AD = Adjusted dollar amount as of January 1 of the year in which the adjustment is made (or, in the case of the first adjustment, 2013).

D = Dollar amount prior to adjustment.

NGDP = GDP-IPD for the third quarter of the year before the adjustment date (or, in the case of the first adjustment, 2012).

IGDP = GDP-IPD for the third quarter of the year before the previous adjustment date (or, in the case of the first adjustment, 2011).

32.2 "GDP-IPD" is the value published for the Gross Domestic Product Implicit Price Deflator by the U.S. Department of Commerce, Bureau of Economic Analysis in the publication “Survey of Current Business” (being on the basis of 2000 = 100), in the third month following the end of the applicable quarter. If that index ceases to be published, any reasonably equivalent index published by the Bureau of Economic Analysis may be substituted. If the base year for GDP-IPD is changed or if publication of the index is discontinued, the Licensee shall promptly make adjustments or, if necessary, select an appropriate alternative index to achieve the same economic effect. Adjusted amounts will be rounded to the nearest whole dollar.

32.3 Dollar amounts specifically identified in this Agreement for payment prior to 2013 shall not be adjusted.

33.0 Ability of Parties to Request FERC Approvals or New License Amendments Related to Non-Project Use Requests

33.1 Nothing in this Agreement shall supersede the right of any Party to apply for and/or support, including by intervention, an amendment to the New License or other order from the FERC authorizing any entity to expand or modify an existing water intake or to add a new water intake, unless such amendment is specifically prohibited in this Agreement.

33.2 Nothing in this Agreement shall supersede any Party's right to file with the Licensee a Non-Project Use request that is in compliance with the Shoreline Management Guidelines (SMG) (Appendix J to this Agreement or latest SMG version) or to support (e.g., provide comments on individual SMP applications, such as marinas, multi-slip facilities, etc.), including by intervention, that request with the FERC, unless such action is specifically prohibited in this Agreement. Nothing in this Agreement shall supersede any Party's right to support, oppose, or request modification to such a request with the FERC. Nothing in this Agreement shall supersede any Party's statutory obligations related to such requests.

34.0 Parties' Participation in Future Relicensings and Water Quality Certifications

34.1 Nothing in this Agreement shall be construed to restrict any Party's participation or comments in future relicensings or Water Quality Certifications related to licenses for this Project beyond the New License.

34.2 Nothing in this Agreement shall be construed to restrict any Party's participation in any other FERC licensing proceeding including any other project for which Duke Energy Carolinas, LLC is the licensee.

35.0 Early Implementation

Unless otherwise prohibited in the New License, the Existing License, or this Agreement, the Licensee at its own discretion may chose to voluntarily implement, partially or in full, any of the operational changes or its other obligations called for in this Agreement earlier than the dates indicated in this Agreement.

36.0 Coordination with the Licensee's Budgeting Cycle

Unless otherwise specified in this Agreement, the timing for financial contributions from the Licensee described in this Agreement will be coordinated with the Licensee's budgeting cycle. The Licensee's contributions will become available the latter of any of the following: (i) January 1, 2009; (ii) January 1 of the first calendar year after the issuance of the New License and the closure of all rehearing and administrative challenge periods if that date is on or before June 30; or (iii) January 1 of the second calendar year following the issuance of the New License and the closure of all rehearing and administrative challenge periods if that date is after June 30.

37.0 Assessments and Procedures for New Information or Material Mistakes

A Party that becomes aware of significant new information or a material mutual mistake may bring that information before the FAC, pursuant to Section 26.0, and/or may convene a meeting of all Parties pursuant to Paragraph 29.0 inviting Parties to meet to discuss a Modification of this Agreement pursuant to Section 24.0. No Party may use new information as a defense to an alleged breach of this Agreement, as a basis for taking an action inconsistent with this Agreement, or as a basis to withdraw from this Agreement.

38.0 Procedures for New Law or Regulation

Should any new law, regulation, or other regulatory action, such as a permit or License requirement, require a Party to breach this Agreement (including, for a governmental Party, denying that Party's funds with which to fulfill its obligations under this Agreement), such Party shall not be liable for such breach. Should a new law or regulation require a Party to act in a manner that breaches this Agreement, then any other Party that believes it is substantially negatively affected thereby may withdraw from this Agreement by following the procedures in Section 27.0. If arbitration is initiated, withdrawal shall be allowed only if the arbitrator determines that: (i) the withdrawing Party substantially complied with all procedural prerequisites to withdrawal specified in this Agreement; (ii) there is no adequate remedy at law or in equity for the breach and the breach substantially negatively affects the withdrawing Party; and (iii) the breach was required by the new law or regulation.

39.0 Miscellaneous Agreements

39.1 No Admission of Liability – This Agreement is a compromise of many interests. The actions taken pursuant to this Agreement are not intended nor shall be construed as an admission on the part of any Party, or its agents, representatives, attorneys or employees that such Party was so obligated in any manner independent of this Agreement. Except as provided herein, no Party shall be prejudiced, prevented, or estopped from advocating in any manner or before any entity, including the FERC or any state agency, any position inconsistent with those contained in this Agreement regarding the licensing, permitting and license compliance of this or any other hydropower project.

39.2 Agreement Terms Contractual – The terms of this Agreement are contractual and not mere recitals. This Agreement, including Appendices A through O, constitutes the entire Agreement between the Licensee and the other Parties with respect to the subject matter hereof. All prior contemporaneous or other oral or written statements, representations or agreements by, between or among any of the Parties, including by, between or among the Licensee and any of the other Parties with respect solely to operation or licensing of the subject hydro Project (including the AIP) are superseded hereby. Nothing herein alters any valid easement, lease or permit previously granted or issued to any entity that is a Party to this Agreement.

39.3 Enforceability – As noted in Paragraph 31.1.3, all terms of this Agreement not incorporated as License Articles shall be enforced through remedies available under applicable state or federal law.

39.4 Force Majeure – The Parties agree that neither the Licensee, nor any other Party, shall be in breach of this Agreement to the extent that any delay or default in

performance is due to causes beyond the reasonable control of the delayed or defaulting Party; provided, that the delayed or defaulting Party notifies the other Parties as soon as possible of: (i) the event; (ii) the expected duration of the event; and (iii) the delayed or defaulting Party's plan to mitigate the effects of the delay or default. Such causes may include, but are not limited to, natural disasters, labor or civil disruption, acts of terrorism, the inability to secure any legal authorization from another entity (e.g., a permit or license) where such legal authorization is a prerequisite or requirement for complying with this Agreement, or breakdown or failure of the Project works so long as such causes are beyond the reasonable control of the delayed or defaulting Party.

39.5 Applicable Law and Venue – The Parties agree that all actions arising wholly within North Carolina must be litigated in courts located in the State of North Carolina and shall be governed by North Carolina law; those actions arising wholly within South Carolina must be litigated in courts located in the State of South Carolina and shall be governed by South Carolina law; where an action arises in both states, or in the case in which an act or omission giving rise to an action to enforce this Agreement occurred in neither state or its state of origin cannot be determined, the action must be litigated in courts located in either the State of North Carolina or the State of South Carolina and laws of the state where the action is brought shall govern. The Parties agree that such courts are convenient forums and irrevocably submit to the personal jurisdiction of such courts, except that the governmental entities who are Parties do not by entering into this Agreement waive sovereign immunity and such Parties waive such defense, if at all, only to the extent required by law.

39.6 Severability – Should any provision of this Agreement or part hereof be held under any circumstances in any jurisdiction to be invalid or unenforceable, such invalidity or unenforceability shall not affect the validity or enforceability of any other provision of this Agreement or other part of such provision. If such invalidity or unenforceability substantially negatively affects any Party, that Party may withdraw from this Agreement pursuant to the procedures established in Section 27.0. If arbitration is initiated, withdrawal shall be allowed only if the arbitrator determines that: (i) the withdrawing Party substantially complied with all procedural prerequisites to withdrawal specified in this Agreement; and (ii) the unenforceability or invalidity of the relevant part of this Agreement substantially negatively affects the withdrawing Party.

39.7 Waiver Independence – No consent to or waiver of any provision of this Agreement shall be deemed either a consent to or waiver of any other provision hereof, whether or not similar, or a continuing consent or waiver unless otherwise specifically provided.

39.8 Definitions – The terms, phrases and abbreviations defined in Appendix E and Appendix G hereto, when used in this Agreement, shall have the meanings as defined in Appendix E and Appendix G.

39.9 Water Rights Unaffected – This Agreement does not release, deny, grant or affirm any property right, license or privilege in any waters or any right of use in any waters. This Agreement does not authorize any person to interfere with the riparian rights, littoral rights or water use rights of any other person. Except as provided in Paragraph 5.10.4, no person shall interpose this Agreement as a defense in an action respecting the determination of riparian or littoral rights or other water use rights.

39.10 Parties' Own Costs – Except as expressly provided for in this Agreement, all Parties are to bear their own costs of participating in this Agreement.

39.11 Existing Laws – Unless otherwise noted, any reference to any statute, regulation or other document refers to the statute, regulation or document as it exists on the date of the first signature on this Agreement. No changes to any document to which this Agreement refers are incorporated into this Agreement, unless explicitly provided for in this Agreement or unless such change is made in accordance with Paragraph 24.0.

39.12 No Third-Party Beneficiary – This Agreement shall not create any right in any individual or entity that is not a Party hereto or in the public as a third-party beneficiary. This Agreement shall not be construed to authorize any such third party to initiate or to maintain a suit in law or equity or other administrative proceeding.

39.13 No Commitment of Funds – Nothing in this Agreement shall be construed as obligating any federal, tribal, state, or local agency to expend in any fiscal year any sum in excess of appropriations made by Congress, tribal councils, or state or local legislatures or administratively allocated for the purpose of this Agreement for the fiscal year or to involve any federal, tribal, state, or local agency in any contract or obligations for the future expenditure of money in excess of such appropriations or allocations.

39.14 No Government Agency Delegation – Nothing in this Agreement shall be construed as requiring or involving the delegation by any government agency to any other body of any authority entrusted to it by Congress, tribal council, or by the legislature of any state.

39.15 Successors and Assigns – This Agreement shall apply to, and be binding on, the Parties and their successors and assigns. No change in ownership of or transfer of the New License for the Project, or any of its developments shall in any way modify or otherwise affect any Party's interests, rights, responsibilities, or obligations under this Agreement. Unless prohibited by applicable law, the Licensee of the Project shall provide that, in any transfer of the Existing or New License for the Project, such subsequent licensee shall be bound by, and shall assume the rights and obligations of, this Agreement upon completion of the change of ownership and, as applicable, approval by the FERC of the license transfer. The Licensee shall provide notice to the other Parties at least 90 days prior to completing such transfer of the Existing or New License. Notwithstanding the foregoing provisions of this Paragraph, if any subsequent licensee is only partially bound by the terms of this Agreement, any Party that believes that it is substantially negatively affected by the fact that the subsequent licensee is only partially bound by this Agreement may withdraw from this Agreement pursuant to the procedures established in Section 27.0. If arbitration is initiated, withdrawal shall be allowed only if the arbitrator determines that: (i) the withdrawing Party substantially complied with all procedural prerequisites to withdrawal specified in this Agreement; and (ii) the fact that the subsequent licensee is only partially bound by this Agreement substantially negatively affects the withdrawing Party.

39.16 Damages – Damages at law are an inadequate remedy to redress any prospective or continuing breach of this Agreement and any Party shall be entitled to specific performance only regarding such breach, and no Party may bring an action seeking monetary damages but shall be limited to seeking specific performance, injunctive, or declaratory relief. This Paragraph shall not be construed to prohibit any Party from receiving money in settling any claim arising from a prospective or continuing breach.

39.17 Limitation of Applicability – This Agreement is made on the express understanding that it constitutes a negotiated settlement of issues specific to the Project. No Party shall be deemed, by virtue of execution of this Agreement, to have established

precedent, or admitted or consented to any fact, opinion, approach, methodology, or principle except as expressly provided herein. In the event this Agreement is approved by the FERC, such approval shall not be deemed precedential or controlling regarding any particular issue or contention in any other proceeding.

39.18 Execution in Counterparts – This Agreement may be executed in separate counterparts, with each counterpart deemed to be an original having the full force and effect thereof.

39.19 Full Legal Authority – Each Party to this Agreement represents that it has the full legal authority to execute this Agreement and to bind the Party (principal) that it represents, and that by such representative's signature, such principal shall be bound upon full execution of this Agreement.

SIGNATURES OF THE PARTIES

Because this reformed version of the Comprehensive Relicensing Agreement does not materially change the August 12, 2006 original version of the Comprehensive Relicensing Agreement, the signatures by the Parties' duly authorized representatives on the August 12, 2006 original version are still applicable to this December 22, 2006 version of the Comprehensive Relicensing Agreement.

DUKE ENERGY CAROLINAS, LLC

By: _____ _____

Ellen T. Ruff (Date)
President

(On October 1, 2006, Duke Power Company LLC changed its name to Duke Energy Carolinas, LLC. This name change did not affect any of the Licensee's obligations under this Comprehensive Relicensing Agreement.)

DUKE ENERGY CORPORATION

By: _____ _____

James L. Turner (Date)
Group Executive and Chief Commercial Officer

ALEXANDER COUNTY, NORTH CAROLINA

By: _____ _____

Larry Yoder (Date)
Chair, County Commission

AMERICAN WHITEWATER

By: _____ _____

Kevin Coburn (Date)
National Stewardship Director

AREA II SOIL & WATER CONSERVATION DISTRICTS

By: _____ _____

Jack Huss (Date)
Supervisor

BOWATER INCORPORATED

By: _____ _____

G. L. Bud Nash (Date)
Vice President and Resident Manager

BURKE COUNTY, NORTH CAROLINA

By: _____ _____

Wayne Abele (Date)
Chairman, Burke County Board of Commissioners

CALDWELL COUNTY, NORTH CAROLINA

By: _____ _____

Bobby White (Date)
County Manager

By: _____ _____

Faye Higgins (Date)
Chairman of Caldwell County

CAROLINA CANOE CLUB

By: _____ _____

Maurice Blackburn (Date)
Member

CATAWBA COUNTY, NORTH CAROLINA

By: _____ _____

Katherine W. Barnes (Date)
Chairperson, Board of Commissioners

CATAWBA INDIAN NATION

By: _____ _____

Gilbert Blue (Date)
Chief

By: _____ _____

Evans M. George, Jr. (Date)
Assistant Chief

By: _____ _____

Carson T. Blue (Date)
Secretary/Treasurer

By: _____ _____

Dewey Adams (Date)
Executive Committee Member

By: _____ _____

Claude K. Ayers (Date)
Executive Committee Member

By: _____ _____

Thomas (Butch) Sanders (Date)
Executive Committee Member

By: _____ _____

Jason M. Harris (Date)
Executive Committee Member

CATAWBA INDIAN NATION TRIBAL HISTORIC PRESERVATION OFFICE

By: _____ _____

Wenonah G. Haire, DMD (Date)
Tribal Historic Preservation Officer

CATAWBA LANDS CONSERVANCY

By: _____ _____

Mike North (Date)
First Vice President

CATAWBA REGIONAL COUNCIL OF GOVERNMENTS

By: _____ _____

Harold Shapiro (Date)
Executive Director

CATAWBA VALLEY HERITAGE ALLIANCE

By: _____ _____

Phil Piaski (Date)
Executive Board Member

CATAWBA-WATEREE RELICENSING COALITION

By: _____ _____

Vicki Taylor (Date)
Executive Coordinator

CENTRALINA COUNCIL OF GOVERNMENTS

By: _____ _____

A. R. Sharp, Jr. (Date)
Executive Director

CHESTER METROPOLITAN DISTRICT

By: _____ _____

Eugene A. Regan (Date)
Chairman, District Board of Commissioners

CITY OF BELMONT, NORTH CAROLINA

By: _____ _____

Barry Webb (Date)
City Manager

CITY OF CAMDEN, SOUTH CAROLINA

By: _____ _____

Mary Y. Clark (Date)
Mayor

CITY OF CHARLOTTE, NORTH CAROLINA

By: _____ _____

Pam Syfert (Date)
City Manager

CITY OF GASTONIA, NORTH CAROLINA

By: _____ _____

Edward C. Munn (Date)
City Manager

CITY OF HICKORY, NORTH CAROLINA

By: _____ _____

Rudy Wright (Date)
Mayor

CITY OF MORGANTON, NORTH CAROLINA

By: _____ _____

Mel Cohen (Date)
Mayor

CITY OF MOUNT HOLLY, NORTH CAROLINA

By: _____ _____

David Kraus (Date)
City Manager

CITY OF ROCK HILL, SOUTH CAROLINA

By: _____ _____

Doug Echols (Date)
Mayor

CRESCENT RESOURCES, LLC

By: _____ _____

James M. Short, Jr. (Date)
Senior Vice President, Land Management of Crescent Resources, LLC

FOOTHILLS CONSERVANCY

By: _____ _____

Susie Hamrick Jones (Date)
Executive Director

GASTON COUNTY, NORTH CAROLINA

By: _____ _____

Tom Keigher, Chairman (Date)
Gaston County Board of Commissioners

GREAT FALLS HOMETOWN ASSOCIATION

By: _____ _____

Glinda Price Coleman (Date)
Executive Director

HARBORTOWNE MARINA

By: _____ _____

John Maxwell (Date)
Owner

INTERNATIONAL PAPER

By: _____ _____

Harvey Westervelt (Date)
Manager, Eastover Mill

IREDELL COUNTY, NORTH CAROLINA

By: _____ _____

Sara Haire Tice (Date)
Chairman, Board of Commissioners

KERSHAW COUNTY, SOUTH CAROLINA

By: _____ _____

Robert Boland (Date)
County Administrator

KERSHAW COUNTY CONSERVATION DISTRICT

By: _____ _____

Jim McLeod (Date)
Commissioner

LAKE JAMES HOMEOWNERS

By: _____ _____

Howard Morgan (Date)
President

LAKE WATEREE ASSOCIATION

By: _____ _____

Paul Gary Faulkenberry (Date)
Vice Chairman, External Affairs

LAKE WYLIE MARINE COMMISSION

By: _____ _____

Ronald W. Montgomery (Date)
Vice Chairman

LANCASTER COUNTY WATER & SEWER DISTRICT

By: _____ _____

Herman E. Steele (Date)
Chairman, Lancaster County Water & Sewer District Commission

LINCOLN COUNTY, NORTH CAROLINA

By: _____ _____

Thomas R. Anderson, P.E. (Date)
Chairman, Board of Commissioners

LUGOFF-ELGIN WATER AUTHORITY

By: _____ _____

Michael E. Hancock (Date)
General Manager

MCDOWELL COUNTY, NORTH CAROLINA

By: _____ _____

Andrew K. Webb (Date)
Chairman Board of Commissioners

MECKLENBURG COUNTY, NORTH CAROLINA

By: _____ _____

Harry L. Jones, Sr. (Date)
County Manager

MOUNTAIN ISLAND LAKE ASSOCIATION

By: _____ _____

Pam Beck (Date)
Secretary

MOUNTAIN ISLAND LAKE MARINE COMMISSION

By: _____ _____

Alice Battle (Date)
Secretary/Treasurer

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES WITH ITS DIVISIONS OF FOREST RESOURCES, PARKS AND RECREATION, WATER QUALITY AND WATER RESOURCES

By: _____ _____

William G. Ross, Jr. (Date)
Secretary

NORTH CAROLINA WILDLIFE FEDERATION

By: _____ _____

Dr. John M. Benbow (Date)
President

By: _____ _____

G. Richard Mode (Date)
NCSRT Representative

NORTH CAROLINA WILDLIFE RESOURCES COMMISSION

By: _____ _____

Richard B. Hamilton (Date)
Executive Director

R & N MARINA

By: _____ _____

Rick Barnes (Date)
President

SOUTH CAROLINA DEPARTMENT OF ARCHIVES AND HISTORY

By: _____ _____

Dr. Rodger Stroup (Date)
Director and State Historic Preservation Officer

SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

By: _____ _____

John Frampton (Date)
Director

SOUTH CAROLINA DEPARTMENT OF PARKS, RECREATION AND TOURISM

By: _____ _____

Chad Prosser (Date)
Director

SOUTH CAROLINA ELECTRIC & GAS

By: _____ _____

James Landreth (Date)
Vice President, Fossil/Hydro Operations

SOUTH CAROLINA WILDLIFE FEDERATION

By: _____ _____

Angela Viney (Date)
Executive Director

SPRINGS GLOBAL US, INC.

By: _____ _____

Ralph A. Odum, Jr. (Date)
Vice President, Environmental, Safety, and Health

TOWN OF DAVIDSON, NORTH CAROLINA

By: _____ _____

Randall R. Kincaid (Date)
Mayor

Or

By: _____ _____

Leamon B. Brice III (Date)
Town Manager

TOWN OF GREAT FALLS, SOUTH CAROLINA

By: _____ _____

H. C. Starnes (Date)
Mayor

TOWN OF VALDESE, NORTH CAROLINA

By: _____ _____

James L. Hatley (Date)
Mayor

TROUT UNLIMITED, INC.

By: _____ _____

Charles Gauvin (Date)
Chief Executive Officer

UNION COUNTY, NORTH CAROLINA

By: _____ _____

Roger Lane (Date)
Chairman, Union County Commission

WATEREE HOMEOWNERS ASSOCIATION – FAIRFIELD COUNTY

By: _____ _____

Randy Humphries (Date)
Vice Chairman, External Affairs

WESTERN PIEDMONT COUNCIL OF GOVERNMENTS

By: _____ _____

Nicky Setzer (Date)
Chairman, Policy Board

YORK COUNTY, SOUTH CAROLINA

By: _____ _____

T. Steve McNeely (Date)
Chairman, York County Council

YORK COUNTY CULTURE & HERITAGE COMMISSION

By: _____ _____

Van W. Shields (Date)
Director, Culture and Heritage Museums

_____ _____

William Boggan "Bo" Cash (Date)

_____ _____

Shirley M. Greene (Date)

Frank J. Hawkins (Date)

Timothy D. Mead (Date)

Merlin F. Perry (Date)

Joseph W. Zdenek (Date)

(intentionally blank)

SIGNATURES OF THE PARTIES

DUKE POWER COMPANY LLC

By: _____ 07-26-06

Ellen T. Ruff
President

(Date)

DUKE ENERGY CORPORATION

By: _____ _____

James L. Turner
Group Executive and Chief Commercial Officer

(Date)

ALEXANDER COUNTY, NORTH CAROLINA

By: _____ _____

Larry Yoder
Chair, County Commission

(Date)

AMERICAN WHITEWATER

By: _____ 7/26/06

Kevin Coburn
National Stewardship Director

(Date)

SIGNATURES OF THE PARTIES

DUKE POWER COMPANY LLC

By: _____ _____

Ellen T. Ruff (Date)
President

DUKE ENERGY CORPORATION

By: _____ 07.20.06

James L. Turner (Date)
Group Executive and Chief Commercial Officer

ALEXANDER COUNTY, NORTH CAROLINA

By: _____ _____

Larry Yoder (Date)
Chair, County Commission

AMERICAN WHITEWATER

By: _____ _____

Kevin Coburn (Date)
National Stewardship Director

SIGNATURES OF THE PARTIES

DUKE POWER COMPANY LLC

By: _____ _____

Ellen T. Ruff
President

(Date)

DUKE ENERGY CORPORATION

By: _____ _____

James L. Turner
Group Executive and Chief Commercial Officer

(Date)

ALEXANDER COUNTY, NORTH CAROLINA

By: Larry G. Yoder 7/28/06

Larry Yoder
Chair, County Commission

(Date)

AMERICAN WHITEWATER

By: _____ _____

Kevin Coburn
National Stewardship Director

(Date)

AREA II SOIL & WATER CONSERVATION DISTRICTS

By: Jack Huss July 30, 2006

Jack Huss
Supervisor

(Date)

BOWATER INCORPORATED

By: _____ _____

G. L. Bud Nash
Vice President and Resident Manager

(Date)

BURKE COUNTY, NORTH CAROLINA

By: _____ _____

Wayne Abele
Chairman, Burke County Board of Commissioners

(Date)

CALDWELL COUNTY, NORTH CAROLINA

By: _____ _____

Bobby White
County Manager

(Date)

By: _____ _____

Faye Higgins
Chairman of Caldwell County

(Date)

AREA II SOIL & WATER CONSERVATION DISTRICTS

By: _____ _____

Jack Huss (Date)
Supervisor

BOWATER INCORPORATED

By: G. L. Nash 7/26/2006

G. L. Bud Nash (Date)
Vice President and Resident Manager

BURKE COUNTY, NORTH CAROLINA

By: _____ _____

Wayne Abele (Date)
Chairman, Burke County Board of Commissioners

CALDWELL COUNTY, NORTH CAROLINA

By: _____ _____

Bobby White (Date)
County Manager

By: _____ _____

Faye Higgins (Date)
Chairman of Caldwell County

AREA II SOIL & WATER CONSERVATION DISTRICTS

By: _____ _____

Jack Huss (Date)
Supervisor

BOWATER INCORPORATED

By: _____ _____

G. L. Bud Nash (Date)
Vice President and Resident Manager

BURKE COUNTY, NORTH CAROLINA

By: Wayne T. Abele sr. 8-1-06

Wayne Abele (Date)
Chairman, Burke County Board of Commissioners

CALDWELL COUNTY, NORTH CAROLINA

By: _____ _____

Bobby White (Date)
County Manager

By: _____ _____

Faye Higgins (Date)
Chairman of Caldwell County

AREA II SOIL & WATER CONSERVATION DISTRICTS

By: _____ _____

Jack Huss (Date)
Supervisor

BOWATER INCORPORATED

By: _____ _____

G. L. Bud Nash (Date)
Vice President and Resident Manager

BURKE COUNTY, NORTH CAROLINA

By: _____ _____

Wayne Abele (Date)
Chairman, Burke County Board of Commissioners

CALDWELL COUNTY, NORTH CAROLINA

By: Bobby White August 3, 2006

Bobby White (Date)
County Manager

By: _____ _____

Faye Higgins (Date)
Chairman of Caldwell County

AREA II SOIL & WATER CONSERVATION DISTRICTS

By: _____ _____

Jack Huss
Supervisor

(Date)

BOWATER INCORPORATED

By: _____ _____

G. L. Bud Nash
Vice President and Resident Manager

(Date)

BURKE COUNTY, NORTH CAROLINA

By: _____ _____

Wayne Abele
Chairman, Burke County Board of Commissioners

(Date)

CALDWELL COUNTY, NORTH CAROLINA

By: _____ _____

Bobby White
County Manager

(Date)

By: Faye Higgins 7-28-06

Faye Higgins
Chairman of Caldwell County

(Date)

CAROLINA CANOE CLUB

By: _____ 7/26/06

Maurice Blackburn
Member

(Date)

CATAWBA COUNTY, NORTH CAROLINA

By: _____ 7/26/06

Katherine W. Barnes
Chairperson, Board of Commissioners

(Date)

CATAWBA INDIAN NATION

By: Chief Gilbert Blue — 7/20/06

Gilbert Blue
Chief — (Date)

By: Evans M. George Jr. — 7-25-06

Evans M. George, Jr.
Assistant Chief — (Date)

By: Carson T. Blue — 7.20.06

Carson T. Blue
Secretary/Treasurer — (Date)

By: _____ — _____

Dewey Adams
Executive Committee Member — (Date)

By: Claude K. Ayers — 7-20-06

Claude K. Ayers
Executive Committee Member — (Date)

By: Thomas "Butch" Sanders — 7/20/06

Thomas (Butch) Sanders
Executive Committee Member — (Date)

By: Jason M. Harris — 7-20-06

Jason M. Harris
Executive Committee Member — (Date)

CATAWBA INDIAN NATION TRIBAL HISTORIC PRESERVATION OFFICE

By: Wenonah H. Haire, DMD — 7/20/06

Wenonah G. Haire, DMD
Tribal Historic Preservation Officer — (Date)

CATAWBA LANDS CONSERVANCY

By: Mike North 7/24/06

Mike North
First Vice President

(Date)

CATAWBA REGIONAL COUNCIL OF GOVERNMENTS

By: _____ _____

Harold Shapiro
Executive Director

(Date)

CATAWBA RIVERKEEPER FOUNDATION, INC.

By: _____ _____

Donna Lisenby
Catawba Riverkeeper and Executive Director

(Date)

CATAWBA VALLEY HERITAGE ALLIANCE

By: _____ _____

Phil Piaski
Executive Board Member

(Date)

CATAWBA LANDS CONSERVANCY

By: _____ _____

Mike North
First Vice President

(Date)

CATAWBA REGIONAL COUNCIL OF GOVERNMENTS

By: _____ 7/20/06

Harold Shapiro
Executive Director

(Date)

CATAWBA RIVERKEEPER FOUNDATION, INC.

By: _____ _____

Donna Lisenby
Catawba Riverkeeper and Executive Director

(Date)

CATAWBA VALLEY HERITAGE ALLIANCE

By: _____ _____

Phil Piaski
Executive Board Member

(Date)

CATAWBA LANDS CONSERVANCY

By: _____ _____

Mike North
First Vice President

(Date)

CATAWBA REGIONAL COUNCIL OF GOVERNMENTS

By: _____ _____

Harold Shapiro
Executive Director

(Date)

CATAWBA RIVERKEEPER FOUNDATION, INC.

By: _____ _____

Donna Lisenby
Catawba Riverkeeper and Executive Director

(Date)

CATAWBA VALLEY HERITAGE ALLIANCE

By: Phil Piaski 7-27-06

Phil Piaski
Executive Board Member

(Date)

CATAWBA-WATEREE RELICENSING COALITION

By: Victoria E. Taylor 26 July 06

Tim Mead and/or Vicki Taylor
President and/or Executive Coordinator

(Date)

CENTRALINA COUNCIL OF GOVERNMENTS

By: July 26, 2006

Dumont Clarke or A. R. Sharp, Jr.
Chairman or Executive Director

(Date)

CHESTER METROPOLITAN DISTRICT

By: _____ _____

Eugene A. Regan
Chairman, District Board of Commissioners

(Date)

CITY OF BELMONT, NORTH CAROLINA

By: _____ _____

Barry Webb
City Manager

(Date)

CATAWBA-WATEREE RELICENSING COALITION

By: _____ _____

Tim Mead and/or Vicki Taylor
President and/or Executive Coordinator

(Date)

CENTRALINA COUNCIL OF GOVERNMENTS

By: _____ _____

Dumont Clarke or A. R. Sharp, Jr.
Chairman or Executive Director

(Date)

CHESTER METROPOLITAN DISTRICT

By: Eugene Regan 8-9-06

Eugene A. Regan
Chairman, District Board of Commissioners

(Date)

CITY OF BELMONT, NORTH CAROLINA

By: _____ _____

Barry Webb
City Manager

(Date)

CATAWBA-WATEREE RELICENSING COALITION

By: _____ _____

Tim Mead and/or Vicki Taylor
President and/or Executive Coordinator

(Date)

CENTRALINA COUNCIL OF GOVERNMENTS

By: _____ _____

Dumont Clarke or A. R. Sharp, Jr.
Chairman or Executive Director

(Date)

CHESTER METROPOLITAN DISTRICT

By: _____ _____

Eugene A. Regan
Chairman, District Board of Commissioners

(Date)

CITY OF BELMONT, NORTH CAROLINA

By: _____ Aug. 8, 2006

Barry Webb
City Manager

(Date)

CITY OF CAMDEN, SOUTH CAROLINA

By: Mary Y. Clark 8-7-06

Mary Y. Clark
Mayor

(Date)

CITY OF CHARLOTTE, NORTH CAROLINA

By: _____ _____

Pam Syfert
City Manager

(Date)

CITY OF GASTONIA, NORTH CAROLINA

By: _____ _____

Edward C. Munn
City Manager

(Date)

CITY OF HICKORY, NORTH CAROLINA

By: _____ _____

Rudy Wright
Mayor

(Date)

CITY OF CAMDEN, SOUTH CAROLINA

By: _____ _____

Mary Y. Clark
Mayor

(Date)

CITY OF CHARLOTTE, NORTH CAROLINA

By: Pamela L Syfert 7-31-06

Pam Syfert
City Manager

(Date)

CITY OF GASTONIA, NORTH CAROLINA

By: _____ _____

Edward C. Munn
City Manager

(Date)

CITY OF HICKORY, NORTH CAROLINA

By: _____ _____

Rudy Wright
Mayor

(Date)

CITY OF CAMDEN, SOUTH CAROLINA

By: _____ _____

Mary Y. Clark
Mayor

(Date)

CITY OF CHARLOTTE, NORTH CAROLINA

By: _____ _____

Pam Syfert
City Manager

(Date)

CITY OF GASTONIA, NORTH CAROLINA

By: _____ August 2, 2006

Edward C. Munn
City Manager

(Date)

CITY OF HICKORY, NORTH CAROLINA

By: _____ _____

Rudy Wright
Mayor

(Date)

CITY OF CAMDEN, SOUTH CAROLINA

By: _____ _____

Mary Y. Clark
Mayor

(Date)

CITY OF CHARLOTTE, NORTH CAROLINA

By: _____ _____

Pam Syfert
City Manager

(Date)

CITY OF GASTONIA, NORTH CAROLINA

By: _____ _____

Edward C. Munn
City Manager

(Date)

CITY OF HICKORY, NORTH CAROLINA

By: _____ 7-25-2006

Rudy Wright
Mayor

(Date)

CITY OF MORGANTON, NORTH CAROLINA

By: _____ 7-28-06

Mel Cohen
Mayor

(Date)

CITY OF MOUNT HOLLY, NORTH CAROLINA

By: _____ _____

David Kraus
City Manager

(Date)

CITY OF ROCK HILL, SOUTH CAROLINA

By: _____ _____

Doug Echols
Mayor

(Date)

CLEAN WATER SOUTH CAROLINA

By: _____ _____

James Rex
Chairman, Board of Directors

(Date)

CITY OF MORGANTON, NORTH CAROLINA

By: _____ _____

Mel Cohen
Mayor

(Date)

CITY OF MOUNT HOLLY, NORTH CAROLINA

By: _____ 8-8-06

David Kraus
City Manager

(Date)

CITY OF ROCK HILL, SOUTH CAROLINA

By: _____ _____

Doug Echols
Mayor

(Date)

CLEAN WATER SOUTH CAROLINA

By: _____ _____

James Rex
Chairman, Board of Directors

(Date)

CITY OF MORGANTON, NORTH CAROLINA

By: _____ _____

Mel Cohen (Date)
Mayor

CITY OF MOUNT HOLLY, NORTH CAROLINA

By: _____ _____

David Kraus (Date)
City Manager

CITY OF ROCK HILL, SOUTH CAROLINA

By: Rick W. Stygall 7-26-06

For Doug Echols (Date)
Mayor

CLEAN WATER SOUTH CAROLINA

By: _____ _____

James Rex (Date)
Chairman, Board of Directors

CRESCENT RESOURCES, LLC

By: _____ 7/26/06

James M. Short, Jr. (Date)
Senior Vice President, Land Management of Crescent Resources, LLC

FOOTHILLS CONSERVANCY

By: _____ _____

Susie Hamrick Jones (Date)
Executive Director

GASTON COUNTY, NORTH CAROLINA

By: _____ _____

Tom Keigher, Chairman (Date)
Gaston County Board of Commissioners

GREAT FALLS HOMETOWN ASSOCIATION

By: Glinda Price Coleman 7-26-06

Glinda Price Coleman (Date)
Executive Director

CRESCENT RESOURCES, LLC

By: _____ _____

James M. Short, Jr. (Date)
Senior Vice President, Land Management of Crescent Resources, LLC

FOOTHILLS CONSERVANCY

By: Susie Hamrick Jones 8/7/06

Susie Hamrick Jones (Date)
Executive Director

GASTON COUNTY, NORTH CAROLINA

By: _____ _____

Tom Keigher, Chairman (Date)
Gaston County Board of Commissioners

GREAT FALLS HOMETOWN ASSOCIATION

By: _____ _____

Glinda Price Coleman (Date)
Executive Director

CRESCENT RESOURCES, LLC

By: _____ _____

James M. Short, Jr. (Date)
Senior Vice President, Land Management of Crescent Resources, LLC

FOOTHILLS CONSERVANCY

By: _____ _____

Susie Hamrick Jones (Date)
Executive Director

GASTON COUNTY, NORTH CAROLINA

By: Tom Keigher 7-26-06

Tom Keigher, Chairman (Date)
Gaston County Board of Commissioners

GREAT FALLS HOMETOWN ASSOCIATION

By: _____ _____

Glinda Price Coleman (Date)
Executive Director

HARBORTOWNE MARINA

By: _____ 8/1/06

John Maxwell
Owner

(Date)

INTERNATIONAL PAPER

By: _____ _____

Harvey Westervelt
Manager, Eastover Mill

(Date)

IREDELL COUNTY, NORTH CAROLINA

By: _____ _____

Sara Haire Tice
Chairman, Board of Commissioners

(Date)

KERSHAW COUNTY, SOUTH CAROLINA

By: _____ _____

Robert Boland
County Administrator

(Date)

HARBORTOWNE MARINA

By: _____ _____

John Maxwell
Owner

(Date)

INTERNATIONAL PAPER

By: Harvey Westervelt 8/8/06

Harvey Westervelt
Manager, Eastover Mill

(Date)

IREDELL COUNTY, NORTH CAROLINA

By: _____ _____

Sara Haire Tice
Chairman, Board of Commissioners

(Date)

KERSHAW COUNTY, SOUTH CAROLINA

By: _____ _____

Robert Boland
County Administrator

(Date)

HARBORTOWNE MARINA

By: _____ _____

John Maxwell (Date)
Owner

INTERNATIONAL PAPER

By: _____ _____

Harvey Westervelt (Date)
Manager, Eastover Mill

IREDELL COUNTY, NORTH CAROLINA

By: Sara Haire Tice August 1, 2006

Sara Haire Tice (Date)
Chairman, Board of Commissioners

KERSHAW COUNTY, SOUTH CAROLINA

By: _____ _____

Robert Boland (Date)
County Administrator

HARBORTOWNE MARINA

By: _____ _____

John Maxwell
Owner

(Date)

INTERNATIONAL PAPER

By: _____ _____

Harvey Westervelt
Manager, Eastover Mill

(Date)

IREDELL COUNTY, NORTH CAROLINA

By: _____ _____

Sara Haire Tice
Chairman, Board of Commissioners

(Date)

KERSHAW COUNTY, SOUTH CAROLINA

By: _____ 7/27/06

Robert Boland
County Administrator

(Date)

KERSHAW COUNTY CONSERVATION DISTRICT

By: Jim McLeod 07/30/2006

Jim McLeod
Commissioner

(Date)

LAKE JAMES ENVIRONMENTAL GROUPS

By: _____ _____

Eric Jenkins
Representative

(Date)

By: _____ _____

Donna Lisenby
Representative

(Date)

LAKE JAMES HOMEOWNERS

By: _____ _____

Howard Morgan
President

(Date)

LAKE WATEREE ASSOCIATION

By: _____ _____

Paul Gary Faulkenberry
Vice Chairman, External Affairs

(Date)

KERSHAW COUNTY CONSERVATION DISTRICT

By: _____ _____

Jim McLeod
Commissioner

(Date)

LAKE JAMES ENVIRONMENTAL GROUPS

By: _____ _____

Eric Jenkins
Representative

(Date)

By: _____ _____

Donna Lisenby
Representative

(Date)

LAKE JAMES HOMEOWNERS

By: Howard Morgan 7/26/06

Howard Morgan
President

(Date)

LAKE WATEREE ASSOCIATION

By: Paul G. Faulkenberry 7/26/06

Paul Gary Faulkenberry
Vice Chairman, External Affairs

(Date)

LAKE WYLIE MARINE COMMISSION

By: _____ _____

Ronald W. Montgomery (Date)
Vice Chairman

LANCASTER COUNTY WATER & SEWER DISTRICT

By: _____ _____

Herman E. Steele (Date)
Chairman, Lancaster County Water & Sewer District Commission

LINCOLN COUNTY, NORTH CAROLINA

By: _____ _____

Thomas R. Anderson, P.E. (Date)
Chairman, Board of Commissioners

LUGOFF-ELGIN WATER AUTHORITY

By: _____ _____

Michael E. Hancock (Date)
General Manager

LAKE WYLIE MARINE COMMISSION

By: _____ _____

Ronald W. Montgomery (Date)
Vice Chairman

LANCASTER COUNTY WATER & SEWER DISTRICT

By: Herman E. Steele August 3-2006

Herman E. Steele (Date)
Chairman, Lancaster County Water & Sewer District Commission

LINCOLN COUNTY, NORTH CAROLINA

By: _____ _____

Thomas R. Anderson, P.E. (Date)
Chairman, Board of Commissioners

LUGOFF-ELGIN WATER AUTHORITY

By: _____ _____

Michael E. Hancock (Date)
General Manager

LAKE WYLIE MARINE COMMISSION

By: _____ _____

Ronald W. Montgomery (Date)
Vice Chairman

LANCASTER COUNTY WATER & SEWER DISTRICT

By: _____ _____

Herman E. Steele (Date)
Chairman, Lancaster County Water & Sewer District Commission

LINCOLN COUNTY, NORTH CAROLINA

By: Thomas R. Anderson July 17, 2006

Thomas R. Anderson, P.E. (Date)
Chairman, Board of Commissioners

LUGOFF-ELGIN WATER AUTHORITY

By: _____ _____

Michael E. Hancock (Date)
General Manager

LAKE WYLIE MARINE COMMISSION

By: _____ _____

Ronald W. Montgomery (Date)
Vice Chairman

LANCASTER COUNTY WATER & SEWER DISTRICT

By: _____ _____

Herman E. Steele (Date)
Chairman, Lancaster County Water & Sewer District Commission

LINCOLN COUNTY, NORTH CAROLINA

By: _____ _____

Thomas R. Anderson, P.E. (Date)
Chairman, Board of Commissioners

LUGOFF-ELGIN WATER AUTHORITY

By: Michael E. Hancock July 26, 2006

Michael E. Hancock (Date)
General Manager

Catawba-Wateree Project (FERC No. 2232)
Comprehensive Relicensing Agreement

MCDOWELL COUNTY, NORTH CAROLINA

By: Andrew K. Webb 8-10-2006

Andrew K. Webb
Chairman Board of Commissioners

(Date)

MECKLENBURG COUNTY, NORTH CAROLINA

By: _____ _____

Harry L. Jones, Sr.
County Manager

(Date)

MOUNTAIN ISLAND LAKE ASSOCIATION

By: _____ _____

Pam Beck
Secretary

(Date)

MOUNTAIN ISLAND LAKE MARINE COMMISSION

By: _____ _____

Alice Battle
Secretary/Treasurer

(Date)

MCDOWELL COUNTY, NORTH CAROLINA

By: _____ _____

Andrew K. Webb
Chairman Board of Commissioners

(Date)

MECKLENBURG COUNTY, NORTH CAROLINA

By: _____ 7/26/06

Harry L. Jones, Sr.
County Manager

(Date)

MOUNTAIN ISLAND LAKE ASSOCIATION

By: _____ _____

Pam Beck
Secretary

(Date)

MOUNTAIN ISLAND LAKE MARINE COMMISSION

By: _____ _____

Alice Battle
Secretary/Treasurer

(Date)

MCDOWELL COUNTY, NORTH CAROLINA

By: _____ _____

Andrew K. Webb
Chairman Board of Commissioners

(Date)

MECKLENBURG COUNTY, NORTH CAROLINA

By: _____ _____

Harry L. Jones, Sr.
County Manager

(Date)

MOUNTAIN ISLAND LAKE ASSOCIATION

By: Pam Beck July 26, 2006

Pam Beck
Secretary

(Date)

MOUNTAIN ISLAND LAKE MARINE COMMISSION

By: Alice Battle 7/26/06

Alice Battle
Secretary/Treasurer

(Date)

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES WITH ITS DIVISIONS OF FOREST RESOURCES, PARKS AND RECREATION, WATER QUALITY AND WATER RESOURCES

By: _____ 7/26/2006

William G. Ross, Jr.
Secretary

(Date)

NORTH CAROLINA WILDLIFE FEDERATION

By: _____ _____

Dr. John M. Benbow
President

(Date)

By: G. Richard Mode 7/26/2006

G. Richard Mode
NCSRT Representative

(Date)

NORTH CAROLINA WILDLIFE RESOURCES COMMISSION

By: _____ _____

Richard B. Hamilton
Executive Director

(Date)

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES WITH ITS DIVISIONS OF FOREST RESOURCES, PARKS AND RECREATION, WATER QUALITY AND WATER RESOURCES

By: _____ _____
William G. Ross, Jr. (Date)
Secretary

NORTH CAROLINA WILDLIFE FEDERATION

By: John M. Benbow July 30, 2006
Dr. John M. Benbow (Date)
President

By: _____ _____
G. Richard Mode (Date)
NCSRT Representative

NORTH CAROLINA WILDLIFE RESOURCES COMMISSION

By: _____ _____
Richard B. Hamilton (Date)
Executive Director

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES WITH ITS DIVISIONS OF FOREST RESOURCES, PARKS AND RECREATION, WATER QUALITY AND WATER RESOURCES

By: _____ _____

William G. Ross, Jr.
Secretary

(Date)

NORTH CAROLINA WILDLIFE FEDERATION

By: _____ _____

Dr. John M. Benbow
President

(Date)

By: _____ _____

G. Richard Mode
NCSRT Representative

(Date)

NORTH CAROLINA WILDLIFE RESOURCES COMMISSION

By: Richard B. Hamilton July 25, 2006

Richard B. Hamilton
Executive Director

(Date)

R & N MARINA

By: _____ _____

Rick Barnes
President

(Date)

SOUTH CAROLINA DEPARTMENT OF ARCHIVES AND HISTORY

By: _____ _____

Dr. Rodger Stroup
Director and State Historic Preservation Officer

(Date)

SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

By: _____ 8-10-06

John Frampton
Director

(Date)

SOUTH CAROLINA DEPARTMENT OF PARKS, RECREATION AND TOURISM

By: _____ _____

Chad Prosser
Director

(Date)

R & N MARINA

By: RL Barnes 7/26/06

Rick Barnes
President

(Date)

SOUTH CAROLINA DEPARTMENT OF ARCHIVES AND HISTORY

By: Rodger E Stroup 7/26/06

Dr. Rodger Stroup
Director and State Historic Preservation Officer

(Date)

SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

By: [illegible] for JET 7/26/06

John Frampton
Director

(Date)

SOUTH CAROLINA DEPARTMENT OF PARKS, RECREATION AND TOURISM

By: _____ _____

Chad Prosser
Director

(Date)

R & N MARINA

By: _____ _____

Rick Barnes (Date)
President

SOUTH CAROLINA DEPARTMENT OF ARCHIVES AND HISTORY

By: _____ _____

Dr. Rodger Stroup (Date)
Director and State Historic Preservation Officer

SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

By: _____ _____

John Frampton (Date)
Director

SOUTH CAROLINA DEPARTMENT OF PARKS, RECREATION AND TOURISM

By: Chad Prosser 7-18-06

Chad Prosser (Date)
Director

By: _____

John Frampton
Director

SOUTH CAROLINA DEPARTMENT OF PARKS, RECREATION AND TOURISM

By: _____

Chad Prosser
Director

SOUTH CAROLINA ELECTRIC & GAS

By: _____ 7/27/2006

James Landreth
Vice President, Fossil/Hydro Operations

SOUTH CAROLINA WILDLIFE FEDERATION

By: _____

Angela Viney
Executive Director

SOUTH CAROLINA ELECTRIC & GAS

By: _____ _____

James Landreth
Vice President, Fossil/Hydro Operations

(Date)

SOUTH CAROLINA WILDLIFE FEDERATION

By: Angela Viney July 26, 06

Angela Viney
Executive Director

(Date)

SPRINGS GLOBAL U.S., INC.

By: _____ _____

Ralph A. Odum, Jr.
Vice President, Environmental, Safety, and Health

(Date)

TOWN OF CORNELIUS, NORTH CAROLINA

By: _____ _____

Gary T. Knox {or Anthony Roberts}
Mayor {or Town Manager}

(Date)

SOUTH CAROLINA ELECTRIC & GAS

By: _____ _____

James Landreth
Vice President, Fossil/Hydro Operations

(Date)

SOUTH CAROLINA WILDLIFE FEDERATION

By: _____ _____

Angela Viney
Executive Director

(Date)

SPRINGS GLOBAL U.S., INC.

By: _____ 8/8/06

Ralph A. Odom, Jr.
Vice President, Environmental, Safety, and Health

(Date)

TOWN OF CORNELIUS, NORTH CAROLINA

By: _____ _____

Gary T. Knox {or Anthony Roberts}
Mayor {or Town Manager}

(Date)

TOWN OF DAVIDSON, NORTH CAROLINA

By: _____ _____

Randall R. Kincaid
Mayor

(Date)

Or

By: _____ 8·10·06

Leamon B. Brice III
Town Manager

(Date)

TOWN OF GREAT FALLS, SOUTH CAROLINA

By: _____ _____

H. C. Starnes
Mayor

(Date)

TOWN OF VALDESE, NORTH CAROLINA

By: _____ _____

James L. Hatley
Mayor

(Date)

TROUT UNLIMITED

By: _____ _____

Michael R. "Squeak" Smith
Member, Board of Trustees

(Date)

TOWN OF DAVIDSON, NORTH CAROLINA

By: _____ _____

Randall R. Kincaid
Mayor

(Date)

Or

By: _____ _____

Leamon B. Brice III
Town Manager

(Date)

TOWN OF GREAT FALLS, SOUTH CAROLINA

By: H C Starnes 7/25/06

H. C. Starnes
Mayor

(Date)

TOWN OF VALDESE, NORTH CAROLINA

By: _____ _____

James L. Hatley
Mayor

(Date)

TROUT UNLIMITED

By: _____ _____

Michael R. "Squeak" Smith
Member, Board of Trustees

(Date)

TOWN OF DAVIDSON, NORTH CAROLINA

By: _____ _____

Randall R. Kincaid (Date)
Mayor

Or

By: _____ _____

Leamon B. Brice III (Date)
Town Manager

TOWN OF GREAT FALLS, SOUTH CAROLINA

By: _____ _____

H. C. Starnes (Date)
Mayor

TOWN OF VALDESE, NORTH CAROLINA

By: James L. Hatley 08/08/06

James L. Hatley (Date)
Mayor

TROUT UNLIMITED

By: _____ _____

Michael R. "Squeak" Smith (Date)
Member, Board of Trustees

TOWN OF DAVIDSON, NORTH CAROLINA

By: _____ _____

Randall R. Kincaid (Date)
Mayor

Or

By: _____ _____

Leamon B. Brice III (Date)
Town Manager

TOWN OF GREAT FALLS, SOUTH CAROLINA

By: _____ _____

H. C. Starnes (Date)
Mayor

TOWN OF VALDESE, NORTH CAROLINA

By: _____ _____

James L. Hatley (Date)
Mayor

TROUT UNLIMITED

By: _____ 24 July 06

Michael R. "Squeak" Smith (Date)
Member, Board of Trustees

TOWN OF DAVIDSON, NORTH CAROLINA

By: _____ _____

Randall R. Kincaid
Mayor

(Date)

Or

By: _____ _____

Leamon B. Brice III
Town Manager

(Date)

TOWN OF GREAT FALLS, SOUTH CAROLINA

By: _____ _____

H. C. Starnes
Mayor

(Date)

TOWN OF VALDESE, NORTH CAROLINA

By: _____ _____

James L. Hatley
Mayor

(Date)

TROUT UNLIMITED, INC.

By: _____ 8/1/06

Charles Gauvin
Chief Executive Officer

(Date)

UNION COUNTY, NORTH CAROLINA

By: Roger Lane _____ August 9, 2006

Roger Lane
Chairman, Union County Commission

(Date)

WATEREE HOMEOWNERS ASSOCIATION – FAIRFIELD COUNTY

By: _____ _____

Randy Humphries
Vice Chairman, External Affairs

(Date)

WESTERN NORTH CAROLINA ALLIANCE

By: _____ _____

Jody Flemming
Executive Director

(Date)

WESTERN PIEDMONT COUNCIL OF GOVERNMENTS

By: _____ _____

Nicky Setzer
Chairman, Policy Board

(Date)

UNION COUNTY, NORTH CAROLINA

By: _____ _____

Roger Lane
Chairman, Union County Commission

(Date)

WATEREE HOMEOWNERS ASSOCIATION – FAIRFIELD COUNTY

By: _____ July, 26 2006

Randy Humphries
Vice Chairman, External Affairs

(Date)

WESTERN NORTH CAROLINA ALLIANCE

By: _____ _____

Jody Flemming
Executive Director

(Date)

WESTERN PIEDMONT COUNCIL OF GOVERNMENTS

By: _____ 7/26/2006

Nicky Setzer
Chairman, Policy Board

(Date)

YORK COUNTY, SOUTH CAROLINA

By: _____ 8/10/06

T. Steve McNeely
Chairman, York County Council

(Date)

YORK COUNTY CULTURE & HERITAGE COMMISSION

By: _____ _____

Van M. Shields
Director, Culture and Heritage Museums

(Date)

_____ _____

John S. Carter

(Date)

_____ _____

William Boggan "Bo" Cash

(Date)

_____ _____

Shirley M. Greene

(Date)

YORK COUNTY, SOUTH CAROLINA

By: _____ _____

T. Steve McNeely
Chairman, York County Council

(Date)

YORK COUNTY CULTURE & HERITAGE COMMISSION

By: _____ August 1, 2006

Van W. Shields
Director, Culture and Heritage Museums

(Date)

_____ _____

John S. Carter

(Date)

_____ _____

William Boggan "Bo" Cash

(Date)

_____ _____

Shirley M. Greene

(Date)

YORK COUNTY, SOUTH CAROLINA

By: _____ _____

T. Steve McNeely
Chairman, York County Council

(Date)

YORK COUNTY CULTURE & HERITAGE COMMISSION

By: _____ _____

Van M. Shields
Director, Culture and Heritage Museums

(Date)

_____ _____

John S. Carter

(Date)

William "Bo" Cash _____ 06 August 2006

William Boggan "Bo" Cash

(Date)

_____ _____

Shirley M. Greene

(Date)

YORK COUNTY, SOUTH CAROLINA

By: _____ _____

T. Steve McNeely (Date)
Chairman, York County Council

YORK COUNTY CULTURE & HERITAGE COMMISSION

By: _____ _____

Van M. Shields (Date)
Director, Culture and Heritage Museums

_____ _____

John S. Carter (Date)

_____ _____

William Boggan "Bo" Cash (Date)

Shirley M. Greene 8/26/2006

Shirley M. Greene (Date)

F. J. Hawkins — 7/26/06

Frank J. Hawkins — (Date)

Timothy D. Mead — (Date)

Merlin F. Perry — 7/26/06

Merlin F. Perry — (Date)

Donald R. Privett — (Date)

Cynthia M. Wood — (Date)

Joseph W. Zdenek — (Date)

Frank J. Hawkins (Date)

Timothy D. Mead July 28, 2006 (Date)

Merlin F. Perry (Date)

Donald R. Privett (Date)

Cynthia M. Wood (Date)

Joseph W. Zdenek (Date)

Frank J. Hawkins (Date)

Timothy D. Mead (Date)

Merlin F. Perry (Date)

Donald R. Privett (Date)

Cynthia M. Wood (Date)

Joseph W. Zdenek 7/18/06
Joseph W. Zdenek (Date)

APPENDIX A: PROPOSED LICENSE ARTICLES

This Agreement represents a balance of many interests and is the culmination of years of negotiation by the Parties. While the Parties recognize that the Federal Energy Regulatory Commission (FERC) is not constrained by this Agreement, the Parties wish to emphasize that, if the FERC acts inconsistently with this Agreement, it may result in the withdrawal from this Agreement of one or more Parties and could result in the termination of this Agreement. To avoid that result, the Parties respectfully request that the following proposed License Articles in this Appendix A be incorporated without material modification into the New License that the FERC is expected to issue for the Project and that the license term be not less than 40 years and not more than 50 years.

A-1.0 Reservoir Elevation Articles

ARTICLE – Reservoir Elevations

(A) Reservoir Elevations – Within 60 days following the issuance of this license, to protect and enhance the Project's values that may be affected by reservoir level fluctuations, the Licensee shall maintain the elevations of the Project reservoirs between the Normal Minimum and Normal Maximum Elevations indicated in the tables below and shall endeavor in good faith to achieve the Normal Target Elevations in the tables. All elevations in the tables below are relative to the top of the dam (including floodgates and flashboards where applicable) with 100.0 ft. = Full Pond Elevation. The elevations included in the tables are for the first day of the given month; elevations for other days of the month are determined by linear interpolation.

Lake James (Full Pond is 1200.0 ft. above Mean Sea Level (MSL))			
Month	**Normal Minimum (ft.)**	**Normal Target (ft.)**	**Normal Maximum (ft.)**
January	93	96	100
February	92	94	100
March	92	95	100
April	92	96	100
May - October	95	98	100
November - December	93	96	100

Lake Rhodhiss (Full Pond is 995.1 ft. MSL)			
Month	**Normal Minimum (ft.)**	**Normal Target (ft.)**	**Normal Maximum (ft.)**
January - December	94	97	100

Lake Hickory (Full Pond is 935.0 ft. MSL)			
Month	**Normal Minimum (ft.)**	**Normal Target (ft.)**	**Normal Maximum (ft.)**
January - February	94	96	100
March – December	94	97	100

Lookout Shoals Lake (Full Pond is 838.1 ft. MSL)			
Month	**Normal Minimum (ft.)**	**Normal Target (ft.)**	**Normal Maximum (ft.)**
January - December	94	97	100

Lake Norman (Full Pond is 760.0 ft. MSL)			
Month	**Normal Minimum (ft.)**	**Normal Target (ft.)**	**Normal Maximum (ft.)**
January	93	96	100
February	91	94	100
March	92.26	95.26	100
April	93.65	96.65	100
May - October	95	98	100
November	93.98	97	100
December	93	96	100

Mountain Island Lake (Full Pond is 647.5 ft. MSL)			
Month	**Normal Minimum (ft.)**	**Normal Target (ft.)**	**Normal Maximum (ft.)**
January - December	94.3	96	100

Lake Wylie (Full Pond is 569.4 ft. MSL)			
Month	**Normal Minimum (ft.)**	**Normal Target (ft.)**	**Normal Maximum (ft.)**
January - December	94	97	100

Fishing Creek Reservoir (Full Pond is 417.2 ft. MSL)			
Month	**Normal Minimum (ft.)**	**Normal Target (ft.)**	**Normal Maximum (ft.)**
January - December	95	98	100

Great Falls Reservoir (Full Pond is 355.8 ft. MSL)			
Month	**Normal Minimum (ft.)**	**Normal Target (ft.)**	**Normal Maximum (ft.)**
January - December	95	97.5	100

Cedar Creek Reservoir (Full Pond is 284.4 ft. MSL)			
Month	**Normal Minimum (ft.)**	**Normal Target (ft.)**	**Normal Maximum (ft.)**
January - December	96	97.5	100

Lake Wateree (Full Pond is 225.5 ft. MSL)			
Month	**Normal Minimum (ft.)**	**Normal Target (ft.)**	**Normal Maximum (ft.)**
January	93	94.5	100
February	93	95	100
March – October	94	97	100
November	93	97	100
December	93	95	100

(B) Temporary Variances – The reservoir elevations outlined in Paragraph (A) above may be temporarily modified if the Licensee is operating in accordance with the Commission-approved Low Inflow Protocol, Maintenance and Emergency Protocol, or Spring Reservoir Level Stabilization Program. The Licensee shall notify the Commission, the resource agencies and other interested parties of any such modifications affecting the Normal Maximum and Normal Minimum Elevations in accordance with the Low Inflow Protocol or the Maintenance and Emergency Protocol.

(C) Level Monitoring Devices – The Licensee shall maintain the existing reservoir level monitoring devices or suitable replacement devices at the dams at all Project developments for the term of this license.

END OF PROPOSED LICENSE ARTICLE

ARTICLE – Spring Reservoir Level Stabilization Program

(A) Within 60 days following the issuance of this license, the Licensee shall, in consultation with the North Carolina Wildlife Resources Commission and the South Carolina Department of Natural Resources, implement a Spring Reservoir Level Stabilization Program to promote fish spawning at Lake James, Lake Norman, Lake Wylie and Lake Wateree. This program shall consist of the following elements:

1. Trigger Points – The stabilization period for each reservoir shall begin when: (i) surface water temperatures within the subject reservoir reach 65°F or greater for four consecutive days; (ii) bass spawning is observed in the subject reservoir by a Licensee representative; or (iii) a Resource Agency representative notifies the Licensee that bass spawning has been observed in the subject reservoir, whichever occurs first.

2. Surface Water Temperature Monitoring Locations – Temperatures shall be measured at least at one location on each reservoir that is subject to this stabilization program.

3. Reservoir Level Variability – The Licensee shall endeavor in good faith to maintain the water level in the subject reservoir within a range between one foot below and two feet above the reservoir elevation at the time that the stabilization is triggered on that reservoir.

4. Stabilization Period – Once initiated by a trigger, the subject reservoir level shall be stabilized for three weeks.

(B) The Licensee shall implement the Spring Reservoir Level Stabilization Program unless it is operating in accordance with the Commission-approved Low Inflow Protocol or the Maintenance and Emergency Protocol. The Licensee shall also suspend the Spring Reservoir Level Stabilization Program on Lake Wateree during any time period in which maintaining the stabilized reservoir level on Lake Wateree would prevent or alter flow releases from the Wateree Development that are needed to support downstream fish habitat . The Licensee shall notify the Commission within 10 days following suspending the Spring Reservoir Level Stabilization Program on Lake Wateree due to conflicts with downstream flow needs. The Licensee shall also notify the Commission, the resource agencies and other interested parties of any suspensions of the Spring Reservoir Level Stabilization Program in accordance with the Low Inflow Protocol or the Maintenance and Emergency Protocol.

(C) The Licensee may propose modifications to the Spring Reservoir Level Stabilization Program in consultation with the North Carolina Wildlife Resources Commission and the South Carolina Department of Natural Resources. The Licensee shall file such modifications with the Commission for approval prior to implementing any modifications.

END OF PROPOSED LICENSE ARTICLE

A-2.0 Flow Articles

ARTICLE – Recreational Flows

(A) Bridgewater Development – Within 60 days following the issuance of this license the Licensee shall provide recreational flow releases at the Bridgewater Development to support float angling and paddling, in accordance with the schedule in the table below. Scheduled recreational flow release days shall be divided approximately equally between flow releases to support float angling and flow releases to support paddling. The scheduling of the specific dates each year that are focused on float angling and the dates that are focused on paddling shall be determined at the Annual Recreational Flow Schedule Planning meeting stipulated in Paragraph (H) below. The flows for float angling shall be as close as feasible to 900 cfs, but shall not exceed 1,200 cfs, and the flows for paddling shall be at least 900 cfs. If the Licensee is not operating in accordance with the Maintenance and Emergency Protocol and needs to operate the Bridgewater Development to release more than 1,200 cfs for three or more hours during any of the scheduled flow release periods to support float angling, then the Licensee shall endeavor in good faith to add equivalent hours of replacement recreational flow releases for float angling at the Bridgewater Development within the same calendar year. These equivalent hours may be added to the hours of flow releases on days already scheduled for recreational flow releases or the flow releases may be scheduled separately. Specific days and hours for potential replacement flow releases to support float angling will be determined at the Annual Recreational Flow Schedule Planning meeting stipulated in Paragraph (H) below.

Bridgewater Development Recreational Flow Schedule				
Dates (inclusive)	**Days / Description**	**Flow (at or above) (cfs)**	**Hour Start**	**Hour End**
Apr 1-Apr 30	Last full weekend – Saturday and Sunday	900	10:00 am	3:00 pm
May 1-Jul 15	Each Friday, Saturday and Sunday plus Memorial and Independence Day	900	10:00 am	3:00 pm
Jul 16-Aug 31	Each Saturday, and Sunday	900	10:00 am	3:00 pm
Jun 1-Jul 31	Wednesdays and Thursdays	900	4:30 pm	6:30 pm
Sep 1-Sep 30	Each Friday, Saturday and Sunday plus Labor Day	900	10:00 am	3:00 pm
Oct 1-Oct 31	Each Saturday and Sunday	900	10:00 am	3:00 pm

(B) Oxford Development – Within 60 days following issuance of this license, the Licensee shall provide recreational flow releases at the Oxford Development of at least 2,600 cfs in accordance with the schedule in the table below.

Oxford Development Recreational Flow Schedule				
Dates (inclusive)	**Days / Description**	**Flow (at or above) (cfs)**	**Hour Start**	**Hour End**
May 1-Sep 30	Each Saturday and Sunday plus Memorial, Independence and Labor Days	2,600	10:00 am	3:00 pm
Oct 1-Oct 31	First four Saturdays	2,600	10:00 am	3:00 pm

(C) Wylie Development – Within 60 days following issuance of this license, the Licensee shall provide recreational flow releases at the Wylie Development in accordance with the following schedule in the table below. In addition, the Licensee shall, from May 1 to July 15 inclusive, release at least 1,300 cfs for six hours prior to the recreational flow release scheduled start times shown in the table below to ensure suitable water levels at Landsford Canal State Park.

Wylie Development Recreational Flow Schedule				
Dates (inclusive)	**Days / Description**	**Flow (at or above) (cfs)**	**Hour Start**	**Hour End**
Apr 1-Apr 30	Last full weekend – Saturday and Sunday	3,000	10:00 am	4:00 pm
May 1-Jun 15	Each Friday, Saturday and Sunday plus Memorial Day	3,000	10:00 am	4:00 pm
Jun 16-Jul 15	Each Friday, Saturday and Sunday plus Independence Day	6,000	10:00 am	4:00 pm
Jul 16-Aug 31	Each Saturday and Sunday	6,000	10:00 am	4:00 pm
Sep 1-Sep 30	Each Friday, Saturday and Sunday plus Labor Day	6,000	10:00 am	4:00 pm
Oct 1-Oct 31	Each Saturday and Sunday	3,000	10:00 am	4:00 pm

(D) Great Falls-Dearborn Development – Within 60 days following completion of the structural modifications in accordance with the Commission-approved Flow and Water Quality Implementation Plan at both the Great Falls Diversion Dam and the Great Falls Headworks that are necessary to deliver the recreation flow releases and the completion of the Highway 200 Bridge Access Area, the Great Falls Diversion Dam Portage, the Great Falls Headworks Portage, and the Great Falls Headworks-to-Cedar Creek Reservoir Portage in accordance with the Commission-approved Recreation Management Plan, the Licensee shall provide recreational flow releases of at least 2,940 cfs into the Great Falls Long Bypassed Reach and at least 2,860 cfs into the Great Falls Short Bypassed Reach in accordance with the schedule in the table below.

Great Falls-Dearborn Development Recreational Flow Schedule					
Channel	**Dates (inclusive)**	**Days / Description**	**Flow (at or above) (cfs)**	**Start**	**End**
Long Bypassed Reach	Mar 1-Oct 31	Two Saturdays per month	2,940	10:00 am	3:00 pm
		A total of four Sundays	2,940		

Great Falls-Dearborn Development Recreational Flow Schedule					
Channel	**Dates (inclusive)**	**Days / Description**	**Flow (at or above) (cfs)**	**Start**	**End**
Short Bypassed Reach	Mar 1-Apr 30	One Saturday per month to correspond with Long Bypass releases	2,860	10:00 am	3:00 pm
	May 1-Oct 31	Two weekends (Saturday and Sunday) per month	2,860		

(E) Wateree Development – Within 60 days following issuance of this license, the Licensee shall provide the recreational flow releases at the Wateree Development of at least 2,760 cfs in accordance with the schedule in the table below.

Wateree Development Recreational Flow Schedule				
Dates (inclusive)	**Days / Description**	**Flow (at or above) (cfs)**	**Hour Start**	**Hour End**
Apr 1-Apr 30	Last full weekend – Saturday and Sunday	2,760	10:00 am	3:00 pm
May 1-Jul 31	Each Saturday and Sunday plus Memorial and Independence Days	2,760	10:00 am	3:00 pm
Sep 1-Sep 30	Each Saturday and Sunday plus Labor Day	2,760	10:00 am	3:00 pm
Oct 1-Oct 31	Each Saturday and Sunday	2,760	10:00 am	3:00 pm

(F) Additional Recreational Flow Releases – In addition to the recreational flow releases identified in Paragraphs (A) through (E) above, the Licensee shall provide up to 10 additional hours of recreational flow releases per calendar year, in increments of no less than one hour each, at each of the following locations: (i) Bridgewater; (ii) Oxford; (iii) Wylie; (iv) Great Falls-Dearborn Short Bypassed Reach; (v) Great Falls-Dearborn Long Bypassed Reach; and (vi) Wateree. These recreational flow releases shall be as follows: (i) Bridgewater – 900 to 1,200 cfs; (ii) Oxford – at least 2,600 cfs; (iii) Wylie – at least 3,000 cfs; (iv) Great Falls-Dearborn Short Bypassed Reach – at least 2,860 cfs; (v) Great Falls-Dearborn Long Bypassed Reach – at least 2,940 cfs; and, (vi) Wateree – at least 2,760 cfs. The schedule for these additional recreational flow releases shall be determined at the Annual Recreational Flow Schedule Planning meeting stipulated in Paragraph (H) below.

(G) Temporary Variances – The flows and schedules for the recreational flow releases outlined in Paragraphs (A) through (F) above may be temporarily modified if the Licensee is operating in accordance with the Commission-approved Low Inflow Protocol or the Maintenance and Emergency Protocol. The

Licensee shall notify the Commission, the resource agencies and other interested parties of any such modifications in accordance with the Low Inflow Protocol or the Maintenance and Emergency Protocol.

(H) Annual Recreational Flow Schedule Planning – In March of each year of the license term, the Licensee shall convene an Annual Recreational Flow Schedule Planning meeting with the North Carolina Department of Environment and Natural Resources, the North Carolina Wildlife Resources Commission, the South Carolina Department of Natural Resources, and the South Carolina Department of Parks, Recreation and Tourism, and other entities with recreational experience and/or expertise as appropriate to identify potential improvements to the recreational flow release schedule, to establish the schedule for the added recreational flow releases pursuant to Paragraph (F) above, and to identify potential dates for replacement flows at the Bridgewater Development for the current calendar year. Also, the Licensee, in consultation with the attendees of the Annual Recreational Flow Schedule Planning meeting, may (i) shift the hours of scheduled recreational flow releases to different times; (ii) reduce the total hours of recreational flow releases to conserve the water supply; or (iii) adjust the seasonal times for the recreational flow releases. However, the total volume of water used for these scheduled recreational flow releases over a calendar year from any individual development shall not be increased even if the total volume from another development is decreased.

END OF PROPOSED LICENSE ARTICLE

ARTICLE – Minimum Flows

(A) Minimum Continuous Flows – The Licensee shall provide the following Minimum Continuous Flows at the Bridgewater, Oxford, Lookout Shoals, Wylie, Great Falls-Dearborn, and Wateree developments to protect and enhance aquatic habitat and water quality in the downstream riverine sections. The Minimum Continuous Flow may be provided by any combination of leakage, spillage, and generation from each development.

1. Bridgewater Development – Within 60 days following the completion of any construction in accordance with the Commission-Approved implementation plan of a replacement powerhouse or valve system necessary to provide the Minimum Continuous Flows specified in the table below for the Bridgewater Tailrace and within 60 days following completion of the construction in accordance with the Commission-approved Flow and Water Quality Implementation Plan of the minimum flow valve necessary to provide the Minimum Continuous Flows specified in table below for the Catawba River Bypassed Reach, the Licensee shall provide Minimum Continuous Flows in accordance with the following table.

Bridgewater Development		
Month	**Bridgewater Tailrace**	**Catawba River Bypassed Reach**
	Minimum Continuous Flows (cfs)	**Minimum Continuous Flows (cfs)**
Jan - Mar	145	75
Apr - Jun	95	75
Jul	95	50
Aug – Nov	75	50
Dec	145	75

2. Oxford Development – Within 60 days following the completion of the installation of a minimum flow valve at the Oxford Dam in accordance with the Commission-approved Flow and Water Quality Implementation Plan, the Licensee shall provide a year-round Minimum Continuous Flow of at least 150 cfs from the Oxford Development.

3. Lookout Shoals Development – Within 60 days following the issuance of this license, the Licensee shall provide a year-round Minimum Continuous Flow of at least 80 cfs from the Lookout Shoals Development.

4. Wylie Development – Within 60 days following the completion of the installation of a minimum flow hydro unit in accordance with the Commission-approved Flow and Water Quality Implementation Plan, the Licensee shall provide a year-round Minimum Continuous Flow of at least 1,100 cfs from the Wylie Development.

5. Great Falls-Dearborn Development – Within 60 days following the completion of the installation of flow release structures in accordance with the Commission-approved Flow and Water Quality Implementation Plan at the Great Falls Headworks and the Great Falls Diversion Dam, the Licensee shall provide Minimum Continuous Flows in accordance with the following table.

Great Falls-Dearborn Development		
Month	**Long Bypassed Reach**	**Short Bypassed Reach**
	Minimum Continuous Flows (cfs)	**Minimum Continuous Flows (cfs)**
Jan – Feb 14	450	100
Feb 15- May 15	850	100
May 16- Dec	450	100

6. Wateree Development – Within 60 days following the completion of the installation of a minimum flow unit in accordance with the Commission-approved Flow and Water Quality Implementation Plan, the Licensee shall provide Minimum Continuous Flows in accordance with the following table.

Wateree Development	
Month	**Minimum Continuous Flows (cfs)**
January – Feb 14	930
Feb 15- Feb 29	2,400
March - April	2,700
May 1- May 15	2,400
May 16- May 31	1,250
June - December	930

(B) Minimum Average Daily Flows – Within 60 days following issuance of this license, the Licensee shall provide the following Minimum Average Daily Flows: 225 cfs from the Rhodhiss Development; 311 cfs from the Cowans Ford Development; 314 cfs from the Mountain Island Development; 440 cfs from the Fishing Creek Development; and, 445 cfs from the Rocky Creek-Cedar Creek Development. The Minimum Average Daily Flow may be provided by any combination of leakage, spillage, and generation from each development.

(C) Temporary Variances – The flows outlined in Paragraphs (A) and (B) above may be temporarily modified if the Licensee is operating in accordance with the Commission-approved Low Inflow Protocol or the Maintenance and Emergency Protocol. The Licensee shall notify the Commission, the resource agencies and other interested parties of such temporary modifications in accordance with the Low Inflow Protocol or the Maintenance and Emergency Protocol.

END OF PROPOSED LICENSE ARTICLE

ARTICLE – Wylie High Inflow Protocol

(A) Within 60 days following the completion of the installation of a minimum flow hydro unit in accordance with the Commission-approved Flow and Water Quality Implementation Plan, the Licensee shall implement the Wylie High Inflow Protocol specified below to provide additional protection and enhancement of aquatic habitat downstream of the Wylie Development when adequate inflow to the Project is available.

(B) If the median flows for the three-month period from November 1 through January 31 for the USGS streamflow gages on the Catawba River near Pleasant Gardens, NC (USGS #02137727), the Johns River at Arney's Store, NC (USGS #02140991), and the South Fork Catawba River at Lowell, NC (USGS #02145000) are all at or above 105 percent of the three-month (Nov-Jan) median flows for the periods of record of those gages, then from February 15 through May 15, the Licensee shall increase the Minimum Continuous Flow from the Wylie Development from 1,100 cfs to 1,300 cfs. If, when operating in the Wylie High Inflow Protocol, the February median flow for any one of these three streamflow gages is below the February median flow for the period of record of that gage, then the minimum flow requirement for the Wylie Development shall

be reduced on April 1 to 1,100 cfs. The Licensee may suspend the Wylie High Inflow Protocol if it is operating in accordance with the Commission-approved Low Inflow Protocol or Maintenance and Emergency Protocol. The Licensee shall notify the Commission and the resource agencies of such suspension in accordance with the Low Inflow Protocol or the Maintenance and Emergency Protocol.

END OF PROPOSED LICENSE ARTICLE

ARTICLE – Flows Supporting Public Water Supply and Industrial Processes

(A) Within 60 days following issuance of this license, the Licensee shall provide flow releases with the conditions and rates indicated below from the Bridgewater, Wylie, and Wateree developments to support downstream water withdrawer requirements at the indicated River Miles – location of the most downstream point of the facility measured in miles along the centerline of the river with the River Miles starting at the confluence of the Wateree and Congaree rivers (River Mile 0.0) and ascending upstream.

1. Bridgewater Development – At River Mile 264, at least 90 cfs continuous minimum flow for the City of Morganton's Catawba River Water Treatment Plant.

2. Wylie Development

   i. At River Mile 120, at least 600 cfs continuous minimum flow and approximately 1,000 cfs for a continuous 16-hour period each day for the Bowater Pulp and Paper Mill.

   ii. At River Mile 122, up to an additional 71 cfs above existing flows in the river (as measured at United States Geological Survey (USGS) Gage #02147000, Catawba River near Catawba, SC) during periods of low river flow, the day after the Licensee receives a request from the Union/Lancaster Catawba River Water Treatment Plant, to allow this entity to operate within its permit (PERMIT NO. (P/N) 29 WS01 S02) issued by the South Carolina Department of Health and Environmental Control.

   iii. At USGS Gage #02146000 (Catawba River near Rock Hill, SC) (River Mile 137.6), at least 619 cfs weekly average flow to avoid pumping restrictions at Charlotte-Mecklenburg Utilities' Mountain Island Development raw-water pumping facility imposed by Condition (B) of the Commission's Order Approving Non-Project Use of Lands, February, 23, 2004 (106 FERC 62,151) until such time that the Commission removes those restrictions by a subsequent order.

   iv. The above flow releases from the Wylie Development also meet the flow needs of the Rock Hill (SC) Municipal back-up water supply intake (River Mile 137), Celanese Acetate's intake (River Mile 136), and Nations Ford Chemical's intake (River Mile 135).

3. Wateree Development – At least 800 cfs continuous minimum flow at River Mile 12 for the South Carolina Electric & Gas Company's Wateree Steam Station and also for the International Paper facility at River Mile 17.

(B) Temporary Variances – The flows outlined in Paragraph (A) above may be temporarily modified if the Licensee is operating in accordance with the Commission-approved Maintenance and Emergency Protocol or Stage 4 of the Commission-approved Low Inflow Protocol or, for the 1,000 cfs flow in Paragraph (A).2i. when operating in Stages 1 through 4 of the Commission-approved Low Inflow Protocol. The Licensee shall notify the Commission, the resource agencies, the affected water withdrawers and other interested parties of such temporary modifications in accordance with the Low Inflow Protocol or the Maintenance and Emergency Protocol.

END OF PROPOSED LICENSE ARTICLE

ARTICLE – Flow and Water Quality Implementation Plan

(A) Within 180 days following the issuance of this license, the Licensee shall file with the Commission, for approval, a Flow and Water Quality Implementation Plan (FWQIP) for completing the modifications necessary to satisfy the flow and water quality requirements at Project developments. The Plan shall include, at a minimum: (i) descriptions of any equipment, including flow release valves, minimum flow hydro units, or aerating hydro units to be installed; (ii) descriptions of any proposed modifications to any Project structures to provide prescribed flow releases or meet the requirements of the 401 Water Quality Certifications; and, (iii) a schedule for the installations and modifications to meet the prescribed flow releases or water quality requirements stipulated in this license.

(B) The Licensee shall prepare the FWQIP in consultation with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the NC Department of Environment and Natural Resources, the NC Wildlife Resources Commission, the SC Department of Natural Resources, and the SC Department of Health and Environmental Control. The Licensee shall include with the FWQIP documentation of consultation with the above agencies, copies of comments and recommendations on the FWQIP after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments and recommendations are accommodated in the FWQIP. The Licensee shall allow a minimum of 30 days for the agencies to comment prior to filing the FWQIP with the Commission. If the Licensee does not adopt an agency's recommendation, the filing shall include the Licensee's reasons.

(C) The Commission reserves the right to require changes to the FWQIP. The Licensee shall implement the FWQIP upon Commission approval, including any changes required by the Commission.

END OF PROPOSED LICENSE ARTICLE

A-3.0 Low Inflow Protocol Article

ARTICLE – Low Inflow Protocol for the Catawba-Wateree Project

(A) The Low Inflow Protocol for the Catawba-Wateree Project filed with the license application is approved and incorporated into this license. Within 60 days following the issuance of this license, the Licensee shall implement the Low Inflow Protocol.

(B) The Licensee has reserved the right to make modifications to the Low Inflow Protocol in consultation with the Catawba-Wateree Drought Management Advisory Group. The Licensee also reserves the right to make temporary modifications to the Low Inflow Protocol to account for any changed physical conditions at any of the Project's developments. The Licensee shall notify the Commission of any such temporary modifications in accordance with the Low Inflow Protocol. Any modifications may be subject to Commission approval.

END OF PROPOSED LICENSE ARTICLE

A-4.0 Maintenance and Emergency Protocol Article

ARTICLE – Maintenance and Emergency Protocol for the Catawba-Wateree Project

(A) The Maintenance and Emergency Protocol for the Catawba-Wateree Project filed with the license application is approved and incorporated into this license. Within 60 days following the issuance of this license, the Licensee shall implement the Maintenance and Emergency Protocol.

(B) The Licensee has reserved the right to make minor changes as necessary to the Maintenance and Emergency Protocol for the Catawba-Wateree Project. The Licensee also reserves the right to make temporary modifications to the Maintenance and Emergency Protocol to account for any changed physical conditions at any of the Project's developments. The Licensee shall notify the Commission of any such temporary modifications in accordance with the Maintenance and Emergency Protocol. Any modifications may be subject to Commission approval.

END OF PROPOSED LICENSE ARTICLE

A-5.0 Water Quality Article

ARTICLE – Water Quality Monitoring Plan

(A) Within 180 days following the issuance of this license, the Licensee shall file with the Commission, for approval, a Water Quality Monitoring Plan (WQMP) to monitor compliance with water quality requirements. The plan shall include, at a minimum, identification of compliance monitoring locations and devices at applicable Project developments as needed to accurately monitor and record

flows, dissolved oxygen, and water temperatures released from Project developments and an implementation schedule.

(B) The Licensee shall prepare the WQMP in consultation with the North Carolina Division of Water Quality and the South Carolina Department of Health and Environmental Control. The Licensee shall include with the WQMP documentation of consultation with the above agencies, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments and recommendations are accommodated in the WQMP. The Licensee shall allow a minimum of 30 days for the agencies to comment prior to filing the Water Quality Monitoring Plan with the Commission. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons. The Commission reserves the right to require changes to the WQMP. The Licensee shall implement the WQMP as approved by the Commission, including any changes required by the Commission.

(C) By June 30 following each full calendar year for the term of this license, the Licensee shall file with the Commission a report verifying compliance with any applicable 401 Water Quality Certifications and including the following information for the previous calendar year: (i) temperatures of water released from Project developments; (ii) dissolved oxygen concentrations in water released from Project developments; (iii) Minimum Continuous Flows released from the Bridgewater, Oxford, Lookout Shoals, Wylie, and Wateree developments; (iv) Minimum Continuous Flows released into the Great Falls Long and Short Bypassed Reaches; and, (v) documentation of instances that the 401 Water Quality Certification requirements were not met, along with any proposed or implemented corrective actions. The Licensee shall provide copies of the report to the NC Division of Water Resources, NC Division of Water Quality, NC Wildlife Resources Commission, SC Department of Natural Resources, SC Department of Health and Environmental Control, U.S. Environmental Protection Agency and the U.S. Fish and Wildlife Service. The Commission reserves the right to require changes to Project operations or to Project facilities based on the information in the report.

END OF PROPOSED LICENSE ARTICLE

A-6.0 Gaging and Monitoring Articles

ARTICLE – Flow and Reservoir Elevation Monitoring

By June 30 following each full calendar year for the term of this license, the Licensee shall file with the Commission a report verifying compliance with the Normal Minimum Elevation and Normal Maximum Elevation for Reservoir Levels, Spring Reservoir Level Stabilization Program, Recreational Flow Releases, Minimum Continuous Flows, Minimum Average Daily Flows and the Wylie High Inflow Protocol as set forth in this license and including at least the following information for the previous calendar year: (i) hourly flow records at Bridgewater, Oxford, Lookout Shoals, Wylie and Wateree; (ii) documentation of flow releases in the Catawba River Bypassed Reach and the Great Falls Long and Short Bypassed Reaches; (iii) documentation of Recreational Flow Releases; (iv) documentation of Minimum Continuous Flows and Minimum Average Daily

Flows; (v) hourly reservoir levels for each reservoir, along with yearly graphs showing the actual levels throughout the calendar year; and, (vi) documentation of any instances that reservoir levels exceeded the Normal Operating Ranges, any instances where the Spring Reservoir Level Stabilization Program requirements were not met or required flow releases were not met, along with any proposed or implemented corrective actions. The Licensee shall provide copies of the report to the NC Division of Water Resources, NC Division of Water Quality, NC Wildlife Resources Commission, SC Department of Natural Resources, SC Department of Health and Environmental Control and the U.S. Fish and Wildlife Service. The Commission reserves the right to require changes to Project operations or to Project facilities based on the information in the report.

END OF PROPOSED LICENSE ARTICLE

ARTICLE – Funding for USGS Streamflow Gages

(A) Within one year following implementation of the Minimum Continuous Flow from the Linville Dam at the Bridgewater Development, the Licensee shall fund the installation of one new United States Geological Survey (USGS) streamflow gage to be located on the Linville River between the Linville Dam and the confluence of the Linville River and the Catawba River just downstream of the Bridgewater Development to monitor compliance with the minimum flow and recreational flow release requirements and to provide a ready source of public information.

(B) Within one year following issuance of this license, the Licensee shall also fund the annual maintenance cost for the term of this license for the new gage and for the following existing USGS streamflow gages to support implementation of the Commission-approved Low Inflow Protocol and Wylie High Inflow Protocol, to monitor compliance with the minimum flow and recreational flow release requirements, and/or to provide a ready source of public information as applicable: #02137727 (Catawba River near Pleasant Gardens, NC); #02140991 (Johns River at Arney's Store, NC); #02145000 (South Fork Catawba River at Lowell, NC); #02146000 (Catawba River near Rock Hill, SC); #02147500 (Rocky Creek at Great Falls, SC), and #02148000 (Wateree River near Camden, SC).

END OF PROPOSED LICENSE ARTICLE

A-7.0 Species Protection Article

ARTICLE – Federal Threatened and Endangered Species Protection Plans

(A) The Federal Threatened and Endangered Species Protection Plans for Schweinitz's sunflower (*Helianthus schweinitzii),* dwarf-flowered heartleaf (*Hexastylis naniflora),* bald eagle *(Haliaeetus leucocephalus),* wood stork *(Mycteria Americana*), American alligator *(Alligator mississippiensis),* and shortnose sturgeon (*Acipenser brevirostrum),* filed with the license application are approved and incorporated into this license. The Licensee shall implement these Federal Threatened and Endangered Species Protection Plans within 60 days following the issuance of this license.

(B) At least annually, the Licensee shall, after consulting with the U.S. Fish and Wildlife Service, the North Carolina Department of Environment and Natural Resources, the North Carolina Wildlife Resources Commission, and the South Carolina Department of Natural Resources, review and update the list of Threatened and Endangered species based on a species status change and updated distribution and occurrence information. If the update has any species that is newly listed, delisted, or has a change of status and that species is documented within the Project Boundaries or within the Catawba and Wateree rivers and their associated floodplains and bottomlands from Lake James downstream to the confluence of the Wateree River with the Congaree River, the Licensee shall: (i) consult with the U.S. Fish and Wildlife Service (USFWS) and, as appropriate, the National Marine Fisheries Service, the North Carolina Department of Environment and Natural Resources, the North Caroline Wildlife Resources Commission, and the South Carolina Department of Natural Resources; and (ii), after consulting with these agencies, file any required modified or additional Species Protection Plans with the Commission, for approval.

(C) The Commission reserves the right to require changes to any Species Protection Plan. The Licensee shall implement any Species Protection Plans as approved by the Commission, including any changes required by the Commission.

END OF PROPOSED LICENSE ARTICLE

A-8.0 Public Information Article

ARTICLE – Public Information

Within 60 days following issuance of this license, the Licensee shall provide the following information to support the safe and effective public use of the Project's resources.

1. Internet Information – The following level information for each Project reservoir via its Web site: Normal Minimum Elevation, Normal Target Elevation and Normal Maximum Elevation, actual reservoir level, recent reservoir level history, 13-month reservoir level history, near-term three-day and thirty-day reservoir level projections, points of contact for additional information, and special messages.

2. Telephone Information – Special messages and actual levels for each Project reservoir via its toll-free telephone system.

3. Annual Scheduled Flow Release Calendar – An annual calendar on the Licensee's Web site showing all scheduled flow releases from the Bridgewater (Lake James), Oxford (Lake Hickory), Wylie, and Wateree developments and into the Great Falls Bypassed Reaches. The calendar shall indicate the dates, times of day, and expected minimum release rates of the scheduled releases.

4. Near-term Flow Release Forecasts – Two-day flow release forecasts on its Web site and toll-free telephone system for the Oxford (Lake Hickory), Wylie and Wateree developments and the Great Falls Bypassed Reaches. The Licensee shall provide three-day flow release forecasts on its Web site and its toll-free telephone system for the Bridgewater (Lake James) Development.

END OF PROPOSED LICENSE ARTICLE

A-9.0 Public Recreation Articles

ARTICLE – Recreation Management Plan

(A) Within one year following the issuance of this license, the Licensee shall file with the Commission, for approval, a Recreation Management Plan (RMP) that describes the implementation of the measures identified in Paragraph (B) to enhance recreation resources at the Catawba-Wateree Project. The Licensee shall prepare the RMP in consultation with the North Carolina Department of Environment and Natural Resources (NCDENR), the North Carolina Wildlife Resources Commission (NCWRC), the South Carolina Department of Parks, Recreation and Tourism (SCDPRT), the South Carolina Department of Natural Resources (SCDNR), local governments and other entities. To prevent conflicts with Historic Properties in the Project area, the Licensee shall develop the Plan consistently with the implementation of the Historic Properties Management Plan required under this license. The RMP shall include a schedule in five-year increments for implementing the measures, and all measures shall be implemented within 20 years following Commission approval of the RMP.

(B) The Licensee shall include in the RMP measures to construct, operate, and maintain, or arrange for the construction, operation, and maintenance of the recreation facilities and activities identified below:

1. Bridgewater Development

   a. Black Bear Access Area – Provide restrooms, additional shade trees, shoreline buffer, trails, primitive camping sites, picnic facilities, and a fishing pier if suitable resource conditions for the pier are located. If a suitable area for a fishing pier is not available, a bank fishing trail shall be constructed.

   b. Lake James State Park and Islands Management Zone – Offer the NCDENR a nominal-cost lease for the term of the New License for the Lake James State Park management zone (300 horizontal feet lakeward from full pond elevation) along the shoreline adjoining the State Park, including three islands within the zone.

   c. New Linville Access Area – Acquire approximately 10 acres of land near the existing Linville Access Area, provide two boat ramps for trailered motor boats, one courtesy dock, lighted and paved parking, an access road, and a vault toilet.

   d. Linville Canoe/Kayak Access Area – Convert the existing Linville Access Area to canoe/kayak use, provide picnic facilities, shade trees

and restrooms. The existing ramps shall not be converted to canoe/kayak use prior to the boat ramps at the New Linville Access Area being declared in-service.

e. Pocket Park at Dam for Lake James Loop Trail – Create an approximately ten-acre park with parking, picnic facilities, photographic overlooks, and bank fishing trail near the Linville Dam at the existing canoe portage take-out.

f. Bridgewater Access Area – Provide restrooms, launching ramp for trailered boats, additional parking, and picnic facilities. Evaluate the existing portage trail and signage and incorporate any needed improvements.

g. Muddy Creek Access Area – Acquire 1 to 3 acres of property on Muddy Creek between Interstate 40 and the confluence of Muddy Creek and the Catawba River Bypassed Reach and develop a canoe/kayak access with approximately 10 gravel parking spaces.

2. Rhodhiss Development

a. Corpening Bridge – Acquire approximately 10 acres and construct a launching ramp for trailered boats, and approximately ten gravel parking spaces on the Johns River at the Corpening Road Bridge.

b. Conley Creek Access Area (Sawmills Veterans Park) – Construct approximately two additional miles of trail.

c. Rhodhiss Access Area – Provide restrooms.

d. Castle Bridge Access Area – Provide restrooms.

e. Rhodhiss Dam Canoe Portage – Evaluate the existing portage trail and signage and incorporate any needed improvements.

3. Oxford Development (Lake Hickory)

a. Lake Hickory Swimming Areas – Develop two swimming areas.

b. Wittenburg Access Area – Acquire approximately 15 additional acres to include in the access area (total of approximately 28 acres), and provide restrooms, picnic facilities, and additional paved parking.

c. Dusty Ridge Access Area – Develop approximately one mile of trail and provide restrooms.

d. Lovelady Access Area – Construct a fishing pier if suitable resource conditions are located. If a suitable location for a fishing pier is not available at this site, then find an alternative site for the pier in Caldwell County on Lake Hickory.

e. Long Shoals Access Area – Provide a canoe/kayak access facility with gravel parking.

f. Oxford Access Area – Provide a primitive campground, paved parking, picnic facilities, bank fishing, trails, and restrooms.

g. Oxford Tailrace Fishing Area – Develop public fishing area facilities.

h. Oxford Dam Canoe Portage – Improve the existing gravel parking, extend the existing canoe portage trail to Riverbend Park.

4. Lookout Shoals Development

a. Upper Lookout Shoals Access Area – Acquire approximately 1 to 5 acres of property in Catawba County downstream of the "bend" of the lake (River Mile 227) and develop an access area with a ramp for trailered boats, parking, restrooms, and primitive camping.

b. Lookout Shoals Access Area – Provide restrooms.

c. Lookout Shoals Tailrace Fishing Area – Develop public fishing area facilities.

d. Lookout Shoals Dam Canoe Portage – Provide a portage trail with canoe/kayak access (take-out, put-in) and signage around Lookout Shoals Dam.

5. Cowans Ford Development (Lake Norman)

a. Lake Norman State Park Management Zone – Offer the NCDENR a nominal-cost lease for the term of this license for the Lake Norman State Park management zone (300 horizontal feet lakeward from full pond elevation) along the shoreline adjoining the State Park. The lease will include an island within the zone.

b. Beatty's Ford Access Area – Provide picnic facilities, a fishing pier, swimming area, restrooms, and shade trees.

c. Hagers Creek Access Area – Provide additional paved parking spaces, trails, bank fishing, picnic facilities, restrooms, and, if suitable resource conditions are located, a fishing pier.

d. Stumpy Creek Access Area – Provide a fishing pier, picnic facilities, walking trail, restrooms, and additional paved parking.

e. Little Creek Access Area – Provide restrooms, a fishing pier, paved parking spaces, and a picnic shelter.

f. Island Point Access Area – Provide trails, bank and/or pier fishing, picnic facilities, a swimming area, boating access facilities, and restrooms.

g. Cowans Ford Dam Portage and Overlook – Develop a portage trail to the Highway 73 Access Area, a reservoir overlook with park benches, and approximately 10 gravel parking spaces.

6. Mountain Island Development

a. Highway 73 Access Area – Provide approximately two acres of land and approximately 10 gravel parking spaces to support canoe/kayak launching.

b. Lucia Access Area – Provide a canoe/kayak access and approximately 10 gravel parking spaces.

c. Riverbend Access Area – Provide restrooms, bank fishing, a swimming area, and a fishing pier.

d. Mountain Island Dam Canoe Portage – Provide a portage trail with canoe/kayak access (take-out, put-in) and signage.

7. Wylie Development

a. Dutchmans Creek Access Area – Provide a canoe/kayak access facility and approximately 10 gravel parking spaces.

b. Saddler Island – Offer to lease the island to the U.S. National Whitewater Center for individual and group environmental education and outdoor recreation.

c. South Point Access Area – Provide trails, fishing pier, bank fishing area, picnic facilities, swimming area, restrooms, and additional paved parking.

d. Buster Boyd Access Area – Provide restrooms.

e. Allison Creek Access Area – Expand the access area by approximately 48 acres (total of approximately 161 acres) and provide restrooms, picnic facilities, paved parking, and approximately one mile of trail.

f. Rock Hill Park – Allocate approximately 17 acres of land and provide a bank fishing trail with fishing stations, picnic facilities, swimming area, restrooms, and parking.

g. Fort Mill Access Area – Provide restrooms and picnic facilities.

8. Fishing Creek Development

a. Springs Park – Relocate the existing Cane Creek Access Area to an approximately 18-acre portion of the old Springs Park property and provide two boat ramps for trailered motor boats, a courtesy dock, paved and lighted parking, fishing pier, and a bank fishing trail. Once the boating facilities and parking are developed and in service at Springs Park, the Licensee shall close the existing Cane Creek Access Area and file revised Exhibit G drawings for Commission approval to remove the existing Cane Creek Access Area from the FERC Project Boundaries.

b. Fishing Creek Access Area – Provide a fishing pier, additional paved parking, picnic facilities, restrooms, and a swimming area, if a swimming area is feasible at this site.

c. Fishing Creek Tailrace Fishing Area – Provide a public fishing area including a platform, pier or bank fishing trail, and paved parking.

9. Great Falls-Dearborn Development

a. Great Falls Reservoir Boating Safety – Evaluate safety concerns associated with boating near the Great Falls Diversion Dam, the Great Falls Headworks, and the Great Falls-Dearborn Dam, and determine the need for constructing boating safety devices upstream of these

structures. The Licensee shall report its conclusions to the Commission and shall submit a revision to its Public Safety Plan for the Great Falls-Dearborn Development to the Commission, for acceptance, if boating safety devices are determined to be needed. This evaluation shall be completed and any necessary boating safety devices installed at the Great Falls Diversion Dam, the Great Falls Headworks and the Great Falls-Dearborn Dam prior to beginning the prescribed Recreational Flows identified in this license and prior to the construction of any public boat launching areas providing boating access to the Great Falls Reservoir.

b. Highway 200 Bridge Access Area – Acquire approximately 1 to 5 acres in the vicinity of the Highway 200, Highway 21, and Fishing Creek intersection and develop and maintain a canoe/kayak launch, restrooms, and gravel parking area.

c. Great Falls Diversion Dam Portage – Develop a portage trail on the north end of Mountain Island to provide boater access to the Great Falls Long Bypassed Reach.

d. Great Falls Headworks Portage – Develop a portage trail on Mountain Island around the Great Falls Headworks to provide boater access to the Great Falls Short Bypassed Reach.

e. Great Falls Headworks-to-Cedar Creek Reservoir Portage – Develop a portage trail along the Great Falls Short Bypassed Reach to Cedar Creek Reservoir.

f. Lower Great Falls Reservoir Canoe/Kayak Launch – Acquire approximately 1 to 7 acres and construct a canoe/kayak launch on Great Falls Reservoir downstream of the Great Falls Headworks.

10. Rocky Creek - Cedar Creek Development

a. Cedar Creek Reservoir Island Improvements – Offer to lease to SCDPRT at nominal cost the islands in the Great Falls-Cedar Creek Island complex for SCDPRT to develop and maintain a new state park. The Licensee shall include in this lease an operations agreement to allow SCDPRT vehicular use of the existing bridge to Dearborn Island.

b. Mudcat Inn Access Area – Acquire approximately 1 to 5 acres in the vicinity of Mudcat Inn and develop a canoe/kayak access facility with approximately ten gravel parking spaces.

11. Wateree Development

a. Wateree Creek Access Area – Provide a fishing pier, a 5 to 10 table picnic facility, restrooms, and an approximately ten-space gravel parking area.

b. Molly Creek Park – Acquire approximately 100 acres and provide a swimming area, paved parking, restrooms, trails, bank and pier fishing, picnic facilities, and trailered boat access.

c. Lake Wateree State Park Management Zone – Offer the SCDPRT a nominal-cost lease for the term of this license for the Lake Wateree State Park management zone (up to 300 horizontal feet lakeward from full pond elevation) along the shoreline adjoining the state park.

d. Colonels Creek Access Area – Provide a courtesy dock, swimming area, restrooms, picnic shelter, and additional paved parking.

e. Taylors Creek Access Area – Expand the existing access area by approximately three acres (total of approximately 10 acres) and provide approximately 10 gravel parking spaces.

f. Lugoff Access Area – Provide restrooms and improved gravel parking.

(C) The RMP shall also include: (i) maps that clearly identify all existing and proposed recreational sites and public access areas in relation to the Catawba-Wateree Project Boundaries; (ii) maps that clearly identify where the Project Boundaries are to be modified such that all land areas associated with the measures listed in Paragraph (B) are incorporated into the Project; (iii) conceptual facility site plans for each site; (iv) facility construction schedules grouped in five-year increments; (v) descriptions of how new facilities will be constructed and new and existing facilities will be, operated and maintained, including identification of the entity or entities responsible; (vi) procedures for temporary closures of Project recreational sites; (vii) a discussion of how the needs of the disabled were considered in the planning and design of the recreation facilities and public access; (viii) a discussion of how Low Impact Development practices were considered in the planning and design of the recreation facilities, and (ix) a description of the standardized recreational signage program for the recreational sites.

(D) The Licensee shall include with the RMP documentation of consultation with the agencies, local governments, and other interested parties identified in Paragraph (A), copies of comments and recommendations on the Plan after it has been prepared and provided to the agencies, local governments, and other interested parties, and specific descriptions of how the agencies', local governments', and other interested parties' comments and recommendations received are accommodated by the Plan. The Licensee shall allow a minimum of 30 days for the agencies, local governments, and other interested parties to comment prior to filing the Plan with the Commission. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons.

(E) The Commission reserves the right to require changes to the RMP. The Licensee shall implement the RMP as approved by the Commission, including any changes required by the Commission. For the first 20 years following the issuance of this license, the Licensee shall file with the Commission a biennial report of the progress made by the Licensee on completing the measures in the RMP. If the Licensee determines that any measure in the Commission-approved RMP cannot be implemented or its implementation will be delayed beyond the Commission-approved schedule, the Licensee shall notify the Commission and file for approval of the Licensee's alternative proposal.

(F) Any structure or facility built or installed in accordance with the Commission-approved RMP that is within the Project Boundaries or proposed to be within the Project Boundaries shall be shown on the as-built drawings which shall be filed

with the Commission following the completion of construction for each recreation area.

END OF PROPOSED LICENSE ARTICLE

ARTICLE – Recreation Planning

(A) At 20 years following the issuance of this license, and repeated at every subsequent 10 years during the term of this license, to protect and enhance recreation resources at the Catawba-Wateree Project, the Licensee shall complete a review of the Project's recreation needs that includes: (i) a recreation use and needs assessment and (ii) identification of any additional public recreation facility needs at the Project. The Licensee shall file with the Commission, for approval, a supplement to the Recreation Management Plan describing in detail additional activities or facilities to be developed including construction schedules and how these new facilities as well as existing facilities will be operated and maintained.

(B) The Licensee shall consult with the North Carolina Department of Environment and Natural Resources, the North Carolina Wildlife Resources Commission, the South Carolina Department of Parks, Recreation and Tourism, the South Carolina Department of Natural Resources, local governments, and other interested parties to provide recommendations on the assessment and the Plan. The Licensee shall include with its RMP supplement documentation of consultation with the above agencies, local governments and other interested parties, copies of comments and recommendations on the supplement after it has been prepared and provided to the agencies, local governments and other interested parties, and specific descriptions of how the agencies', local governments', and other interested parties' comments and recommendations are accommodated by the supplement. The Licensee shall allow a minimum of 30 days for the agencies, local governments, and other interested parties to comment prior to filing the supplement with the Commission, for approval. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons.

END OF PROPOSED LICENSE ARTICLE

A-10.0 Shoreline Management Articles

ARTICLE – Shoreline Management Plan

(A) The Shoreline Management Plan filed with the license application is approved and incorporated into this license.

(B) The Shoreline Management Guidelines are approved as part of the Shoreline Management Plan with the understanding that the Licensee has reserved the right to make minor changes to the Guidelines. The Shoreline Classification Maps and associated Lake Use Restrictions filed with the license application are also approved as part of the Shoreline Management Plan with the understanding that the Licensee has reserved the right to make changes to the maps to protect newly discovered resources such as archaeological or historic

sites, Threatened or Endangered Species, Special Concern Species, or to correct errors. The Commission reserves the right to review such changes. Upon the issuance of this license, the Licensee shall implement the Commission-approved Shoreline Management Plan including the Shoreline Management Classification Maps and associated Lake Use Restrictions and Shoreline Management Guidelines.

(C) The Commission reserves the right to require changes to the Shoreline Management Plan at any time during the term of this license.

END OF PROPOSED LICENSE ARTICLE

ARTICLE – Shoreline Management Plan Review and Update Procedures

(A) At ten years following the issuance of this license, and every ten years thereafter for the term of this license, the Licensee shall file with the Commission, for approval, a revised Shoreline Management Plan (SMP). In developing the revised SMP, the Licensee shall convene and consult with a workgroup consisting of the North Carolina Department of Environment and Natural Resources, the North Carolina Wildlife Resources Commission, the South Carolina Department of Parks, Recreation and Tourism, the South Carolina Department of Natural Resources, the U.S. Fish and Wildlife Service, local governments and other interested parties to review the implementation of the SMP and recommend potential modifications. The Licensee shall include with the revised SMP filing documentation of consultation with the above agencies, local governments, and other interested parties copies of comments and recommendations on the revised SMP, after it has been prepared and provided to the agencies, local governments and other interested parties, and specific descriptions of how comments and recommendations received are accommodated by the revised SMP. The Licensee shall allow a minimum of 30 days for the agencies, local governments, and other interested parties participating in the workgroup to comment prior to filing the revised SMP with the Commission for approval. If the Licensee does not adopt a recommendation, the revised-SMP filing shall include the Licensee's reasons.

(B) Coincident with filing the revised SMP in accordance with Paragraph (A) above, the Licensee shall update and file with the Commission the Shoreline Classification Maps to include changes in the Project's shoreline development.

END OF PROPOSED LICENSE ARTICLE

A-11.0 Cultural Resources Article

ARTICLE – Historic Properties

(A) The Historic Properties Management Plan (HPMP) filed with this license application is approved and incorporated into this license. Within 60 days following the issuance of this license, the Licensee shall implement the HPMP. The Commission reserves the right to require changes to the HPMP at any time during the term of this license.

(B) The Licensee shall implement any existing Programmatic Agreement for the Project regarding historic properties management and protection including, but not limited to, the Commission-approved HPMP. In the event that the Programmatic Agreement is terminated or does not exist, the Licensee shall implement the provisions of its approved HPMP.

END OF PROPOSED LICENSE ARTICLE

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APPENDIX B: PARTIES AND DESIGNATED REPRESENTATIVES

Party[3]	Designated Representative with Title	Mailing Address	Overnight Express Address
Duke Energy Carolina's, LLC and Duke Energy Corporation	Jeffrey G. Lineberger Manager of Hydro Licensing	Duke Energy PO Box 1006 Charlotte, NC 28201	Duke Energy 526 S. Church St Charlotte, NC 28202
Alexander County, NC	Sylvia Turnmire Director of Planning & Development	6125 NC Hwy 16 South Taylorsville, NC 28681	6125 NC Hwy 16 South Taylorsville, NC 28681
American Whitewater	Kevin Colburn National Stewardship Director	1035 Van Buren Street Missoula, MT 59802	1035 Van Buren Street Missoula, MT 59802
Area II Soil & Water Conservation Districts	Jack Huss Supervisor	3152 Mineral Springs Mountain Road Valdese, NC 28690	3152 Mineral Springs Mountain Road Valdese, NC 28690
Bowater Incorporated	Dale Herendeen	P.O. Box 7 Catawba, SC 29704	5300 Cureton Ferry Road Catawba, SC 29704
Burke County, NC	Marc Collins	P.O. Box 219 Morganton, NC 28680	110 N Green Street Morganton, NC 28680
Caldwell County, NC	Randy Feierabend Planning Director	30 Falls Ave., Suite 3 Granite Falls, NC 28630	30 Falls Ave., Suite 3 Granite Falls, NC 28630
Carolina Canoe Club	Maurice Blackburn	P.O. Box 12932 Raleigh, NC 27606	432 Gum Branch Road Charlotte, NC 28214
Catawba County, NC	Mary K. George, AICP Catawba County Planning	P.O. Box 389 Newton, NC 28658	100-A Southwest Blvd. Newton, NC 28658
Catawba Indian Nation	Wenonah Haire Executive Director, Catawba Cultural Preservation Project	P.O. Box 750 Rock Hill, SC 29731	1536 Tom Steven Rd Rock Hill, SC 29731

[3] These entities are Parties to this Agreement provided their duly authorized representatives sign this Agreement. The Licensee will maintain the contact information included in this Appendix B on its Web site. All Parties shall notify the Licensee of changes to the contact information for the Party's Designated Representative.

Party[3]	Designated Representative with Title	Mailing Address	Overnight Express Address
Catawba Indian Nation Tribal Historic Preservation Office	Wenonah Haire Executive Director, Catawba Cultural Preservation Project	P.O. Box 750 Rock Hill, SC 29731	1536 Tom Steven Rd Rock Hill, SC 29731
Catawba Lands Conservancy	Dave Cable Executive Director	105 West Morehead Street Charlotte, NC 28202	105 West Morehead Street Charlotte, NC 28202
Catawba Regional Council of Governments	Mike Vead Senior Planner	P.O. Box 450 Rock Hill, SC 29731	215 Hampton Street, Suite 200 Rock Hill, SC 29731
Catawba Valley Heritage Alliance	Phil Piaski	1755 Summit Oaks Lane Claremont, NC 28610	1755 Summit Oaks Lane Claremont, NC 28610
Catawba-Wateree Relicensing Coalition	Vicki Taylor	108 Coventry Hills Lane Troutman, NC 28166	108 Coventry Hills Lane Troutman, NC 28166
Centralina Council of Governments	A. R. Sharp, Jr. Executive Director	P.O. Box 35008 Charlotte, NC 28235	Midtown Plaza Building 1300 Baxter Street, Suite 450 Charlotte, NC 28204
Chester Metropolitan District	Mike Medlin	P.O. 550 Chester, SC 29706	155 Wylie Street Chester, SC 29706
City of Belmont, NC	Barry Webb	P.O. Box 431 Belmont, NC 28012	115 N Main Street Belmont, NC 28012
City of Camden, SC	Don Goode	221 Leonard Circle Camden, SC 29020	221 Leonard Circle Camden, SC 29020
City of Charlotte, NC	Douglas Bean Director, Charlotte-Mecklenburg Utilities	5100 Brookshire Boulevard Charlotte, NC 28216	5100 Brookshire Boulevard Charlotte, NC 28216
City of Gastonia, NC	J. Phillip Bombardier Asst. City Manager	P.O. Box 1748 Gastonia, NC 28053-1748	1300 N. Broad Street Gastonia, NC 28054
City of Hickory, NC	Tom Carr	P.O. Box 398 Hickory, NC 28603	76 N Center Street Hickory, NC 28603
City of Morganton, NC	Don Danford Director, Water Resources	305 E. Union Street Ste A-100 Morganton, NC 28680-3448	305 E. Union Street Ste A-100 Morganton, NC 28680-3448
City of Mount Holly, NC	James Friday	131 S Main Street Mt. Holly, NC 28120	131 S Main Street Mt. Holly, NC 28120
City of Rock Hill, SC	Nick Stegall	P.O. Box 11706 Rock Hill, SC 29732-1706	349 Columbia Avenue Rock Hill, SC 29732-1706

Party[3]	Designated Representative with Title	Mailing Address	Overnight Express Address
Crescent Resources, LLC	Hank Higgins Director, Land Sales	P.O. Box 1003 Charlotte, NC 28201-1003	400 South Tryon Street, Suite 1300 Charlotte, NC 28202
Foothills Conservancy	Tom Kenney Land Protection & Planning Director	P.O. Box 3023 Morganton, NC 28680	135 W Union Street Morganton, NC 28680
Gaston County, NC	Jim Burke	P.O. Box 1578 Gastonia, NC 28053-1578	Gaston County Citizens Resource Center NC Cooperative Extension Service 1303 Dallas-Cherryville Highway (Hwy 279W) Dallas, NC 28034
Great Falls Hometown Association	Glinda Coleman	P.O. Box 215 Great Falls, SC 29055	401 Dearborn Street Great Falls, SC 29055
Harbortowne Marina	John Maxwell	P.O. Box 6122 Charlotte, NC 28207	2119 Hopedale Avenue Charlotte, NC 28207
International Paper	John Baker Environmental Engineering Manager	4001 McCords Ferry Road Eastover, SC 29044	4001 McCords Ferry Road Eastover, SC 29044
Iredell County, NC	Steve Warren Planning Supervisor	P.O. Box 788 Statesville, NC 28677	227 South Center Street Statesville, NC 28687
Kershaw County, SC	Brenda Wilhite	515 Walnut Street Camden, SC 29020	515 Walnut Street Camden, SC 29020
Kershaw County Conservation District	Jim McLeod	P.O. Box 612 Camden, SC 29020	609 Laurens Street Camden, SC 29020
Lake James Homeowners	Bruce Whipple	2409 Lake Forest Cove Nebo, NC 28761	2409 Lake Forest Cove Nebo, NC 28761
Lake Wateree Association	Gary Faulkenberry	P.O. Box 2132 Camden, SC 29020	2668 Singleton Creek Rd Liberty Hill, SC 29074
Lake Wylie Marine Commission	Ron Montgomery	5842 Charlotte Highway Lake Wylie, SC 29710	5842 Charlotte Highway Lake Wylie, SC 29710
Lancaster County Water & Sewer District	Chief Administrative Staff Person of the Catawba River Water Treatment Plant	P.O. Box 214 Van Wyck, SC 29744	5107 Riverside Road Van Wyck, SC 29744
Lincoln County, NC	Steve Gilbert Director of Public Utilities	115 West Main Street, Second Floor Lincolnton, NC 28092	115 West Main Street, Second Floor Lincolnton, NC 28092

Party[3]	Designated Representative with Title	Mailing Address	Overnight Express Address
Lugoff-Elgin Water Authority	Mike Hancock General Manager	P.O. Box 125 Lugoff, SC 29078	88 Boulware Road Lugoff, SC 29078
McDowell County, NC	Ashley Wooten Assistant to the County Manager	60 East Court Street Marion, NC 28752	60 East Court Street Marion, NC 28752
Mecklenburg County, NC	David Buetow	700 North Tryon Street Suite 205 Charlotte, NC 28202	700 North Tryon Street Suite 205 Charlotte, NC 28202
Mountain Island Lake Association	Pam Beck	405 Nivens Cove Road Mt. Holly, NC 28120	405 Nivens Cove Road Mt. Holly, NC 28120
Mountain Island Lake Marine Commission	Mike McLaurin Executive Director	P.O. Box 35008 Charlotte, NC 28235-5008	1300 Baxter St, Suite 450 Charlotte, NC 28235-5008
North Carolina Dept. of Environment and Natural Resources with its Divisions of Forest Resources, Parks and Recreation, Water Quality, and Water Resources	Steve Reed Hydropower Licensing Coordinator	1611 Mail Service Center Raleigh, NC 27699-1611	11th Floor Archdale Building 512 North Salisbury Street Raleigh, NC 27604
North Carolina Wildlife Federation	Richard Mode Affiliate Representative to National Wildlife Federation	206 Woodlawn Drive Morganton, NC 28655	206 Woodlawn Drive Morganton, NC 28655
North Carolina Wildlife Resources Commission	Chris Goudreau Hydropower Relicensing Coordinator	645 Fish Hatchery Road Marion, NC 28752	645 Fish Hatchery Road Marion, NC 28752
R & N Marina	Rick Barnes	5803 Icard Ridge Road Hickory, NC 28601	5803 Icard Ridge Road Hickory, NC 28601
South Carolina Dept. of Archives and History	Rebekah Dobrasko	8301 Parklane Road Columbia, SC 29223	8301 Parklane Road Columbia, SC 29223
South Carolina Dept. of Natural Resources	Barry Beasley	P.O. Box 167 Columbia, SC 29202	1000 Assembly Street Columbia, SC 29202
South Carolina Dept. of Parks, Recreation and Tourism	Tony Bebber Planning Manager	1205 Pendleton Street Columbia, SC 29201	1205 Pendleton Street Columbia, SC 29201
South Carolina Electric & Gas	Gary Williams	142 Wateree Station Road Eastover, SC 29044	142 Wateree Station Road Eastover, SC 29044
South Carolina Wildlife Federation	Angela Viney Executive Director	2711 Middleburg Dr., Ste. 101 Columbia, SC 29204	2711 Middleburg Dr., Ste. 101 Columbia, SC 29204
Springs Global US, Inc.	Keith Griffin Manager, Water Quality Systems	P.O. Box 70 Fort Mill, SC 29716	205 N White Street Fort Mill, SC 29716

Party[3]	Designated Representative with Title	Mailing Address	Overnight Express Address
Town of Davidson, NC	Dawn Blobaum Assistant Town Manager	P.O. Box 579 Davidson, NC 28036	216 S. Main Davidson, NC 28036
Town of Great Falls, SC	H.C. Starnes Mayor	810 Dearborn Street Great Falls, SC 29055	810 Dearborn Street Great Falls, SC 29055
Town of Valdese, NC	Jeff Morse Town Manager	121 Faet Street Valdese, NC 28690	121 Faet Street Valdese, NC 28690
Trout Unlimited, Inc.	Michael R. “Squeak” Smith	4281 Bill Epley Ave Morganton, NC 28655	4281 Bill Epley Ave Morganton, NC 28655
Union County, NC	Chief Administrative Staff Person of the Catawba River Water Treatment Plant	P.O. Box 214 Van Wyck, SC 29744	5107 Riverside Road Van Wyck, SC 29744
Wateree Homeowners Association – Fairfield County	Randy Humphries	1977 Rolling Hills Rd. Ridgeway, SC 29130	1977 Rolling Hills Rd. Ridgeway, SC 29130
Western Piedmont Council of Governments	Sam Erwin Environmental Administrator	P.O. Box 9026 Hickory, NC 28603	736 4th Street, SW Hickory, NC 28603
York County, SC	Anna Wilson Assistant County Manager	York County Ag Building 6 South Congress Street York, SC 29745	York County Ag Building 6 South Congress Street York, SC 29745
York County Culture & Heritage Commission	Harry Exell Deputy Director	4621 Mt. Gallant Road Rock Hill, SC 29732	4621 Mt. Gallant Road Rock Hill, SC 29732
William B. Cash	William B. Cash	4515 NC 181 Morganton, NC 28655	4515 NC 181 Morganton, NC 28655
Shirley M. Greene	Shirley M. Greene	1037 Deer Run Road Ridegway, SC 29130	1037 Deer Run Road Ridegway, SC 29130
Frank J. Hawkins	Frank J. Hawkins	1005 Jackson Road Fort Lawn, SC 29714	1005 Jackson Road Fort Lawn, SC 29714
Timothy D. Mead	Timothy D. Mead	7124 Chapparall Lane Charlotte, NC 28215	7124 Chapparall Lane Charlotte, NC 28215
Merlin F. Perry	Merlin F. Perry	811 Powell Road NE Lenoir, NC 28645-3739	811 Powell Road NE Lenoir, NC 28645-3739
Joseph W. Zdenek	Joseph W. Zdenek	752 Harrell Street Rock Hill, SC 29730	752 Harrell Street Rock Hill, SC 29730

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APPENDIX C: LOW INFLOW PROTOCOL (LIP) FOR THE CATAWBA-WATEREE PROJECT

PURPOSE

The purpose of this Low Inflow Protocol (LIP) is to establish procedures for reductions in water use during periods of low inflow to the Catawba-Wateree Project (the Project). The LIP was developed on the basis that all parties with interests in water quantity will share the responsibility to establish priorities and to conserve the limited water supply.

OVERVIEW

This Low Inflow Protocol provides trigger points and procedures for how the Catawba-Wateree Project will be operated by the Licensee, as well as water withdrawal reduction measures and goals for other water users during periods of low inflow (i.e., periods when there is not enough water flowing into the Project reservoirs to meet the normal water demands while maintaining Remaining Usable Storage in the reservoir system at or above a seasonal target level).

The Licensee will provide flow from hydro generation and other means to support electric customer needs and the instream flow needs of the Project. During periods of normal inflow, reservoir levels will be maintained within prescribed Normal Operating Ranges. During times that inflow is not adequate to meet all of the normal demands for water and maintain reservoir levels as normally targeted the Licensee will progressively reduce hydro generation. If hydrologic conditions worsen until trigger points outlined herein are reached, the Licensee will declare a Stage 0 - Low Inflow Watch and begin meeting with the applicable agencies and water users to discuss this LIP. If hydrologic conditions continue to worsen, the Licensee will declare various stages of a Low Inflow Condition (LIC) as defined in the Procedure section of this document. Each progressive stage of the LIC will call for greater reductions in hydro station releases and water withdrawals, and allow additional use of the available water storage inventory.

The goal of this staged LIP is to take the actions needed in the Catawba-Wateree River Basin to delay the point at which the Project's usable water storage inventory is fully depleted. While there are no human actions that can guarantee that the Catawba-Wateree River Basin will never experience operability limitations at water intake structures due to low reservoir levels or low streamflows, this LIP is intended to provide additional time to allow precipitation to restore streamflow, reservoir levels, and groundwater levels to normal ranges. The amount of additional time that is gained during the LIP depends primarily on the diagnostic accuracy of the trigger points, the amount of regulatory flexibility the Licensee has to operate the Project, and the effectiveness of the Licensee and other water users in working together to implement their required actions and achieve significant water use reductions in a timely manner.

To ensure continuous improvement regarding the LIP and its implementation throughout the term of the New License, the LIP will be re-evaluated and modified periodically. These re-evaluations and modifications will be as determined by the Catawba-Wateree Drought Management Advisory Group (CW-DMAG).

KEY FACTS AND DEFINITIONS

1. Human Health and Safety and the Integrity of the Public Water Supply and Electric Systems are of Utmost Importance – Nothing in this protocol will limit the Licensee's ability to take any and all lawful actions necessary at the Project to protect human health and safety, protect its equipment from major damage, protect the equipment of the Large Water Intake Owners from major damage, and ensure the stability of the regional electric grid and public water supply systems. It is recognized that the Licensee may take the steps that are necessary to protect these things without prior consultation or notification. Likewise, nothing in this LIP will limit the States of North Carolina and South Carolina from taking any and all lawful actions necessary within their jurisdictions to protect human health and safety. It is recognized that North Carolina and South Carolina may also take the steps necessary to protect these things without prior consultation or notification.

2. No Abrogation of Statutory Authority – It is understood that the South Carolina Department of Natural Resources (SCDNR) must operate under the statutory authority of its drought response statutes, and nothing in this LIP will require the SCDNR to take any action that exceeds its authority under their drought response statute.

3. Normal 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(s) if the Licensee took no action. This level corresponds to the lowest point along the top of the spillway (including flashboards) for reservoirs without floodgates and to the lowest point along the top of the floodgates for reservoirs that have floodgates. To avoid confusion among the many reservoirs the Licensee operates, it has adopted the practice of referring to the Full Pond Elevation for all of its reservoirs as equal to 100.0 ft. relative. The Full Pond Elevations for the Catawba-Wateree Project reservoirs are as follows:

Reservoir	Full Pond Elevation (ft. above Mean Sea Level)
Lake James	1200.0
Lake Rhodhiss	995.1
Lake Hickory	935.0
Lookout Shoals Lake	838.1
Lake Norman	760.0
Mountain Island Lake	647.5
Lake Wylie	569.4
Fishing Creek Reservoir	417.2
Great Falls Reservoir	355.8
Cedar Creek Reservoir	284.4
Lake Wateree	225.5

4. Net Inflow – The cumulative inflow into a reservoir, expressed in acre-feet (ac-ft) per month. Net inflow is the sum of tributary stream flow, inflow from upstream hydro development releases (where applicable), groundwater inflow, precipitation falling on the reservoir surface, land surface runoff, and on-reservoir point-source return flows, less the sum of on-reservoir water withdrawals, groundwater recharge, hydro development flow releases, evaporation, and other factors.

5. Normal Minimum Elevation – The level of a reservoir (measured in feet above Mean Sea Level (MSL) or feet relative to the full pond contour with 100.0 ft. corresponding to full pond) 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 range of the average or expected amounts, hydroelectric 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.

6. Normal Maximum Elevation – The level of a reservoir (measured in feet above Mean Sea Level (MSL) or feet relative to the full pond contour with 100.0 ft. corresponding to full pond) that defines the top 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 range of the average or expected amounts, hydroelectric project equipment is operating properly, and no protocols for abnormal conditions have been implemented, reservoir level excursions above the Normal Maximum Elevation should not occur.

7. Normal Target Elevation – The level of a reservoir (measured in feet above Mean Sea Level (msl) or feet relative to the full pond contour with 100.0 ft corresponding to full pond) that the Licensee will endeavor in good faith to achieve, unless operating in this Low Inflow Protocol, the Maintenance and Emergency Protocol, the Spring Reservoir Level Stabilization Program (Lakes James, Norman, Wylie and Wateree only), a Spring Stable Flow Period (Lake Wateree only) or a Floodplain Inundation Period (Lake Wateree only). Since inflows vary significantly and outflow demands also vary, the Licensee will not always be able to maintain actual reservoir level at the Normal Target Elevation. The Normal Target Elevation falls within the Normal Operating Range, but it is not always the average of the Normal Minimum and Normal Maximum Elevations.

8. 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 and a Normal Minimum Elevation. If inflows and outflows to the reservoir are kept within some reasonable range 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.

9. Large Water Intake – Any water 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) that withdraws water from the Catawba-Wateree River Basin.

10. Public Water Supply (PWS) – Any water delivery system owned and/or operated by any governmental or private entity that utilizes waters from the Catawba-Wateree

River Basin for the public interest including drinking water; residential, commercial, industrial, and institutional uses; irrigation, and/or other public uses.

11. Critical Reservoir Elevation – Unless it is otherwise stated as applying only to a specific intake or type of intake, the Critical Reservoir Elevation is the highest level of water in a reservoir (measured in feet above Mean Sea Level (mls) or feet relative to the full pond contour with 100.0 ft. corresponding to full pond) below which any Large Water Intake used for Public Water Supply or industrial uses, or any regional power plant intake located on the reservoir will not operate at its Licensee-approved capacity. The Critical Reservoir Elevations, as of June 1, 2006, are defined below:

Reservoir	Critical Reservoir Elevation (ft. relative to local datum) (100 ft = Full Pond)	Type of Limit
Lake James	61.0	Power Production
Lake Rhodhiss	89.4	Municipal Intake
Lake Hickory	94.0	Municipal Intake
Lookout Shoals Lake	74.9	Municipal Intake
Lake Norman	90.0	Power Production
Mountain Island Lake	94.3	Power Production
Lake Wylie	92.6	Industrial Intake
Fishing Creek Reservoir	95.0	Municipal Intake
Great Falls Reservoir	87.2	Power Production
Cedar Creek Reservoir	80.3	Power Production
Lake Wateree	92.5	Municipal Intake

12. Total Usable Storage (TUS) – The sum of the Project's volume of water expressed in acre-feet (ac-ft) contained between each reservoir's Critical Reservoir Elevation and the Full Pond Elevation.

13. Remaining Usable Storage (RUS) – The sum of the Project's volume of water expressed in acre-feet (ac-ft) contained between each reservoir's Critical Reservoir Elevation and the actual reservoir elevation at any given point in time.

14. Storage Index (SI) – The ratio, expressed in percent, of Remaining Usable Storage to Total Usable Storage at any given point in time.

15. Target Storage Index (TSI) – The ratio of Remaining Usable Storage to Total Usable Storage based on the Project reservoirs being at their Normal Target Elevations. The following table lists the Target Storage Index for the first day of each month:

Month	Target Storage Index For 1st Day of Month (%)*
Jan	61
Feb	51
Mar	61
Apr	66

Month	Target Storage Index For 1st Day of Month (%)*
May	75
Jun	75
Jul	75
Aug	75
Sep	75
Oct	75
Nov	69
Dec	62

* Target Storage Indices for other days of the month are determined by linear interpolation.

16. U.S. Drought Monitor – A synthesis of multiple indices, outlooks, and news accounts that represents 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 website address is http://www.drought.unl.edu/dm/monitor.html. The following federal agencies are responsible for maintaining the U.S. Drought Monitor:

    - Joint Agricultural Weather Facility (U.S. Department of Agriculture and Department of Commerce/National Oceanic and Atmospheric Administration)
    - Climate Prediction Center (U.S. Department of Commerce/NOAA/National Weather Service)
    - National Climatic Data Center (DOC/NOAA)

17. U.S. Drought Monitor Three-Month Numeric Average – If the U.S. Drought Monitor has a reading of D0-D4 as of the last day of the previous month for any part of the Catawba-Wateree River Basin that drains to Lake Wateree, the Basin will be assigned a numeric value for the current month. The numeric value will equal the highest Drought Monitor designation (e.g., D0 = 0, D4 = 4) as of the last day of the previous month that existed for any part of the Catawba-Wateree River Basin that drains to Lake Wateree. A normal condition in the Basin, defined as the absence of a Drought Monitor designation, would be assigned a numeric value of negative one (-1). A running average numeric value of the current month and the previous two months will be monitored and designated as the U.S. Drought Monitor Three-Month Numeric Average.

18. Critical Flows – The minimum flow releases from the hydro developments that may be necessary to:

    a. prevent long-term or irreversible damage to aquatic communities consistent with the resource management goals and objectives for the affected stream reaches;

    b. provide some basic level of operability for Large Water Intakes located on the affected stream reaches; and,

c. provide some basic level of water quality maintenance in the affected stream reaches.

For the purposes of this LIP, the Critical Flows are as follows:

a. Linville River, below the Bridgewater Development: 75 cubic feet per second (cfs).

b. Catawba River Bypassed Reach below the Bridgewater Development: 25 cfs.

c. Oxford Regulated River Reach below the Oxford Development: 100 cfs.

d. Lookout Shoals Regulated River Reach below the Lookout Shoals Development: 80 cfs.

e. Wylie Regulated River Reach below the Wylie Development: 700 cfs.

f. Great Falls Bypassed Reaches (Long and Short) at the Great Falls-Dearborn Development: 450 cfs and 80 cfs respectively.

g. Wateree Regulated River Reach below the Wateree Development: 800 cfs.

h. Leakage flows at the remaining Project structures. Leakage flows are defined as the flow of water through wicket gates when the hydro units are not operating and seepage through the Project structures at each development.

19. Recreation Flow Reductions – Since all recreation flow releases must be made by either releasing water through hydroelectric generation or through flow releases that bypass hydro generation equipment, reductions in Project Flow Requirements will impact recreation flow releases.

20. Organizational Abbreviations – Organizational abbreviations include the North Carolina Department of Environment and Natural Resources (NCDENR), North Carolina Wildlife Resources Commission (NCWRC), South Carolina Department of Natural Resources (SCDNR), South Carolina Department of Health and Environmental Control (SCDHEC), and the United States Geological Survey (USGS).

21. Catawba-Wateree Drought Management Advisory Group (CW-DMAG) – The CW-DMAG will be tasked with working with the Licensee when the LIP is initiated. This team will also meet as necessary to foster a basin-wide response to a Low Inflow Condition (see Procedure section of this LIP). Members of the CW-DMAG agree to comply with the conditions of this LIP. Membership on the CW-DMAG is open to the following organizations, of which each organization may have up to two members:

a. NCDENR (including Division of Water Resources and the Division of Water Quality)
b. NCWRC
c. SCDNR
d. SCDHEC
e. USGS
f. Each Owner of a Large Water Intake located on one of the Catawba-Wateree Project reservoirs or the main stem of the Catawba-Wateree River
g. Each Owner of a Large Water Intake located on any tributary stream within the Catawba-Wateree River Basin that ultimately drains to Lake Wateree
h. Licensee (CW-DMAG Coordinator)

The CW-DMAG will meet at least annually (typically during the month of May) beginning in 2007 and continuing throughout the term of the New License, regardless of the Low Inflow Condition status, to review prior year activities, discuss data input from Large Water Intake Owners, and discuss other issues relevant to the LIP. The Licensee will maintain an active roster of the CW-DMAG and update the roster as needed. The Licensee will prepare meeting summaries of all CW-DMAG meetings and will make these meeting summaries available to the public by posting on its Web site.

22. Revising the LIP – During the term of the New License, the CW-DMAG will review and update the LIP periodically to ensure continuous improvement of the LIP and its implementation. These evaluations and modifications will be considered at least once every five (5) years during the New License term. Modifications must be approved by a consensus of the participating CW-DMAG members. If the participating members cannot reach consensus, then the dispute resolution procedures set forth in Section 31.0 of the relicensing Final Agreement will apply. Approved modifications will be incorporated through revision of the LIP and the Licensee will file the revised LIP with the FERC. If any modifications of the LIP require amendment of the New License, the Licensee will: (i) provide notice to all Parties to the relicensing Final Agreement advising them of the proposed license article amendment and the Licensee's intent to file it with the FERC; (ii) submit the modification request to the North Carolina Division of Water Quality (NCDWQ) and/or the South Carolina Department of Health and Environmental Control (SCDHEC) for formal review and approval as may be required by any reopener conditions of the respective state's 401 Water Quality Certification for the Project; and (iii) file a license amendment request for FERC approval. During this process, the CW-DMAG may appoint an ad hoc committee to address issues and revisions relevant to the LIP. The filing of a revised LIP by the Licensee will not constitute or require modification to the relicensing Final Agreement and any Party to the relicensing Final Agreement may be involved in the FERC's public process for assessing the revised LIP. Issues such as sediment fill impact on reservoir storage volume calculations, revising the groundwater monitoring plan and substitution of a regional drought monitor for the U.S. Drought Monitor, if developed in the future, are examples of items that may be addressed.

23. Water Withdrawal Data Collection and Reporting – The Licensee will maintain information on cumulative water use from Project reservoirs beginning in 2006 and continuing throughout the term of the New License and will make the information available to water intake owners and governmental agencies upon their request. The Licensee will require all owners of Large Water Intakes located within the FERC Project Boundaries to report to the Licensee, on an annual basis in MGD, their average monthly water withdrawals from and flow returns to the Project or its tributary streams that drain to Lake Wateree. The Licensee will maintain a database of this information including the Licensee's own non-hydro water use records (i.e., water uses due to thermal power generation). These annual withdrawal summaries will be in writing, certified for accuracy by a professional engineer or other appropriate official, and will be provided to the Licensee by January 31 of each year for the preceding calendar year beginning in 2007. This information may be used to determine if future increased water withdrawals would be within the projections of the Water Supply Study conducted during the relicensing process and filed with the FERC as part of the Licensee's Application for New License for the Project.

24. Reclaimed Water – Wastewater that has been treated to reclaimed water standards and is re-used for a designated purpose (e.g. industrial process, irrigation). Reclaimed Water will not be subject to the water use restrictions outlined in this LIP.

25. Drought Response Plan Updates – All Large Water Intake Owners will review and update their Drought Response Plans or Ordinances (or develop a plan or ordinance if they do not have one) by June 30, 2007 and within 180 days following the acceptance by the FERC of any future LIP revisions during the term of the New License to ensure compliance and coordination with the LIP, including the authority to enforce the provisions outlined herein, provided that the requirements of the LIP are consistent with state law.

26. Relationship Between the LIP and the Maintenance & Emergency Protocol (MEP) – The MEP outlines the response the Licensee will take under certain emergency and equipment failure and maintenance situations to continue practical and safe operation of the Project, to mitigate any related impacts to license conditions, and to communicate with resource agencies and the affected parties. Under the MEP, temporary modifications of prescribed flow releases and the reservoir level Normal Operating Ranges are allowed. Lowering levels of Project reservoirs caused by situations addressed under the MEP will not invoke implementation of this Low Inflow Protocol (LIP). Also, if the LIP has already been implemented at the time that a situation covered by the MEP is initiated, the Licensee will typically suspend implementation of the LIP until the MEP situation has been eliminated. The Licensee may, however, choose to continue with the LIP if desirable.

27. Consensus – Consensus is reached when all CW-DMAG members in attendance can 'live with' the outcome or proposal being made. The concept of consensus is more fully described in the Catawba-Wateree Hydroelectric Project Relicensing Stakeholder Teams Charter (dated October, 2005).

28. Monitored USGS Streamflow Gages – The Monitored USGS Streamflow Gages are identified as USGS streamflow gage #'s 02145000 (South Fork Catawba River at Lowell, NC), 02137727 (Catawba River near Pleasant Gardens, NC), 02140991 (Johns River at Arney's Store, NC), and 02147500 (Rocky Creek at Great Falls, SC).

ASSUMPTIONS

1. Instream Flows for Recreation – The New License for the Catawba-Wateree Project includes recreational flow releases as listed in the proposed Recreational Flows License Article.

2. Minimum Flows – The New License for the Catawba-Wateree Project includes the minimum flow requirements as listed in the proposed Minimum Flows License Article, the proposed Wylie High Inflow Protocol License Article, and the proposed Flows Supporting Public Water Supply and Industrial Processes License Article.

3. Project Flow Requirements – These flow requirements include the Minimum Flows and the portion of the Recreational Flows that is greater than the Minimum Flows for normal conditions (i.e., conditions outside of this LIP or Maintenance and Emergency Protocol).

4. Public Information System – The New License for the Catawba-Wateree Project includes the requirement to provide information to the public as specified in the proposed Public Information License Article.

5. Normal Operating Ranges for Reservoir Levels – The New License for the Catawba-Wateree Project includes the Normal Operating Ranges for reservoir levels (i.e., Normal Minimum, Normal Maximum, and Normal Target Elevations) as listed in the proposed Reservoir Elevations License Article.
6. Spring Reservoir Level Stabilization Program – The New License for the Catawba-Wateree Project includes the reservoir level requirements in the proposed Spring Reservoir Level Stabilization Program License Article.

PROCEDURE

During periods of normal inflow, reservoir levels will be maintained within prescribed Normal Operating Ranges. During times that inflow is not adequate to meet all of the normal demands for water and maintain reservoir levels as normally targeted, the Licensee will progressively reduce hydro generation while meeting Project Flow Requirements. During a Low Inflow Watch or a Low Inflow Condition (LIC) (as defined below), the Licensee and other water users will follow the protocol set forth below for the Catawba-Wateree Project regarding communications and adjustments to hydro station flow releases, bypassed flow releases, minimum reservoir elevations, and other water demands. The adjustments set forth below will be made 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.

Trigger points that demonstrate worsening hydrologic conditions will define various stages of the Low Inflow Condition. A summary of trigger points for various stages is provided in the table below. The specific triggers required to enter successive stages are defined in the procedure for each stage.

Summary of LIP Trigger Points

Stage	Storage Index [1]		Drought Monitor [2] (3-month average)		Monitored USGS [3] Streamflow Gages
0[4]	90% < SI < 100% TSI		3mo Ave DM ≥ 0		AVG ≤ 85% LT 6mo Ave
1	75% TSI < SI ≤ 90% TSI	**and**	3mo Ave DM ≥ 1	**or**	AVG ≤ 78% LT 6mo Ave
2	57% TSI < SI ≤ 75% TSI	**and**	3mo Ave DM ≥ 2	**or**	AVG ≤ 65% LT 6mo Ave
3	42% TSI < SI ≤ 57% TSI	**and**	3mo Ave DM ≥ 3	**or**	AVG ≤ 55% LT 6mo Ave
4	SI ≤ 42% TSI	**and**	3mo Ave DM = 4	**or**	AVG ≤ 40% LT 6mo Ave

[1] The ratio of Remaining Useable Storage to Total Usable Storage at a given point in time.

[2] The three-month numeric average of the published U.S. Drought Monitor.

[3] The sum of the rolling sixth-month average for the Monitored USGS Streamflow Gages as a percentage of the period of record rolling average for the same six-month period for the Monitored USGS Streamflow Gages.

[4] Stage 0 is triggered when any two of the three trigger points are reached.

Stage 0 Actions

The Licensee will monitor the Storage Index, the U.S. Drought Monitor, and the Monitored USGS Streamflow Gages on at least a monthly basis and will declare a Stage 0 Low Inflow Watch if any two of the following conditions occur:

a. On the first day of the month, Storage Index is below the Target Storage Index, but greater than 90% of the Target Storage Index, while providing the Project Flow Requirements for the previous month.

b. The U.S. Drought Monitor Three-Month Numeric Average has a value greater than or equal to 0.

c. The sum of the actual rolling six-month average streamflows at the Monitored USGS Streamflow Gages is equal to or less than 85% of the sum of the period of record rolling average streamflows for the same six-month period.

When a Low Inflow Watch has been declared:

a. The Licensee will activate the CW-DMAG, including the initiation of monthly meetings or conference calls to occur on the second Tuesday of each month. These monthly discussions will focus on:

- Proper communication channels between the CW-DMAG members.
- Information reporting consistency for CW-DMAG members, including a storage index history and forecast (at least a 90-day look back and look ahead) from the Licensee, a water use history and forecast (at least a 90-day look back and look ahead) from each water user on the CW-DMAG, streamflow gage and groundwater monitoring status from the state agencies and USGS, and state-wide drought response status from the state agencies.
- Refresher training on this LIP.
- Overview discussions from each CW-DMAG member concerning their role and plans for responding if a Stage 1 or higher Low Inflow Condition is subsequently declared.

b. The Licensee will reduce the prescribed recreation flow releases at the Wylie Development from 6,000 cfs to 3,000 cfs.

Stage 1 Actions

1. The Licensee will declare a Stage 1 Low Inflow Condition (LIC) and notify the CW-DMAG if:

   a. On the first day of the month, the Storage Index is at or below 90% of the Target Storage Index, but greater than 75% of the Target Storage Index, while providing the Project Flow Requirements for the previous month.

   and either of the following conditions exists:

   b. The U.S. Drought Monitor Three-Month Numeric Average has a value greater than or equal to 1.

   c. The sum of the actual rolling six-month average streamflows at the Monitored USGS Streamflow Gages is equal to or less than 78% of the sum of the period of record rolling average streamflows for the same six-month period.

2. The Licensee will complete the following activities within 5 days after the Stage 1 LIC declaration:

    a. Reduce the Project Flow Requirements by 60% of the difference between the normal Project Flow Requirements and the Critical Flows. These reduced Project Flow Requirements are referred to as Stage 1 Minimum Project Flows.

    b. Reduce the Normal Minimum Elevations by two feet at Lake James and Lake Norman and by one foot at each of the other Project reservoirs, but not to levels at any reservoir below the applicable Critical Reservoir Elevation. These elevations are referred to as the Stage 1 Minimum Elevations.

    c. Update its Web site and Interactive Voice Response (IVR) messages to account for the impacts of the LIP on reservoir levels, usability of the Licensee's public access areas, and recreation flow schedules.

    d. Notify the Federal Energy Regulatory Commission (FERC), the United States Fish and Wildlife Service (USFWS), the United States Bureau of Indian Affairs (USBIA), National Marine Fisheries Service (NMFS), and the Catawba Indian Nation of the Stage 1 LIC declaration.

    e. Provide bi-weekly (once every two weeks) information updates to owners of Large Water Intakes about reservoir levels, meteorological forecasts, and inflow of water into the system.

    f. In addition the Licensee may, at its sole discretion, modify or suspend its use of selected operating procedures that are designed for periods of normal or above normal inflow to optimize the water storage capabilities of the Project, including the Normal Maximum Elevations and Normal Target Elevations for reservoir levels; the Spring Reservoir Level Stabilization Program; the Wylie High Inflow Protocol and at Lake Wateree, the Spring Stable Flow Periods and Floodplain Inundation Periods. These modifications and suspensions may be used at the Licensee's sole discretion in any Low Inflow Condition (Stages 1 through 4).

3. Owners of Public Water Supply intakes and owners of intakes used for irrigation with a capacity greater than 100,000 gallons per day will complete the following activities within 14 days after the Stage 1 LIC declaration:

    a. Notify their water customers and employees of the Low Inflow Condition through public outreach and communication efforts.

    b. Request that their water customers and employees implement <u>voluntary</u> water use restrictions, in accordance with their drought response plans, which may include:

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

        At this stage, the goal is to reduce water usage by 3-5% (or more) from the amount that would otherwise be expected. The baseline for this comparison will be generated by each entity and will be based on existing conditions (i.e. drought conditions). For the purposes of determining 'the amount that would

otherwise be expected', each entity may give consideration to one or more of the following:

- Historical maximum daily, weekly, and monthly flows during drought conditions.
- Increased customer base (e.g. population growth, service area expansion) since the historical flow comparison.
- Changes in major water users (e.g. industrial shifts) since the historical flow comparison.
- Climatic conditions for the comparison period.
- Changes in water use since the historical flow comparison.
- Other system specific considerations.

c. Provide a status update to the CW-DMAG on actual water withdrawal trends. Discuss plans for moving to mandatory restrictions, if required.

4. Owners of Large Water Intakes, other than those referenced in item 3 above, will complete the following activities within 14 days after the Stage 1 LIC declaration:

   a. Notify their customers and employees of the Low Inflow Condition through public outreach and communication efforts.

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

   c. Provide a status update to the CW-DMAG on actual water withdrawal trends.

<u>Stage 2 Actions</u>

1. The Licensee will declare a Stage 2 Low Inflow Condition (LIC) and notify the CW-DMAG if:

   a. On the first day of the month, the Storage Index is at or below 75% of the Target Storage Index, but greater than 57% of the Target Storage Index, while providing the Stage 1 Minimum Project Flows during the previous month.

   and either of the following conditions exists:

   b. The U.S. Drought Monitor Three-Month Numeric Average has a value greater than or equal to 2.

   c. The sum of the actual rolling six-month average streamflows at the Monitored USGS Streamflow Gages is equal to or less than 65% of the sum of the period of record rolling average streamflows for the same six-month period.

2. The Licensee will complete the following activities within 5 days after the Stage 2 LIC declaration:

   a. Eliminate prescribed recreation flow releases at this stage and all subsequent stages. Reduce the Project Flow Requirements by 95% of the difference between the normal Project Flow Requirements and Critical Flows. These reduced flows are referred to as Stage 2 Minimum Project Flows.

   b. Reduce the Stage 1 Minimum Elevations by one additional foot at Lake James (three feet total below Normal Minimum Elevation) and two additional

feet at Lake Norman (four feet total below Normal Minimum Elevation) and by one additional foot (two feet total below Normal Minimum Elevations) at each of the other Project reservoirs but not to levels at any reservoir below the applicable Critical Reservoir Elevation. These elevations are referred to as the Stage 2 Minimum Elevations.

c. Update its Web site and IVR messages to account for the impacts of the LIP on reservoir levels, usability of the Licensee's public access areas, and recreation flow schedules.

d. Notify the FERC, the USFWS, the USBIA, NMFS, and the Catawba Indian Nation of the Stage 2 LIC declaration.

e. Provide bi-weekly information updates to owners of Large Water Intakes about reservoir levels, meteorological forecasts, and inflow of water into the system.

f. In addition the Licensee may, at its sole discretion, modify or suspend its use of selected operating procedures that are designed for periods of normal or above normal inflow to optimize the water storage capabilities of the Project, including the Normal Maximum Elevations and Normal Target Elevations for reservoir levels; the Spring Reservoir Level Stabilization Program; the Wylie High Inflow Protocol; and at Lake Wateree, the Spring Stable Flow Periods and Floodplain Inundation Periods. These modifications and suspensions may be used at the Licensee's sole discretion in any Low Inflow Condition (Stages 1 through 4).

3. Owners of Public Water Supply intakes and owners of intakes used for irrigation with a capacity greater than 100,000 gallons per day will complete the following activities within 14 days after the Stage 2 LIC declaration:

   a. Notify their water customers and employees of the continued Low Inflow Condition and movement to mandatory water use restrictions through public outreach and communication efforts.

   b. Require that their water customers and employees implement <u>mandatory</u> water use restrictions, in accordance with their drought response plans, which may include:

      - Limiting lawn and landscape irrigation to no more than <u>two days</u> 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.

      At this stage, the goal is to reduce water usage by 5-10% (or more) from the amount that would otherwise be expected (as discussed in Stage 1 above).

   c. Enforce mandatory water use restrictions through the assessment of penalties.

   d. Provide a status update to the CW-DMAG on actual water withdrawal trends.

4. Owners of Large Water Intakes, other than those referenced in item 3 above, will complete the following activities within 14 days after the Stage 2 LIC declaration:

a. Continue informing their customers and employees of the Low Inflow Condition through public outreach and communication efforts.

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

c. Provide a status update to the CW-DMAG on actual water withdrawal trends.

Stage 3 Actions

1. The Licensee will declare a Stage 3 Low Inflow Condition (LIC) and notify the CW-DMAG if:

   a. On the first day of the month, the Storage Index is at or below 57% of the Target Storage Index, but greater than 42% of the Target Storage Index, while providing the Stage 2 Minimum Project Flows during the previous month.

   and either of the following conditions exists:

   b. The U.S. Drought Monitor Three-Month Numeric Average has a value greater than or equal to 3.

   c. The sum of the actual rolling six-month average streamflows at the Monitored USGS Streamflow Gages is equal to or less than 55% of the sum of the period of record rolling average streamflows for the same six-month period.

2. The Licensee will complete the following activities within 5 days after the Stage 3 LIC declaration:

   a. Reduce the Project Flow Requirements to Critical Flows. These reduced flows are referred to as Stage 3 Minimum Project Flows.

   b. Reduce the Stage 2 Minimum Elevations by seven additional feet at Lake James (ten feet total below Normal Minimum Elevation) and one additional foot at Lake Norman (five feet total below Normal Minimum Elevation) and by one additional foot (three feet total below Normal Minimum Elevations) at each of the other Project reservoirs but not to levels at any reservoir below the applicable Critical Reservoir Elevation. These elevations are referred to as the Stage 3 Minimum Elevations.

   c. Update its Web site and IVR messages to account for the impacts of the LIP on reservoir levels, usability of the Licensee's public access areas, and recreation flow schedules.

   d. Notify the FERC, the USFWS, the USBIA, NMFS, and the Catawba Indian Nation of the Stage 3 LIC declaration.

   e. Provide bi-weekly information updates to owners of Large Water Intakes about reservoir levels, meteorological forecasts, and inflow of water into the system.

   f. In addition the Licensee may, at its sole discretion, modify or suspend its use of selected operating procedures that are designed for periods of normal or above normal inflow to optimize the water storage capabilities of the Project, including the Normal Maximum Elevations and Normal Target Elevations for reservoir levels; the Spring Reservoir Level Stabilization Program; the Wylie High Inflow Protocol; and at Lake Wateree, the Spring Stable Flow Periods

and Floodplain Inundation Periods. These modifications and suspensions may be used at the Licensee's sole discretion in any Low Inflow Condition (Stages 1 through 4).

3. Owners of Public Water Supply intakes and owners of intakes used for irrigation with a capacity greater than 100,000 gallons per day will complete the following activities within 14 days after the Stage 3 LIC declaration:

    a. Notify their water customers and employees 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 and employees implement <u>increased mandatory</u> water use restrictions, in accordance with their drought response plans, which may include:

        - Limiting lawn and landscape irrigation to no more than <u>one day</u> 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.

        At this stage, the goal is to reduce water usage by 10-20% (or more) from the amount that would otherwise be expected (as discussed in Stage 1 above).

    c. Enforce mandatory water use restrictions through the assessment of penalties.

    d. Encourage industrial/manufacturing process changes that reduce water consumption.

    e. Provide a status update to the CW-DMAG on actual water withdrawal trends.

4. Owners of Large Water Intakes, other than those referenced in item 3 above, will complete the following activities within 14 days after the Stage 3 LIC declaration:

    a. Continue informing their customers and employees of the Low Inflow Condition through public outreach and communication efforts.

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

    c. Encourage industrial/manufacturing process changes that reduce water consumption.

    d. Provide a status update to the CW-DMAG on actual water withdrawal trends.

<u>Stage 4 Actions</u>

1. The Licensee will declare a Stage 4 Low Inflow Condition (LIC) and notify the CW-DMAG if:

a. On the first day of the month, the Storage Index is at or below 42% of the Target Storage Index, while providing the Stage 3 Minimum Project Flows during the previous month.

and either of the following conditions exists:

b. The U.S. Drought Monitor Three-Month Numeric Average has a value of 4.

c. The sum of the actual rolling six-month average streamflows at the Monitored USGS Streamflow Gages is equal to or less than 40% of the sum of the period of record rolling six-month average streamflows for the same six-month period.

2. The Licensee will:

a. Continue to provide Critical Flows as long as possible.

b. Reduce the Stage 3 Minimum Elevations to the Critical Reservoir Elevations.

c. Establish a meeting date and notify the CW-DMAG within 1 day following the Stage 4 LIC declaration.

d. Notify the FERC, the USFWS, the USBIA, NMFS, and the Catawba Indian Nation of the Stage 4 LIC declaration.

e. Continue to update its Web site and IVR messages to account for the impacts of the LIP on reservoir levels, usability of the Licensee's public access areas, and recreation flow schedules.

f. Provide bi-weekly information updates to owners of Large Water Intakes about reservoir levels, meteorological forecasts, and inflow of water into the system.

g. In addition the Licensee may, at its sole discretion, modify or suspend its use of selected operating procedures that are designed for periods of normal or above normal inflow to optimize the water storage capabilities of the Project, including the Normal Maximum Elevations and Normal Target Elevations for reservoir levels; the Spring Reservoir Level Stabilization Program; the Wylie High Inflow Protocol, and at Lake Wateree, the Spring Stable Flow Periods and Floodplain Inundation Periods. These modifications and suspensions may be used at the Licensee's sole discretion in any Low Inflow Condition (Stages 1 through 4).

Note: Once a Stage 4 LIC is declared, the Remaining Usable Storage in the reservoir system is small and can be fully depleted in a matter of weeks or months. Groundwater recharge may also contribute to declining reservoir levels. For these reasons in the Stage 4 LIC, the Licensee may not be able to ensure that flow releases from its hydro developments will meet or exceed Critical Flows or that reservoir elevations will be greater than or equal to the Critical Reservoir Elevations.

3. Owners of Public Water Supply intakes and owners of intakes used for irrigation with a capacity greater than 100,000 gallons per day will complete the following activities within 14 days after the Stage 4 LIC declaration:

a. Notify their water customers and employees of the continued Low Inflow Condition and movement to **emergency** water use restrictions through public outreach and communication efforts.

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 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.

At this level, the goal is to reduce water usage by 20-30% (or more) from the amount that would otherwise be expected (as discussed in Stage 1 above).

4. Owners of Large Water Intakes on the CW-DMAG, other than those referenced in item 3 above, will complete the following activities within 14 days after the Stage 4 LIC declaration:

   a. Continue informing their customers and employees of the Low Inflow Condition through public outreach and communication efforts.

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

   c. Encourage industrial/manufacturing process changes that reduce water consumption.

   d. Provide a status update to the CW-DMAG on actual water withdrawal trends.

5. The CW-DMAG will:

   a. Meet within 5 days after the declaration of the Stage 4 LIC and determine if there are any additional measures that can be implemented to:

      (1) reduce water withdrawals without creating more severe regional problems;

      (2) reduce water releases from the Project without creating more severe regional problems; or

      (3) use additional reservoir storage without creating more severe regional problems.

   b. Work together to develop plans and implement any additional measures identified above.

<u>Recovery from the Low Inflow Protocol</u>

1. Recovery under the LIP as conditions improve will be accomplished by reversing the staged approach outlined above, except that:

   a. <u>All three</u> of the trigger points identified above for declaring the lower numbered stage must be met or exceeded before returning reservoir minimum elevations and Project flows to levels specified in that LIC stage, Low Inflow Watch, or Normal Conditions.

   b. The following groundwater level trigger points must also be attained before returning reservoir minimum elevations and Project flows to the levels specified in that LIC stage, Low Inflow Watch, or Normal Conditions:

USGS has reviewed available well records and has determined that there are existing wells with an adequate period that can be used for this process and has also determined that additional wells are advised in order to include groundwater data as part of the recovery. The CW-DMAG and the Catawba-Wateree Water Management Group (WMG) will work together to revise the plan for groundwater monitoring by December 31, 2007 and will update the table below.

Groundwater Trigger Points (depth below land surface (feet)) for Returning to the Indicated Stage					
Groundwater Monitor [Reg.=regolith; BR=bedrock]	**Stage 3 (a)**	**Stage 2 (b)**	**Stage 1 (c)**	**Stage 0 (d)**	**Normal (d)**
#1 Future Well Placeholder					
#2 Future Well Placeholder					
#3 Future Well Placeholder					
#4 Future Well Placeholder					
#5 Future Well Placeholder					
#6 USGS Langtree Peninsula RS Reg. well MW-2 & BR well MW-2D	24.91	23.61	22.21	18.21	18.21
#7 USGS Linville RS NC-220 BR well	2.74	2.19	2.11	2.04	2.04
#8 NC DWR Glen Alpine BR well L 76G2	10.01	9.03	8.32	7.69	7.69
#9 Future Well Placeholder					
#10 Future Well Placeholder					

Note: USGS groundwater levels calculated from daily mean data. North Carolina Division of Water Resources (NCDWR) water levels calculated from hourly data. All trigger levels calculated from water levels collected through the 2005 Water Year. Trigger groundwater levels may be updated on a yearly or water-year basis.
Footnotes:
(a) Stage 3: Period of record low water level
(b) Stage 2: 10th percentile
(c) Stage 1: 25th percentile
(d) Stage 0 and Normal: 50th percentile

2. The NCDENR, SCDNR, SCDHEC, USGS and the Licensee will determine when attainment of the groundwater trigger points for recovery is reached.
3. The Licensee will directly notify the CW-DMAG members within 5 days following attainment of all the trigger points necessary to recover to a lower stage of the LIC, Low Inflow Watch, or Normal Conditions.
4. The Licensee will update its Web site and IVR messages to account for the impacts of the LIP on reservoir levels, usability of the Licensee's public access areas, and recreation flow schedules.

APPENDIX D: MAINTENANCE AND EMERGENCY PROTOCOL (MEP) FOR THE CATAWBA-WATEREE PROJECT

Introduction

Under some emergency, equipment failure, maintenance or other abnormal 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 protocol each time it is used and may revise the MEP from time to time as noted below.

Key Facts and Definitions

1. Human Health and Safety and the integrity of the Public Water Supply and Electric Systems are of Utmost Importance – Nothing in this protocol will limit the Licensee's ability to take any and all lawful actions necessary at the Project to protect human health and safety, protect its equipment from major damage, protect the equipment of the Large Water Intake owners from major damage, and ensure the stability of the regional electric grid and public water supply systems. It is recognized that the Licensee may take the steps that are necessary to protect these things without prior consultation or notification. Likewise, nothing in this MEP will limit the States of North Carolina and South Carolina from taking any and all lawful actions necessary within their jurisdictions to protect human health and safety. It is recognized that North Carolina and South Carolina may also take the steps necessary to protect these things without prior consultation or notification.
2. Normal 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(s) if the Licensee took no action. This level corresponds to the lowest point along the top of the spillway (including flashboards) for reservoirs without floodgates and to the lowest point along the top of the floodgates for reservoirs that have floodgates. To avoid confusion among the many reservoirs the Licensee operates, it has adopted the practice of referring to the Full Pond Elevation for all of its reservoirs as equal to 100.0 ft. relative. The Full Pond Elevations for the Catawba-Wateree Project reservoirs are:

Reservoir	Full Pond Elevation (ft. above Mean Sea Level)
Lake James	1200.0
Lake Rhodhiss	995.1
Lake Hickory	935.0
Lookout Shoals Lake	838.1
Lake Norman	760.0
Mountain Island Lake	647.5
Lake Wylie	569.4
Fishing Creek Reservoir	417.2
Great Falls Reservoir	355.8
Cedar Creek Reservoir	284.4
Lake Wateree	225.5

3. Normal Minimum Elevation – The level of a reservoir (measured in feet above Mean Sea Level (MSL) or feet relative to the full pond contour with 100.0 ft. corresponding to full pond) 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 range of the average or expected amounts, hydroelectric 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.

4. Normal Maximum Elevation – The level of a reservoir (measured in feet above Mean Sea Level (MSL) or feet relative to the full pond contour with 100.0 ft. corresponding to full pond) that defines the top 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 range of the average or expected amounts, hydroelectric project equipment is operating properly, and no protocols for abnormal conditions have been implemented, reservoir level excursions above the Normal Maximum Elevation should not occur.

5. Normal Target Elevation – The level of a reservoir (measured in ft above Mean Sea Level (msl) or feet relative to the full pond contour with 100.0 ft corresponding to full pond) that the Licensee will endeavor in good faith to achieve, unless operating in the Low Inflow Protocol, the Maintenance and Emergency Protocol, the Spring Reservoir Level Stabilization Program (Lakes James, Norman, Wylie and Wateree only), a Spring Stable Flow Period (Lake Wateree only) or a Floodplain Inundation Period (Lake Wateree only). Since inflows vary significantly and outflow demands also vary, the Licensee will not always be able to maintain actual reservoir level at the Normal Target Elevation. The Normal Target Elevation falls within the Normal Operating Range, but it is not always the average of the Normal Minimum and Normal Maximum Elevations.

6. Normal Operating Range – 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 and a Normal Minimum Elevation. If inflows and outflows to the reservoir are kept within some reasonable range 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.

7. Returning to Normal – Some of the abnormal situations noted in this MEP 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. If the Licensee decides that repair is not cost-effective or that hydro station or dam retirement is necessary, the Licensee will notify the Parties to the relicensing Final Agreement and consult with them as well as the FERC to determine any necessary modifications of the New License and/or this Agreement.

8. Incidental Maintenance – These are maintenance activities at 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 does not require deviation from any license conditions related to prescribed flow releases from project structures, or the Normal Operating Ranges for reservoir levels or is less than 24 hours in duration and will not require any excursions below any Critical Flows or Critical Reservoir Elevations is considered Incidental Maintenance and, except for the notification steps identified in the tables below for communication with resource agencies and affected parties for conditions that impact prescribed flow releases, Incidental Maintenance is exempt from the requirements of this protocol.

9. Notification Guidance

   a. Scheduled Maintenance that Affects License Conditions – Typically, scheduled maintenance is planned months in advance. 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. Relationship Between this Protocol and the Low Inflow Protocol – The Low Inflow Protocol (LIP) provides for reductions in generation flows, instream flows and recreational flow releases and modification of 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 Maintenance and Emergency Protocol (MEP) will not invoke implementation of the LIP. Also, if the LIP has already been implemented at the time that a situation covered by this MEP is initiated, the Licensee will typically suspend

implementation of the LIP until the MEP situation has been eliminated. The Licensee may however choose to continue with the LIP if desirable.

11. Peak Recreation Season – The period when recreation use on Project reservoirs is generally at the highest levels, identified by the Recreation Use and Needs Study as extending from April 1st through September 30th.

12. Critical Flows – The minimum flow releases from the hydro developments that may be necessary to:

    a. prevent long-term or irreversible damage to aquatic communities consistent with the resource management goals and objectives for the affected stream reaches;

    b. provide some basic level of operability for large water intakes located on the affected stream reaches; and,

    c. provide some basic level of water quality maintenance in the affected stream reaches.

For the purposes of the LIP and this MEP, the Critical Flows are as follows:

a. Linville River, below the Bridgewater Development: 75 cubic feet per second (cfs).

b. Catawba River Bypassed Reach below the Bridgewater Development: 25 cfs.

c. Oxford Regulated River Reach below the Oxford Development: 100 cfs.

d. Lookout Shoals Regulated River Reach below the Lookout Shoals Development: 80 cfs.

e. Wylie Regulated River Reach below the Wylie Development: 700 cfs

f. Great Falls Bypassed Reaches (Long and Short) at the Great Falls-Dearborn Development: 450 cfs and 80 cfs respectively.

g. Wateree Regulated River Reach below the Wateree Development: 800 cfs

h. Leakage flows at the remaining Project structures. Leakage flows are defined as the flow of water through wicket gates when the hydro units are not operating and seepage through the Project structures at each development.

13. Critical Reservoir Elevation – Unless it is otherwise stated as applying only to a specific intake or type of intake, the Critical Reservoir Elevation is the highest level of water in a reservoir (measured in feet above Mean Sea Level (mls) or feet relative to the full pond contour with 100.0 ft. corresponding to full pond) below which any Large Water Intake used for Public Water Supply or industrial uses, or any regional power plant intake located on the reservoir will not operate at its Licensee-approved capacity. The Critical Reservoir Elevations, as of June 1, 2006, are defined below:

Reservoir	Critical Reservoir Elevation (ft. relative to local datum) (100 ft = Full Pond)	Type of Limit
Lake James	61.0	Power Production
Lake Rhodhiss	89.4	Municipal Intake
Lake Hickory	94.0	Municipal Intake
Lookout Shoals Lake	74.9	Municipal Intake
Lake Norman	90.0	Power Production
Mountain Island Lake	94.3	Power Production
Lake Wylie	92.6	Industrial Intake
Fishing Creek Reservoir	95.0	Municipal Intake
Great Falls Reservoir	87.2	Power Production
Cedar Creek Reservoir	80.3	Power Production
Lake Wateree	92.5	Municipal Intake

14. Organizational abbreviations include the North Carolina Department of the Environment and Natural Resources (NCDENR), North Carolina Wildlife Resources Commission (NCWRC), North Carolina State Historic Preservation Office (NCSHPO), South Carolina Department of Natural Resources (SCDNR), South Carolina Department of Health and Environmental Control (SCDHEC), South Carolina State Historic Preservation Office (SCSHPO), United States Fish & Wildlife Service (USFWS), United States Geological Survey (USGS), American Whitewater (AW), United States Bureau of Indian Affairs (USBIA), Catawba Indian Nation (CIN) and the Eastern Band of Cherokee Indians (EBCI).

15. Voltage and Capacity Emergencies – The electric transmission system serving the Project area is part of the Licensee's main transmission system. The Licensee's system is connected to other large transmission systems located in the southeast. If the Licensee's system reliability is at risk due to Voltage and Capacity Emergencies, the ability to provide secure and continuous electric service to the Licensee's electric customers becomes compromised. The Licensee's System Operating Center (SOC) and Transmission Control Center (TCC) continuously monitor the electric transmission system. Therefore, for the purposes of this protocol, a Voltage or Capacity Emergency shall exist when declared by the Licensee's SOC or TCC.

16. Large Water Intake – any water 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) that withdraws water from the Catawba-Wateree River Basin.

17. Preparation for High Inflow Events – With modern forecasting, it is more possible than ever to predict large high inflow events and to increase generation hours to reduce reservoir levels in order to mitigate the potential for spilling and high water. Typically, this type of advance action is taken from 1 to 5 days or more 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 this MEP to lower reservoir levels below the Normal Minimum Elevations if needed in preparation for such events.

18. Large Extended Drawdown – Any drawdown of a Project reservoir that will expose substantial lakebed areas for an extended period of time that are not normally exposed during the year. For the purposes of this document, a large extended drawdown is any drawdown that is expected to maintain lake elevation for at least 30 consecutive days at levels that are at least five feet below the lowest Normal Minimum Elevation for that reservoir.

19. Revising the MEP – The Licensee will review the requirements of this MEP each time it is used and will consult with the organizations listed in Item 14 above if the Licensee determines that revisions are warranted. The Licensee will file the revised MEP with the FERC, including filing a license amendment request if the Licensee determines that the amendment is needed. If any modifications of the MEP require amendment of the New License, the Licensee will provide notice to all Parties to the relicensing Final Agreement advising them of the proposed license article amendment prior to filing the license amendment request for FERC approval. The filing of a revised MEP by the Licensee will not constitute or require modification to the relicensing Final Agreement and any Party to the relicensing Final Agreement may be involved in the FERC's public process for assessing the revised MEP.

Assumptions

1. Instream Flows For Recreation – The New License for the Catawba-Wateree Project includes the prescribed recreational flow releases as listed in the proposed Recreational Flows License Article.

2. Minimum Flows – The New License for the Catawba-Wateree Project includes the minimum flow requirements as listed in the proposed Minimum Flows License Article, the proposed Wylie High Inflow Protocol License Article, and the proposed Flows Supporting Public Water Supply and Industrial Processes License Article.

3. Public Information System – The New License for the Catawba-Wateree Project includes the requirement to provide information to the public as specified in the proposed Public Information License Article.

4. Normal Operating Range for Reservoir Levels – The New License for the Catawba-Wateree Project includes the Normal Operating Ranges for the reservoirs (i.e., Normal Minimum, Normal Maximum and Normal Target Elevations) as listed in the proposed Reservoir Elevations License Article.

5. Spring Reservoir Level Stabilization Program – The New License for the Catawba-Wateree Project includes the reservoir level requirements in the proposed Spring Reservoir Level Stabilization Program License Article.

Guidance for Responding to Abnormal Conditions

This section provides guidance for responding to the most likely conditions identified in the table below. The table identifies the most likely abnormal conditions when this protocol will be enacted and the license requirements that would most likely be impacted.

Abnormal Condition			Potentially Impacted License Requirements		
Condition Letter	**Condition Name**	**Indications**	**Flows in Bypassed Reaches**	**Flows in Regulated River Reaches**	**Normal Operating Ranges and Stabilization Periods for Reservoir Levels**
A	Hydro Unit Maintenance	Maintenance will require hydro unit shutdown.	X	X	X
B	Maintenance of Minimum Flow Devices	Maintenance will require interruption of scheduled minimum releases from normal locations	X	X	
C	Dam Safety Emergency	Condition A or B (i.e. dam failure has occurred, is imminent or a potentially hazardous situation exists) is declared per Emergency Action Plan or other dam safety concern is identified.	X	X	X
D	Voltage or Capacity Emergency	Voltage or capacity conditions on the electric grid in the Licensee's system or the larger regional electric grid cause the Licensee's system reliability and safety to be at risk and a voltage or capacity emergency is declared by Licensee's System Operating Center (SOC) or Transmission Control Center (TCC).	X	X	X
E	Reservoir Drawdown Below Normal Minimum Elevation due to maintenance, emergency or other reasons (not due to low or high inflow)	The reservoir level is below Normal Minimum Elevation	X	X	X

Abnormal Condition			Potentially Impacted License Requirements		
Condition Letter	**Condition Name**	**Indications**	**Flows in Bypassed Reaches**	**Flows in Regulated River Reaches**	**Normal Operating Ranges and Stabilization Periods for Reservoir Levels**
F	River Access Special Circumstances	Safe access to bypasses or regulated river reaches requires interruption of scheduled/minimum releases from normal locations	X	X	
G	Expected or existing high inflow event	The water level at a reservoir is significantly above or below the Normal Operating Range			X

Communication with Resource Agencies and Affected Parties

General Notification

As soon as possible after the Licensee determines that the response to an abnormal condition will potentially impact license conditions, the Licensee will add appropriate messages to its public information Web site and/or its reservoir level toll-free phone system to inform the general public. Specific consultation is discussed below for each identified abnormal situation.

Notification and Consultation

Notification and consultation requirements are specified for each abnormal condition. The Licensee will consider options suggested by the identified agencies and organizations that could lessen the impact of the abnormal condition on the environmental, cultural and human needs relative to the Project.

Abnormal Condition A.1 – Scheduled Hydro Unit Maintenance

Mitigating Actions

1. Scheduling – To the extent practical, the Licensee will avoid scheduling hydro unit maintenance that would impact flow requirements for aquatic habitat, water quality, recreation, navigation or downstream water uses during Peak Recreation Season, or during Spring Reservoir Level Stabilization Periods (Bridgewater, Cowans Ford, Wylie and Wateree developments only) or during Spring Stable Flow Periods (Wateree Development only) unless it is likely that the equipment condition will cause damage or unscheduled unit maintenance if repairs are delayed.
2. Replacing Recreational Flow Releases – If the maintenance operations affect equipment that provides the normal method of providing prescribed recreational flows, then the Licensee will endeavor in good faith to replace some or all of the missed flows that are normally scheduled for recreation. This can be accomplished by providing replacement flow releases at the Oxford Development, the Wylie Development, and the Fishing Creek Development (for the Great Falls Bypassed Reaches) through the use of spillway gates. The preferred method at all of the developments is to schedule replacement recreational flow releases for another time after the maintenance operations are completed. The replacement recreational flow releases will occur during the same calendar year as originally scheduled. An Annual Recreational Flow Schedule Planning meeting will be held each March (see Section 3.2 of the relicensing Final Agreement) and contingency dates for make-up releases can be identified at that time.
3. Drawing Down the Affected Reservoir –To minimize the impacts to its electric customers, the Licensee may choose to draw down a reservoir using its hydro units to minimize spillage from the dam during maintenance operations, but not to levels below the Critical Reservoir Elevations.
4. 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 percent exceedance of the Critical Flows cannot reasonably be achieved, the Licensee will work with the resource agencies to (a) monitor any potential aquatic species impacts in the affected stream segments and (b) replace any aquatic species mortalities that are identified. The Licensee will also work with any affected Large Water Intake Owners or Downstream Effluent Dischargers to minimize the impacts of any reduced flow releases.

Communication with Resource Agencies and Affected Parties

Abnormal Condition A.1 – Scheduled Hydro Unit Maintenance		
Notification	**Consultation**	**Comments**
FERC	NCDENR NCWRC USFWS	For developments in NC (including Wylie). If the maintenance will affect any required flow release or Normal Operating Range or Stabilization Requirements for Reservoir Levels, provide notification and initiate consultation as soon as maintenance schedules are determined (typically months in advance), but at least 10 days prior to beginning any reservoir drawdown or the hydro unit maintenance.
FERC	SCDNR SCDHEC USFWS	For developments in SC. If the maintenance will affect any required flow release or Normal Operating Range or Stabilization Requirements for Reservoir Levels, provide notification and initiate consultation as soon as maintenance schedules are determined (typically months in advance), but at least 10 days prior to beginning any reservoir drawdown or the hydro unit maintenance.
	AW	Consult at least 10 days prior to maintenance if it will affect the prescribed recreational flow releases.
	NCSHPO SCSHPO CIN EBCI	Consult at least 10 days prior to maintenance or beginning any reservoir drawdown if maintenance will affect Historic Properties (NCSHPO or SCSHPO as appropriate) and include consultation with CIN and EBCI if the maintenance will result in a Large Extended Drawdown.
	USBIA CIN	Consult at least 10 days prior to maintenance, if it will affect normal minimum flow releases from the Wylie Development.
	Large Water Intake Owners[1] Downstream Effluent Dischargers[1]	Consult with intake owners and downstream effluent dischargers at least 10 days prior to beginning maintenance or any reservoir drawdown if flow releases below Critical Flows will be required.
Access Area Closure Notification		The Licensee will conduct notification procedures for any temporary recreation facility/Access Area closures (e.g., closure due to extended low reservoir levels) in accordance with the Recreation Management Plan.
General		As soon as possible after the Licensee determines that the response to an abnormal condition will potentially impact license conditions, the Licensee will add appropriate messages to its public information Web site and its reservoir level toll-free phone system to inform the general public.

Note 1 – If affected by the maintenance.

Abnormal Condition A.2 – Unscheduled Hydro Unit Maintenance

Mitigating Actions

1. Replacing Recreational Flow Releases – If the maintenance affects equipment that provides the normal method of providing prescribed recreational flows, then the Licensee will endeavor in good faith to replace some or all of the missed flows that are normally scheduled for recreation. This can be accomplished by providing replacement flow releases at the Oxford Development, Wylie Development, and the Fishing Creek Development (for the Great Falls Bypassed Reaches) through the use of spillway gates. The preferred method at all the developments is to schedule replacement recreational flow releases for another time after the maintenance operations are complete. The replacement recreational flow releases will occur during the same calendar year as originally scheduled. An Annual Recreational Flow Schedule Planning meeting will be held each March (see Section 3.2 of the relicensing Final Agreement) and contingency dates for make-up releases can be identified at that time.
2. Drawing Down the Affected Reservoir –To minimize the impacts to its electric customers, the Licensee may choose to draw down a reservoir using its hydro units to minimize spillage from the dam during maintenance operations, but not to levels below the Critical Reservoir Elevations.
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 percent exceedance of the Critical Flows cannot reasonably be achieved, the Licensee will work with the resource agencies to (a) monitor any potential aquatic species impacts in the affected stream segments and (b) replace any aquatic species mortalities that are identified. The Licensee will also work with any affected Large Water Intake Owners and Downstream Effluent Dischargers to minimize the impacts of any reduced flow releases.

Communication with Resource Agencies and Affected Parties

Abnormal Condition A.2 – Unscheduled Hydro Unit Maintenance		
Notification	**Consultation**	**Comments**
FERC NCDENR NCWRC USFWS	NCDENR NCWRC USFWS	For developments in NC (including Wylie). If the maintenance will affect any required flow release or Normal Operating Range or Stabilization Requirements for Reservoir Levels, perform notification as soon as possible after the unscheduled maintenance begins, but no longer than 5 days afterwards. Begin consultation within 10 days after the unscheduled maintenance begins..
FERC SCDNR SCDHEC USFWS	SCDNR SCDHEC USFWS	For developments in SC. If the maintenance will affect any required flow release or Normal Operating Range or Stabilization Requirements for Reservoir Levels, perform notification as soon as possible after the unscheduled maintenance begins, but no longer than 5 days afterwards. Initiate consultation within 10 days.
AW	AW	Notify (within 5 days) and consult (within 10 days) afterwards if maintenance will affect the prescribed recreational flow releases.
NCSHPO SCSHPO CIN EBCI	NCSHPO SCSHPO CIN EBCI	Notify (within 5 days) and consult (within 10 days) afterwards with NCSHPO and SCSHPO if maintenance will affect Historic Properties and include consultation with CIN and EBCI if the maintenance will result in a Large Extended Drawdown.
USBIA CIN	USBIA CIN	Notify (within 5 days) and consult (within 10 days) afterwards if maintenance affects normal minimum flow releases from the Wylie Development.
Large Water Intake Owners[1] Downstream Effluent Dischargers[1]	Large Water Intake Owners[1] Downstream Effluent Dischargers[1]	Notify (within 5 days) and consult (within 10 days) afterwards with intake owners and downstream effluent dischargers if flow releases below Critical Flows are required.
Access Area Closure Notification		The Licensee will conduct notification procedures for any temporary recreation facility/Access Area closures (e.g., closure due to extended low reservoir levels) in accordance with the Recreation Management Plan.
General		As soon as possible after the Licensee determines that the response to an abnormal condition will potentially impact license conditions, the Licensee will add appropriate messages to its public information Web site and its reservoir level toll-free phone system to inform the general public.

Note 1 – If affected by the maintenance.

Abnormal Condition B.1 – Maintenance of the Normal Means of Providing Minimum Flows (Scheduled)

Mitigating Actions

1. Scheduling – To the extent practical, the Licensee will avoid scheduling maintenance that would impact the ability of the Licensee to release flows for aquatic habitat, water quality or downstream water uses, 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 for aquatic habitat, water quality or downstream water uses, then the Licensee will endeavor in good faith to provide some of the minimum flows in the affected stream reaches. This can be accomplished by partially opening spillway gates at the Oxford Development, the Wylie Development and the Fishing Creek Development (for the Great Falls Bypassed Reaches). At all other sites, leakage from the dams or other means of releasing flows (e.g., pulsing of hydro units at Bridgewater) will be provided during the maintenance. Note that it would be a very unusual occurrence to not have any generation or spill control equipment available at these sites.
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 percent exceedance of the Critical Flows cannot reasonably be achieved, the Licensee will work with the resource agencies to (a) monitor any potential aquatic species impacts in the affected stream segments and (b) replace any aquatic species mortalities that are identified. The Licensee will also work with any affected Large Water Intake Owners and Downstream Effluent Dischargers to minimize the impacts of any reduced flow releases.

Communication with Resource Agencies and Affected Parties

Abnormal Condition B.1 – Maintenance of the Normal Means of Providing Minimum Flows (Scheduled)		
Notification	**Consultation**	**Comments**
FERC	NCDENR NCWRC USFWS Large Water Intake Owners [1] Downstream Effluent Dischargers[1]	For developments in NC (including Wylie). If the maintenance cannot avoid impacting minimum flows for aquatic habit, water quality or downstream water uses, provide notification and initiate consultation as soon as maintenance schedules are determined (typically months in advance), but at least 10 days prior to beginning the maintenance.
FERC	SCDNR SCDHEC USFWS Large Water Intake Owners [1] Downstream Effluent Dischargers[1]	For developments in SC. If the maintenance cannot avoid impacting minimum flows for aquatic habit, water quality or downstream water uses, provide notification and initiate consultation as soon as maintenance schedules are determined (typically months in advance), but at least 10 days prior to beginning the maintenance.
	USBIA CIN	Consult if maintenance affects normal minimum flow releases from the Wylie Development, as soon as maintenance schedules are determined (typically months in advance), but at least 10 days prior to beginning the maintenance.
General		As soon as possible after the Licensee determines that the response to an abnormal condition will potentially impact license conditions, the Licensee will add appropriate messages to its public information Web site and/or its reservoir level toll-free phone system to inform the general public.

Note 1 – If affected by the maintenance.

Abnormal Condition B.2 – Maintenance of the Normal Means of Providing Minimum Flows (Unscheduled)

Mitigating Actions

1. Providing Minimum Flows – If the maintenance cannot avoid impacting minimum flows for aquatic habitat, water quality or downstream water uses, then the Licensee will endeavor in good faith to provide some of the minimum flows in the affected stream reaches. This can be accomplished by partially opening spillway gates at the Oxford Development, the Wylie Development and the Fishing Creek Development (for the Great Falls Bypassed Reaches). At all other sites, leakage from the dams or other means of releasing flows (e.g., pulsing of hydro units at Bridgewater) will be provided during the maintenance. Note that it would be a very unusual occurrence to not have any generation or spill control capability available at these sites.
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 percent exceedance of the Critical Flows cannot reasonably be achieved, the Licensee will work with the resource agencies to (a) monitor any potential aquatic species impacts in the affected stream segments and (b) replace any aquatic species mortalities that are identified. The Licensee will also work with any affected Large Water Intake Owners and Downstream Effluent Dischargers to minimize the impacts of any reduced flow releases.

Communication with Resource Agencies and Affected Parties

Abnormal Condition B.2 – Maintenance of the Normal Means of Providing Minimum Flows (Unscheduled)		
Notification	**Consultation**	**Comments**
FERC NCDENR NCWRC USFWS Large Water Intake Owners [1] Downstream Effluent Dischargers[1]	NCDENR NCWRC USFWS Large Water Intake Owners [1] Downstream Effluent Dischargers[1]	For developments in NC (including Wylie). If the maintenance cannot avoid impacting minimum flows for aquatic habit, water quality or downstream water uses, perform notification as soon as possible after the unscheduled maintenance begins, but no longer than 5 days afterwards. Begin consultation within 10 days after the unscheduled maintenance begins.
FERC SCDNR SCDHEC USFWS Large Water Intake Owners [1] Downstream Effluent Dischargers[1]	SCDNR SCDHEC USFWS Large Water Intake Owners [1] Downstream Effluent Dischargers[1]	For developments in SC. If the maintenance cannot avoid impacting minimum flows for aquatic habit, water quality or downstream water uses, perform notification as soon as possible after the unscheduled maintenance begins, but no longer than 5 days afterwards. Initiate consultation within 10 days.
USBIA CIN	USBIA CIN	Notify if maintenance affects normal minimum flow releases from the Wylie Development, as soon as possible after the unscheduled maintenance begins, but no longer than 5 days afterwards. Initiate consultation within 10 days.
General		As soon as possible after the Licensee determines that the response to an abnormal condition will potentially impact license conditions, the Licensee will add appropriate messages to its public information Web site and/or its reservoir level toll-free phone system to inform the general public.

Note 1 – If affected by the maintenance.

Abnormal Condition C – Dam Safety Emergency

Mitigating Actions

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

Communication with Resource Agencies and Affected Parties

Abnormal Condition C – Dam Safety Emergency		
Notification	**Consultation**	**Comments**
During EAP Condition A or B		Conducted strictly in accordance with the Licensee's Emergency Action Plan. In cases where dam safety concerns arise that are not a Condition A or B 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.
Once Dam Safety Conditions Have Stabilized		As soon as possible after the Licensee determines that the response to an abnormal condition will potentially impact license conditions, the Licensee will add appropriate messages to its public information Web site and/or its reservoir level toll-free phone system to inform the general public.
Access Area Closure Notification		The Licensee will conduct notification procedures for any temporary recreation facility/Access Area closures (e.g., closure due to extended low reservoir levels) in accordance with the Recreation Management Plan.

Abnormal Condition D – Voltage and Capacity Emergencies

Mitigating Actions

1. Suspension of the Normal Operating Ranges and Spring Stabilization Periods 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. Reservoir levels will not be reduced below the Critical Reservoir Elevations noted above.
2. 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) and may modify or suspend any scheduled recreational flow releases, and may at Lake Wateree, modify or suspend any Spring Stable Flows or Floodplain Inundation Flows if taking those actions 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 deviate from the normal license conditions to conserve water for power generation strictly as a cost avoidance measure, but only to assist in addressing the emergency.
3. Replacing Lost Recreational Flow Releases – If scheduled recreational flow releases are lost, then once the emergency is over, the Licensee will endeavor in good faith to reschedule the releases during the same calendar year as originally scheduled. An Annual Recreational Flow Schedule Planning meeting will be held each March (see Section 3.2 of the relicensing Final Agreement) and contingency dates for make-up releases can be identified at that time.

Communication with Resource Agencies and Affected Parties

Abnormal Condition D – Voltage and Capacity Emergencies		
Notification	**Consultation**	**Comments**
FERC NCDENR NCWRC USFWS	NCDENR NCWRC USFWS	For developments in NC (Including Wylie). Perform notification as soon as possible, but no longer than 5 days following the deviation from a license condition for Voltage or Capacity Emergency reasons. Initiate consultation as soon as possible.
FERC SCDNR SCDHEC USFWS	SCDNR SCDHEC USFWS	For developments in SC. Perform notification as soon as possible, but no longer than 5 days following the deviation from a license condition for Voltage or Capacity Emergency reasons. Initiate consultation as soon as possible.
AW	AW	Notify (within 5 days) and consult as soon as possible if maintenance will affect the prescribed recreational flow releases.
NCSHPO SCSHPO CIN EBCI	NCSHPO SCSHPO CIN EBCI	Notify (within 5 days) and consult as soon as possible with NCSHPO and SCSHPO if Voltage or Capacity Emergency will affect Historic Properties.
USBIA CIN	USBIA CIN	Notify (within 5 days) and consult as soon as possible if Voltage or Capacity Emergency affects normal minimum flow releases from the Wylie Development.
Access Area Closure Notification		The Licensee will conduct notification procedures for any temporary recreation facility/Access Area closures (e.g., closure due to extended low reservoir levels) in accordance with the Recreation Management Plan.
General		As soon as possible after the Licensee determines that the response to an abnormal condition will potentially impact license conditions, the Licensee will add appropriate messages to its public information Web site and its reservoir level toll-free phone system to inform the general public.

Abnormal Condition E.1 – Reservoir Drawdown (Planned)

Mitigating Actions

1. Scheduling – To the extent practical, the Licensee will avoid scheduling reservoir drawdowns that would impact the ability of the Licensee to release the prescribed flows for aquatic habitat, water quality, recreation, navigation or downstream water uses. Also, to the extent practical, the Licensee will avoid scheduling reservoir drawdowns during the Peak Recreation Season or during Spring Reservoir Level Stabilization Periods (Bridgewater, Cowans Ford, Wylie and Wateree developments only) or during Spring Stable Flow Periods (Wateree Development only).
2. Alternative Means to Provide Minimum Flows – If the drawdown cannot avoid impacting minimum flows for aquatic habitat, water quality or downstream water uses, then the Licensee will endeavor in good faith to provide some of the minimum flows in the affected stream reaches by utilizing the generating equipment, spill gates or leakage at the developments for flows required downstream of the powerhouses. Note that it would be a very unusual occurrence to not have any generating units or spill devices available at these sites for flows required downstream of powerhouses.
3. Replacing Recreational Flow Releases – If the reservoir drawdown impacts normally scheduled recreational flows, then the Licensee will endeavor in good faith to replace some or all of the missed recreational flows. This can be accomplished by providing replacement flow releases at the Oxford Development, the Wylie Development, and the Fishing Creek Development (for the Great Falls Bypassed Reaches) through the use of spillway gates. The preferred method at all of the developments is to schedule replacement recreational flow releases for another time after the drawdown is completed. The replacement recreational flow releases will occur during the same calendar year as originally scheduled. An Annual Recreational Flow Schedule Planning meeting will be held each March (see Section 3.2 of the relicensing Final Agreement) and contingency dates for make-up releases can be identified at that time.
4. 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 percent exceedance of the Critical Flows cannot reasonably be achieved, the Licensee will work with the resource agencies to (a) monitor any potential aquatic species impacts in the affected stream segments and (b) replace any aquatic species mortalities that are identified. The Licensee will also work with any affected Large Water Intake Owners and Downstream Effluent Dischargers to minimize the impacts of the reduced flow releases.
5. Avoid Falling Below Critical Reservoir Elevations – To the extent practical, the Licensee will avoid falling below any of the Critical Reservoir Elevations as noted above. If it is determined that 100 percent exceedance of the Critical Reservoir Elevations cannot reasonably be achieved, the Licensee will work with any affected Large Water Intake Owners to minimize the impacts of the drawdown.

Communication with Resource Agencies and Affected Parties

Abnormal Condition E.1 – Reservoir Drawdown (Planned)		
Notification	**Consultation**	**Comments**
FERC	NCDENR NCWRC USFWS	For developments in NC (including Wylie). Provide notification and consult as soon as approximate dates are determined (typically months in advance), but at least 10 days prior to beginning drawdown.
FERC	SCDNR SCDHEC USFWS	For developments in SC. Provide notification and consult as soon as approximate dates are determined (typically months in advance), but at least 10 days prior to beginning drawdown.
	NCSHPO SCSHPO CIN EBCI	Consult in the event of a Large Extended Drawdown as soon as approximate dates are determined (typically months in advance), but at least 10 days prior to beginning drawdown.
	AW	Consult at least 10 days prior to beginning drawdown if it will affect the prescribed recreational flow releases.
	Large Water Intake Owners[1] Downstream Effluent Dischargers[1]	If the drawdown will go below Critical Reservoir Elevations that affect the operations of a Large Water Intake located in a reservoir or will cause flow releases to drop below Critical Flows supporting Large Water Intakes or Downstream Effluent Dischargers, the Licensee will consult with the owner of the intake or discharge facility as soon as approximate dates are known (typically months in advance), but at least 10 days prior to beginning the drawdown.
Access Area Closure Notification		The Licensee will conduct notification procedures for any temporary recreation facility/Access Area closures (e.g., closure due to extended low reservoir levels) in accordance with the Recreation Management Plan.
General		As soon as possible after the Licensee determines that the response to an abnormal condition will potentially impact license conditions, the Licensee will add appropriate messages to its public information Web site and its reservoir level toll-free phone system to inform the general public.

Note 1 – If affected by the reservoir drawdown.

Abnormal Condition E.2 – Reservoir Drawdown (Unplanned)

Mitigating Actions

1. Alternative Means to Provide Minimum Flows – If the drawdown cannot avoid impacting minimum flows for aquatic habitat, water quality, navigation or downstream water uses, then the Licensee will endeavor in good faith to provide some or all of the missed minimum flows in the affected stream reaches. This can be accomplished by using the generating equipment, spill gates or leakage at the developments for flows required downstream of the powerhouses. Note that it would be a very unusual occurrence to not have any generating units or spill devices available at these sites for flows required downstream of powerhouses.
2. Replacing Recreational Flow Releases – If the reservoir drawdown impacts normally scheduled recreational flows, then the Licensee will endeavor in good faith to replace some or all of the missed recreational flows. This can be accomplished by providing replacement flow releases at the Oxford Development, the Wylie Development, and the Fishing Creek Development (for the Great Falls Bypassed Reaches) through the use of spillway gates. The preferred method at all of the developments is to schedule replacement recreational flow releases for another time after the drawdown is completed. The replacement recreational flow releases will occur during the same calendar year as originally scheduled. An Annual Recreational Flow Schedule Planning meeting will be held each March (see Section 3.2 of the relicensing Final Agreement) and contingency dates for make-up releases can be identified at that time.
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 percent exceedance of the Critical Flows cannot reasonably be achieved, the Licensee will work with the resource agencies to (a) monitor any potential aquatic species impacts in the affected stream segments and (b) replace any aquatic species mortalities that are identified. The Licensee will also work with any affected Large Water Intake Owners and Downstream Effluent Dischargers to minimize the impacts of the reduced flow releases.
4. Avoid Falling Below Critical Reservoir Elevations – To the extent practical, the Licensee will avoid falling below any of the Critical Reservoir Elevations as noted above. If it is determined that 100 percent exceedance of the Critical Reservoir Elevations cannot reasonably be achieved, the Licensee will work with any affected Large Water Intake Owners to minimize the impacts of the drawdown.

Communication with Resource Agencies and Affected Parties

Abnormal Condition E.2 – Reservoir Drawdown (Unplanned)		
Notification	**Consultation**	**Comments**
FERC NCDENR NCWRC USFWS Large Water Intake Owners[1] Downstream Effluent Dischargers[1]	NCDENR NCWRC USFWS Large Water Intake Owners[1] Downstream Effluent Dischargers[1]	For developments in NC (including Wylie). If the drawdown cannot avoid impacting minimum flows for aquatic habitat, water quality or downstream water uses, perform notification as soon as possible, but no longer than 5 days after the drawdown begins. Begin consultation within 10 days after the drawdown begins.
FERC SCDNR SCDHEC USFWS Large Water Intake Owners[1] Downstream Effluent Dischargers[1]	SCDNR SCDHEC USFWS Large Water Intake Owners[1] Downstream Effluent Dischargers[1]	For developments in SC. If the drawdown cannot avoid impacting minimum flows for aquatic habitat, water quality, navigation or downstream water uses, perform notification as soon as possible, but no longer than 5 days after the drawdown begins. Begin consultation within 10 days after the drawdown begins.
USBIA CIN	USBIA CIN	If the drawdown affects releases from the Wylie Development, notify as soon as possible, but no longer than 5 days after the drawdown begins. Begin consultation within 10 days after the drawdown begins.
AW	AW	Notify (within 5 days) and consult as soon as possible if the drawdown will affect prescribed recreational flow releases.
Access Area Closure Notification		The Licensee will conduct notification procedures for any temporary recreation facility/Access Area closures (e.g., closure due to extended low reservoir levels) in accordance with the Recreation Management Plan.
General		As soon as possible after the Licensee determines that the response to an abnormal condition will potentially impact license conditions, the Licensee will add appropriate messages to its public information Web site and its reservoir level toll-free phone system to inform the general public.

Note 1 – If affected by the drawdown.

Abnormal Condition F – Special River Access Circumstances

Mitigating Actions

1. Scheduling – To the extent practical, the Licensee will 1) avoid scheduling Special River Access Circumstances that would impact the ability of the Licensee to release flows for aquatic habitat, water quality, navigation, recreation or downstream water uses and 2) avoid scheduling during Peak Recreation Season.
2. Replacing Recreational Flow Releases – If scheduling Special River Access impacts normally scheduled recreational flows, then the Licensee will endeavor in good faith to replace some or all of the missed recreational flows. This can be accomplished by providing replacement flow releases at the Oxford Development, the Wylie Development, and the Fishing Creek Development (for the Great Falls Bypassed Reaches) through the use of spillway gates. The preferred method at all of the developments is to schedule replacement recreational flow releases for another time after the Special River Access Circumstance is completed. The replacement recreational flow releases will occur during the same calendar year as originally scheduled. An Annual Recreational Flow Schedule Planning meeting will be held each March (see Section 3.2 of the relicensing Final Agreement) and contingency dates for make-up releases can be identified at that time.
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 percent exceedance of the Critical Flows cannot reasonably be achieved, the Licensee will work with the resource agencies to (a) monitor any potential aquatic species impacts in the affected stream segments and (b) replace any aquatic species mortalities that are identified. The Licensee will also work with any affected Large Water Intake Owners and Downstream Effluent Dischargers to minimize the impacts of the reduced flow releases.
4. Avoid Falling Below Critical Reservoir Elevations – To the extent practical, the Licensee will avoid falling below any of the Critical Reservoir Elevations as noted above. If it is determined that 100 percent exceedance of the Critical Reservoir Elevations cannot reasonably be achieved, the Licensee will work with any affected Large Water Intake Owners to minimize the impacts of the drawdown.

Communication with Resource Agencies and Affected Parties

Abnormal Condition F – Special River Access Circumstances		
Notification	**Consultation**	**Comments**
FERC	NCDENR NCWRC USFWS Large Water Intake Owners[1] Downstream Effluent Dischargers[1]	For developments in NC (including Wylie). If the circumstances cannot avoid impacting minimum flows for aquatic habitat, water quality, navigation, recreation or downstream water uses, initiate consultation as soon as soon as the dates are known, but at least 10 days prior to beginning the temporary flow alteration. Initiate consultation for unplanned river access within 5 days after the temporary flow alteration.
FERC	SCDNR SCDHEC USFWS Large Water Intake Owners[1] Downstream Effluent Dischargers[1]	For developments in SC. If the circumstances cannot avoid impacting minimum flows for aquatic habitat, water quality, navigation, recreation or downstream water uses, initiate consultation as soon as soon as the dates are known, but at least 10 days prior to beginning the temporary flow alteration. Initiate consultation for unplanned river access within 5 days after the temporary flow alteration.
	USBIA CIN	If the flow modifications for the planned River Access affect flow releases from the Wylie Development, initiate consultation as soon as the dates are known but at least 10 days prior to beginning the temporary flow modification. Initiate consultation for unplanned river access within 5 days after the temporary flow alteration.
AW	AW	Notify (within 5 days) and consult as soon as possible if the drawdown will affect prescribed recreational flow releases.
Access Area Closure Notification		The Licensee will conduct notification procedures for any temporary recreation facility/Access Area closures (e.g., closure due to extended low reservoir levels) in accordance with the Recreation Management Plan.
General		As soon as possible after the Licensee determines that the response to an abnormal condition will potentially impact license conditions, the Licensee will add appropriate messages to its public information Web site and its reservoir level toll-free phone system to inform the general public.

Note 1 – If affected by Special River Access Circumstances.

Abnormal Condition G – Expected or Existing High Inflow Event

Mitigating Actions

1. As outlined in the Key Facts and Definitions section of this protocol, the Licensee may reduce reservoir levels significantly below the Normal Minimum Elevation, but not below the Critical Reservoir Elevations in preparation for high inflow events to minimize the potential for uncontrolled spilling. Reservoir levels may also rise significantly above Normal Maximum Elevations as a result of high inflow events. The reservoir levels may be below Normal Minimum Elevations or above Normal Maximum Elevations for as long as necessary to minimize the effects of uncontrolled spilling on the Project reservoirs and downstream river reaches and to minimize reservoir elevations during high inflow events.

Communication with Resource Agencies and Affected Parties

Abnormal Condition G – Expected or Existing High Inflow Event		
Notification	**Consultation**	**Comments**
FERC NCDENR NCWRC USFWS		For developments in NC (including Wylie). The Licensee will perform notification as soon as possible following or prior to a deviation from license requirements for an existing or expected high inflow event.
FERC SCDNR SCDHEC USFWS		For developments in SC. The Licensee will perform notification as soon as possible following or prior to a deviation from license requirements for an existing or expected high inflow event.
Access Area Closure Notification		The Licensee will conduct notification procedures for any temporary recreation facility/Access Area closures (e.g., closure due to extended low or high reservoir levels) in accordance with the Recreation Management Plan.
General		As soon as possible after the Licensee determines that the response to an abnormal condition will potentially impact license conditions, the Licensee will add appropriate messages to its public information Web site and its reservoir level toll-free phone system to inform the general public.

APPENDIX E: DEFINITIONS

1. 401 Water Quality Certification – the certification required under 33 U.S.C. §1341 and applicable state law.
2. Access Area Improvement Initiative – an established program where the Licensee leases access areas and / or islands that it owns (typically at a nominal cost) to tribal entities, governmental entities or commercial vendors so the lessees can develop and manage public recreation facilities on the leased Licensee-owned land.
3. Accretion Flows – flow in a regulated river reach or bypassed reach due to inflow coming from the portion of the watershed that is downstream of the dam that regulates river flow.
4. Agreement – this Comprehensive Relicensing Agreement (also referred to as the "Final Agreement"), including the Recitals, Resource Agreements, General Agreements and Procedures, and all Appendices.
5. Annual License – a common term referring to an order issued by the FERC granting the existing licensee the right and obligation to continue operating a hydro project for an additional year under the terms and conditions of the license that is in place for the project at that time. Annual licenses are used by the FERC in cases where the new license will not be issued before the existing license for the project expires. Annual licenses are therefore simple extensions of the current or existing license and are not considered new licenses.
6. Best Efficiency Point – the point in the flow continuum of a hydro unit at which the unit produces the most energy output per unit volume of water.
7. Bypassed Reach – a river section that is downstream of a Project dam that typically has substantially less water flow than it would have in its natural state. Note that bypassed reaches do not receive the flow releases from operation of the hydroelectric stations.
8. Catawba-Wateree Hydro Project – a hydroelectric project (also referred to simply as the "Project") located on the Catawba and Wateree rivers and their tributaries in North Carolina and South Carolina. The Project consists of eleven hydroelectric developments, each having a reservoir formed by one or more dams and one or more hydroelectric stations. The Project is operated pursuant to a license issued by the FERC (FERC Project No. 2232).
9. Critical Flows – the minimum flow releases from the hydro developments that may be necessary to:
   a. prevent long-term or irreversible damage to aquatic communities consistent with the resource management goals and objectives for the affected stream reaches;
   b. provide some basic level of operability for Large Water Intakes located on the affected stream reaches; and,
   c. provide some basic level of water quality maintenance in the affected stream reaches.
10. Critical Reservoir Elevation – Unless it is otherwise stated as applying only to a specific intake or type of intake, the Critical Reservoir Elevation is the highest level of water in a reservoir (measured in feet above Mean Sea Level (msl) or feet relative to

the full pond contour with 100.0 ft. corresponding to full pond) below which any Large Water Intake used for Public Water Supply or industrial uses, or any regional power plant intake located on the reservoir will not operate at its Licensee-approved capacity.

11. Debitage – a waste byproduct of tool manufacture (e.g., chips and flakes of stone).

12. Diadromous Fish Species – fish species that spend a portion of their lives in freshwater and a portion in saltwater and therefore must migrate to complete their lifecycle. Diadromous fish include both anadromous fish (i.e., fish that spend most of their lives in saltwater, returning to freshwater to spawn) as well as catadromous fish (i.e., fish that spend most of their lives in freshwater, returning to saltwater to spawn).

13. Drought Response Plan – a written plan, including any necessary ordinances, prepared by a water user (e.g., water and sewer district) that describes how the water user will reduce their overall consumption of water during periods of drought. These plans typically require water consumption reductions in stages with identified trigger points for implementing the various stages, actions to be taken and reduction goals for each stage.

14. Emergency Action Plan – a plan developed by the Licensee that defines certain dam safety related conditions and identifies the communications actions the Licensee will take if those conditions are reached.

15. Existing License – the license document as issued to Duke Power for the Catawba-Wateree Hydro Project (FERC Project No. 2232) on September 17, 1958 and including all license amendments that have occurred since that time and also including any annual license(s). The Existing License is effectively a contract between the Licensee and the FERC that provides requirements relative to the Licensee's operation of the Catawba-Wateree Hydro Project through the license expiration date (i.e., August 31, 2008 unless extended by an annual license(s)).

16. FERC Form 80 Reports – Hydro project licensees must submit a Form 80 report every 6 years. Each Form 80 must describe a project's recreation facilities and the level of public use of these facilities. The FERC uses the information from these forms to: inventory the recreational facilities located at licensed projects; ascertain whether projects are meeting the public's recreation needs; and, identify where additional efforts should be made to meet future needs.

17. FERC Public Safety Plan – a written plan, prepared by the Licensee and submitted to the FERC for acceptance, that describes the protection and warning devices (e.g., fencing, signage, lighting, visible and audible alarms, etc.) that the Licensee has or will put in place to warn and protect the public from hazards associated with hydro project facilities.

18. Flow and Water Quality Implementation Plan (FWQIP) – the written plan (see Appendix L) that the Licensee will implement in accordance with the New License describing any physical modifications needed at Project facilities in order to provide required instream flows and meet applicable water quality regulations. This plan will include a detailed construction schedule as well as schedules for any interim flow and dissolved oxygen enhancements, is attached to this Agreement and will be further developed in consultation with the applicable resource agencies, and will be filed with the FERC for approval within a specified time period following the FERC's issuance of the New License and the closure of all rehearing and administrative

challenge periods related to water quantity (including Project flow releases and reservoir levels) and water quality.

19. Historic Hydroelectric Structures – Catawba-Wateree Hydro Project structures (i.e., dams, powerhouses, etc.) that are determined to be Historic Properties.

20. Historic Property – any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places.

21. Historic Properties Management Plan – a written plan that considers and manages the effects of hydro project operations on Historic Properties.

22. Hydroelectric Development – the collective reference to the hydroelectric project works (i.e., dam(s), reservoir, hydro powerhouse) associated with a reservoir. [Note: The Catawba-Wateree Hydroelectric Project has eleven hydroelectric developments].

23. Inconsistent Act – any action by a Jurisdictional Body that increases the burden upon or cost or risk to a Party substantially beyond the burden, cost, or risk assumed by the Party in this Agreement, or deprives a Party of a substantial benefit promised by another Party in this Agreement, such as by relieving another Party of a substantial bargained-for obligation.

24. Jurisdictional Body – any governmental body which has the authority to prevent implementation of, or to require that specific steps be followed prior to implementing any part of this Agreement or to require activities that result in an Inconsistent Act.

25. Large Extended Drawdown – any drawdown of a Project reservoir that will expose substantial lakebed areas for an extended period of time that are not normally exposed during the year. For the purposes of this document, a large extended drawdown is any drawdown that is expected to maintain lake elevation for at least 30 consecutive days at levels that are at least five feet below the lowest Normal Minimum Elevation for that reservoir.

26. Large Water Intake – any water 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) that withdraws water from the Catawba-Wateree River Basin.

27. L Forms – sets of FERC standard license articles, also known as "L" form articles, applicable to licenses. The FERC maintains 18 different sets of standard articles with anywhere from 15 to 37 individual articles in each set. The set applied to any particular license is based on project size and location and whether the project is constructed or un-constructed.

28. Licensee – the entity holding a hydroelectric project's operating license from the FERC at any given time. As of October 2006, the Licensee for the Catawba-Wateree Hydro Project (FERC No. 2232) is Duke Energy Carolinas, LLC.

29. Low Inflow Period – any period when net inflow to the Project reservoirs is not sufficient to meet the normal water demands while maintaining Remaining Usable Storage in the reservoir system at or above seasonal target levels.

30. Low Inflow Protocol (LIP) – the written protocol (see Appendix C: Low Inflow Protocol) that provides procedures for how the Project will be operated by the Licensee and how other water users should respond during low inflow periods. The LIP was developed on the basis that all parties with interests in water quantity will

reduce their water consumption as needed and therefore share the responsibility of conserving the limited water supply. The LIP also identifies communications channels to help coordinate between water users.

31. Maintenance and Emergency Protocol – the written protocol (see Appendix D: Maintenance and Emergency Protocol) which defines the most likely emergency, equipment failure, maintenance and other abnormal situations, identifies the potentially affected license conditions, and outlines the general approach the Licensee will take to mitigate the impacts to license conditions and to communicate with the resource agencies and affected parties.

32. Minimum Average Daily Flow – the minimum amount of water (in cfs) that must normally be released from a hydroelectric development, averaged over the 24-hr period that begins at midnight on Day 1 and ends at midnight on Day 2. Minimum Average Daily Flow amounts include the combination of all leakage, spillage and hydro generation from a given hydroelectric development. [Note: Deviations from Minimum Average Daily Flow requirements may be allowed when responding to abnormal conditions under the Low Inflow Protocol or the Maintenance and Emergency Protocol.]

33. Minimum Continuous Flow – the minimum amount of water (in cfs) that must normally be released from a hydro development continuously. Minimum Continuous Flow amounts include the combination of all leakage, spillage and hydro generation from a given hydro development. [Note: Deviations from Minimum Continuous Flow requirements may be allowed when responding to abnormal conditions under the Low Inflow Protocol or the Maintenance and Emergency Protocol.]

34. Net Inflow – The cumulative inflow into a reservoir, expressed in acre-feet (ac-ft) per month. Net inflow is the sum of tributary stream flow, inflow from upstream hydro development releases (where applicable), groundwater inflow, precipitation falling on the reservoir surface, land surface runoff, and on-reservoir point-source return flows, less the sum of on-reservoir water withdrawals, groundwater recharge, hydro development flow releases, evaporation, and other factors.

35. New License – the license document that will be issued to the Licensee by the FERC to replace the Existing License and will provide requirements relative to the Licensee's operation of the Catawba-Wateree Hydroelectric Project through the term of the New License, including any extension periods of the New License as may be granted by the FERC through annual licenses.

36. Normal 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(s) if the Licensee took no action. This level corresponds to the lowest point along the top of the spillway (including flashboards) for reservoirs without floodgates and to the lowest point along the top of the floodgates for reservoirs that have floodgates. To avoid confusion among the many reservoirs the Licensee operates, it has adopted the practice of referring to the Full Pond Elevation for all of its reservoirs as equal to 100.0 ft. relative.

37. Normal Maximum Elevation – the level of a reservoir (measured in feet above Mean Sea Level (MSL) or feet relative to the full pond contour with 100.0 ft. corresponding to full pond) that defines the top 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 range of the average or expected amounts, hydroelectric project

equipment is operating properly, and no protocols for abnormal conditions have been implemented, reservoir level excursions above the Normal Maximum Elevation should not occur.

38. Normal Minimum Elevation – the level of a reservoir (measured in feet above Mean Sea Level (MSL) or feet relative to the full pond contour with 100.0 ft. corresponding to full pond) 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 range of the average or expected amounts, hydroelectric 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.

39. 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 and a Normal Minimum Elevation. If inflows and outflows to the reservoir are kept within some reasonable range 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.

40. Normal Target Elevation – The level of a reservoir (measured in feet above Mean Sea Level (msl) or feet relative to the full pond contour with 100.0 ft corresponding to full pond) that the Licensee will endeavor in good faith to achieve, unless operating in the Low Inflow Protocol, the Maintenance and Emergency Protocol, the Spring Reservoir Level Stabilization Program (Lakes James, Norman, Wylie and Wateree only), a Spring Stable Flow Period (Lake Wateree only) or a Floodplain Inundation Period (Lake Wateree only). Since inflows vary significantly and outflow demands also vary, the Licensee will not always be able to maintain actual reservoir level at the Normal Target Elevation. The Normal Target Elevation falls within the Normal Operating Range, but it is not always the average of the Normal Minimum Elevation and the Normal Maximum Elevation.

41. Party or Parties – the entities listed in Parties and Designated Representatives (Appendix B); provided their duly authorized representatives sign this Agreement.

42. Peak Recreation Season – the period when recreation use on Project reservoirs is generally at the highest levels, identified by the Recreation Use and Needs Study as extending from April 1st through September 30th.

43. Project – the Catawba-Wateree Project, a hydroelectric project located on the Catawba and Wateree rivers and their tributaries in North Carolina and South Carolina. The Project consists of eleven hydroelectric developments, each having a reservoir formed by one or more dams and one or more hydroelectric stations. The Project is operated pursuant to a license issued by the FERC (FERC Project No. 2232).

44. Project Boundaries – the area surrounding hydroelectric project facilities and features necessary to operate the Project as delineated in Exhibit G or K of the FERC license.

45. Proposed License Articles – the terms and conditions set forth in Appendix A of this Agreement that the Parties recommend that the FERC should include, without

material modification, in the New License to be issued to the Licensee for the continued operation of the Project.

46. Public Water Supply – any water delivery system owned and/or operated by any governmental or private entity that utilizes waters from the Catawba-Wateree River Basin for the public interest including drinking water; residential, commercial, industrial, and institutional uses; irrigation, and/or other public uses.

47. Reclaimed Water – Wastewater that has been treated to reclaimed water standards and is re-used for a designated purpose (e.g. industrial process, irrigation).

48. Recreation Management Plan – the written plan that the Licensee will develop in accordance with the New License to provide detailed, site-specific descriptions of public recreation facility design, construction, operation and maintenance. This plan will include an annual construction plan and schedule and will be developed in consultation with the applicable resource agencies and other entities. This Plan will be filed with the FERC for approval within a specified time period following the FERC's issuance of the New License.

49. Regulated River Reach – any river section downstream of a hydroelectric station that has its flows altered (i.e., "regulated") by the operation of the hydroelectric station.

50. Remaining Usable Storage – the sum of the Project's volume of water expressed in acre-feet (ac-ft) contained between each reservoir's Critical Reservoir Elevation and the actual reservoir elevation at any given point in time.

51. River Mile – the location of a point of interest measured in miles along the centerline of the river with the RM starting at the confluence of the Wateree and Congaree rivers (RM 0.0) and ascending upstream.

52. Shoreline Management Guidelines – the written document that contains conditions and limitations required for certain types of access to the Project's shoreline properties, and also guidelines designed to meet the Licensee's regulatory requirements, protect the Licensee's hydroelectric generation interests, protect the scenic, cultural and environmental values of the Project's shoreline property, provide recreational benefits to the general public, and provide a guide to adjacent property owners on permitted uses of Project properties. The Shoreline Management Guidelines are often provided as additional information within the Shoreline Management Plan and provide permitting criteria that are applied on a site-specific basis.

53. Shoreline Management Plan – a written document that provides guidance to the Licensee for implementing a comprehensive lake use permitting program to manage uses of lands and waters within the FERC Project Boundaries. Components of the Shoreline Management Plan may include but are not limited to programmatic agreements for addressing specific issues, maps depicting classifications of the shoreline of each reservoir, and lake use permitting restrictions associated with each classification.

54. Special Status Species – collective reference to federally listed or state listed Rare, Threatened and Endangered (RTE) species as well as species listed as Special Concern Species.

55. Species Protection Plan – a written document that identifies actions needed to protect critical habitat for Rare, Threatened or Endangered Species that are related to hydroelectric project operations under Section 7 of the Endangered Species Act.

56. Spring Reservoir Level Stabilization Program – program that the Licensee operates on Lakes James, Norman, Wylie and Wateree to support fish spawning in the reservoirs by limiting water depth fluctuations during the primary spawning season.
57. Storage Index – the ratio, expressed in percent, of Remaining Usable Storage to Total Usable Storage at any given point in time.
58. Tailrace – the river or reservoir reach immediately downstream of a hydroelectric station.
59. Target Storage Index – the ratio of Remaining Usable Storage to Total Usable Storage based on the Project reservoirs being at their Normal Target Elevations.
60. Total Usable Storage – the sum of the Project's volume of water expressed in acre-feet (ac-ft) contained between each reservoir's Critical Reservoir Elevation and the Full Pond Elevation.
61. Traditional Cultural Properties – Historic Properties of traditional religious and cultural importance to an Indian tribe.
62. U.S. Drought Monitor – a synthesis of multiple indices, outlooks, and news accounts that represents 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.
63. U.S. Drought Monitor Three-Month Numeric Average – if the U.S. Drought Monitor has a reading of D0-D4 as of the last day of the previous month for any part of the Catawba-Wateree River Basin that drains to Lake Wateree, the Basin will be assigned a numeric value for the current month. The numeric value will equal the highest Drought Monitor designation (e.g., D0 = 0, D4 = 4) as of the last day of the previous month that existed for any part of the Catawba-Wateree River Basin that drains to Lake Wateree. A normal condition in the Basin, defined as the absence of a Drought Monitor designation, would be assigned a numeric value of negative one (-1). A running average numeric value of the current month and the previous two months will be monitored and designated as the U.S. Drought Monitor Three-Month Numeric Average.

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APPENDIX F: WATER QUALITY MONITORING PLAN (WQMP)

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2.0 Hydro Project Compliance Monitoring .....F - 3

3.0 Supplemental Trout Habitat Monitoring .....F - 28

4.0 Trend Monitoring of Water Quality Characteristics ..... F- 29

5.0 References .....F - 31

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WATER QUALITY MONITORING PLAN (WQMP)

1.0 Introduction

Duke Energy Carolinas, LLC (the "Licensee") is applying for a new operating license ("New License") from the Federal Energy Regulatory Commission (FERC) for the Catawba-Wateree Hydro Project (the "Project'). Along with development of its license application, the Licensee has convened six stakeholder teams and has developed a comprehensive agreement (the Catawba-Wateree Relicensing Final Agreement (FA)) to address many Project-related issues as well as other issues of stakeholder interest.

The purpose of this WQMP is to provide a plan to implement the Licensee's monitoring and reporting activities stated in the FA. This plan has been prepared in consultation with resource agencies and will be included with the Licensee's Section 401 Water Quality Certification applications pursuant to the relicensing process in both North Carolina and South Carolina. During the Section 401 Water Quality Certification process, this plan will be reviewed by the North Carolina Division of Water Quality (NCDWQ) and the South Carolina Department of Health and Environmental Control (SCDHEC), and those agencies will approve, modify or deny the plan, as appropriate. The Licensee will also submit one Quality Assurance Project Plan (QAPP) to each state water quality agency with its application for Water Quality Certification for each state. The QAPP will provide the details for project management, measurement/data acquisition procedures and calibration, data validation, and reporting requirements as specified by the United States Environmental Protection Agency (USEPA 2001).

The monitoring activities described in this document will be accomplished by a combination of United States Geological Survey (USGS) stream gages and Licensee monitoring responsibilities (i.e., compliance monitoring, supplemental trout habitat monitoring and monitoring trends in water quality for streamflows entering the Project developments).

2.0 Hydro Project Compliance Monitoring

2.1 Background

The New License for the Project will specify flows to be released from various Project developments. Figure F-1 provides a flow routing and compliance flow schematic for the entire Catawba-Wateree Project. These required flows in the riverine reaches are designed to enhance fish and wildlife habitat (continuous flows), to meet the needs of downstream water users, to provide periodic higher flows for recreational activities (water sports) and ecological purposes, and to meet water quality standards.

Water quality issues that are relevant to the Project include continuous flows, temperature, and dissolved oxygen (DO) concentrations. Compliance with state DO standards in water released from all of the Project developments will be a requirement for both North and South Carolina's 401 Water Quality Certifications.

2.2 Sensor Locations

The proposed sites for compliance monitoring of the Project were based upon the various flow and reservoir level requirements and water quality requirements referenced in Table F-1 and the following criteria:

1. Representative of water quality conditions at all Project flows and operations;
2. Secure (minimize probability of vandalism);
3. Accessible for maintenance at all flows; and;
4. Small time-lag between changes in Project operations and monitor response (minimize downstream distance of sensor).

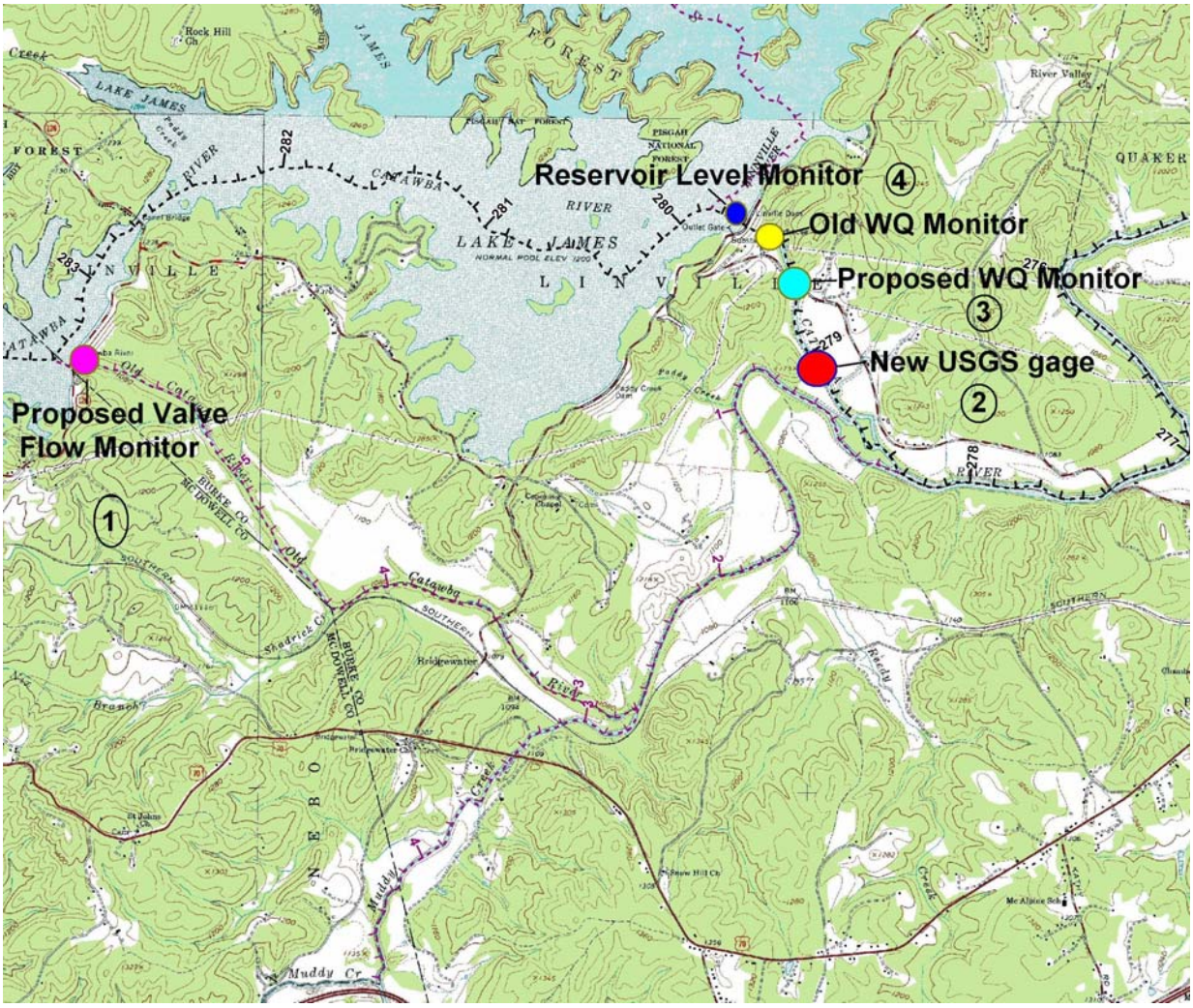
Table F-1. Summary of Project Compliance Verification and Reporting

Final Agreement Requirement	Developments *
Flow and Reservoir Level Requirements	
Bypassed Reaches Minimum Continuous Flow Release	BW, GF
Recreational Flow Releases	BW, OX, WY, GF, WA
Minimum Continuous Flows	BW, OX, LS, WY, GF, WA
Minimum Average Daily Flows	RH, CF, MI, FC, CC
Reservoir Elevations	All
Spring Reservoir Level Stabilization	BW, CF, WY, WA
Compliance Monitoring	All
Water Quality Requirements	
Dissolved Oxygen Concentrations	All
Minimum Flows	BW, OX, LS, WY, GF, WA
Compliance Reporting	All

* BW = Bridgewater (Lake James)
RH = Rhodhiss
OX = Oxford (Lake Hickory)
LS = Lookout Shoals
CF = Cowans Ford (Lake Norman)
MI = Mountain Island
WY = Wylie
FC = Fishing Creek
GF = Great Falls-Dearborn (Great Falls Reservoir)
CC = Rocky Creek-Cedar Creek (Cedar Creek Reservoir)
WA = Wateree

The following pages provide maps or aerial photos for each hydro development in the Project indicating existing and proposed compliance monitoring locations with amplifying information.

Bridgewater



Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
1	Bypassed Reach Minimum Continuous Flows	Catawba Dam	0.00	Flow sensor at flow release valve	Wireless Telemetry to Station Computer and Staff Gage for Visual
2	Minimum Continuous Flows Recreational Flows Project Hourly Flows	Downstream of 1st Bridge Powerhouse Road	0.65	USGS Gage (New Gage)	USGS Gage and Turbine Generation Records

Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
3	Temperature Dissolved Oxygen	1st Bridge Powerhouse Road Linville River Downstream Bridgewater Hydro	0.25	*In Situ* - Pipe and Instruments on Bridge (NCDOT approval required)	Wireless Telemetry to Station Computer
4	Reservoir Levels	Bridgewater Forebay	n/a	Current Device on the Intake Structure	Wired to Station Computer

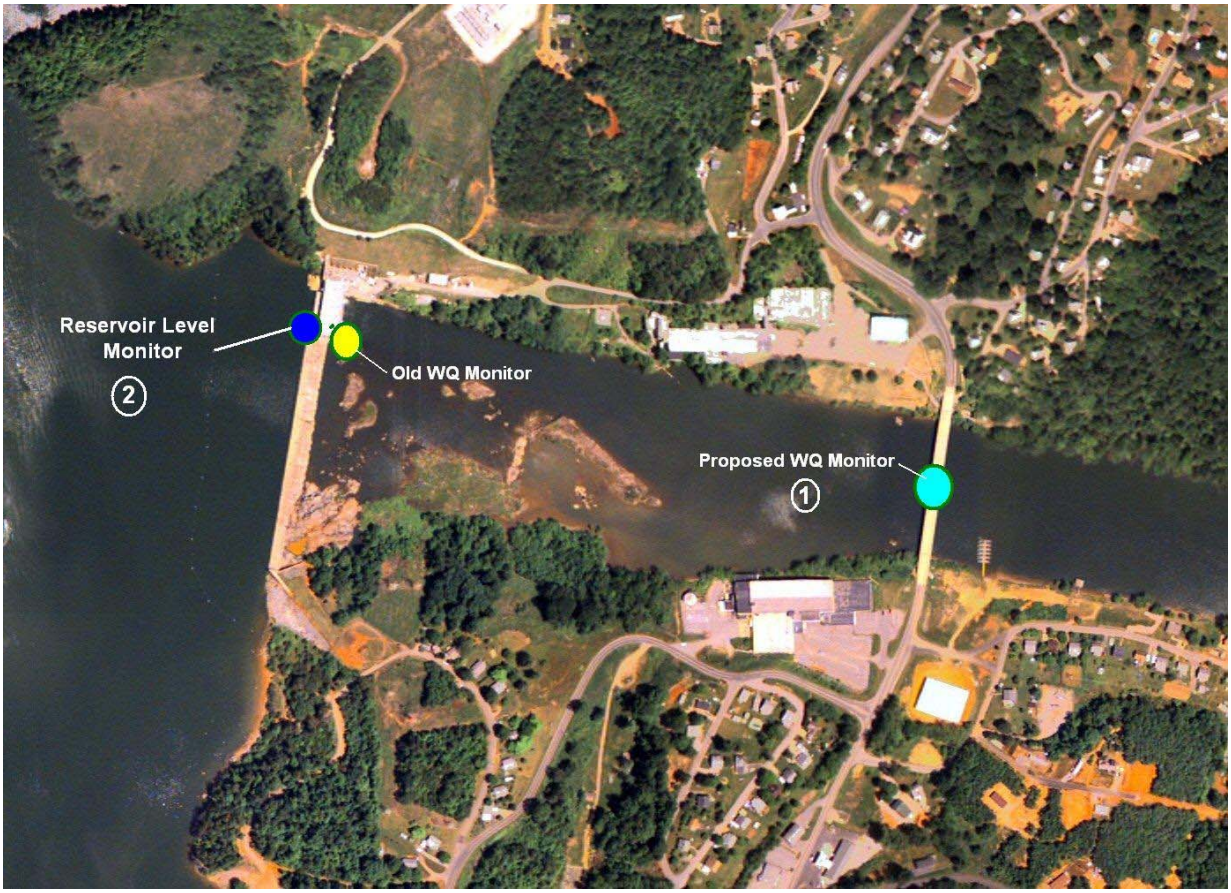
Device Location Rationale

The valve at the Catawba Dam will be designed to supply seasonal minimum continuous flows in the Catawba River Bypassed Reach (Location 1). A sensor in the flow pipe or valve, calibrated for flow, will provide a continuous reading of the flow being released into the Catawba River Bypassed Reach. Since the sensor is located directly on the valve or flow pipe, which is on the dam, the sensor should be secure from vandals.

The channel configuration at the proposed site for the new USGS gage is ideally suited for the expected range of flows originating from the Linville Dam. The site is located on private property providing a measure of security.

The previous water quality monitoring site was located on the downstream side of the powerhouse. Even though that site adequately represented the turbine flow water quality, the future configuration of the Bridgewater Powerhouse is not known, and, therefore, the recommendation for the future water quality monitoring location is at the first downstream bridge (on Powerhouse Road). The bridge provides an existing structure to place the water quality monitor in the center of the narrow river channel. The temporary monitors placed at this site during the Bridgewater downstream investigations (Knight 2003) illustrated similar water quality values to the tailrace monitor at all flows except the 50 cfs leakage flows that will be replaced by 75, 95 or 145 cfs minimum continuous flows in the future depending on the month. This site will represent the water quality conditions of any combination of hydro unit flow (including minimum flow). In addition, the site would be accessible under all Project flows, and would provide a rapid response at the station to water quality conditions. Security from vandals is a concern at this site. Temperature will be monitored at this site to support state trout management initiatives on the downstream section of the river.

Rhodhiss



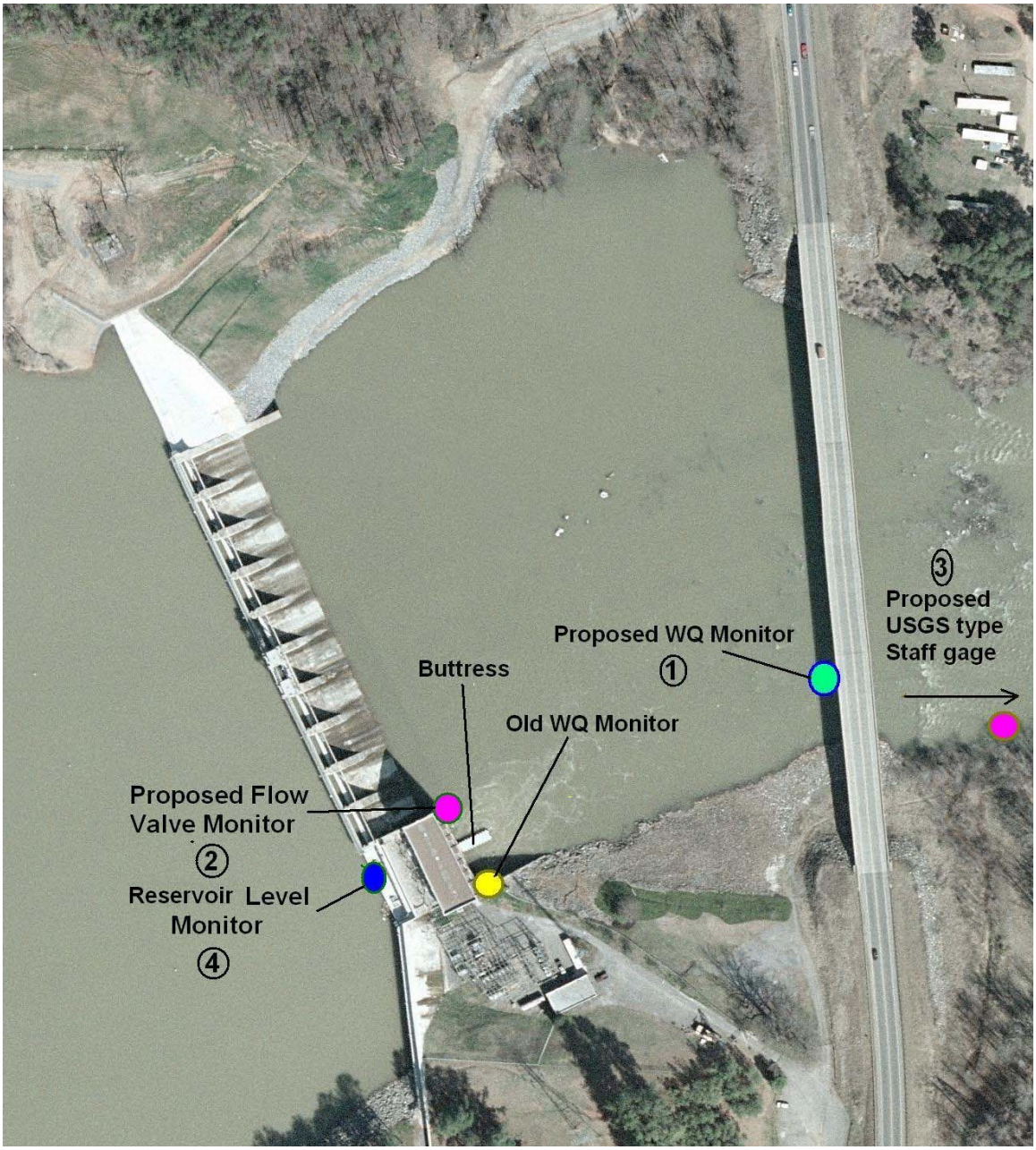
Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
1	Temperature Dissolved Oxygen	Rhodhiss Road Bridge Downstream Rhodhiss Hydro	0.35	*In Situ* - Pipe in Center of Channel and Instruments Mounted on Bridge (NCDOT approval required)	Wireless Telemetry to Station Computer
2	Reservoir Levels	Rhodhiss Forebay	n/a	Current Device on the Intake Structure	Wired to Station Computer

Device Location Rationale

The previous water quality monitoring site was located on the south corner on the downstream side of the powerhouse. That site adequately represented the water quality of the turbine flow when all the units were identical, however, the turbine venting tests (Duke Power 2005a), indicated that this location was not representative of the combined flows from units with differing aeration capability. Therefore, the monitor should be moved to the center of the river channel at the downstream bridge (Location 1). The bridge not only provides an existing structure to place the water quality monitor in the

center of the channel, but this site represents the water quality conditions of any combination of hydro unit flows (Duke Power, 2005a). This site is accessible under all Project flows, and may provide a rapid response at the station to water quality conditions. Security from vandals may be a slight concern at this site.

Oxford


Proposed WQ Monitor
①
Buttress
Old WQ Monitor
③
Proposed
USGS type
Staff gage
Proposed Flow
Valve Monitor
②
Reservoir Level
Monitor
④

Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
1	Temperature Dissolved Oxygen	Highway 16 Bridge Downstream Oxford Hydro	0.15	*In Situ* - Pipe South Channel and Instruments Mounted on Bridge (NCDOT approval required)	Wireless Telemetry to Station Computer
2	Minimum Continuous Flows	Oxford Dam	0.00	Flow sensor at flow release valve	Wireless Telemetry to Station Computer
3	Recreational Flows Project Hourly Flows	Riverbend Park Turbine Records	0.30	USGS-Type Plate Gage	Staff Gage for Visual and Turbine Generation Records
4	Reservoir Levels	Oxford Forebay	n/a	Current Device on the Intake Structure	Wired to Station Computer

Device Location Rationale

An aerating flow valve will be designed to supply and measure a constant minimum continuous flow in the downstream channel (Location 2). A sensor in the discharge pipe or valve, calibrated for flow, will provide a continuous reading of the flow being released into the river channel. Since the sensor is located directly on the valve or flow pipe, which is on the dam, the sensor should be secure from vandals. The flow valve will provide the minimum continuous flow during periods of no hydro unit generation.

Generation and recreational flow requirements will be recorded from the generation records for each turbine. A manually read, USGS type plate staff gage will be placed at the boat put-in at Riverbend Park (Location 3) for independent verification.

The previous water quality monitoring site was located in the corner of the powerhouse and wingwall. That site adequately represented the water quality of the turbine flow when all the units were identical and prior to the recent installation of the tailrace buttresses. However, this site would probably not be representative of the combined flows from hydro units with differing aeration capability and the buttresses would effectively prevent Unit 2 water from reaching the sensor when Unit 1 was generating. Therefore, the monitor should be moved to the Highway 16 Bridge immediately downstream of the turbines (Location 1). The bridge not only provides an existing structure to place the water quality monitor in the channel, but this site will represent the water quality conditions of any combination of hydro unit flows. This site will be accessible under all Project flows, and will provide a rapid response of the station to water quality conditions. Security from vandals may be a concern at this site.

Lookout Shoals

Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
1	Temperature Dissolved Oxygen	East Wingwall - Tailrace	0.01	*In Situ* - Pipe, Monitor Location Unchanged	Wired to Station Computer
2	Minimum Continuous Flows Project Hourly Flows	Turbine Records	n/a	n/a	Turbine Generation Records
3	Reservoir Levels	Lookout Forebay	n/a	Current Device on the Intake Structure	Wired to Station Computer

Device Location Rationale

The minimum continuous flow will be provided by either one of the small auxiliary hydro units (Location 2) during periods when the larger hydro units are not operating. The configuration of the Lookout Shoals tailrace (large pool upstream of first downstream hydraulic control) exhibits very little stage change with or without the auxiliary hydro unit generation. In addition, the elevation of the tailrace is also a function of Lake Norman's

reservoir level (at full pond, the reservoir level extends upstream of the hydraulic control). Therefore, the minimum continuous flow and hourly flow rates would be best monitored by the individual generation records of each hydro unit at Lookout Shoals Hydro.

The previous water quality monitoring site was located on the east wingwall downstream of Unit 1. That site adequately represented the water quality of the turbine flow when all the hydro units were identical. The nearest downstream structure to place a monitor in the center of the channel is the I-40 Bridge which is 1.3 miles downstream. The I-40 Bridge site is strongly influenced by Lake Norman's reservoir level, and the long travel time of the minimum flow would influence the water quality at minimum flow. Therefore, the I-40 Bridge location is not preferred for water quality monitoring. Since no other downstream structure exists to place a monitor in the center of the river, the wingwall site (Location 1) represents the best logistical option available for water quality monitoring. This wingwall site will be accessible under all Project flows, and will provide a rapid response of the station to water quality conditions. The monitor will be secure since it is located inside the security fence.

Cowans Ford

Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
1	Temperature Dissolved Oxygen	Railroad Bridge Downstream Cowans Ford Hydro	0.50	*In Situ* - Pipe West Channel and Instruments Mounted on Bridge (Railroad approval required)	Wireless Telemetry to Station Computer
2	Reservoir Levels	Cowans Ford Forebay	n/a	Current Device on Intake Structure	Wired to Station Computer

Device Location Rationale

Even though the previous monitor was placed on the tail-deck of the hydro, this location probably represented the water quality of the released flow. However, under multi-unit operation, the monitor would only record data from the hydro unit flows adjacent to the

monitor. In addition, security at the Cowans Ford Hydro facility is controlled by the McGuire Nuclear site (Nuclear Regulatory Commission guidelines) and is difficult to enter when operators are not present. This security issue limits maintenance accessibility. Therefore, the recommended site for the future temperature and dissolved oxygen monitoring is at the railroad bridge 0.5 miles downstream (Location 1). This site would enable the monitor to measure water quality from the high-volume hydro unit flow as well as provide a somewhat secure and accessible site. Location of the monitor just west of the downstream tip of the island would insure that the monitor would be out of the influence of the wastewater discharge from McGuire Nuclear Station.

Mountain Island

Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
1	Temperature Dissolved Oxygen	Tail Deck - Tailrace	0.00	*In Situ* - Pipe, Monitor Location Unchanged	Wired to Station Computer
2	Reservoir Levels	Mt. Island Forebay	n/a	Current Device on Intake Structure	Wired to Station Computer

Device Location Rationale

Even though the present monitor is on the tail-deck of the hydro (Location 1), this location probably represents the water quality of the released flow. However, under multi-unit operation, the monitor would only record data from the hydro unit flows adjacent to the monitor. Since no other structure, (e.g., bridge), exists in the center of Mountain Island's tailrace, this tail-deck location represents the best logistical location available. It is secure and provides ready access for maintenance.

Wylie

Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
1	Temperature Dissolved Oxygen	~ ½ mile Downstream from Hydro (pier on Ferrell Island)	0.50	Flow-Through System Auto Calibration Sensor (Island property owner's approval required)	Wireless Telemetry to Station Computer
2	Minimum Continuous Flows	Small Unit Turbine Records Highway 21 USGS Gage	0.00 3.60	USGS Gage (Catawba River near Rock Hill, SC) (02146000)	USGS Gage and Turbine Generation Records

Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
3	Recreational Flows Project Hourly Flows	Turbine Records Highway 21 USGS Gage	0.00 3.60	USGS Gage (Catawba River near Rock Hill, SC) (02146000)	USGS Gage and Turbine Generation Records
4	Reservoir Levels	Wylie Forebay	n/a	Current Device on the Intake Structure	Wired to Station Computer

Device Location Rationale

The USGS gage at the Highway 21 Bridge (Location 2/3) is well established and will be used for verification of minimum continuous flow, recreational flows, and hourly Project flows. In addition, generation records will be used to supplement the USGS data.

The previous water quality monitoring site was located in the corner of the powerhouse and wingwall. Extensive monitoring of dissolved oxygen concentrations in the Wylie tailrace was conducted during the 2002 turbine venting test (Duke 2005a). These results indicated that the proposed monitoring location was the closest point to the hydro that best represented the water quality of the multi-unit flows (Location 1). This test included detailed water quality sampling along several downstream transects, as opposed to just at the monitoring site. Furthermore, the Wylie tailrace is very complicated since the island immediately downstream of the powerhouse splits the water released from the hydro. The flow, from either a single unit or multiple unit operation, moves around the island and finally merges just upstream of the small island across the channel from the proposed monitoring location. Use of this location is contingent on being able to get permission for access from the property owner and on obtaining any necessary easements. Security from vandals is of some concern at this site.

Fishing Creek

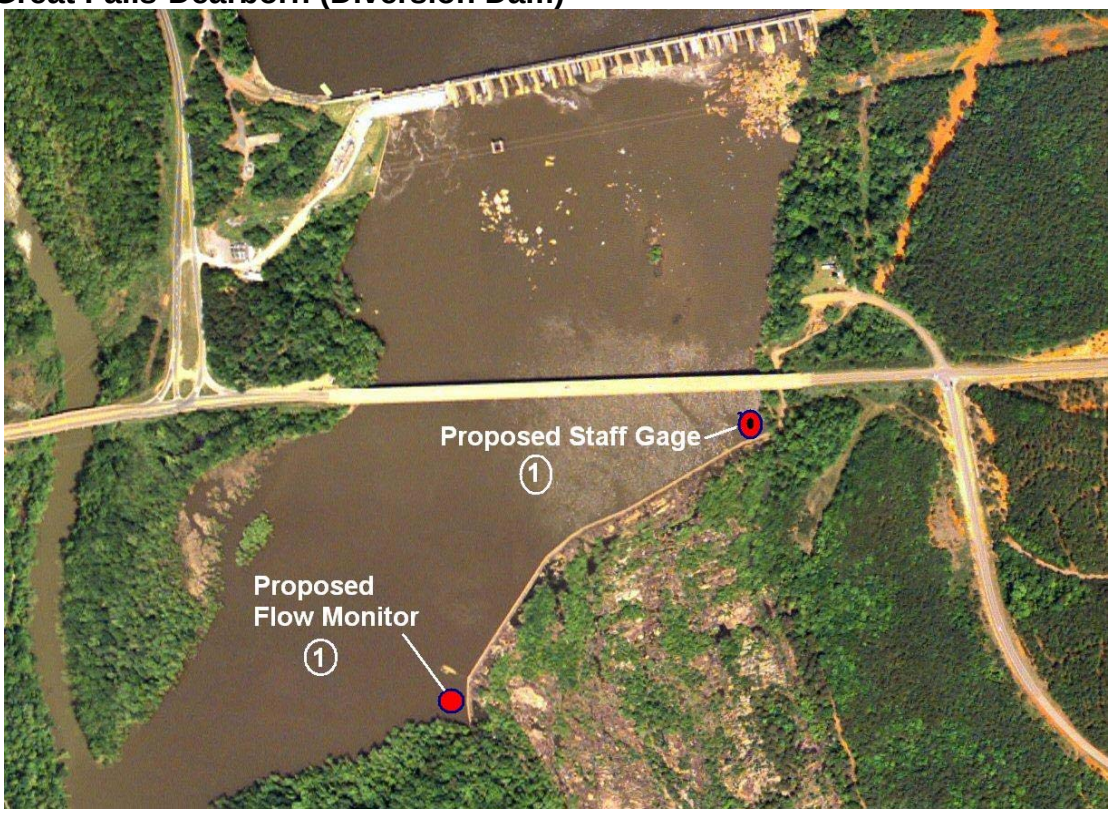
Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
1	Temperature Dissolved Oxygen	Highway 97/200 Bridge Downstream Fishing Creek Hydro	0.15	*In Situ* - Pipe West Channel and Instruments mounted on Bridge (SCDOT approval required)	Wireless Telemetry to Station Computer
2	Reservoir Levels	Fishing Creek Forebay	N/A	Existing Device on the Intake Structure	Wired to Station Computer

<u>Device Location Rationale</u>

The previous water quality monitoring site was located on the wingwall, west of the Fishing Creek Powerhouse. That site adequately represented the water quality (temperature and dissolved oxygen) of the turbine flow when all the hydro units were identical and prior to the recent installation of the tailrace buttresses. However, this site would probably not be representative of the combined flows from hydro units with differing aeration capability since the flows will be directed downstream due to the newly

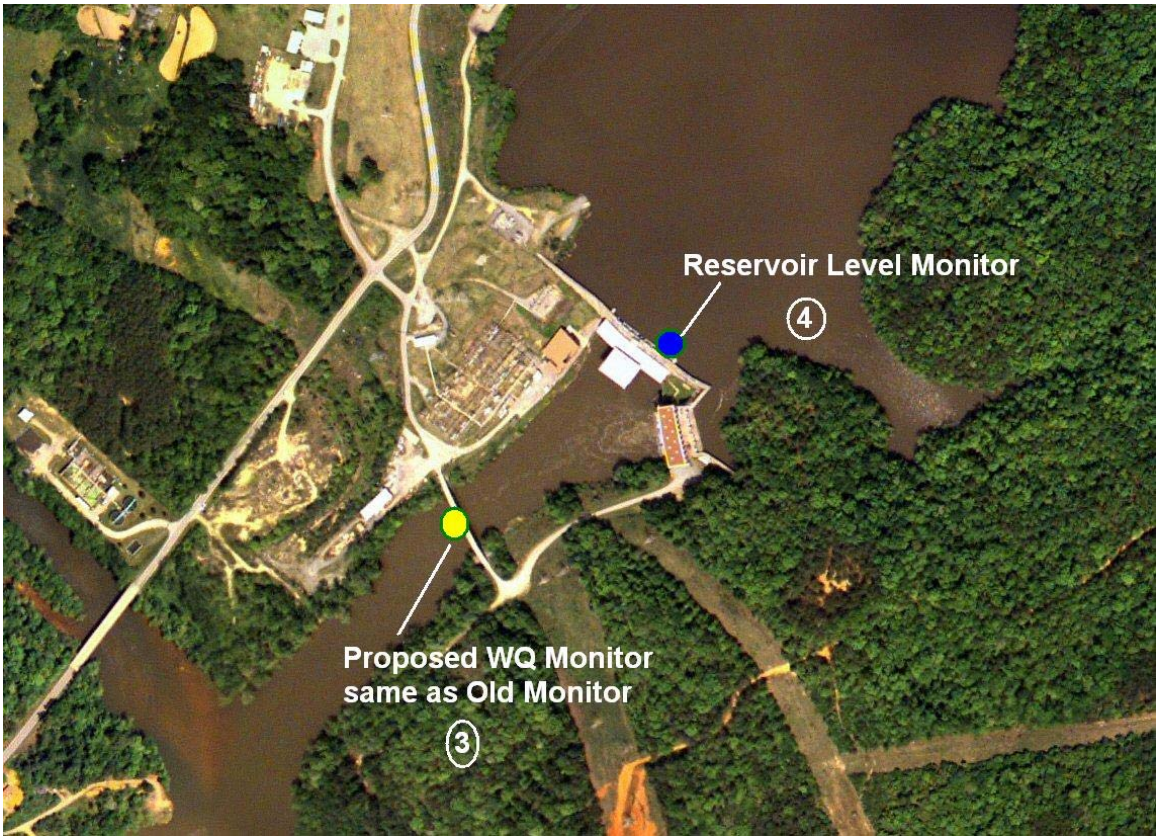
installed buttresses. Therefore, the monitor will be moved to the Highway 97/200 Bridge immediately downstream of the turbines (Location 1). The bridge not only provides an existing structure to place the water quality monitor in the channel, but this site will represent the water quality conditions of any combination of hydro unit flows. This site is accessible under all Project flows, and will provide a rapid response of the station to water quality conditions. Security from vandals may be a concern at this site.

Great Falls-Dearborn (Diversion Dam)



Great Falls-Dearborn (Headworks)

Great Falls-Dearborn (Main Dam)



Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
1	Bypassed Reaches Minimum Continuous Flows Recreational Flows	Diversion Dam Long Bypassed Reach Downstream Fishing Creek Hydro	0.25 mi. from Fishing Creek Dam	Pressure Sensor calibrated to correspond to minimum continuous flow pond level. Pressure Sensor calibrated to correspond to recreational flows and pond level.	Wireless Telemetry to Station Computer and Staff Gage for visual
2	Bypassed Reaches Minimum Continuous Flows Recreational Flows	Headworks Short Bypassed Reach Downstream Fishing Creek Hydro	1.95 mi. from Fishing Creek Dam	Gate Position Sensor calibrated to gate opening corresponding to minimum continuous flow. Pressure Sensor calibrated to correspond to recreational flows and pond level.	Wireless Telemetry to Station Computer and Staff Gage for visual
3	Temperature Dissolved Oxygen	Duke Bridge Downstream of Hydros	0.1 mi. from Great Falls – Dearborn Dam	*In Situ* - Pipe, Monitor Location Unchanged	Wired to Station Computer

Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
4	Reservoir Levels	Great Falls Forebay	N/A	Existing Device on the Intake Structure	Wired to Station Computer

Device Location Rationale

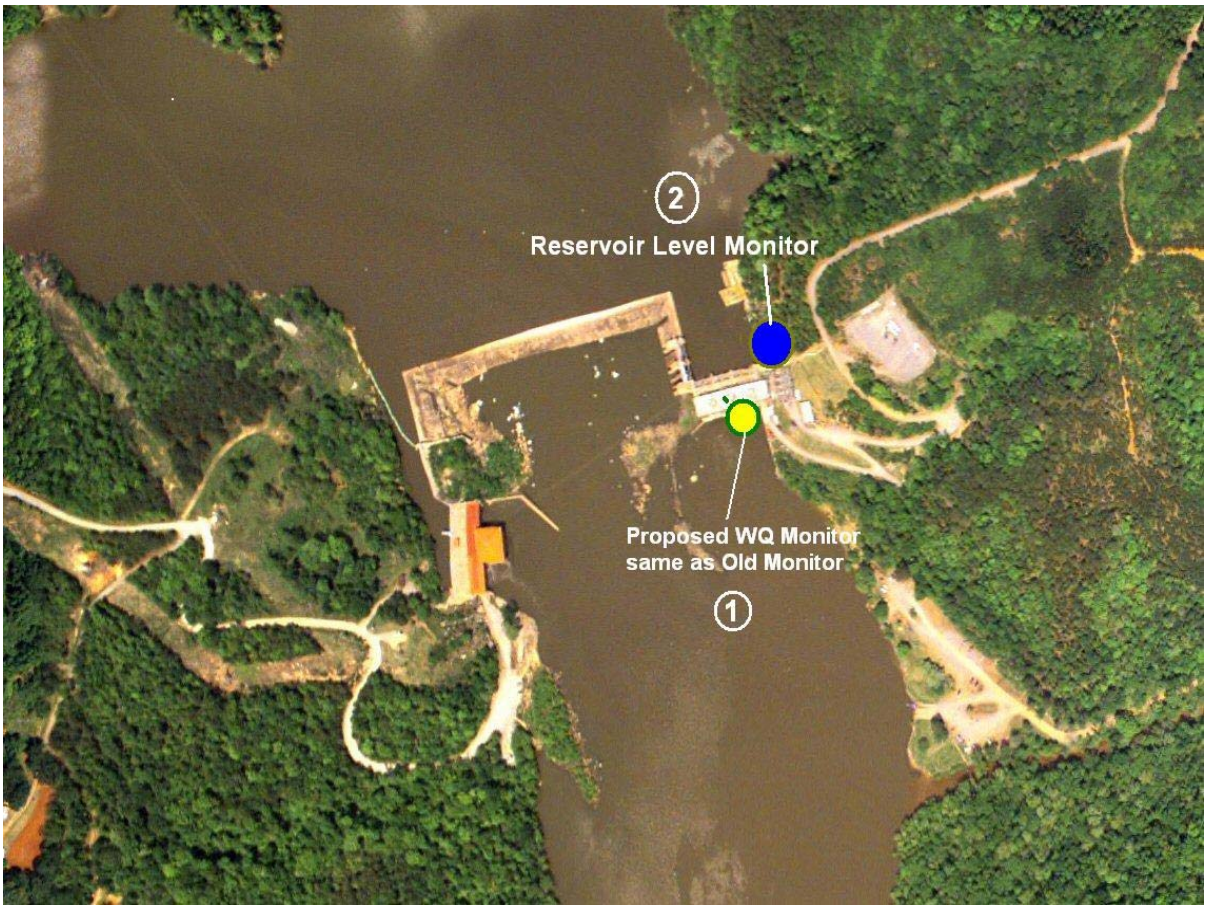
Ideally, measurement of the minimum continuous flows and recreational flows in the Great Falls Long and Short Bypassed Reaches would be taken directly in the respective channels. However, the irregular channel configuration in both reaches prevents accurate flow measurements from stage changes. In addition, the difficult access to the bypassed reaches poses substantial personnel safety limitations to the calibration and maintenance of the gages. Therefore, the best measurement of the flow in the bypassed reaches is at the source of the flows (Locations 1 and 2).

Although the exact design of the minimum continuous flow delivery mechanism has not been completed, the measurement of flow will be a stage-discharge relationship between the pond level and the flow being delivered. Continuous flow monitoring for the Long Bypass will be located at the Great Falls Diversion Dam immediately downstream of Fishing Creek Hydro (Location 1). The continuous flow monitoring for the Short Bypassed Reach will be provided at the Great Falls Headworks spillway, both upstream and downstream of the headworks structure (hence a flow measurement system upstream and downstream of the headworks) (Location 2).

Recreational flows will be provided as spill over the Great Falls Diversion Dam and the Great Falls Headworks. Again, the water level over the spillways will be measured and stage-discharge equations will relate stage to flow. Manually read, new USGS type plate staff gages will be placed at the Great Falls Diversion Dam and upstream of the Great Falls Headworks.

The previous water quality monitor mounted on the Duke Energy bridge immediately downstream of Great Falls and Dearborn Hydros is ideally located since it is in the center of the channel (Location 3). This position captures the water quality (temperature and dissolved oxygen) from both hydros and is in a secure location.

Rocky Creek-Cedar Creek



Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
1	Temperature Dissolved Oxygen	Downstream Face of Cedar Creek Powerhouse	0.00	*In Situ* - Pipe, Monitor Location Unchanged	Wired to Station Computer
2	Reservoir Levels	Cedar Creek Forebay	n/a	Current Device on the Intake Structure	Wired to Station Computer

<u>Device Location Rationale</u>

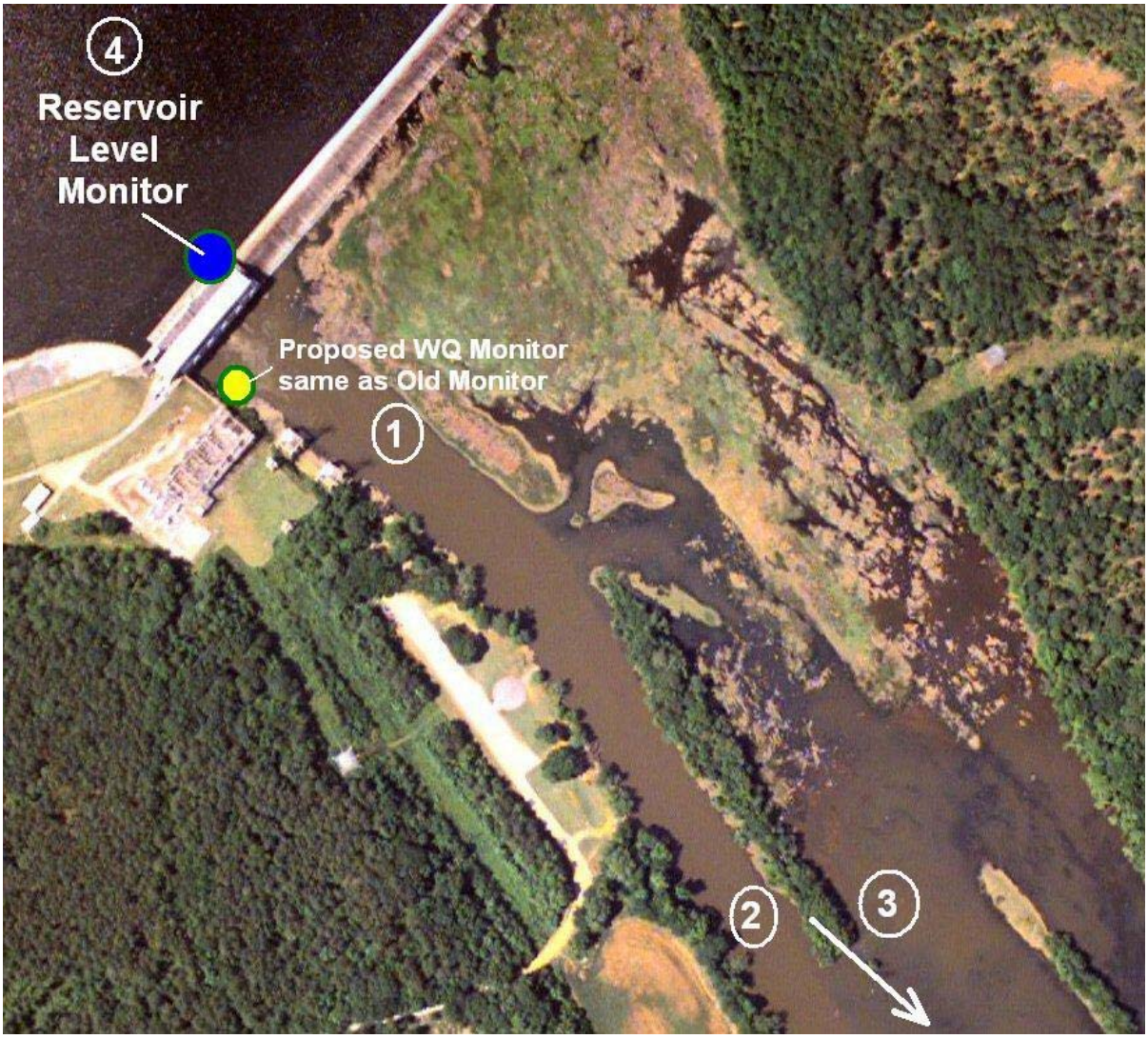
The previous water quality monitor is located in the center of the Cedar Creek tailrace. It was mounted directly on the powerhouse. Since the hydro units at Cedar Creek were identical, the temperature and dissolved oxygen monitor adequately measured the water quality released from Cedar Creek Powerhouse (Location 1).

The water quality of the Cedar Creek hydro flow represents the overall tailrace water quality since:

- Cedar Creek Powerhouse flow is significantly greater than Rocky Creek Powerhouse flow and dominates the downstream flow (capacity of Cedar Creek units is three times the capacity of the Rocky Creek units).
- Rocky Creek Hydro is operated infrequently; it is operated only after Cedar Creek Reservoir pond level cannot be maintained by Cedar Creek Hydro (three Units at Cedar Creek).
- Both hydros draw water from the same forebay and the water quality is similar.

Thus, no water quality monitoring device is necessary at the Rocky Creek Hydro. Unlike Great Falls-Dearborn, there is no structure downstream of Cedar Creek Powerhouse to mount a water quality monitor in the center of the channel.

Wateree



Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
1	Temperature Dissolved Oxygen	West Platform – Tailrace	0.02	Probably Flow-Through System Auto Calibration Sensor	Wired to Station Computer
2	Minimum Continuous Flows	Highway 1/601 USGS Gage	7.4	USGS Gage (Wateree River near Camden, SC) (02148000)	USGS Gage and Turbine Generation Records

Map Location	Data	Recommended Location	Approximate Distance Downstream (miles)	Comments	Data Collection
3	Recreational Flows Project Hourly Flows	Turbine Records Highway 1/601 USGS Gage	7.4	USGS Gage (Wateree River near Camden, SC) (02148000)	USGS Gage and Turbine Generation Records
4	Reservoir Levels	Wateree Forebay	n/a	Current Device on the Intake Structure	Wired to Station Computer

Device Location Rationale

The USGS gage at Highway 1/601(Location 2/3) is well-established and will be used for verification of minimum continuous flow, recreational flows, and hourly Project flows. Generation records will be used to supplement the USGS data.

The Wateree tailrace is a relatively simple channel, with the flows from the various hydro units moving directly downstream. However, the tailrace does not lend itself to simple water quality monitoring due to the various aeration capabilities of the individual hydro units and subsequent multi-unit flow patterns (Duke Power 2005a). Moving the monitor location downstream to capture a multi-unit flow is not an option because, at flows greater than provided by 2-3 unit operations, a significant volume of water flows out of the main channel to the east within a few hundred yards of the powerhouse.

The existing monitor location (Location 1) was built to extend a short distance into the tailrace with the goal of better measurements than at the face of the powerhouse. The existing monitor location is the best logistical location available to measure water quality because no structure exists in the center of the channel, nor is the east side of the channel a viable option because that area is heavily used by fisherman (creating damage and security issues) and is prone to flooding and further potential damage or loss.

The next available location at the Highway 1/601 Bridge is not suitable because of its distance from the Powerhouse and the presence of aquatic plants and shoals between the Powerhouse and bridge that significantly influence the DO levels.

2.3 System Requirements

The formulation of this plan was based upon the work by Wagner et al. (2000) and modified to meet specific monitoring objectives described in the FA. The basic components of the monitoring system are (1) sensors that measure the required parameter, either directly (e.g., dissolved oxygen) or indirectly (e.g., flow calculated from stage), (2) a means of getting the sensor data to an appropriate database, and (3) a database capable of meeting the operational and reporting requirements.

Data Collection

Real-time data[1] accessibility is the criteria driving the choice of the hardware and software requirements. Real-time data accessibility is needed for operations personnel

[1] Real-time data is defined as data that is immediately available upon sensor reading to the hydro operators. The operators then use that data to make decisions regarding plant operations.

to view, and, if necessary, adjust station operations to meet license requirements and conditions. Operators at each individual hydro, as well as at the Licensee's central operations center, will have access to all real-time sensor data and a software display indicating compliance status.

Database requirements include the ability to retrieve data for short-term evaluations of compliance as well as long-term retrieval for yearly reporting requirements.

Sensor Technology

General considerations and sensor options include:

1. General Requirements
    a. Digital for Real-time Communications
    b. Programmable Time Interval for Data Capture
2. Flow
    a. Continuous (pipe, flume, etc.)
    b. Open Channel (rating curve of stage/discharge)
    c. Supplemental manual gage
3. Water Quality
    a. Temperature only
    b. Temperature and Dissolved Oxygen
        (1) Polarographic
            - Membrane rate dependent
            - Membrane rate independent
            - Contained for auto calibration
        (2) Optical (Luminescence Quenching)(Mitchell 2006)

The Licensee is currently evaluating available technologies to provide accurate data while maximizing reliability and minimizing the maintenance required for calibration. The Licensee will propose sensor type, calibration, and maintenance in the QAPP. The evaluation of "new" equipment and technologies will no doubt be an ongoing process throughout the duration of the New License.

2.4 Reporting Requirements

Historic records indicate that dissolved oxygen concentrations have consistently exceeded state water quality standards during the winter months. Therefore, compliance monitoring for temperature and dissolved oxygen will commence on 1 April and end on 30 November each year during the term of the New License, unless additional monitoring is determined necessary by the state water quality agency (e.g., for extended low dissolved oxygen periods, unusual meteorological periods). Flows and reservoir levels will be recorded year-round.

Routine monthly data (hourly and daily averages in spreadsheet format) will be supplied for information purposes to NCDWQ and SCDHEC by the last day of the following month, (e.g., April data due 31 May) via electronic mail. Discrepancies or deviations from required flows, reservoir levels, or state water quality standards will be briefly noted, evaluated, and discussed. A more detailed assessment along with the corrective actions will be supplied in the annual report.

An annual report, summarizing the monthly reports for the previous calendar year will be filed with the appropriate agencies by June 30 of each full calendar year during the term of the New License (reference the proposed Water Quality Monitoring Plan License Article in the FA).

3.0 Supplemental Trout Habitat Monitoring

3.1 Monitoring

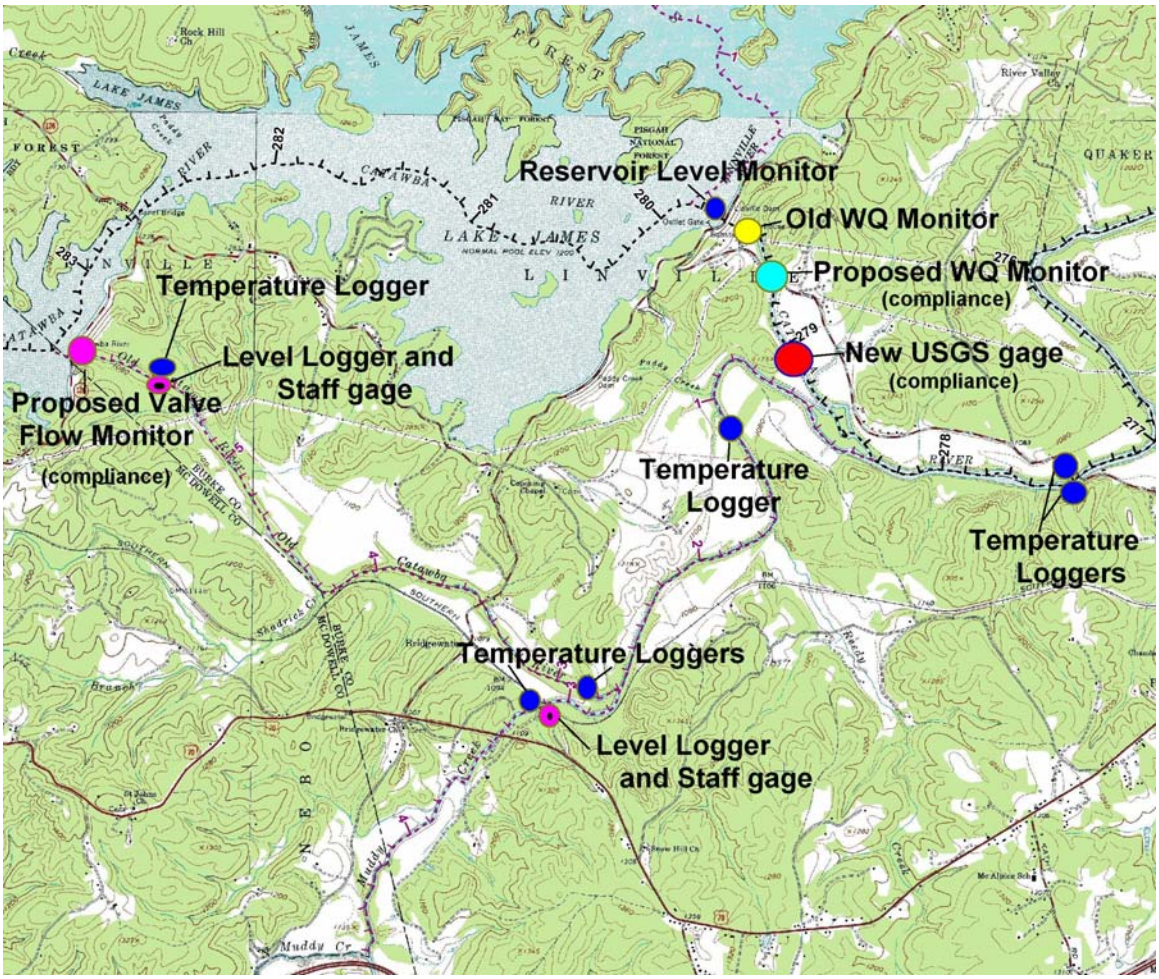
The Catawba River Bypassed Reach and Bridgewater minimum continuous flows have been selected and evaluated to provide flows and water temperatures suitable for protection and enhancement of mussels in the bypassed reach and the maintenance of a stocked trout fishery downstream of Bridgewater Hydro. The volume of warmwater flows provided to the Catawba River Bypassed Reach to maintain mussel habitat are balanced against the coldwater minimum flow from the Linville Dam to maintain suitable temperatures for trout downstream of the confluence of the Catawba River Bypassed Reach and the Linville River. The flows and temperatures provided to each channel to achieve the desired, but conflicting temperature requirements were analyzed by the CE-QUAL-W2 reservoir model and the River Modeling System (RMS). The results of these computer models were evaluated by the Aquatics/Terrestrial and Water Quality Resource Committees. Bypassed Reach and Linville Dam minimum continuous flows stated in the FA are the result of the recommendations from the evaluations by the resource committees.

Due to the hydraulic complexity and trout supplemental management interests in this area, supplemental monitoring will be used to support future evaluations of whether trout management goals in the mainstem Catawba River continue to be supported. This supplemental trout habitat monitoring will commence after the Bridgewater Powerhouse has been replaced with either a new powerhouse or valve system and compliance operations have begun and will continue through the next full NCDENR Catawba River Basinwide Assessment period, but not beyond Year 2019. Results of this monitoring may be used to determine if flow reductions need to be made in the Catawba River Bypassed Reach.

3.2 Sensor Locations

The temperature and level logger placement is designed to be able to record temperatures, flow (level logger with stage-discharge relationship) from the inflows, and empirically determine the temperatures at the appropriate downstream river reaches. An additional temperature and level logger will be provided at the Watermill Bridge (RM 271.7) in Glen Alpine, NC which is in the middle of the primary trout habitat.

Bridgewater Supplemental Trout Habitat Monitoring



3.3 System Requirements

Level loggers (devices to record river stage from which a stage-discharge relationship may be developed to calculate flow) and temperature loggers will be placed in the river and periodically downloaded to obtain the respective data. Stage-discharge curves will be developed at the level logger sites.

3.4 Reporting Requirements

Annual reports will be provided to NCDWQ and NCWRC (30 April) for the duration of the supplemental trout habitat monitoring detailing the previous calendar year's temperatures and levels. Flow-weighted temperatures will be calculated for the downstream sites.

4.0 Trend Monitoring of Water Quality Characteristics

4.1 Background

Dissolved oxygen deficits in the Project reservoirs have been shown to be related to organic and nutrient (nitrogen and phosphorus) loading (Duke Power 2005b). Increased organic and nutrient loadings to the system after the Licensee installs aeration

equipment designed to meet current deficits may impose additional oxygen deficits that the equipment was not designed to treat. To provide information to assess basin-wide growth and potential increased organic and nutrient loading, the Licensee will monitor trends in organic and nutrient concentrations to supplement state water quality databases. This monitoring is not required for compliance with the Section 401 Water Quality Certifications.

4.2 Sampling Locations

In cooperation with state agencies, the Licensee will identify sampling sites for future long-term organic and nutrient sample collections. Parameters collected will include total N, total P, nitrites, pH, dissolved oxygen, and temperature.

Hydro Tailraces

The Licensee will collect samples from the immediate tailraces at the time of routine maintenance and calibration of the water quality monitors.

Tributary Sites

Tributary sampling will focus on stream confluences draining major sub-watersheds into the Project reservoirs and downstream river sections. Tributary samples will be collected at the time of routine maintenance of tailwater monitors, but at least monthly.

The following tributaries will be monitored in North Carolina:

- Muddy Creek at Highway 70 (Burke Co.)
- Johns River at Highway 18 (Burke Co.) *
- Catawba River at Highway 18 (Burke Co.) *
- Lower Little River upstream of Confluence with Catawba River (Alexander Co.)
- Catawba Creek at SR 2435 (Alexander Co.)
- South Fork Catawba River at SSR 2201 (Gaston Co.) *

(* Three storm events will be sampled each year.)

The tributaries in South Carolina to be sampled will be chosen from the following list:

- Sugar Creek at SSR 36 (York Co.)
- Catawba River at Highway 9 (Chester and Lancaster Co.)
- Fishing Creek at SSR 77 (Chester Co.)
- Cane Creek at SSR 50 (Lancaster Co.)
- Rocky Creek at USGS Gage (Chester Co.)
- Big Wateree Creek at Highway 21 (Fairfield Co.)
- Beaver Creek at SSR 13 (Kershaw Co.)

4.3 Sampling Requirements

The samples will be collected and analyzed by state certified personnel and laboratories.

4.4 Reporting Requirements

Data derived from the long-term monitoring program will be stored electronically and reports provided as needed or requested by state agencies, such as to support the NCDENR's Catawba River Basinwide Assessment.

5.0 References

Duke Power. 2005a. *Catawba Hydros - Existing Aeration Capability and Downstream Aeration Tests*, Technical Report Series, Catawba-Wateree License. FERC No. 2232, Charlotte, NC.

Duke Power. 2005b. *CE-QUAL-W2 Calibration Reports*, Technical Report Series, Catawba-Wateree License. FERC No. 2232, Charlotte, NC.

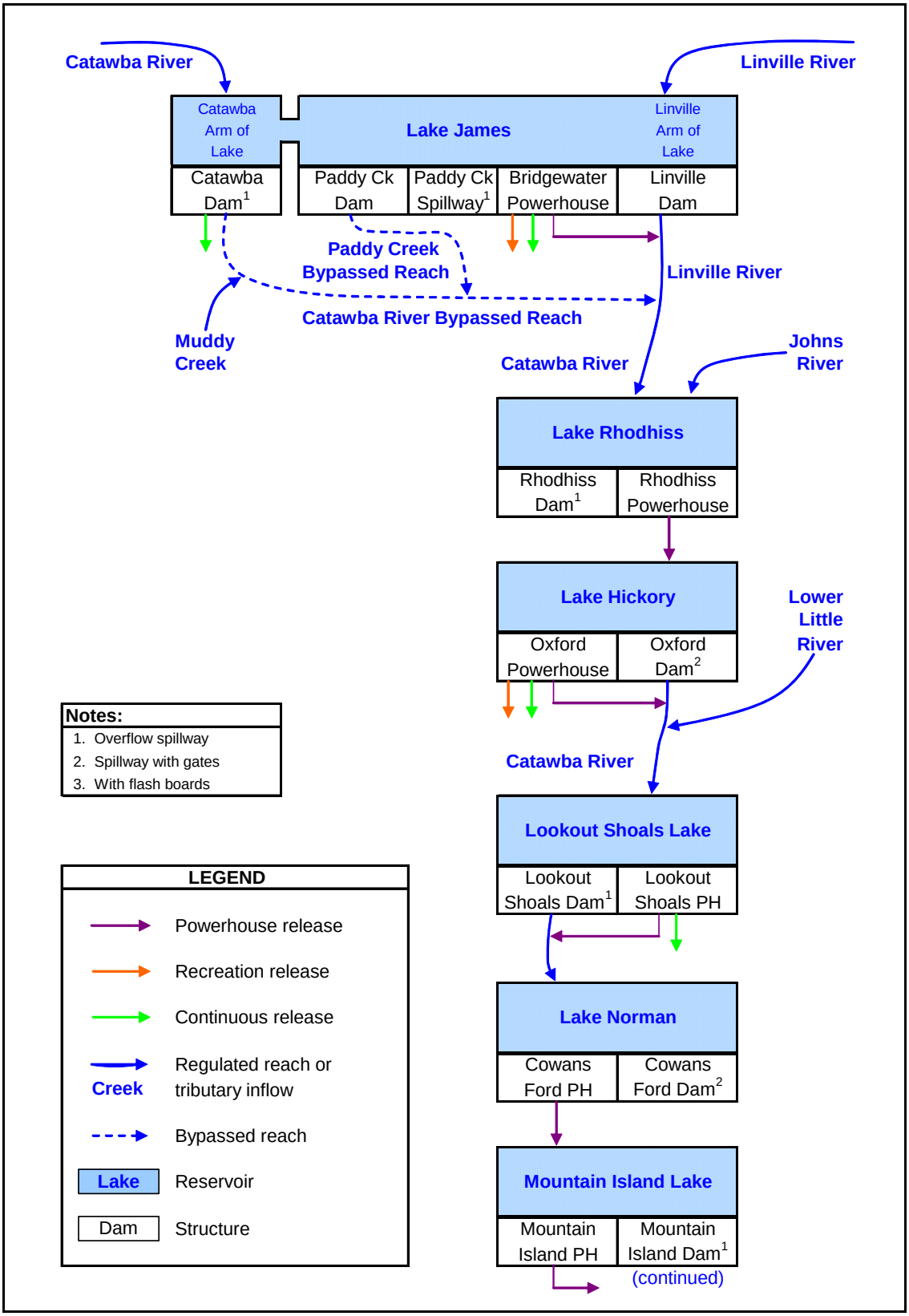
Knight, Jon, 2003. *Dissolved Oxygen Concentrations and Water Temperature from Bridgewater Hydroelectric Station*. Duke Power Company.

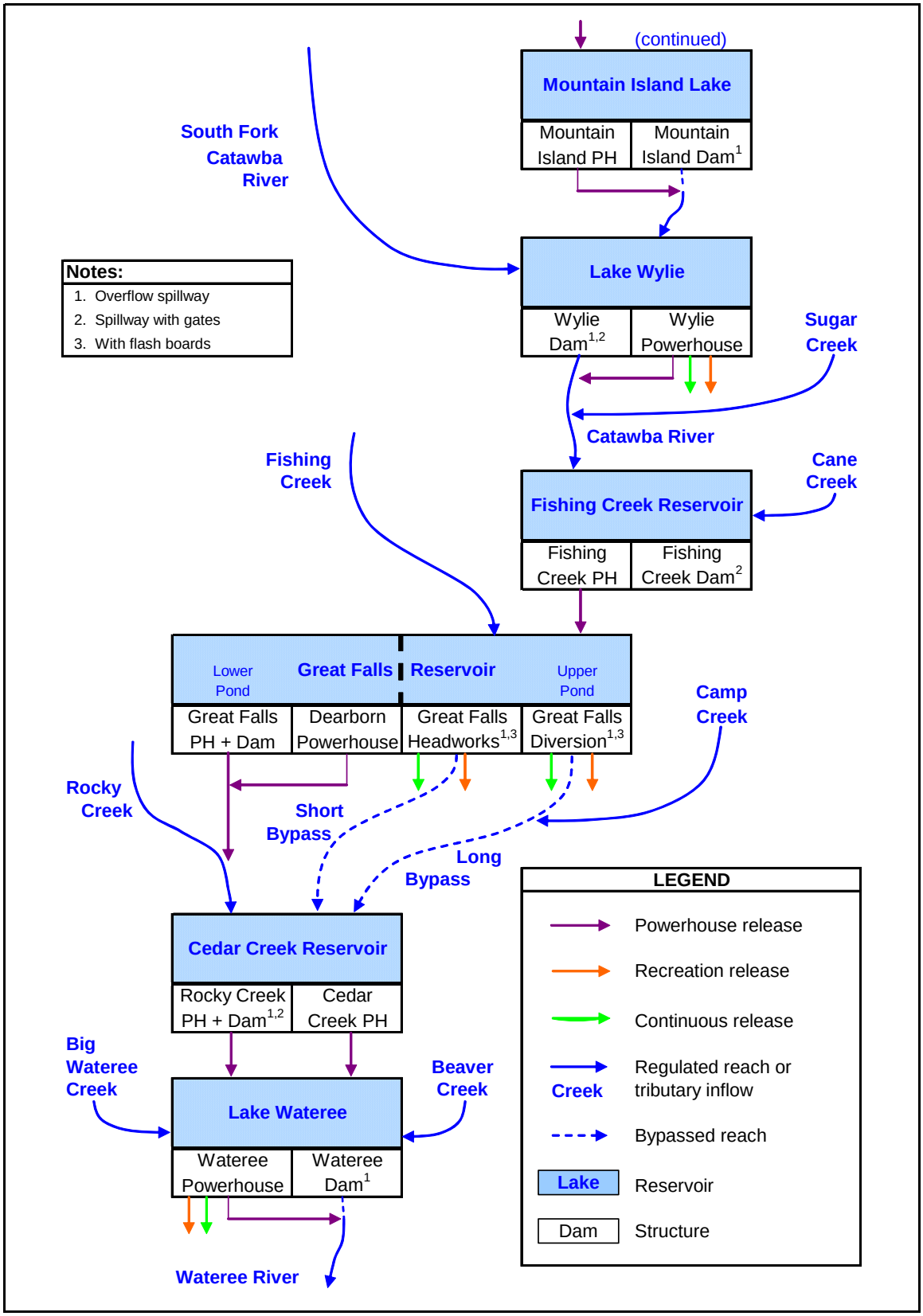
Mitchell, Thomas O. 2006. *Luminescence Based Measurement of Dissolved Oxygen in Natural Waters*. Hach Environmental. Loveland, CO.

Wagner, R.J., H.C. Mattraw, G.F. Ritz, and R.A. Smith. 2000. *Guidelines and Standard Procedures for Continuous Water-Quality Monitors: Site Selection, Field Operation, Calibration, Record Computation, and Reporting*. U. S. Geological Survey, Water-Resources Investigations Report 00=4252. Reston, Virginia.

United States Environmental Protection Agency. 2001. *EPA Requirements for Quality Assurance Project Plans.* EPA QA/R-5, EPA/240/B-01/003. USEPA, Office of Environmental Information, Washington D.C.

Figure F-1: Project Flow Routing Schematic




(continued)
Mountain Island Lake
Mountain Island PH
Mountain Island Dam1
South Fork Catawba River
Notes:
1. Overflow spillway
2. Spillway with gates
3. With flash boards
Lake Wylie
Wylie Dam1,2
Wylie Powerhouse
Sugar Creek
Catawba River
Fishing Creek
Cane Creek
Fishing Creek Reservoir
Fishing Creek PH
Fishing Creek Dam2
Lower Pond
Great Falls
Reservoir
Upper Pond
Great Falls PH + Dam
Dearborn Powerhouse
Great Falls Headworks1,3
Great Falls Diversion1,3
Camp Creek
Rocky Creek
Short Bypass
Long Bypass
Cedar Creek Reservoir
Rocky Creek PH + Dam1,2
Cedar Creek PH
Big Wateree Creek
Beaver Creek
Lake Wateree
Wateree Powerhouse
Wateree Dam1
Wateree River
LEGEND
Powerhouse release
Recreation release
Continuous release
Creek
Regulated reach or tributary inflow
Bypassed reach
Lake
Reservoir
Dam
Structure

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APPENDIX G: ABBREVIATIONS AND ACRONYMS

°F – Degrees Fahrenheit

401 WQC – 401 Water Quality Certification

AA – Access Area

AAII – Access Area Improvement Initiative

ac – acre(s)

ADA – Americans with Disabilities Act

AG – Advisory Group

AIP – Agreement-in-Principle

AW – American Whitewater Affiliation

BMP – Best Management Practices

CCC – Carolina Canoe Club

cfs – cubic feet per second

CHEOPS – Computer Hydroelectric Operations System

CIN – Catawba Indian Nation

CMU – Charlotte Mecklenburg Utilities

CRE – Critical Reservoir Elevation

CW – Catawba-Wateree

CW-DMAG – Catawba-Wateree Drought Management Advisory Group

dbh – diameter at breast height (re: trees)

DCZ – Downstream Clear Zone

DE-LS – Duke Energy Lake Services

DMAG – Drought Management Advisory Group

DO – Dissolved Oxygen

DOT – Department of Transportation

EA – Environmental Assessment

EAP – Emergency Action Plan

EBCI – Eastern Band of Cherokee Indians

EIS – Environmental Impact Statement

ESA – Endangered Species Act

FA – Final Agreement

FAC – Final Agreement Committee

FACC – Final Agreement Conversion Committee

FERC – Federal Energy Regulatory Commission

FPA – Federal Power Act

ft. – feet

FWQIP – Flow and Water Quality Implementation Plan

GFHA – Great Falls Hometown Association

GIS – Geographic Information System

HEP – Habitat Enhancement Program

HP – Historic Properties

hp – horsepower

HPMP – Historic Properties Management Plan

IBT – Inter-Basin Transfer

IMZ – Impact Minimization Zone

IVR – Interactive Voice Response

LIC – Low Inflow Condition

LiDAR – Light Detection and Ranging

LIP – Low Inflow Protocol

LUPS – Lake Use Policy Statements

LWA – Lake Wateree Association

MADF – Minimum Average Daily Flow

MCF – Minimum Continuous Flow

MEP – Maintenance and Emergency Protocol

MGD or mgd – million gallons per day

MOU – Memorandum of Understanding

MSL – Mean Sea Level

Mt. – Mount or Mountain

Mtn. – Mountain

NA (or N/A) – not applicable

NCDENR – North Carolina Department of Environment and Natural Resources

NCDFR – North Carolina Division of Forest Resources

NCDPR – North Carolina Division of Parks and Recreation

NCDWQ – North Carolina Division of Water Quality

NCDWR – North Carolina Division of Water Resources

NCWRC – North Carolina Wildlife Resources Commission

NGO – non-governmental organization

NMFS – National Marine Fisheries Service

NPDES – National Pollution Discharge Elimination System

NRHP – National Register of Historic Places

O&M – Operation and Maintenance

PA – Programmatic Agreement

PWC – Personal Watercraft

QAPP – Quality Assurance Project Plan

RC – Resource Committee

RM – River Mile

RMP – Recreational Management Plan

RRCC – Robust Redhorse Conservation Committee

RTE – Rare, Threatened or Endangered Species

RUNS – Recreation Use and Needs Study

RUS – Remaining Usable Storage

RV – Recreational Vehicle

SCDAH – South Carolina Department of Archives and History

SCDHEC – South Carolina Department of Health and Environmental Control

SCDNR – South Carolina Department of Natural Resources

SCDPRT – South Carolina Department of Parks, Recreation and Tourism

SCE&G – South Carolina Electric & Gas

SCIAA – South Carolina Institute of Archaeology and Anthropology

SHPO – State Historic Preservation Office

SI – Storage Index

SMG – Shoreline Management Guidelines

SMP – Shoreline Management Plan

SOC – System Operating Center

SRT – State Relicensing Team

TBD – to be determined

TCC – Transmission Control Center

TCP – Traditional Cultural Properties

THPO – Tribal Historic Preservation Office

TMDL – Total Maximum Daily Load

TPM – True Public Marina

T(S/A) – Threatened (Similarity of Appearance) Species

TSI – Target Storage Index

TUS – Total Usable Storage

USBIA – United States Bureau of Indian Affairs

UNCRLA – University of North Carolina Research Laboratory of Archaeology

USEPA – United States Environmental Protection Agency

USFS – United States Forest Service

USFWS – United States Fish and Wildlife Service

USGS – United States Geological Survey

WARP – Wateree Archaeological Research Program

WHOA – Wateree Homeowners Association (Fairfield County organization)

WMG – Catawba-Wateree Basin Water Management Group

WQMP – Water Quality Monitoring Plan

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APPENDIX H: CURRENT AND PROJECTED (YEAR 2058) WATER WITHDRAWALS AND RETURNS

Water Supply Summary - Estimated Current Withdrawals and Returns

Location	User Descrip-tion	Withdrawal Flow (mgd)	Return Flow (mgd)	Net Flow (mgd)	Total IBT (mgd)	Mean River Flow (mgd)
James - T	PWS	1.5	0.5	1.0	0.0	
	Industrial	1.0	1.7	(0.7)	0.0	
	Ag./Irr.	7.1	7.1	0.0	0.0	
Lake James	Power	0.0	0.0	0.0	0.0	437
	Ag./Irr.	1.7	0.0	1.7	0.0	
Lake James Total		11.3	9.3	2.0	0.0	
Rhodhiss - T	PWS	0.0	3.4	(3.4)	0.0	
	Industrial	0.0	0.8	(0.8)	0.0	
Lake Rhodhiss	PWS	21.4	9.1	12.3	0.0	1,138
	Ag./Irr.	4.5	0.9	3.6	0.0	
Lake Rhodhiss Total		25.9	14.2	11.7	0.0	
Hickory - T	PWS	0.0	1.6	(1.6)	0.0	
Lake Hickory	PWS	16.9	4.3	12.6	0.0	1,307
	Industrial	0.0	0.1	(0.1)	0.0	
	Ag./Irr.	1.2	0.0	1.2	0.0	
Lake Hickory Total		18.1	6.0	12.1	0.0	
Lookout Shoals - T	PWS	0.0	0.5	(0.5)	0.0	
	Industrial	0.0	0.3	(0.3)	0.0	
Lookout Shoals Lake	PWS	0.0	0.0	0.0	0.0	1,415
	Ag./Irr.	1.2	0.0	1.2	0.0	
Lookout Shoals Lake Total		1.2	0.8	0.4	0.0	
Norman - T	PWS	0.0	1.7	(1.7)	0.0	
Lake Norman	PWS	20.7	0.3	20.4	4.0	1,677
	Power	36.4	0.0	36.4	0.0	
	Ag./Irr.	2.8	0.0	2.8	0.0	
Lake Norman Total		59.9	2.0	57.9	4.0	
Mountain Island - T	PWS	0.0	5.9	(5.9)	0.0	
Mountain Island Lake	PWS	97.7	0.0	97.7	9.0	1,730
	Power	2.5	0.0	2.5	0.0	
	Ag./Irr.	0.8	0.0	0.8	0.0	
Mountain Island Lake Total		101.0	5.9	95.1	9.0	

Water Supply Summary - Estimated Current Withdrawals and Returns

Location	User Descrip-tion	Withdrawal Flow (mgd)	Return Flow (mgd)	Net Flow (mgd)	Total IBT (mgd)	Mean River Flow (mgd)
Wylie - T	PWS	11.8	25.2	(13.4)	0.0	
	Industrial	1.8	3.0	(1.2)	0.0	
Lake Wylie	PWS	15.4	4.8	10.6	0.0	2,623
	Industrial	12.9	11.7	1.2	0.0	
	Power	41.9	0.0	41.9	0.0	
	Ag./Irr.	8.5	0.0	8.5	0.0	
Lake Wylie Total		92.3	44.7	47.6	0.0	
Fishing Creek - T	PWS	0.0	88.1	(88.1)	0.0	
Fishing Creek Reservoir	PWS	15.0	2.6	12.4	5.0	3,153
	Industrial	79.5	73.9	5.6	0.0	
	Ag./Irr.	8.2	0.0	8.2	0.0	
Fishing Creek Reservoir Total		102.7	164.6	(61.9)	5.0	
Great Falls - T	PWS	0.0	1.0	(1.0)	(1.0)	
Great Falls Reservoir	Ag./Irr.	1.4	0.0	1.4	0.0	3,346
Great Falls Reservoir Total		1.4	1.0	0.4	(1.0)	
Cedar Creek - T	PWS	0.0	0.9	(0.9)	0.0	
Cedar Creek Reservoir	Ag./Irr.	0.6	0.0	0.6	0.0	3,519
Cedar Creek Reservoir Total		0.6	0.9	(0.3)	0.0	
Wateree - T	-				0.0	
Lake Wateree	PWS	4.5	0.0	4.5	0.0	3,778
	Power		0.0	0.0	0.0	
	Ag./Irr.	1.2	0.0	1.2	0.0	
Lake Wateree Total		5.1	0.9	4.2	0.0	
Project Total		420.1	249.4	170.7	17.0	

Notes

1. T=Tributary; PWS - Public Water Supply Systems
2. Inter-Basin Transfer (IBT) estimates are subjective and based on limited available data. IBTs are defined as the transfer of surface water withdrawn from anywhere within the Catawba-Wateree River Basin from a watershed that drains to one of the Project's reservoirs to a surface water return in a watershed outside of the Catawba-Wateree River Basin
3. Catawba riverine sections considered as reservoir flows
4. Mean River Flows from First Stage Consultation Document
5. Withdrawal flows indicated for Power users are actually net withdrawals (i.e. withdrawal - return)

Water Supply Summary - Projected (Year 2058) Withdrawals and Returns

Location	User Descrip-tion	Withdrawal Flow (mgd)	Return Flow (mgd)	Net Outflow (mgd)	Total IBT (mgd)	Mean River Flow (mgd)
James - T	PWS	3.8	2.3	1.5	0.0	
	Industrial	2.7	5.0	(2.3)	0.0	
	Ag./Irr.	7.1	7.1	0.0	0.0	
Lake James	Power	15.3	0.0	15.3	0.0	437
	Ag./Irr.	4.9	0.0	4.9	0.0	
Lake James Total		33.8	14.4	19.4	0.0	
Rhodhiss - T	PWS	0.0	5.6	(5.6)	0.0	
	Industrial	0.0	1.6	(1.6)	0.0	
Lake Rhodhiss	PWS	35.5	15.3	20.2	0.0	1,138
	Ag./Irr.	7.9	0.9	7.0	0.0	
Lake Rhodhiss Total		43.4	23.4	20.0	0.0	
Hickory - T	PWS	0.0	2.5	(2.5)	0.0	
Lake Hickory	PWS	41.4	13.5	27.9	0.0	1,307
	Industrial	0.0	0.3	(0.3)	0.0	
	Ag./Irr.	2.9	0.0	2.9	0.0	
Lake Hickory Total		44.3	16.3	28.0	0.0	
Lookout Shoals - T	PWS	0.0	1.1	(1.1)	0.0	
	Industrial	0.0	0.3	(0.3)	0.0	
Lookout Shoals Lake	PWS	9.0	0.0	9.0	9.0	1,415
	Ag./Irr.	3.2	0.0	3.2	0.0	
Lookout Shoals Lake Total		12.2	1.4	10.8	9.0	
Norman - T	PWS	0.0	3.5	(3.5)	0.0	
Lake Norman	PWS	112.0	0.6	111.4	61.0	1,677
	Power	62.5	0.0	62.5	0.0	
	Ag./Irr.	4.6	0.0	4.6	0.0	
Lake Norman Total		179.1	4.1	175.0	61.0	
Mountain Island - T	PWS	0.0	18.2	(18.2)	0.0	
Mountain Island Lake	PWS	219.9	0.0	219.9	15.0	1,730
	Power	2.5	0.0	2.5	0.0	
	Ag./Irr.	1.1	0.0	1.1	0.0	
Mountain Island Lake Total		223.5	18.2	205.3	15.0	

Water Supply Summary - Projected (Year 2058) Withdrawals and Returns

Location	User Descrip-tion	Withdrawal Flow (mgd)	Return Flow (mgd)	Net Outflow (mgd)	Total IBT (mgd)	Mean River Flow (mgd)
Wylie - T	PWS	23.1	58.9	(35.8)	0.0	
	Industrial	4.8	3.5	1.3	0.0	
Lake Wylie	PWS	45.0	12.3	32.7	0.0	2,623
	Industrial	15.4	14.2	1.2	0.0	
	Power	53.0	0.0	53.0	0.0	
	Ag./Irr.	14.0	0.0	14.0	0.0	
Lake Wylie Total		155.3	88.9	66.4	0.0	
Fishing Creek - T	PWS	0.0	177.1	(177.1)	0.0	
Fishing Creek Reservoir	PWS	66.3	4.0	62.3	23.0	3,153
	Industrial	117.8	109.9	7.9	0.0	
	Ag./Irr.	10.9	0.0	10.9	0.0	
Fishing Creek Reservoir Total		195.0	291.0	(96.0)	23.0	
Great Falls - T	PWS	0.0	9.1	(9.1)	(5.0)	
Great Falls Reservoir	Ag./Irr.	2.3	0.0	2.3	0.0	3,346
Great Falls Reservoir Total		2.3	9.1	(6.8)	(5.0)	
Cedar Creek - T	PWS	0.0	3.4	(3.4)	0.0	
Cedar Creek Reservoir	Ag./Irr.	0.9	0.0	0.9	0.0	3,519
Cedar Creek Reservoir Total		0.9	3.4	(2.5)	0.0	
Wateree - T	-				0.0	
Lake Wateree	PWS	14.4	0.0	14.4	0.0	3,778
	Power	39.7	0.0	39.7	0.0	
	Ag./Irr.	1.7	0.0	1.7	0.0	
Lake Wateree Total		55.8	0.0	55.8	0.0	
Project Total		945.6	470.2	475.4	103.0	

Notes

1. T=Tributary; PWS - Public Water Supply Systems
2. Inter-Basin Transfer (IBT) estimates are subjective and based on limited available data. IBTs are defined as the transfer of surface water withdrawn from anywhere within the Catawba-Wateree River Basin from a watershed that drains to one of the Project's reservoirs to a surface water return in a watershed outside of the Catawba-Wateree River Basin
3. Catawba riverine sections considered as reservoir flows
4. Mean River Flows from First Stage Consultation Document
5. Withdrawal flows indicated for Power users are actually net withdrawals (i.e. withdrawal - return)

APPENDIX I: CATAWBA-WATEREE PUBLIC RECREATION AMENITIES AND OTHER KEY LAND AREAS

Press the Button Above to View
the Public Rec Maps

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APPENDIX J: SHORELINE MANAGEMENT PLAN (SMP)

Classifications and Lake Use Restrictions for the Catawba-Wateree 2006 SMP Map Revisions (Notes 1 and 4)

1.0 **Environmental** – Vegetated areas or cove heads with stream confluence- These types of shorelines exist where either of the following two criteria are met:

1.1 Stable, wetland-type habitat and emergent vegetation (any portion of which is at least 5 horizontal ft wide) composes > 50% of the area between the minimum lakeward distance and the maximum lakeward distance of the vegetation for a linear distance of at least 100 ft (Figure 1). (Note: Common types of emergent vegetation in environmental areas may include, but are not limited to: black willow (*Salix nigra*), alder (*Alnus serrulata*), buttonbush (*Cephalanthus occidentalis*), cattail (*Typha latifolia*), and rushes (*Juncus effusus*)).

1.2 Intermittent or permanent streams enter the upper ends (i.e., heads) of shallow coves (with or lacking vegetation). For cove heads with a stream but lacking emergent vegetation, the environmental classification extends to the edge of the established sedimentation delta plus 50 ft or, in the absence of an established delta, 50 ft on each side of the intersection of the stream centerline and the full pond contour.

While many wildlife species use environmental areas, the primary importance of these areas is to provide spawning, rearing, and nursery habitat for fish, and rearing, nursery and adult habitat for amphibians, reptiles and birds.

LAKE USE RESTRICTIONS – No removal of vegetation, construction, excavation or shoreline stabilization inside the Project Boundaries.

2.0 **Bottomland Hardwood Area** – Bottomland hardwood areas typically have diverse, well-developed tree canopies consisting of some combination of hydrophytic tree species such as red maple, blackgum, sweetgum, willow oak, laurel oak, water oak, green ash, sycamore, river birch and black willow. The soils are typically sandy, organically rich, alluvial soils that exhibit hydric soil conditions. These areas have gentle slopes and often are associated with a drainage area or stream confluence. These areas must meet all three of the following criteria:

2.1 A gradual slope of 0-3% that equates to no more than a 1 foot rise in elevation within 35 feet measured horizontally and landward from the classified shoreline.

2.2 Extend along the classified shoreline a minimum distance of 250 feet either alone or in combination with the Environmental classification.

2.3 Contain a tree canopy of hydrophytic species such as red maple, blackgum, sweetgum, willow oak, laurel oak, water oak, green ash, sycamore, river birch and black willow.

LAKE USE RESTRICTIONS – No removal of vegetation, construction, excavation or shoreline stabilization inside the Project Boundaries. (*Notes: The Bottomland Hardwood Area lake use restrictions are the same as those for*

the Environmental classification. Reclassification of these areas can only be accomplished with the written concurrence of the state and federal wildlife resource management agencies and Lake Services based exclusively upon errors in mapping. Based upon the Comprehensive Relicensing Agreement negotiated as part of the relicensing of the Catawba-Wateree Project (No. 2232), reclassification of Bottomland Hardwood Areas based on mapping errors does not require notification or approval by the Federal Energy Regulatory Commission.)

3.0 **Natural** – These areas have characteristics (i.e., shallow water, isolated berms, significant cultural resources or significant terrestrial habitat areas) that make most types of development inside the Project Boundaries undesirable from an overall lake management standpoint. Natural areas exist where any of the following four criteria are met:

3.1 Large areas (e.g., > 500 ft of continuous shoreline length) where water depth would be < 3 ft at a distance of 150 ft or more from the natural eroded shoreline with the reservoir level 3 ft below full pond, since extensive dredging would be needed to support private boating access.

3.2 Important terrestrial habitat areas that warrant protection from activities that could limit the area's ability to provide significant habitat important for wildlife.

3.3 Significant cultural resource areas (i.e., areas within the Project Boundaries known to include culturally significant artifacts) that warrant protection from activities that could alter the archaeological integrity of the site.

3.4 Narrow isolated berms within the Project Boundaries. These isolated berms characteristically are higher in elevation than the adjoining areas landward of the reservoir and lack the vegetation along the shoreline necessary to be classified as Environmental. Typically the landward areas adjoining the isolated berm include significant low-lying areas characteristic of floodplains, Environmental areas or wetlands.

LAKE USE RESTRICTIONS – No removal of vegetation, construction or excavation inside the Project Boundaries. (*Notes: Shoreline stabilization is allowed within the Project Boundaries provided the stabilization adheres to the Shoreline Stabilization Technique Selection Process. Isolated berms typically have the same Lake Use Restrictions as other areas classified as Natural. In instances where these berms are not isolated by low-lying areas characteristic of floodplains, Environmental areas or wetlands within the Project Boundaries, the Lake Services Representative may allow Residential Facilities to extend into the reservoir provided there is no other practicable alternative*.)

4.0 **Impact Minimization Zones (IMZ)** (*Note 2*) – Project lands and waters that have specifically-identified importance on a given lake from a scenic, environmental, or cultural standpoint but protection of those important values does not necessarily preclude private, commercial, business or industrial access to the lake. Applicants must first try to avoid IMZs, but if complete avoidance is not a *practicable alternative*, then the following specific lake use restrictions will apply:

4.1 For areas identified in the 1998 Shallow Water Fish Habitat Survey (SWFHS) as having stable sand, gravel or cobble substrates on Lake James:

LAKE USE RESTRICTIONS – No boat ramps except those required for Public Recreation, no excavation and no Commercial Marina or Residential Marina Facilities. Construction within these areas may have specific mitigation requirements imposed by the federal, state or local resource agencies. Shoreline stabilization within the Project Boundaries must adhere to the Shoreline Stabilization Technique Selection Process.

4.2 For areas identified in the SWFHS as having stable sand, gravel or cobble substrates on all other Catawba-Wateree lakes:

LAKE USE RESTRICTIONS – No boat ramps except those required for Public Recreation and no excavation. Construction within these areas may have specific mitigation requirements imposed by the federal, state or local resource agencies. Shoreline stabilization within the Project Boundaries must adhere to the Shoreline Stabilization Technique Selection Process.

5.0 **Commercial Marina** (*Note 3*) – Project lands and waters where boats can be launched, retrieved or moored, **and** where provisions for food services, convenience retailing such as petroleum sales, wet and dry storage of watercraft and other activities customarily associated with marinas, private recreation areas and yacht clubs take place.

LAKE USE RESTRICTIONS – Per the SMG- New Commercial Marina facilities will not be authorized in areas within a half-mile radius of an existing Commercial Marina facility nor areas where more than fifty percent of the shoreline within a half-mile radius is residentially developed. (*Note: This does not preclude expansion of existing facilities identified as True Public Marinas (TPM). TPMs provide public access similar to Public Recreation Facilities and therefore, expansion of existing TPMs may be exempted from adhering to certain requirements limiting expansion of existing commercial facilities.*)

6.0 **Residential Marina** (*Note 3*) – Project lands and waters where boats can be launched, retrieved or moored for the purpose of providing private access to the lake for specific residential properties including:

6.1 Multi-family dwellings (e.g., apartments, townhouses, condominiums).

6.2 Long-term campgrounds (typically those that lease campsites for more than 14 consecutive days).

6.3 Subdivision access lots that provide boating access for owners of any residential lots that don't have project frontage.

LAKE USE RESTRICTIONS – No Commercial Marina Facilities.

7.0 **Residential** (*Note 3*) – Project lands and waters occupied by private facilities for project-front landowners, none of which can have multi-family dwellings. This classification may include, among other things, piers, boathouses, boatshelters, boat docks, floats, and boat ramps.

LAKE USE RESTRICTIONS – No Commercial Marina or new Residential Marina Facilities.

8.0 **Business/Industrial** – Project lands and waters that are typically used by private businesses but which have little to no effect on boating. Examples include but are not limited to, business staging areas, shoreline associated with manufacturing operations, golf courses, law enforcement facilities, sand mining operations, etc.

> **LAKE USE RESTRICTIONS – No facilities that have an appreciable effect on boating (e.g., No marina facilities).**

9.0 **Project Operations** (*Note 2*) – Project lands and waters associated with hydro power production including but not limited to- dams, dikes, powerhouses and other hydro plant properties. **Downstream Clear Zones** (DCZ) are also part of this classification and they include project lands and waters immediately downstream of all operating hydro stations that are potentially subject to rapid and significant variations in flow rates based on plant operations. As a minimum, DCZs will extend 1000 ft downstream from the dam, to the downstream edge of the hydro plant property or to a bridge crossing that is within 2500 ft of the dam, whichever provides for a greater distance. DCZs may extend beyond this minimum downstream length where deemed necessary by Duke Energy. DCZs are identified on the SMP maps by cross-hatches. (Note that DCZs are not established in downstream areas that are outside the Project Boundaries (e.g., regulated river reaches below the hydro plant property boundary at Lake James, Lake Hickory, Lake Wylie and Lake Wateree) or areas below retired hydro stations (i.e., Gunpowder II, Rink Dam, Icard Dam).

> **LAKE USE RESTRICTIONS – No new or expanded Residential Marina, Commercial Marina or Residential Facilities**. (*Note: Any existing facilities previously approved by DE-LS within a DCZ will be considered for potential rebuild applications, provided that no other practicable alternative exists.*)

10.0 **Public Recreation** (*Note 3*) – Project lands and waters occupied by facilities supporting various public recreational amenities. Examples of the public recreation classification include Duke-owned public access areas, and state, district, county and city parks that adjoin the Project Boundaries.

> **LAKE USE RESTRICTIONS – No non-project uses, except Public Infrastructure. (***Note: Any lake use that is necessary to maintain or enhance the public recreation facilities is considered a project use, including public recreation facilities that may be provided by commercial vendors at Duke-owned access areas or state, district, county or city parks*.)

11.0 **Public Infrastructure** (*Note 2*) – Project lands and waters occupied by public, non-recreational facilities supporting regional needs. This type of facility may include but is not limited to- overhead electric transmission line corridors; submarine utility line corridors (water, sewer, gasoline, natural gas, oil, phone, electric, etc.); regional power generation facilities; rights-of-way for public bridges, causeways, roads, water intakes, effluent discharges, etc. Public infrastructure applicants/permittees normally have the power of eminent domain for their specific requested lake use.

> **LAKE USE RESTRICTIONS – No new or expanded Residential Marina, Commercial Marina or Residential Facilities**. (*Note: Any existing facilities previously approved by DE-LS within the Public Infrastructure right-of-way will be considered for potential rebuild applications, provided that no other practicable alternative exists.*)

Notes

1. Public-need projects where the applicant has the power of eminent domain can be exempted from the listed lake use restrictions provided there is no other acceptable alternative (similar to practicable alternative, except it allows more consideration for economics of alternatives and desires of the applicant). Also note that the shoreline classifications and associated lake use restrictions are considered to generally apply to the Project Boundaries line and the area extending lakeward and perpendicular to the Project Boundaries line including the shoreline for a minimum distance of one-third the cove width. Where restrictive classifications (e.g., Environmental, Natural, Impact Minimization Zones, etc.) wrap around the heads of coves, the lake use restrictions will also apply to the entire cove width in the wrapped area.

2. At times, lake use permit applicants will be required to pursue practicable alternatives to their desired application to avoid impacting important hydro project values. An alternative is not considered practicable if choosing it over the desired option would result in any of the following:

   a. Violation of any applicable permitting criteria or lake use restriction.

   b. Requiring the applicant to dredge the lake bed in order to use the requested facility, whereas dredging would not be required if some allowance was made for crossing into the restricted area.

   c. Modification of the desired facility to the point that the resulting structure would be of very limited usefulness.

   d. Elimination of the desired type of lake access.

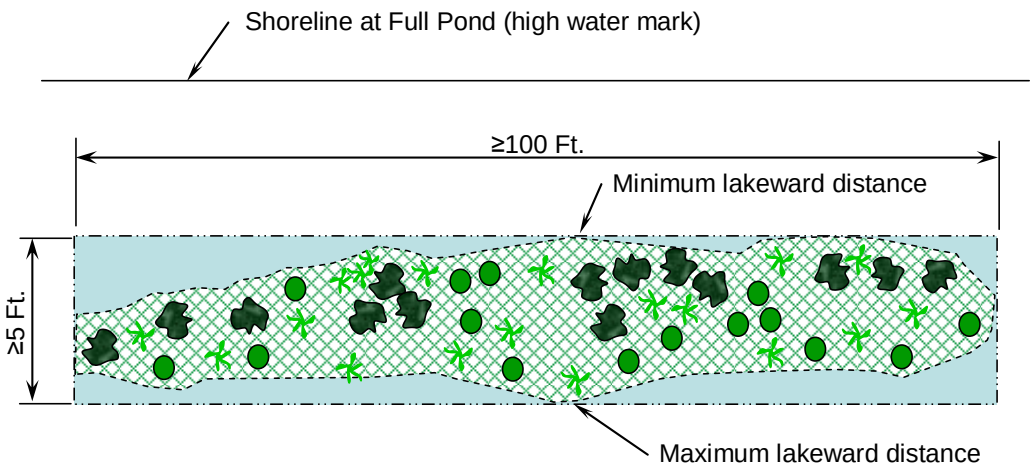
3. Final SMP maps include an Existing Use and Future Use classification for the Commercial Marina, Residential Marina, Residential and Public Recreation classifications. The appropriate Future Use classification is applied to all undeveloped shoreline not included in one of the Existing Use classifications.

4. Cultural resource data is included in a data layer that is not visible in the SMP maps provided to entities outside the parties to the Cultural Resources Programmatic Agreement (PA) developed as part of the 2001 SMP Update. This is necessary because of the sensitive nature of the data and the need to protect the integrity of these sites as required by the PA between the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation (ACHP) and the North Carolina and South Carolina State Historic Preservation Offices (SHPOs). Lake use permitting activities not specifically exempted in the PA that may potentially impact these sites require consultation with the appropriate SHPO. Lake use permitting activities may have additional mitigation requirements or the activity may not be allowed.

Figure 1

ENVIRONMENTAL CLASSIFICATION EXAMPLE

Application of the Environmental Criteria to a Theoretical Stand of Vegetation Inside the Project Boundaries



The area of the polygon surrounding the vegetation must be >50% of the area of the rectangle surrounding the maximum extent of the vegetation.

SHORELINE MANAGEMENT GUIDELINES (SMG)

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SHORELINE MANAGEMENT GUIDELINES (SMG)

The purpose of these Shoreline Management Guidelines is to provide detailed procedures and criteria to regulate activities within reservoirs managed by Duke Energy. The objectives of these guidelines are:

- To protect Duke Energy's power generation interests on these reservoirs;
- To protect and enhance the scenic, cultural, environmental, public safety and public recreational values of the reservoirs; and
- To meet Federal regulatory requirements.

Any occupancy or use of Project lands and waters within the Project Boundaries of FERC-licensed reservoirs or Duke Energy-owned land within or adjoining the reservoir boundaries requires prior written authorization by Duke Energy. Duke Energy-Lake Services (DE-LS) is responsible for the continuous monitoring of activities within the boundaries of Duke Energy reservoirs to ensure activities are consistent with established company policies and license requirements. These guidelines provide permitting criteria and procedures covering the following six programs.

- MARINA FACILITIES PROGRAM (Section 1)
- CONVEYANCE PROGRAM (Section 2)
- EXCAVATION PROGRAM (Section 3)
- PRIVATE FACILITIES PROGRAM (Section 4)
- SHORELINE STABILIZATION PROGRAM (Section 5)
- MISCELLANEOUS RESERVOIR USES PROGRAM (Section 6)

This document also contains general policies that are not lake-specific (Section 7) and vegetation management requirements (Section 8).

The policies and requirements described in this document supersede those of all similar, previous documents including:

- Duke Power Shoreline Management Guidelines dated June 1, 1996, (including color and black/white versions);
- Duke Power Shoreline Management Guidelines dated January 31, 1994, and October 1, 1994; and
- Undated Duke Power brochures entitled, "Living With Our Lakes" and "Safe and Attractive Lakes Are Everyone's Job."

3-Step Review Process for All Lake Use Permit Activity Requests

DE-LS staff uses a 3-step review process for all lake use permit activity requests. Each request is evaluated based on review of the applicable Lake Use Policy Statements, the Shoreline Management Plan maps (where applicable) and associated lake use restrictions, and compliance with the DE-LS Shoreline Management Guidelines.

Lake Use Policy Statements (LUPS) – The LUPS delineate the types of access and activities that may be allowed on all reservoirs owned or managed by DE-LS based on license requirements (for all licensed hydro reservoirs); federal, state, and/or local regulations; and specific business management objectives. These policy statements cover all reservoirs owned or managed by Duke Energy including those in the Catawba-Wateree system. This fact, coupled with the strategic business sensitivity of these statements, requires that these documents remain internal to DE-LS. Specific license or other regulatory requirements that are also a part of these policies are publicly available.

The LUPS allow for review of four basic types of lake access: 1) Private Access; 2) Public Recreational Access; 3) Public Infrastructure Access; and 4) Business/Industrial Access on the lakes with existing private and business development (James, Rhodhiss, Hickory, Lookout Shoals, Norman, Mountain Island, Wylie, Fishing Creek, Cedar Creek, and Wateree). Public infrastructure and business/industrial access will be allowed in accordance with the FERC's Standard Land Use articles included in the licenses for the Catawba-Wateree and Keowee-Toxaway Projects. DE-LS will not authorize any additional private access on Great Falls Reservoir, but public recreational access will be allowed as required to meet the terms of the new FERC licenses.

Shoreline Management Plan (SMP) – The SMP is a set of maps showing various types and uses of the shoreline including areas protected for environmental or habitat values, areas of existing development, and areas of potential development. The SMP also includes lake use restrictions associated with the important shoreline characteristics. The SMP and associated lake use restrictions were developed in consultation with wildlife resource agencies and other stakeholders. The SMP is a tool that can be used by DE-LS, the resource management agencies, the FERC, and others for review of requests for use of the Project and its resources.

Shoreline Management Guidelines (SMG) – The SMG are a set of detailed procedures and criteria that regulate activities within reservoirs owned or managed by DE-LS. The development of these guidelines for permitting activities within the Project Boundaries is required by Duke Energy's FERC license in its Standard Land Use article. DE-LS reserves the right to make minor alterations to these guidelines without public notice, resource agency, or FERC review to ensure permitting flexibility in the continuous monitoring and regulation of lake use permitting activities. DE-LS expects to make major revisions to the SMG periodically with input from resource agencies, local governments, and other interested stakeholders using a stakeholder team. DE-LS will convene this stakeholder team prior to making major revisions to the SMG. Additionally, the FERC may order modifications to the guidelines as provided for in the FERC's Standard Land Use article in new licenses.

The 3-step review process (LUPS>SMP>SMG) includes LUPS consultation to ensure the proposed activity is allowed on the subject reservoir. It includes a review of the SMP to ensure the proposal is allowed along a general portion of the reservoir shoreline and is consistent with the lake use restrictions associated with each shoreline classification for that part of the reservoir. It also includes a review of the SMG along with an assessment of the specific characteristics of the site before allowing any activity to be permitted. In summary, the 3-step review process includes policy considerations, reservoir-specific classifications and characteristics, and finally, site-specific classifications and characteristics to ensure all activities that are permitted will be consistent with the purposes of the LUPS, SMP, and SMG.

Archaeological and Historical Resources

DE-LS has developed guidelines to protect known and unknown archaeological and historic resources that may be affected by the implementation of the SMG. For purposes of implementing these SMG, the Eastern Band of Cherokee Indians (EBCI) Tribal Historic Preservation Office (THPO) and the Catawba Indian Nation (CIN) THPO have the same consultation status as the State Historic Preservation Office (SHPO) in both North Carolina and South Carolina. In the event that an applicant discovers historic or archaeological resources during construction of an approved activity, the applicant must stop work immediately and contact DE-LS. In the event that anyone discovers a potential site of archaeological or historic significance including a gravesite within the Project, the individual must immediately notify DE-LS. DE-LS encourages anyone who witnesses persons collecting artifacts to notify local law enforcement personnel. Applicants for lake use permits in areas with a moderate to high probability for archaeological and historical sites may be required to conduct additional consultation with the THPO.

Applicants for lake use permitting activities that involve activities identified in the Cultural Resource Programmatic Agreement (CRPA) developed as part of the Catawba-Wateree SMP as non-exempt activities within the Project Boundaries of the Catawba-Wateree Project must consult with the applicable THPO. A separate form (available from DE-LS) and any supporting information must be submitted to the THPO for review and consultation.

EVALUATION PROCESS FOR LAKE USE PERMIT REQUESTS

For FERC-licensed lakes, there are two basic types of lake uses: *Project uses* and *Non-project uses* (see Glossary). Project uses are essentially those lake uses that are required to safely operate/maintain project structures (e.g., dam, powerhouse, substation, and flow control structures) or that are required to comply with the license (e.g., construction of license-required public recreation areas or license-required wildlife enhancements). All other lake uses are considered Non-project uses. Project uses take priority over Non-project uses and, where conflicts between the two types arise, non-project uses will normally have to be modified or possibly eliminated to ensure the hydro project can be safely operated and maintained in accordance with the FERC license. In addition, per the FERC's policy, the public should be given the maximum practicable access to project lands and waters and the FERC will not allow private interests to override the public's right to use the FERC project area.

Considering the above facts and the significant existing and growing development along these lakes' shorelines, DE-LS must remain as objective as possible during the application review process, particularly for non-project use requests, to ensure fairness to applicants and to meet the objectives stated in the General Section. DE-LS therefore handles requests for non-project uses somewhat differently from project uses as defined in the general process descriptions below.

Evaluation Process for Non-project Uses

The evaluation process used by DE-LS to review a requested non-project use generally consists of the 11 steps described in this section (Figure 1). The exact order of these steps and the information necessary will vary somewhat between the six permitting programs designed primarily for non-project uses (i.e., Private Facilities Program,

Shoreline Stabilization Program, Excavation Program, Marina Facilities Program, Conveyance Program, and Miscellaneous Reservoir Uses Program).

NOTE FOR COMBINATIONS OF ACTIVITIES: Sometimes lake use permit requests will involve combinations of two or more activities. DE-LS requires applicants to submit complete applications for all activities requested. These multiple activity requests will be handled by combining activities within the predominant program they support and utilizing the applicable individual activity permit forms as components of the complete application. For example, suppose an applicant wanted to construct a dock along the shoreline of his/her individual project-front lot but also needed to excavate a boating access channel and stabilize his/her shoreline with rip-rap in order to use and maintain the dock. The applicant would need to complete and submit a Private Facilities application (for the dock) with an Excavation application and a Shoreline Stabilization application attached as components of the overall application package. Submittal of these applications at the same time allows DE-LS and any reviewing agencies to evaluate potential activity impacts cumulatively, saves processing time, and also minimizes the chance that one of the proposed activities could be approved, but a potential necessary supporting activity (e.g., the excavation work) would not be approved at a later date. The DE-LS Fee Schedule includes fee reductions for certain combinations of applications to foster this prior planning by applicants.

NOTE FOR ALL NON-PROJECT USE APPLICANTS: DE-LS is neither the advocate nor the adversary for non-project use applications. The applicant, not DE-LS or any designated contractor of DE-LS is entirely responsible for negotiating the application process.

STEP 1: Request Initiation

The applicant initiates the request by contacting the DE-LS Office and providing the necessary basic information (e.g., applicant's name, address, phone number, lake, county, city name, subdivision name, lot number, type of lake use desired, intended users). (Note: Requests for conducting preliminary permitting reviews will be handled strictly by the Process for Conducting Preliminary Reviews of Shoreline Tracts for Lake Use Permitting Feasibility.)

STEP 2: Lake Use Policy Review

DE-LS reviews the Lake Use Policy Statements to determine if the proposed activity is allowed on the subject lake. The Lake Use Policy Statements provide general guidance on development within and access to lakes used or controlled by Duke Energy, including identification of activities that are/are not allowed on given lakes. (NOTE: If the proposed activity is not allowed, the applicant will receive written documentation denying the request.)

STEP 3: Applicant Completes Application Form(s) and Consultation

Provided the proposed activity is not denied in Step 2, the applicant is forwarded the appropriate DE-LS application form(s) to be completed and returned to DE-LS along with a check for any applicable fees and Habitat Enhancement Fund payments and security deposits (if applicable). Application forms for any non-Duke Energy permits that are required must be obtained from the applicable permitting authority. Some of the permitting programs (e.g., Marina Facilities, Conveyance, and Excavation) normally

require consultation with local, state, and federal agencies and applicants may be required to have a Draft Applicant Prepared Environmental Assessment (DAPEA) completed before DE-LS will accept their application. As a minimum, all Marina Facilities, Conveyance, and Excavation applicants are required to complete certain parts of the DE-LS application form(s) and obtain a release from DE-LS before beginning the required agency consultation process. Applicants for activities requiring a DAPEA are also required to use a contractor, approved by DE-LS, to prepare the DAPEA before submitting the application package to DE-LS. Applicants will be required to pay for the services provided by the approved DAPEA contractor in addition to any application filing fee(s), fund payment(s), and security deposit(s).

STEP 4: Shoreline Management Plan Review

DE-LS reviews the Shoreline Management Plan (SMP) (if applicable) to determine if the proposed activity is consistent with the Existing or Future Use Classification for that part of the lake. As it pertains to these guidelines, this plan is presently only in place for lakes on the Catawba-Wateree Project. An on-site meeting between a DE-LS Representative and the applicant and/or applicant's contractor will normally be included in this step. (NOTE: If the proposed activity doesn't comply with the SMP and the applicant will not/cannot modify the request to gain compliance, the applicant will receive written documentation denying the request and the fees, fund payments, and security deposits will be returned.)

STEP 5: Shoreline Management Guidelines Review

DE-LS conducts a review of the SMG to determine if the proposed activity complies with the current guidelines. (NOTE: If the proposed activity does not comply with the SMG and the applicant will not/cannot modify the request to gain compliance, the applicant will receive written documentation denying the request and the fees, fund payments, and security deposits will be returned.)

STEP 6: Lake Services Completes Application Review

DE-LS accepts the completed application and any applicable fees, fund payments, and security deposits from the applicant. DE-LS reviews the application for correctness of information to ensure all the proper permits and authorizations have been obtained from any required local, state, or federal agencies and verify that all permitting and operational issues have been resolved. An on-site meeting between a DE-LS Representative and the applicant and/or applicant's contractor will almost always occur with or before this step. (Note: DE-LS will not accept applications that are incomplete.)

DE-LS returns the application to the applicant for any necessary corrections or modifications. DE-LS will only proceed to Step 7 when the following requirements have been satisfied:

- The application is correctly completed and includes all the necessary documentation.
- The "Applicant's Agreement Letter" is signed.
- The proposed use fully complies with the LUPS, the SMP (if applicable), and the SMG.

- All issues raised during the agency consultation phase have been resolved or otherwise satisfactorily addressed through a significant good-faith effort by the applicant (as determined by DE-LS in its sole discretion), and all required non-Duke Energy permits are in-hand.
- There are no unresolved operational concerns (as determined by DE-LS in its sole discretion).
- DE-LS agrees with results of any EA.
- The applicable fees, fund payments, and security deposits have been received. (Note: In addition to the standard fees and deposits, the applicant is also expected to arrange and pay for the cost of any studies or other requirements necessary to fully resolve operational or permitting issues.)
- Any required reviews (as determined by DE-LS in its sole discretion) by Duke Energy's Law Department have been completed.

STEP 7: FERC Approval Requested

Once Steps 1 - 6 are complete, Duke Energy files the completed application with the FERC (if applicable). The FERC review typically takes several months (two months minimum) and usually includes a public notice period (published in the Federal Register, on the FERC website, and the Legal section of local newspapers) in which the general public may submit comments to the FERC either favoring or opposing application approval. The FERC may issue Additional Information Requests to Duke Energy to aid in application review and DE-LS will require the applicant to provide DE-LS with the necessary information. The FERC review typically culminates with an order or letter from the FERC to Duke Energy authorizing the company to approve the request as-filed, authorizing approval with specified conditions, or directing Duke Energy to deny the request. (NOTE: If the lake use is denied, the applicant will receive written documentation from DE-LS, including a copy of the FERC order. Any security deposits will be returned, but fees will not be returned).

STEP 8: Issuance of Permit

Once a FERC approval order or letter (if applicable) is received, DE-LS provides the applicant with two copies of the users' agreement, lease, or easement document to be executed, notarized (if applicable), and returned to DE-LS along with any required additional fees. Some activities also require the applicant to provide DE-LS with proof of insurance naming Duke Energy as additionally insured at this point. Once the required documents and fees are received by DE-LS and the above steps are complete, DE-LS will provide the applicant with a copy of any FERC approval order/letter and written authorization (e.g., approved application form) to proceed with the proposed activity. Lease and easement documents must also be recorded at the local Register of Deeds office. Duke Energy will handle this recording and will forward the applicant a copy of the fully executed and recorded lease/easement under separate cover. (Note: In addition to the standard fees and deposits, the applicant is also expected to pay for the cost of any additional studies or license requirements imposed upon Duke Energy as a result of the application.)

STEP 9: Compliance Monitoring

DE-LS inspects the activity to monitor compliance. Inspections will be conducted after construction is complete and periodic inspections of the work in-progress will generally be conducted for larger projects. (NOTE: The applicant must notify DE-LS when construction is initiated and completed.) Provided no violations occur and the activity is conducted in accordance with the approved application, the DE-LS Representative will approve the final structure or activity and attach any applicable permitting tags. If a violation is detected, the DE-LS Representative may immediately issue Stop-Work Directives, verbally and/or written via certified mail, to the applicant and/or applicant's contractor. Consequences for Violations will be incurred and construction cannot resume until additional written authorization is received from DE-LS.

STEP 10: Application File Close-out

DE-LS closes out the application file. Applicable data is entered on the application form and into the database and documents are filed. Security deposits are returned, provided no violations occurred.

STEP 11: Operating Programs

The approved facility may then be subject to one or more DE-LS operating programs. These programs are designed to ensure that long-term facility operation does not conflict with DE-LS objectives. These programs may include, but are not limited to, periodic compliance inspections, annual user fee collection, and identification of structures requiring repair.

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SECTION 1 – MARINA FACILITIES PROGRAM

A. General

All parties desiring to construct, expand, or rebuild a marina facility (see Glossary for definitions of *Commercial Marina, Residential Marina*, and *True Public Marina* facilities; also see *SMP Classifications/Lake Use Restrictions Document*) within the Project Boundaries of a Duke Energy lake must first contact DE-LS and obtain written authorization prior to beginning any activity/construction. Applications that include resource agency consultation and an approval order from the FERC may also be required for certain activities. DE-LS will require the applicant to enter into a lease or users' agreement/permit to ensure that long-term operation of the marina facility does not conflict with DE-LS objectives. (***NOTE FOR ALL NON-PROJECT USE APPLICANTS****: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as Marina Facilities. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities.*)

B. Criteria for Commercial Marina Facilities

(e.g., public marinas, yacht clubs, restaurants, and short-term campgrounds [≤ 14 days])

1. Special Rulings – Since every possible scenario can not be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Proximity to Existing Facilities – New Commercial Marina Facilities will not be authorized in areas within a half-mile radius of an existing Commercial Marina Facility or areas where more than fifty percent of the shoreline within a half-mile radius is identified in the SMP as an Existing Residential classification (Figure 1B-1).

3. 50-ft Environmental Offset – New or expanded Commercial Marina Facilities may not be constructed within the 50-ft Environmental Offset (Figure 1B-2) associated with an Environmental classification identified in the SMP unless the permitted facility currently exists within the offset.

4. Compliance with Regulations – All facilities must comply with all applicable local, state, and federal regulations. Also, all necessary governmental permits or approvals, a FERC order (if applicable), and written authorization from DE-LS must be obtained by the applicant prior to beginning any activity/construction within the Project Boundaries or on any Duke Energy-owned peripheral strip.

5. Length of Facilities – New, expanded, or rebuilt facilities shall not extend more than one-third the distance to the opposite shoreline as measured from the full pond contour or extend more than 120 ft waterward of the full pond contour, whichever is more limiting (Figure 1B-3). Additionally, facilities must be situated or constructed in size, dimension, or design such that an average-size moored watercraft will not interfere with access to other facilities and not obstruct ingress and egress of watercraft. (*Exception: Facilities operated as True Public Marinas may be considered for a maximum length of 200 ft, provided the facility meets all other requirements and continues to be operated as a True Public Marina.*)

6. Waste Disposal Facilities Required – Publicly available restrooms and marine pump-out facilities must be provided as a minimum to be considered a True Public Marina.

7. Mooring Requirements – Facilities shall not use mooring buoys or similar detached structures to independently moor vessels. Mooring locations must be limited to areas within slips and along the outer edges of piers/docks as end ties.

8. Flotation Materials – Flotation for all facilities shall be of materials manufactured specifically for marine use. Materials must not lose significant buoyancy if punctured, must not generally be subject to damage by animals, and must resist breaking apart under a broad range of wave energies. Uncoated, beaded polystyrene will not be permitted for any new construction or as replacement for existing facilities. Reuse of plastic, metal, or other previously used drums or containers for encasement or flotation purposes is prohibited. Existing flotation on previously approved structures is authorized until it has severely deteriorated and is no longer serviceable, at which time it must be replaced with approved flotation.

9. Reflectors – Reflectors or reflective tape must be placed and maintained by the applicant on the two furthermost corners of the structure that extend into the water and along the sides of the structure at reasonable intervals from the end back toward the shore.

10. Lighting – Low-pressure sodium lights with time or motion sensors to turn lights off when not needed are preferred. All outdoor fixtures should be fully shielded and installed in such a way that light is not emitted above the lowest part of the fixture. Incandescent lights should be well-shielded, low-wattage lamps that include time or motion sensors to turn lights off when not needed.

11. Minimum Elevation of Decking – The top of all fixed pier decking (not including handrails) must be at least one vertical foot above the full pond elevation. Small stair-stepped landings may be constructed on the sides of stationary piers to facilitate watercraft boarding and entry.

12. Enclosure of Facilities – The sides of covered slips are not to be enclosed. Handrails may be put on for safety, but must not be enclosed.

13. Non-Allowable Non-Boating Structures – The addition of facilities not related to water access is prohibited except for gas docks or docks associated with marine sanitation device pump-out stations. Consideration may be given for small facilities (e.g., benches and picnic tables), provided they are identified in the application.

14. Allowable Non-Boating Structures – True Public Marina Facilities may include fishing piers/platforms/boardwalks or other similar non-boating structures. The extraneous facilities can only be used for the purpose identified in the facility application. These facilities will be assessed a single user fee, provided the facility does not provide boating access.

15. Narrow Coves – Expanding Commercial Marina Facilities (except for waivers allowed for True Public Marina Facilities) will not be allowed in narrow coves on the cove-head side of the point where the cove narrows to 300 ft or less in width (Figure 1B-4).

16. Cut-Off Areas – New or expanded Commercial Marina Facilities may be significantly restricted in number of boat launching/docking/mooring locations or completely prohibited within *cut-off areas* (see Glossary), depending on the available boating capacity within the cut-off area. The applicant will be required to evaluate boating capacity as part of the Commercial Marina Facility application for facilities within cut-off areas.

17. Electric Utility Line Rights-of-Way – New or expanded Commercial Marina Facilities including the Project area covered by the lakebed lease/user's agreement/permit will not be authorized within the right-of-way limits of any existing or planned overhead, electricity-carrying utility line.

18. Location of Boat Ramps – New boat ramps for Commercial Marina Facility use shall not be located in the backs of coves if any portion of the cove between the proposed boat ramp location and the main channel is 300 ft or less in width (Figure 1B-4).

19. Maximum Facility Size – New or expanded Commercial Marina Facilities may be considered for a maximum number of 200 boat slips/docking/mooring locations. (*Exception: Commercial Marina Facilities designated as True Public Marinas may be considered for more than 200 boat slips/docking/mooring locations*.)

20. Facility Amenities Application Details – All Commercial Marina Facility boat launching/docking/mooring locations, whether in confined slips alongside the outermost slip fingers or at any other location, must be specified in the application along with the maximum launching/docking/mooring capacity for the facility. Facilities that include a boat ramp must also specify the number of car/trailer parking spaces that will be available for boat ramp users and evidence that supports the rate of use of the ramp. Facilities that include dry storage for boats must also specify the number of boats the storage area can hold plus the number of parking spaces for dry storage users and evidence that supports the rate of use of the storage area access.

21. Low Impact Design – Low Impact Development practices for storm water management shall be incorporated to the maximum practicable extent into the design of any boat ramp facility located within the Project Boundaries.

22. Capacity of Slips – Unless a boat slip or docking/mooring location is specifically designed to accommodate additional watercraft (e.g., double boat slip) and the capacity is specified in the application, only one watercraft at a time shall be moored within a boat slip or docking/mooring location.

23. Floats for Personal Watercraft and Boatlifts – Floats for docking of personal watercraft (PWC) or boatlifts may be added to a previously permitted Commercial Marina Facility without additional written approval from Duke Energy, provided that:

    a. Any applicable Non-Duke Energy permits or approvals have been received;

    b. The PWC floats or boatlifts are installed within the confines of a slip in the previously approved facility;

    c. The addition of the PWC floats or boatlifts do not increase the total number of watercraft that the facility is designed to accommodate as identified in the application; or

d. The facility owner sends a letter to DE-LS documenting that the above requirements are true, along with an attached drawing of the facility that identifies the locations of the added PWC floats or boatlifts.

24. Lease/Users' Agreement – All new or expanded Commercial Marina Facility applicants are required to enter into a lease/users' agreement/permit for the FERC Project area that the facility will occupy. The Project area covered by the lease/users' agreement/permit must meet the following basic criteria:

a. The area cannot include structures permitted under the Private Facilities Program;

b. The area must include minimum clear maneuvering distances surrounding the boating structures of twice the slip length on the side of boat ingress and egress and 15 ft from all other sides (Figure 1B-5);

c. The area cannot extend beyond the mid-point of the cove (Figure 1B-6); and

d. All moored watercraft must be within the confines of the lease area.

25. Timing of Lease/Users' Agreement – All new, expanded or rebuilt, Commercial Marina Facilities must have an executed lease, permit, or other instrument of conveyance from Duke Energy within 18 months following issuance of a FERC order or within 18 months following receipt of the instrument of conveyance if a FERC order is not required.

26. True Public Marina Expansion – Expansion of existing True Public Marinas may be exempted from adhering to certain requirements limiting expansion of other existing Commercial Marina Facilities. True Public Marinas may be considered for expansion even if:

a. The facility is behind a point where the cove narrows to 300 ft or less;

b. The facility expansion would exceed the maximum of 200 boat slips; or

c. The facility expansion is within the 200 ft setback from the outermost project-front property corners or from any privately owned in holdings. Additionally, an existing Residential Marina Facility may be converted to a Commercial Marina Facility use only if the facility qualifies as a True Public Marina. All expansions are subject to local, state and federal resource agency review.

27. Waste Disposal Facilities – Any proposed new, expanded or rebuilt dry storage facility adjoining the Project Boundaries, Commercial Marina Facility, or Commercial Marina Facility that is renewing or transferring its project area lease/permit must provide a commercially manufactured sanitary marine pump-out system as a regular and customary service if any of the following criteria are met:

a. The facility will have > 65 docking/mooring/storage spaces for watercraft;

b. The facility will include gasoline dispensing equipment (other than hand-carried, portable tanks);

c. The facility will moor/store > 25 watercraft with Marine Sanitation Devices (MSD);

d. The facility will moor a watercraft that is specifically used to provide cruises to the public where meals are served; or

e. The facility will moor watercraft that will be used for human habitation. (*Exception: A Commercial Marina Facility may be exempted from the requirement to provide on-site marine pump-out facilities, as a result of items a–c only, if written proof from a state or local agency is provided to document that the facility will not be allowed to dispose of waste collected from watercraft because of state or local regulations*.)

28. Liquid and Solid Waste Facilities – Structures built within the Project Boundaries must not contain sinks, toilets, showers, or any other type of device that could cause any liquid or solid waste to be discharged into the lake. (*Exception: Gasoline dispensing equipment, water supply lines supported by approved pump-out facilities, or facilities for which such devices were specifically approved under a complete, Commercial Marina Facility application post-marked to DE-LS prior to June 1, 1996, are exempted from this requirement.*)

29. Gasoline Dispensing – New, expanded, or rebuilt Commercial Marina Facilities that are approved to dispense gasoline within the Project Boundaries must provide petroleum absorbent materials or similar best available technology at all the slips dedicated/available for gasoline dispensing.

30. Setbacks – All facilities shall be set back along the shoreline at least 200 ft from the outermost project-front property corners of the development, from any privately owned in-holdings that are not part of the proposed commercial facility, and/or according to local government zoning requirements, whichever provides for a greater distance. This setback along the shoreline is determined by creating a 200-ft radius from the property corners on the project-front (Figure 1B-7).

31. Islands – New Commercial Marina Facilities for boat launching/docking/mooring will not be authorized for construction from islands.

32. Water Willow Beds – Applicants are encouraged to avoid activities that could have an adverse impact upon existing water willow beds. Unavoidable impacts should be confined to the sides of water willow beds to minimize disruption of their function as shallow water fish habitat. No floating structures or other extraneous facilities (e.g., gazebos, decks) may be constructed over water willow beds. The width of walkways over water willow beds will be limited to three ft. Removal of water willow for continued lake access may be allowed, but only for the specific and limited area necessary.

33. Deadline for Completing Construction – The construction of any facility must be completed as described in the approved application and within the approved *build-out period* (see Glossary). The initial build-out period for Commercial Marina Facilities is 18 months from the date of application approval by DE-LS. A one-year extension may be approved by DE-LS if the applicant files a written request, prior to expiration of the 18-month build-out period, detailing what approved activities have been completed, what approved activities remain to be completed and the reason for the delay, along with any applicable fees (including an extension fee). If during an extension period additional guidelines are imposed, the remaining construction will be required to comply with the additional guidelines to the maximum practicable extent. Failure to construct a facility within the total, approved build-out period with one extension (i.e., 30 months total) will require the applicant to contact all agencies that issued permits and document the originally issued permits are still valid or acquire reissued permits

for those that have expired. This will allow the issuance of a second 12-month extension (i.e., 42 months total), which will require payment of a second application filing fee and security deposit, and forfeiture of the original deposit. If the applicant does not complete all activities within this final 12-month extension period, DE-LS will notify the applicant in writing that all approvals have been withdrawn and reauthorization to complete construction of the facilities will require re-entry into the application review and approval process (including, as a minimum, providing a new construction schedule, detailed description of the facilities to be constructed and the applicable fees and security deposits), and such reauthorization may not be granted. Construction will not be allowed to resume until additional written authorization is received from DE-LS.

34. Applicant – The applicant must be a natural person; a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. The lessee/permittee/grantee must be a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. DE-LS will hold the adjoining property owner fully responsible for the permitted lake use (including maintaining structures in good repair). This responsibility is considered to transfer automatically along with ownership of the adjoining tract. It is therefore the responsibility of the property owner to ensure that authorization for the permitted use and any conveyance documents for facilities within the Project Boundaries or peripheral strip are transferred should there be a change in ownership of the adjoining tract and/or facility.

35. Conversion of Existing Residential Marina Facilities – Existing Residential Marina Facilities shall not be converted to Commercial Marina Facility use except for conversion to a True Public Marina.

36. Conversion of Existing Commercial Marina Facilities – Existing Commercial Marina Facilities may be converted to Residential Marina Facility use, provided the applicant successfully completes the Marina Facilities application process again and pays the applicable fees. All of the Residential Marina Facility criteria must be met and the applicant will also have to sign a new lease/users' agreement/permit that is consistent with the documents required of new Residential Marina Facilities.

C. Criteria for Residential Marina Facilities

(e.g., townhouses, condominiums, apartments, long-term campgrounds [> 14 days], subdivision access lots)

1. Special Rulings – Since not every possible scenario can be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Compliance with Regulations – All facilities must comply with all applicable local, state, and federal regulations. In addition, all necessary governmental permits or approvals, a FERC order (if applicable) and written authorization from DE-LS must be obtained by the applicant prior to beginning any activity/construction within the Project Boundaries or on any Duke Energy-owned peripheral strip.

3. Length of Facilities – New, expanded or rebuilt facilities shall not extend more than one-third the distance to the opposite shoreline as measured from the full pond contour or extend more than 120 ft waterward of the full pond contour, whichever is more limiting (Figure 1B-3). Additionally, facilities must be situated or constructed in size, dimension, or design such that an average-size moored watercraft will not interfere with access to other facilities and not obstruct ingress and egress of watercraft.

4. 50-ft Environmental Offset – New Residential Marina Facilities may not be constructed within the 50-ft Environmental Offset (Figure 1B-2) associated with an Environmental classification identified in the SMP.

5. Flotation Materials – Flotation for all facilities shall be of materials manufactured for marine use. Materials must not lose significant buoyancy if punctured, must not generally be subject to damage by animals, and must resist breaking apart under a broad range of wave energies. Uncoated, beaded polystyrene will not be permitted for any new construction or as replacement for existing facilities. Reuse of plastic, metal, or other previously used drums or containers for encasement or flotation purposes is prohibited. Existing flotation on previously approved structures is authorized until it has severely deteriorated and is no longer serviceable, at which time it must be replaced with approved flotation.

6. Reflectors – Reflectors or reflective tape must be placed and maintained by the applicant on the two furthermost corners of the structure that extend into the water and at reasonable intervals along the sides of the structure from the end back toward the shore.

7. Lighting – Low-pressure sodium lights with time or motion sensors to turn lights off when not needed are preferred. All outdoor fixtures should be fully shielded and installed in such a way that light is not emitted above the lowest part of the fixture. Incandescent lights should be well-shielded, low-wattage lamps that include time or motion sensors to turn lights off when not needed.

8. Minimum Elevation of Decking – The top of all fixed pier decking (not including handrails) must be at least one vertical foot above the full pond elevation. Small stair-stepped landings may be constructed on the sides of stationary piers to facilitate watercraft boarding and entry.

9. Enclosed Piers – The sides of piers are not to be enclosed. Handrails may be put on for safety, but must not be enclosed.

10. Non-Water Access Facilities – The addition of facilities not related to water access is prohibited except for docks associated with marine sanitation device pump-out stations. Consideration may be given for small facilities (e.g., benches, picnic tables), provided they are identified in the application.

11. Common Access Boardwalks – Common access boardwalks are not allowed for Residential Marina Facilities.

12. Narrow Coves – New Residential Marina Facilities will not be allowed in narrow cove areas on the cove-head side of the point where the cove narrows to 300 ft or less in width (Figure 1B-4).

13. Boat Ramps in Coves – New boat ramps for Residential Marina Facility use shall not be located in the backs of coves if any portion of the cove between the

proposed boat ramp location and the main channel is 300 ft or less in width (Figure 1B-4).

14. Cut-Off Areas – New Residential Marina Facilities may be significantly restricted in number of boat launching/docking/mooring locations or completely prohibited within *cut-off areas* (see Glossary), depending on the available boating capacity within the cut-off area. The applicant will be required to evaluate boating capacity as part of the Residential Marina Facility application for facilities within cut-off areas.

15. Electric Utility Line Rights-of-Way – New Residential Marina Facilities will not be authorized within the right-of-way limits of any existing or planned overhead, electricity-carrying utility line.

16. Facility Amenities Application Details – All Residential Marina Facility boat launching/docking/mooring locations, whether in confined slips alongside the outer most slip fingers or at any other location, must be specified in the application along with the maximum launching/docking/mooring capacity for the facility. Facilities that include a boat ramp must also specify the number of car/trailer parking spaces that will be available for boat ramp users and evidence that supports the rate of use of the ramp. Facilities that include dry storage for boats must also specify the number of boats the storage area can hold plus the number of parking spaces for dry storage users and evidence that supports the rate of use of the storage area ramp.

    (*Exception: A single-slip courtesy dock may be requested, provided the facility is restricted both in the subdivision covenants and the Duke Energy lease/users' agreement/permit to only allow watercraft use for pick-up/drop-off of passengers, pump-out of waste or fueling from hand-carried portable tanks, and specifically prevented from use by mooring unattended watercraft. The courtesy dock will not count against the total number of Residential Marina slips/moorings/docking locations requested.) (**Note**: Specifically assigned refueling slips must have petroleum absorbent materials or similar best available technology at all the slips dedicated/available for gasoline dispensing.*)

17. Capacity of Slips – Unless a boat slip or docking/mooring location is specifically designed to accommodate additional watercraft (e.g., double boat slip) and the capacity is specified in the application, only one watercraft at a time shall be moored within a boat slip or docking/mooring location.

18. Floats for Personal Watercraft and Boatlifts – Floats for docking of PWC or boatlifts may be added to a previously permitted Residential Marina Facility without additional Duke Energy written approval, provided that:

    a. Any applicable Non-Duke Energy permits or approvals have been received;

    b. The PWC floats or boatlifts are installed within the confines of a slip in the previously approved facility;

    c. The addition of the PWC floats or boatlifts do not increase the total number of watercraft that the facility is designed to accommodate as identified in the previously approved application; and

    d. The facility owner sends a letter to DE-LS documenting that the above requirements are true, along with an attached drawing of the facility that identifies the locations of the added PWC floats or boatlifts.

19. Timing of Lease/Users' Agreement – All new, rebuilt or expanded Residential Marina Facilities must have an executed lease, permit or other instrument of conveyance from Duke Energy within 18 months following issuance of a FERC order or within 18 months following receipt of the instrument of conveyance if a FERC order is not required.

20. Lease/Users' Agreement – All new Residential Marina Facility applicants are required to enter into a lease/users' agreement/permit for the FERC Project area that the facility will occupy. The Project area covered by the lease/users' agreement/permit must meet the following basic criteria:

    a. The area cannot include structures permitted under the Private Facilities Program;

    b. The area must include minimum clear maneuvering distances surrounding the boating structures of twice the slip length on the side of boat ingress and egress and 15 ft from all other sides (Figure 1B-5);

    c. The area cannot extend beyond the mid-point of the cove (Figure 1B-6); and

    d. All moored watercraft must be within the confines of the lease area.

21. Waste Disposal Facilities Required – Any proposed new or rebuilt Residential Marina Facility or Residential Marina Facility that is renewing or transferring its Project area lease/permit must provide on-site sanitation facilities for marine pump-out and/or disposal of waste if any of the following criteria are met:

    a. The facility will have > 65 docking/mooring spaces for watercraft;

    b. The facility will moor > 25 watercraft with Marine Sanitation Devices (MSD); and

    c. The facility will moor watercraft that will be used for human habitation.

    (*Exception: A Residential Marina Facility may be exempted from the requirement to provide on-site marine pump-out facilities, as a result of Items a or b only, if written proof from a state or local agency is provided to document that the facility will not be allowed to dispose of waste collected from watercraft because of state or local regulations*.)

22. Liquid and Solid Waste Facilities – Structures built within the Project Boundaries must not contain sinks, toilets, showers, or any other type of device that could cause any liquid or solid waste to be discharged into the lake. (*Exception: Water supply lines supported by approved marine pump-out facilities are exempted from this requirement*.)

23. Gasoline Dispensing – New or rebuilt Residential Marina Facilities that have dedicated slips for boat refueling from single individually-owned containers must provide petroleum absorbent materials or similar best available technology at all the slips dedicated for refueling. On reservoirs that have no Commercial Marina Facilities, all new or rebuilt, Residential Marina Facility slips will be required to provide petroleum absorbent materials or similar best available technology at all slips in the facility.

24. Setbacks – All facilities shall be set back along the shoreline at least 200 ft from the outermost project-front property corners of the development, from any privately owned in-holdings that are not part of the proposed residential development (i.e., the owner will not be a member of the homeowners'

association), and/or according to local government zoning requirements, whichever provides for a greater distance. This setback along the shoreline is determined by creating a 200-ft radius from the property corners on the project-front (Figure 1B-7).

25. Covered Boat Slips – No covered boat slips, structural boat covers, or *boat shelters* (see Glossary) will be allowed at Residential Marina Facilities.

26. Islands – New Residential Marina Facilities for boat launching/docking/mooring will not be authorized for construction from islands.

27. Deadline for Completing Construction – The construction of any facility must be completed as described in the approved application and within the approved *build-out period* (see Glossary). The initial build-out period for Residential Marina Facilities is eighteen (18) months from the date of application approval by DE-LS. A one-year extension may be approved by DE-LS if the applicant files a written request, prior to expiration of the 18-month build-out period, detailing what approved activities have been completed, what approved activities remain to be completed, and the reason for the delay, along with any applicable fees (including an extension fee). If during an extension period additional guidelines are imposed, the remaining construction will be required to comply with the additional guidelines to the maximum practicable extent. Failure to construct a facility within the total, approved build-out period with one extension (i.e., 30 months total) will require the applicant to contact all agencies that issued permits and document the originally issued permits are still valid or acquire reissued permits for those that have expired. This will allow the issuance of a second 12-month extension (i.e., 42 months total) which will require payment of a second application filing fee and security deposit, and forfeiture of the original deposit. If the applicant does not complete all activities within this final 12-month extension period, DE-LS will notify the applicant in writing that all approvals have been withdrawn and reauthorization to complete construction of the facilities will require re-entry into the application review and approval process (including, as a minimum, providing a new construction schedule, detailed description of the facilities to be constructed, and the applicable fees and security deposits), and such reauthorization may not be granted. Construction will not be allowed to resume until additional written authorization is received from DE-LS.

28. Applicant – The applicant must be a natural person; a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. The lessee/permittee/grantee must be a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. DE-LS will hold the adjoining property owner fully responsible for the permitted lake use (including maintaining structures in good repair). This responsibility is considered to transfer automatically along with ownership of the adjoining tract. It is therefore the responsibility of the property owner to ensure that authorization for the permitted use and any conveyance documents for facilities within the Project Boundaries or peripheral strip are transferred should there be a change in ownership of the adjoining tract and/or facility.

29. Assigned Slips for Project-Front Lots – A project-front lot may be assigned a slip in the Residential Marina Facility, if the applicant so chooses. The slip for the project-front lot will not increase the total maximum number of Residential Marina slips the applicant may request. The project-front lot will not be considered for an Individual Private Facility, or for a slip in a Common-Use Facility, and the applicant must clearly show this fact on the subdivision plat submitted with the development's Residential Marina Facility application.

30. Reevaluation of Shoreline – Once a Residential Marina Facility application for a development is approved by Duke Energy, the shoreline within the original development cannot be reevaluated for subsequent expansion in number of approved Residential Marina Facility slips. This holds true even if a portion of the original development's shoreline is resold to another developer for another development, or if the original developer did not request the maximum number of Residential Marina Facility slips.

31. Subdivision Access Lots – The proposed Residential Marina Facility must meet the following basic guidance concerning subdivision access lots:

    a. The master plan must show that the lots will be owned in fee by the development homeowners' association when established and any changes to the master plan directly or indirectly impacting the marina facility (e.g., slip eligibility, marina location, configuration), will require refiling the application;

    b. The lots must have at least 100 ft of shoreline suitable for Commercial Marina Facility or Residential Marina Facility use as measured along the Project Boundaries; and

    c. The access lot(s) shall not be located in coves any portion of which is 300 ft or less in width as measured from the proposed access lot location out to the main channel.

    (*Exception: Developments whose original, complete Residential Marina Facilities application was post-marked to Duke Energy before June 1, 1996, may be exempted from any subdivision access lot requirements that were also not met at the time of original application*.)

32. Review of Associated Applications – In a development proposed to provide Residential Marina Facility access, the developer must submit a complete application and receive written confirmation from DE-LS and/or notification that the application has been submitted to Duke Energy's Law Department for preparation in filing with the FERC (if applicable), or a copy of the homeowner's covenants and final recorded subdivision plat approved by the local government planning and zoning office must be submitted acknowledging the location of the planned facilities prior to DE-LS reviewing applications under the Private Facilities, Excavation and Shoreline Stabilization Programs for lake use activities submitted by private individual lot owners.

33. Conversion of Existing Commercial Marina Facilities – Existing Commercial Marina Facilities may be converted to Residential Marina Facility use, provided the applicant successfully completes the Marina Facilities application process again and pays the applicable fees. All of the Residential Marina Facility criteria must be met and the applicant will also be required to sign a new lease/users' agreement/permit consistent with the documents required of new Residential Marina Facilities.

34. Conversion of Existing Residential Marina Facilities – Existing Residential Marina Facilities shall not be converted to Commercial Marina Facility use except for conversion to a True Public Marina.

D. Shoreline Preservation Incentive Program

1. Description of Program – In the interest of preserving undisturbed shoreline to protect wildlife habitat, an incentive program is offered for development projects. The program allows more boat slips than would be allowed under criteria in previous versions of the SMG so long as the applicant preserves and leaves undisturbed at least 20 percent of the shoreline available for boat dock construction. In exchange for preserving this shoreline, the applicant may be allowed the multiple of boat slips/moorings/docking locations for every 100 ft of shoreline preserved as indicated in the table below. These multiples may be increased as also indicated in the table if the preserved shoreline is accompanied with a buffer contiguous with and directly landward of the preserved shoreline. These additional boat slips/moorings/docking locations would be constructed in a multi-slip facility that would serve lots or dwelling units in the subdivision whether or not they front on the water or the Project Boundaries. The total number of slips/moorings/docking locations within the incentive program cannot exceed the total number of off-water lots or dwelling units in the development and must be contiguous with the development that includes the preserved shoreline. The number of slips/moorings/docking locations will be rounded down as part of the incentive program.

Eligible Shoreline Preserved (percent)		Boatslip Multiple per 100 ft of Shoreline Preserved		
At Least	But Less Than	With No Buffer	With 50-Ft Buffer	With 150-Ft Buffer
20	25	1.5	2.5	3.5
25	50	2.5	3.5	4.5
50	-	4.5	5.0	6.0

2. Eligible Shoreline – Any shoreline not eligible for lake use permitting activities, such as those classified as Environmental, Natural, Natural Isolated Berm, Bottomland Hardwood Areas, Public Infrastructure, etc., would not be counted in the calculation of shoreline footage eligible for the incentive. The incentive preserved areas are in addition to the areas that will already be protected by one of these classifications.

3. Upland Buffer Incentive – An additional incentive (see table above) may apply if the applicant also preserves in a buffer (between 50 ft and 200 ft) additional land upland and continuous to the preserved shoreline. No additional incentive will be provided for buffers less that 50 ft upland of the Project Boundaries. The incentive multiples for buffer widths between 50 ft and 200 ft will be interpolated or extrapolated, as appropriate, from the incentive numbers in the above table.

4. Upland Buffer Associated with Protected Shoreline Areas – As an additional incentive to conserve upland habitat, an applicant may agree to preserve lands upland and contiguous with shoreline areas that are already protected through the SMP classifications of Environmental, Natural, Natural Isolated Berm, or

Bottomland Hardwood Areas. For every two acres of the applicant's property outside the Project Boundaries preserved and left undisturbed, the applicant becomes eligible for one additional boat slip/docking/mooring location.

5. Alternative Upland Buffer Associated with Protected Shoreline Areas – In lieu of Criteria 4, the applicant may request a maximum of one additional boat slip/docking/mooring location for preserving a buffer of 100 ft in width upland of the Project Boundaries that is contiguous with a protected habitat classification (i.e., Environmental, Natural, Natural Isolated Berm, or Bottomland Hardwood Areas). All preserved land above the Project Boundaries must encompass the entire length along the shoreline of the protected habitat shoreline. The minimum protected shoreline length to be eligible for this additional access is 100 ft. The SMP indicates the lateral extent of any single protected classification(s) along the shoreline that is/are eligible for an additional slip(s)/mooring(s)/docking location(s).

6. Identification of Upland Buffers in Application – To be eligible for the incentive program, the preserved land – buffers associated with preserved shoreline or acreage or buffers preserved upland of an Environmental, Natural, Natural Isolated Berm, or Bottomland Hardwood Areas classifications – must be specifically identified in the application and must:

   a. Include adequate protections in the form of a permanent conservation easement or conservation-type agreement, identified in the protective covenants of the development and managed by the homeowner's/boat slip owner's association or other conservation entity approved by DE-LS;

   b. Be identified by survey stamped by a Registered Land Surveyor, provided by the applicant and included in the application that is also recorded in the county where the property is located;

   c. Be specifically addressed in the application along with a verifiable calculation of the preserved shoreline and the associated slip(s)/mooring(s)/docking location(s);

   d. Be provided under the incentive program along with a master plan of the development including all project-front lots and the location of the multi-slip marina facility;

   e. Be in addition to any shoreline within a protected classification as identified in the SMP; and

   f. Be in contiguous segments of not less than 800 ft for developments with more than 800 total ft of preserved shoreline.

7. Shoreline Stabilization – There may be instances where the shoreline to be preserved is subject to significant erosion that could be detrimental to the purpose of preserving riparian habitat. In these cases, DE-LS, in consultation with the appropriate wildlife resource agency, will determine whether the habitat values of this shoreline would benefit from habitat friendly stabilization, such as bioengineering or enhanced rip-rap, which then may be permitted on a case by case basis.

8. Since the intent is to preserve important shoreline habitat areas, DE-LS will make the final eligibility determinations on a case-by-case basis. (*Note: Shoreline areas that are not developable for multi-slip marina uses [e.g., their SMP*

classification, if applicable, does not allow Commercial Marina Facility or Residential Marina Facility use] are not eligible to accommodate the Residential Marina Facility although their shoreline will be used in the calculation for preservation and additional off-water access. Also note that the above limitations describe the maximum number of slips/moorings/docking locations that may be requested. Site-specific conditions may further restrict, or even eliminate, the number of boat slips/docking/mooring locations that can be considered for approval.)

E. Criteria for Rebuilds of Existing, Previously Approved, Marina Facilities

(See Glossary to note difference between a *Facility Rebuild* and *Facility Emergency Repair, Facility Expansion*, and *Facility Maintenance.*)

1. Special Rulings – Since not every possible scenario can be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Compliance with Regulations – All facilities must comply with all applicable local, state, and federal regulations. In addition, all necessary governmental permits or approvals, a FERC order (if applicable) and written authorization from DE-LS must be obtained by the applicant prior to beginning any activity/construction within the Project Boundaries.

3. Facility Rebuilds – Applications for *facility rebuilds* (see Glossary) of existing Marina Facilities must conform to the SMG that are in place for new or expanded facilities at the time of the rebuild application. The following waivers may be considered:

   a. Any criterion that is specifically stated as being exclusively for new and/or expanded facilities;

   b. Any criterion that is specifically exempted according to a stated exception;

   c. The 200-ft setback requirement, if the existing structure was initially approved before January 31, 1994, and the rebuilt structure does not further reduce the setback provided;

   d. The subdivision access lot and minimum project area lease/user's agreement/permit requirements, if necessary to prevent creating non-compliances for other, previously permitted facilities;

   e. The requirement for each slip in the facility to be attributed to 100 ft or more of shoreline suitable for Residential Marina Facility or Commercial Marina Facility use;

   f. The need for the applicant to own the adjoining property in fee simple if the facility was originally permitted without such ownership and the applicant has made a substantial, good-faith effort to acquire fee simple to a subdivision access lot. (***Note****: The applicant may be required to post a bond to guarantee performance of lease/permit requirements.*); and

   g. The need to consult with agencies that do not issue a permit of their own, provided no excavation is needed, or consultation is not otherwise required (e.g., by the Cultural Resources Programmatic Agreement or similar documents).

(Exception: True Public Marina Facilities will be considered for rebuild even if the rebuilt facility or a portion of the facility cannot comply with the current guidelines. If compliance with the current guidelines is not possible, then the replacement facility must not deviate further from the current guidelines than the existing facility. This exception is provided only to True Public Marina Facilities.)

4. Rebuilds of Multiple-Slip Facilities – Existing multiple-slip facilities, originally approved under the Private Facilities Program (i.e., community use piers), may be rebuilt under the Marina Facilities Program as a Residential Marina Facility, although its use does not conform to the existing guidelines or shoreline classification. As a general rule, applications for rebuilds (see Glossary to note difference from *Facility Expansion*) of these existing multiple-slip private facilities are subject to the same permitting criteria and review processes as new Marina Facilities. (*Note: Such applications will need to be reviewed by all the required consulting agencies, since their original approval was not reviewed and they will now involve conveyance by lease/user's agreement/permit of Project property*.) The following may be considered:

   a. Waiver of the 200-ft setback requirement, provided that the existing structure was initially approved before January 31, 1994, and the rebuilt structure does not further reduce the setback provided.

   b. Waiver of the *minimum lease/easement area* requirements (see Glossary) where there would be unavoidable impacts to existing permitted structures.

   c. Waiver of the requirement that there be 100 ft of developable shoreline, as defined in the SMP for private facilities or Marina Facilities, for each slip in the facility.

   (*Note: Existing facilities that exceed 120 ft in length or the one-third cover width limitation must be rebuilt to meet these criteria to be considered for waivers a–c.*)

5. Lease/Users' Agreement – Applicants requesting to rebuild their facilities must enter into a new lease/users' agreement/permit with new terms and conditions (including increased user fees for the entire facility even if only a portion is rebuilt) to comply with the current requirements.

6. Removal of Old Facilities Prior to Rebuilds – Applicants requesting to rebuild their facility must ensure that all structures being replaced are completely removed from the Project Boundaries and the Duke Energy-owned peripheral strip prior to starting any new construction.

7. Electric Utility Line Rights-of-Way – Rebuilds of Marina Facilities within the right-of-way limits of any existing or planned overhead, electricity-carrying utility line may be considered for approval, provided that:

   a. The structure and the Project area covered by the lakebed lease/users' agreement/permit will be removed from within the right-of-way limits to the maximum practicable extent;

   b. Neither the numbers of structures nor the lakebed area under lease/user's agreement/permit within the right-of-way will be increased;

   c. All necessary design limitations (e.g., no roofs) have been incorporated and a special lease/user's agreement/permit has been signed by the applicant; and

d. The applicant receives written approval from the utility line owner.

F. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally-licensed hydroelectric project (e.g., Catawba-Wateree and Keowee-Toxaway Projects) is a privilege that can only be granted with authorization from the Licensee. Duke Energy supports use of the project lands and waters for a variety of activities provided the use meets the regulatory requirements of the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS, prior to initiating these revised guidelines, which are not compatible with the requirements as contained herein. These structures may be maintained although their use does not conform to the enclosed guidelines. When it becomes necessary to rebuild (see Glossary definition of *Facility Rebuild*) a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

G. Consequences for Violations

1. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. Consequences for violations will include one or more of the following:

   - Unwanted delays;
   - Loss of security deposits;
   - Suspension or cancellation of approved applications;

- Increases in fees;
- Modification or removal of non-complying structures and restoration of disturbed areas at the owner's expense; and
- Loss of any consideration for future reservoir use applications.

2. Violation Examples – Examples of specific violations and their applicable penalties include the following.

- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: Restoration as required in the Vegetation Management Requirements for approved tree removal.
- Refusal to remove an unapproved, dilapidated, or unsafe structure: Removal of the structure from the Project property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a set management fee of $1,000, is paid.
- Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

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SECTION 2 – CONVEYANCE PROGRAM

A. General

Many non-boating activities that cross or are located within a lake's Project Boundaries require a formal written conveyance from DE-LS, and an order approving the conveyance from the FERC (if applicable) **before** beginning any construction within the Project Boundaries. The types of uses for which a conveyance is required are construction, replacement, expansion, realignment, or significant maintenance of the following: roadways, causeways, and bridges; water lines and water intakes (except for single home use which are covered under the Miscellaneous Reservoir Uses Program); discharging effluent lines and non-discharging sewer lines; stormwater outlets; transmission, distribution, and retail lines for telephone, telegraph, cable TV, railroad signal, petroleum product, and electric utilities; and other uses if deemed necessary by DE-LS. Successful conveyance applicants will also be required to enter into an easement, lease, or users' agreement/permit to ensure that long-term operation of the facility does not conflict with DE-LS objectives. (***NOTE FOR ALL NON-PROJECT USE APPLICANTS****: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as Conveyance applications. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities*.)

B. Criteria for Conveyances

1. Special Rulings – Since every possible scenario can not be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Compliance with Regulations – All facilities must comply with all applicable local, state, and federal regulations. In addition, all necessary governmental permits or approvals, a FERC order (if applicable) and written authorization from DE-LS must be obtained by the applicant prior to beginning any activity/construction within the Project Boundaries or on any Duke Energy-owned peripheral strip.

3. 50-ft Environmental Offset – New or expanded conveyance activities may not be constructed within the 50-ft Environmental Offset (Figure 2B-1) associated with an Environmental classification identified in the SMP unless the permitted activity currently exists within the offset.

4. Lighting – Low-pressure sodium lights with time or motion sensors to turn lights off when not needed are preferred. All outdoor fixtures should be fully shielded and installed in such a way that light is not emitted above the lowest part of the fixture. Incandescent lights should be well-shielded, low-wattage lamps that include time or motion sensors to turn lights off when not needed.

5. Timing of Lease/Users' Agreement – All conveyance activities associated with new, rebuilt, or expanded facilities must have an executed easement, lease, permit, or other instrument of conveyance with Duke Energy within 18 months following issuance of a FERC order or within 18 months following receipt of the instrument of conveyance if a FERC order is not required.

6. Submarine Utility Lines – All submarine utility lines must be buried a minimum of two ft below the lakebed in all parts of the full pond area that they cross. (*Exception: Exposed submarine utility lines may be allowed in areas where the lakebed elevation is deeper than the Critical Reservoir Elevation [CRE] [see Glossary] on the specific lake provided that the exposed portion of the submarine utility line is: (a) laid upon the lakebed; (b) substantially anchored; and (c) shielded if necessary to prevent damage by boat anchors. A Lake Facility Safety Plan may also be required [Figure 2B-2]*.)

7. Water Intakes – New, expanded, or rebuilt permanent Large Water Intakes (i.e., greater than or equal to 1 million gallons per day [MGD] maximum instantaneous capacity) should be fully operational with the reservoir level at or above the *Critical Reservoir Elevation* (CRE) (see Glossary) that is required for full hydroelectric station operation on the specific lake. All applicants are required to demonstrate the proposed means to address this requirement by providing an engineering feasibility evaluation stamped by a licensed professional engineer. Exceptions for shallower intakes will only be considered if there is overwhelming evidence included in the feasibility evaluation that an intake cannot be practicably constructed (economic factors will be considered although costs will not be the sole factor in determining practicability) to allow full unimpeded operation of the intake up to its proposed maximum instantaneous capacity with the reservoir level at or above the CRE that is required for full hydroelectric station operation. The evaluation and justification for any such exceptions for approval of shallower intakes must further consider the proposed intake's relationship with the CRE needed for any existing Large Water Intakes used for Public Water Supply, industrial or regional non-hydroelectric power plant operation on the specific lake. DE-LS will not normally approve applications for permanent Large Water Intakes that require reservoir levels above the existing CRE for the specific lake. Also, DE-LS will not normally approve expanded or rebuilt permanent Large Water Intakes that require reservoir levels for full unimpeded operation up to its proposed maximum instantaneous capacity that are above the existing CRE for the original intake.

8. Screens on Water Intakes – New, expanded, or rebuilt permanent Large Water Intakes (greater than or equal to 1 MGD maximum instantaneous capacity) and permanent small water intakes (less than 1 MGD maximum instantaneous capacity) should, to the maximum practicable extent: (a) use passive screens; (b) provide screen openings not to exceed one centimeter; and (c) provide a maximum intake velocity of 0.5 fps or less. For waters with anadromous fish, the applicant must consult with appropriate federal and state resource agencies and determine the appropriate intake and screen design specifications.

9. Submerged Effluent Outfalls – New, expanded, or rebuilt submerged effluent outfalls should be completely submerged and fully operational with the reservoir level at or above the Critical Reservoir Elevation (CRE) (see Glossary) that is required for full hydroelectric station operation on the specific lake. All applicants are required to demonstrate the proposed means to address this requirement by providing an engineering feasibility evaluation stamped by a licensed professional engineer. Exceptions for shallower outfalls will only be considered for: (a) non-submerged outfalls; or (b) submerged outfalls if there is overwhelming evidence included in the feasibility evaluation that the submerged outfall cannot be practicably constructed (economic factors will be considered

although costs will not be the sole factor in determining practicability) to allow full unimpeded operation of the outfall up to its proposed capacity with the reservoir level at or above the CRE that is required for full hydroelectric station operation. The evaluation and justification for any such exceptions for approval of shallower outfalls must further consider the proposed outfall's relationship with the CRE needed for any existing Large Water Intakes used for Public Water Supply, industrial or regional non-hydroelectric power plant operation on the specific lake. DE-LS will not normally approve applications for submerged outfalls that require reservoir levels above the existing CRE for the specific lake for full unimpeded operation of the outfall up to its proposed capacity. Also, DE-LS will not normally approve expanded or rebuilt submerged outfalls that require higher reservoir levels for full unimpeded operation than reservoir levels required for the original outfall.

10. Non-Public Bridges Accessing Privately-Owned Islands – New construction of non-public bridges that will cross the full pond contour, except those that are intended to provide access to privately-owned island(s), will not be authorized.

11. Non-Public Bridges, Causeways, and Roadways – New construction of any non-public bridges (except for access to privately-owned islands), non-public causeways, non-public roadways (beyond those minimal width driveways necessary for access to other approved lake use facilities), non-public dams, and non-public dikes will not be authorized within the FERC Project Boundaries or on any Duke Energy-owned peripheral strip (Figure 2B-3).

12. Bridge Clearance for New Bridges – Any proposed new public or non-public bridge that will cross the full pond contour in an area considered navigable in the peak recreation season must have a clearance height at least 12 ft above the full pond elevation for at least the middle third of its span or 10 ft of width, whichever is greater.

13. Bridge Clearance for Existing Bridges – Any replacement, expansion, or realignment of existing bridges must not reduce the existing clearance height from full pond elevation in areas considered navigable in the peak recreation season.

14. Dams, Dikes, and Causeways – New construction of any dams, dikes, or causeways that cut off the backs of Project coves from the rest of the Project area will not be authorized.

15. Lake Facility Safety Plans – A Lake Facility Safety Plan, where required, must be developed by the applicant delineating the methods used to secure an area during construction and warn boaters of any potential public safety or navigational hazards. Any signage or warning/safety devices necessary for the safe construction and subsequent operation of proposed facilities/activities must be provided and maintained by the applicant and are typically identified in a Lake Facility Safety Plan.

16. Agency Concurrence with Lake Facility Safety Plans – Where required, a Lake Facility Safety Plan must be developed by the applicant with the concurrence of the state wildlife agency and marine commission (where applicable) and submitted as part of a complete lake use permit application. The safety plan must include a plan and schedule for installation, maintenance, and inspection of the

warning/safety devices needed for lake user safety, with responsibilities listed and verified by confirmation letters from the responsible entity(s).

17. Facilities Requiring Lake Facility Safety Plans – As a minimum, Lake Facility Safety Plans will be required for: (a) all proposed new, expanded, or rebuilt bridges and causeways that cross the full pond contour in areas that are considered navigable in the Peak Recreation Season (see Glossary) (i.e., areas that have at least a 10-ft wide by 3-ft deep channel with lake level at its target summertime elevation); (b) all Large Water Intakes (greater than a 1 MGD maximum instantaneous capacity); and (c) all submerged effluent outfalls and dry hydrant intake lines that are exposed at reservoir levels above the Critical Reservoir Elevation (CRE) on the specific lake. Applicants for these types of facilities, as well as any others as may be determined by DE-LS, must submit a Lake Facility Safety Plan as part of their lake use permit application.

18. Applications for Electricity-Carrying Utility Lines – Applicants for new construction of electricity-carrying utility lines (both overhead and submarine) will be required to show in their applications why it is not feasible to redesign the line to: (a) Remove the line's right-of-way completely from the full pond area (**preferred**); (b) Incorporate the line crossing need by expanding an existing line crossing, rather than creating a new one; or (c) Install the line by using directional boring techniques. Applicants for expansion/rebuild of existing, electricity-carrying utility lines will also be required to show in their applications why it is not feasible to remove the line's right-of-way completely from the full pond area or to incorporate the line into another existing line crossing. All proposed utility line crossings must comply with the US Army Corps of Engineers requirements and the then-current National Electric Safety Code or Pipeline Safety Regulations (as applicable), and compliance must be certified by a registered land surveyor and a licensed professional engineer.

19. Overhead Electricity-Carrying Utility Line Prohibitions – Duke Energy will not authorize:

    a. Any construction of new non-Duke Energy overhead, electricity-carrying utility line crossings whose right-of-way limits would cross existing boat launching / docking / mooring, parking, or storage facilities within the full pond contour or Duke Energy-owned public access area.

    b. Any expansions or rebuilds of previously approved overhead, electricity-carrying utility lines whose right-of-way limits would cross existing boat launching/docking/mooring, parking, or storage facilities unless all of the following requirements are met:

        1) The line crossing and its right-of-way limits are designed to avoid the lakebed area used by the boating facilities to the maximum extent practicable.

        2) The line crossing is designed with the higher clearance height as required by the National Electric Safety Code or US Army Corps of Engineers requirements for lines crossing boating access facilities.

20. Support Structures for Overhead Electricity-Carrying Utility Lines – Structural supports and guy wires for overhead, electricity-carrying utility lines must be located outside the full pond contour to the maximum practicable extent.

21. Wastewater Effluent Discharges in Cut-Off Areas – Unless there is no other feasible alternative, wastewater effluent lines that discharge directly into *cut-off areas* (see Glossary) that were created by dams, dikes, or causeways will not be authorized.

22. Deadline for Completing Construction – The construction of any facility must be completed as described in the approved application and within the approved *build-out period* (see Glossary). The initial build-out period for conveyance activities is 18 months from the date of application approval by DE-LS. A one-year extension may be approved by DE-LS if the applicant files a written request, prior to expiration of the 18-month build-out period, detailing what approved activities have been completed, what approved activities remain to be completed, and the reason for the delay, along with any applicable fees (including an extension fee). If during an extension period additional guidelines are imposed, the remaining construction will be required to comply with the additional guidelines to the maximum practicable extent. Failure to construct a facility within the total, approved build-out period with one extension (i.e., 30 months total) will require the applicant to contact all agencies that issued permits and document the originally issued permits are still valid or acquire reissued permits for those that have expired. This will allow the issuance of a second 12-month extension (i.e., 42 months total) which will require payment of a second application filing fee and security deposit, and forfeiture of the original deposit. If the applicant does not complete all activities within this final 12-month extension period, DE-LS will notify the applicant in writing that all approvals have been withdrawn and reauthorization to complete construction of the facilities will require re-entry into the application review and approval process (including, as a minimum, providing a new construction schedule, detailed description of the facilities to be constructed, and the applicable fees and security deposits), and such reauthorization may not be granted. Construction will not be allowed to resume until additional written authorization is received from DE-LS. (*Exception: Public facilities may be eligible for up to two additional, one-year time extensions not available to other type facilities [total potential build-out period is five and a half years]. To be eligible, the applicant must show that at least fifty percent of the remaining proposed facilities were completed during the previously approved time extension*.)

23. Applicant – The applicant must be a natural person; a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. The lessee/permittee/grantee must be a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. DE-LS will hold the adjoining property owner fully responsible for the permitted lake use (including maintaining structures in good repair). This responsibility is considered to transfer automatically along with ownership of the adjoining tract. It is therefore the responsibility of the property owner to ensure that authorization for the permitted use and any conveyance documents for facilities within the Project Boundaries or peripheral strip are transferred should there be a change in ownership of the adjoining tract and/or facility.

(*Exception: An easement may be considered as a substantial equity interest in lieu of fee simple ownership of the adjoining tract where fee simple ownership is not customary [e.g., for public need projects where the applicant is a public entity].*)

24. Lease/Users' Agreement – All conveyance applicants are required to enter into a lease, easement, permit, or users' agreement for the FERC Project area that the facility will occupy.

25. Public Access Areas – Conveyance proposals for non-Project use activities should generally avoid crossing a Duke Energy-owned public access area. Any conveyance activity for a non-Project use that crosses a Duke Energy-owned public access area will have increased permitting requirements and siting limitations (e.g., crossing location limited to very few areas, future limitations on expansion).

C. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally-licensed hydroelectric project (e.g., Catawba-Wateree and Keowee-Toxaway Projects) is a privilege that can only be granted with authorization from the licensee. Duke Energy supports use of the Project lands and waters for a variety of activities, provided the use meets the regulatory requirements of the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS, prior to initiating these revised guidelines, which are not compatible with the requirements as contained herein. These structures may be maintained although their use does not conform to the enclosed guidelines. When it becomes necessary to rebuild a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood

easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

D. Consequences for Violations

1. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. Consequences for violations will include one or more of the following:

   - Unwanted delays;
   - Loss of security deposits;
   - Suspension or cancellation of approved applications;
   - Increases in fees;
   - Modification or removal of non-complying structures and restoration of disturbed areas at the owner's expense; and
   - Loss of any consideration for future reservoir use applications.

2. Violation Examples – Examples of specific violations and their applicable penalties include the following.

   - Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
   - Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
   - Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: Restoration as required in the Vegetation Management Requirements for approved tree removal.
   - Refusal to remove an unapproved, dilapidated, or unsafe structure: Removal of the structure from the Project property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a fixed management fee of $1,000, is paid.
   - Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

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SECTION 3 – EXCAVATION PROGRAM

A. General

DE-LS has developed an Excavation Programmatic Agreement (PA) in consultation with resource agencies, and the requirements of this PA are incorporated in the Excavation Program. The Excavation Programmatic Agreement establishes guidance for obtaining authorization for the removal of soil, sand, silt, or rock materials from within the FERC Project boundaries of Duke Energy lakes. The Excavation Program does not circumvent the necessity for the applicant to obtain prior federal (e.g., US Army Corps of Engineers), state (e.g., NC Dept. of Environment and Natural Resources [NC-DENR], SC Dept. of Health and Environmental Control [SCDHEC]) and local (e.g., county) approvals as determined by those agencies for any excavation activities. This program will ensure compliance with federal, state, and local regulations, including those of the FERC. DE-LS may issue permits for minor excavation activities such as those required to support the installation and maintenance of bulkheads, boat launching, and access to docking facilities, small water intakes, utility lines, or other activities that do not require FERC approval. Excavation applications require review by the appropriate resource agencies and some also require FERC approval. Any excavation or shoreline stabilization work needed to support a FERC application is also subject to FERC approval and will be included as a component of the primary FERC application. All parties desiring to excavate within the Project Boundaries must first contact DE-LS and obtain written authorization prior to beginning work. DE-LS may require the applicant to enter into a lease/permit or other form of conveyance and sign a user's agreement to ensure that long-term operation of the facility or use of Project lands and waters does not conflict with DE-LS objectives. (***NOTE FOR ALL NON-PROJECT USE APPLICANTS****: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as those for Excavation. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities*.)

B. Criteria for an Excavation

1. Special Rulings – Since every possible scenario can not be anticipated, DE-LS reserve the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Compliance with Regulations – All excavations must comply with all applicable local, state, and federal regulations. Also, any necessary governmental permits or approvals, a FERC order (if applicable), and written authorization from DE-LS must be obtained by the applicant prior to beginning work within the Project Boundaries.

3. South Carolina – All excavations in South Carolina, less than 150 cubic yards, must conform to the requirements of the General Permits issued by the SCDHEC or the US Army Corps of Engineers, as applicable. Applicants in South Carolina proposing excavations that are not covered under the General Permit, or are greater than 150 cubic yards, must receive prior authorization from the SCDHEC or the US Army Corps of Engineers, as applicable before submitting their completed application to DE-LS.

4. Fish Spawning – In both North Carolina and South Carolina, excavation activities must not occur during the months of March, April, May, and June because of potential impacts to fish spawning areas.

5. Water Willow Beds – Excavation is not allowed within water willow beds except as necessary to maintain access to previously approved facilities.

6. 50-ft Environmental Offset – New excavation activities are not allowed within the 50-ft Environmental Offset (Figure 3B-1) associated with an Environmental classification identified in the SMP except as necessary to allow continued access to a previously approved facility (Figure 3B-2).

7. Individual Permit Requirement – The Excavation Programmatic Agreement and the General Permits in both North Carolina and South Carolina allow Duke Energy to authorize excavations, provided the applicant notifies the appropriate agencies and all necessary permits are obtained prior to beginning any excavation. Applicants should limit their excavation activities where practicable to meet the requirements of the applicable General Permit and/or the Excavation Programmatic Agreement; otherwise, an individual permit will have to be obtained from the proper agency and FERC review may be required.

8. FERC review is required for:

   a. All excavations, except for *maintenance excavations* (see Glossary), that will exceed 2000 cubic yards of material removed. (***Note****: All excavation volumes that the applicant [e.g., developer] proposes to remove as part of a planned project [e.g., an entire subdivision] will be added together for comparison against this 2000 cubic yard limit to facilitate review of potential cumulative impacts. If lot purchasers file subsequent excavation application requests, their requests will be evaluated on an individual basis*.)

   b. Any excavation activity that is required to support another proposed lake use request that requires FERC review (e.g., construction of a large marina not within the scope of the land use article).

9. Placement of Excavated Material – All excavated material must be placed in upland areas landward of the Project Boundaries and confined to prevent erosion and sedimentation.

10. Staging of Excavation Work – All excavation work, including equipment setup, must not encroach into or in front of adjoining property unless specific written authorization is given by the affected property owner(s) (typically through their participation as co-applicants). All excavation work must be confined to the delineated excavation area in front of the applicant's property with the exception of access channels, which typically run perpendicular to the shoreline within the nearest one-third of the cove area and/or parallel to the shoreline within the middle third of the cove area that is controlled by Duke Energy.

11. Best Management Practices for Excavated Materials – All excavated material must be handled following Best Management Practices as defined by each state unless special consideration is given in writing by the SCDHEC or the NCDENR-Division of Land Quality.

12. Double Handling – Double handling of excavated material within the full pond elevation contour will not be allowed. Therefore, all excavated material must be placed above the full pond elevation contour in one handling unless the spoil

material is loaded in a barge for transport outside the Project Boundaries. Barge-loaded spoil must be directly off-loaded outside the full pond elevation contour and cannot be loaded into transport equipment (e.g., trucks, conveyors) within the full pond elevation contour.

13. Erosion and Sedimentation Control – All excavated material and disturbed shoreline must be stabilized to prevent erosion and runoff into the lake.

14. Minimization of Disturbance – Applicants must excavate and disturb only what is absolutely necessary to achieve the excavation projects stated purpose (Figures 3B-3 through 3B-5).

15. Unauthorized Excavation Activities – Excavation permits will not be issued for the following activities:

    a. Channeling to create additional shoreline or any other excavation that would alter the Project Boundaries or full pond elevation contour;

    b. Any excavation that would impact threatened or endangered species, historic properties, or environmentally important areas;

    c. Excavation activities not associated with maintaining access to an existing permitted facility or a proposed facility for which the owner has submitted an application and received written approval from DE-LS for its construction; and

    d. Excavation activities that support a new marina facility (i.e., within five years of DE-LS approval) if excavation was not part of the original application

    (*Note: Areas with characteristics listed under item b above may be identified in the SMP [where applicable]. Also note that certain public need projects undertaken by public entities may not have another practicable alternative, and therefore may have some unavoidable impacts on the lake's scenic, environmental, and cultural values. Such public need projects may be allowable, provided the applicant can develop an adequate mitigation plan*.)

16. Sand Mining – Sand mining operations within the Project Boundaries, usually on headwater portions of the reservoir, may be authorized in accordance with the Excavation and Conveyance Program guidelines to the maximum practicable extent. Operations outside the Project Boundaries on Duke Energy property will have to be authorized with concurrence of Duke Energy's Real Estate Department.

17. Return Water – Return water associated with hydraulic excavation must re-enter the lake in the same general vicinity and cove as the excavation, to the maximum practicable extent.

18. Access Channels Side Slopes – Access channels and boat basins must have side slopes excavated to a slope of 3 to 1, except where safety requirements may dictate a flatter slope.

19. Size of Access Channels and Boat Basins – Access channels and boat basins shall not extend beyond one-half the cove width in cove areas where the opposing shoreline is classified as Environmental (including 50-ft Environmental Offsets) in the SMP.

20. Explosives – The use of explosives within the Project Boundaries supporting excavation activities will be allowed for public need projects where the applicant is usually a public entity (e.g., municipality, state transportation department, utility

line owner supporting a regional public need) and there is no other practicable alternative. The limited use of explosives may also be allowed to facilitate removal of man-made structures (e.g., bridge pilings, intake structures), provided their use can be substantiated based on need rather than preference and the use adheres to all local, state, and federal regulations. DE-LS must be provided the appropriate documentation to ensure compliance with all regulations prior to the use of any explosives. Any other uses of explosives to excavate within the Project Boundaries will not be authorized.

21. Deadline for Completing Excavations – All excavations must be completed as described in the approved application and within 18 months following the date of application approval by DE-LS. The only potential exception to this is for excavations that are necessary for construction of large facilities (e.g., large marinas, large water intakes) where the facility application schedule allows for a longer time period. A single 12-month extension may be considered if the applicant files a written request with DE-LS, prior to expiration of the 18-month application approval, explaining why the additional time is needed. If during an extension period additional guidelines are imposed, the excavation will be required to comply with the additional guidelines to the maximum extent practicable.

22. Applicant as Owner/Leaseholder – The applicant must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. If the applicant is not claiming to be the owner or leaseholder of said property, then written authorization from the owner(s) and proof of title to the property must be provided to carry out the proposal within the Project Boundaries adjacent to their land. DE-LS will hold the applicant and/or the land owner fully responsible for the permitted lake use. This responsibility will run with the land and will transfer automatically along with changes in ownership and/or leases of the adjoining tract.

23. Review of Associated Applications – In a development proposed to provide Residential Marina access, the developer must submit a complete application and receive written confirmation from DE-LS that the application has been submitted to Duke Energy's Law Department for preparation in filing with the FERC (if applicable); or a copy of the homeowner's covenants and the final recorded subdivision plat, approved by the county or local jurisdiction's planning and zoning office, must be submitted acknowledging the location of the planned facilities prior to DE-LS reviewing applications for lake use activities under the Private Facilities, Excavation, Miscellaneous Reservoir Uses and Shoreline Stabilization programs.

24. Excavation Contract – A copy of the contract between the applicant and the excavation contractor must be provided with the completed Excavation Program Application Form.

C. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally licensed hydroelectric project (e.g., Catawba-Wateree and Keowee-Toxaway Projects) is a privilege that can only be granted with authorization from the Licensee. Duke Energy supports use of the Project lands and waters for a

variety of activities, provided the use meets the regulatory requirements of the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS, prior to initiating these revised guidelines, which are not compatible with the requirements as contained herein. These structures may be maintained although their use does not conform to the enclosed guidelines. When it becomes necessary to rebuild (see Glossary definition of *Facility Rebuild*) a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

D. Consequences for Violations

1. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. Consequences for violations will include one or more of the following:

   - Unwanted delays;
   - Loss of security deposits;
   - Suspension or cancellation of approved applications;
   - Increases in fees;
   - Modification or removal of non-complying structures and restoration of disturbed areas at the owner's expense; and
   - Loss of any consideration for future reservoir use applications.

2. Violation Examples – Examples of specific violations and their applicable penalties include the following:

- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: Restoration as required in the Vegetation Management Requirements for approved tree removal.
- Refusal to remove an unapproved, dilapidated, or unsafe structure: Removal of the structure from the Project property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a fixed management fee of $1,000, is paid.
- Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

SECTION 4 – PRIVATE FACILITIES PROGRAM

A. General

All parties desiring to construct an individual private facility or Common-Use Facility must first contact DE-LS and obtain written authorization from DE-LS prior to beginning any activity/construction within the Project Boundaries or on Duke Energy property. All facilities must be constructed from the applicant's deeded or leased project-front lot for the purpose of providing private access for the owner or leaseholder of the project-front property. Facilities supporting multi-family type homes or owners of lots that do not have project frontage must be handled through the Marina Facilities Program. DE-LS may require the applicant to enter into a lease or other form of conveyance and sign a user's agreement to ensure that long-term operation of the facility or use of Project lands and waters does not conflict with DE-LS objectives. (***NOTE FOR ALL NON-PROJECT USE APPLICANTS****: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as Private Facility applications. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities*.)

B. Criteria for Private Facilities

1. Special Rulings – Since every possible scenario can not be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Projection of Property Lines – For new, expanded, or rebuilt facilities, property lines will be projected by DE-LS by extending an imaginary line perpendicular to the Project Boundaries at each property corner. These projected lines are determined by bisecting the angle formed by the two lakefront property lines that intersect at each property corner. Additionally, facilities must be situated or constructed in size, dimension, or design such that an average-size moored watercraft will not interfere with access to other facilities and not obstruct ingress and egress of watercraft or extend across projected property lines. On reservoirs with local ordinances that dictate property line projections utilizing a different methodology, DE-LS will accept projection in accordance with local regulations with enforcement being the responsibility of the governing entity. Unless the necessary written release is received from the adjoining property owner, no part of the proposed private facility (including anchoring systems) or moored watercraft may cross the property lines as projected (Figure 4B-1). (***Note****: Pier Zones are planning tools used in some developments, but their use does not supersede requirements of the DE-LS SMG, the General Permits in South Carolina, or county or local jurisdiction's requirements in either North Carolina or South Carolina*.)

3. Term of Encroachment Agreements – Written release to encroach across a projected property line remains valid for the life of the permit. If a permit is authorized with a written release but is not constructed during the 12-month build-out, and ownership of the property being encroached upon changes, then authorization from the new owner will be required as part of the issuance of a new permit.

4. Facility Criteria – DE-LS, in its sole discretion, will determine if facilities (even those assigned hull identification numbers or registration numbers) moored or permanently attached to a structure are considered within the criteria of the Private or Marina facilities programs.

5. Compliance with Regulations – All facilities must comply with all applicable local, state, and federal regulations. Also, the applicant, prior to beginning any activity/construction within the Project Boundaries, must obtain all necessary governmental permits or approvals and written authorization from DE-LS.

6. Maneuvering Area – New or expanded Private Facilities must provide a clear maneuvering area of at least 25 ft between the farthermost portion of the facility (including any moored watercraft) and the opposite shoreline measured at full pond or any existing permitted facility located along the opposite shoreline. Additionally, no new or expanded Private Facilities will be authorized in cove areas less than 25 ft wide (Figure 4B-2).

7. 50-ft Environmental Offset – New or expanded Private Facilities may not be constructed within the 50-ft Environmental Offset (Figure 4B-3) associated with an Environmental classification identified in the SMP unless the permitted facility currently exists within the offset.

8. Water Willow Beds – Applicants are encouraged to avoid activities that could have an adverse impact upon existing water willow beds. Unavoidable impacts should be confined to the sides of water willow beds to minimize disruption of their function as shallow water fish habitat. No floating structures or other extraneous facilities (e.g., gazebos, decks) may be constructed over water willow beds. The width of walkways over water willow beds will be limited to less than three feet. Removal of water willow for continued lake access may be allowed but only for the specific and limited area necessary.

9. Length of Facilities – New, expanded, or rebuilt facilities or mooring buoys shall not extend more than one-third the distance to the opposite shoreline as measured from full pond or extend more than 120 ft lakeward of the full pond, whichever is more limiting (Figure 1B-3). Additionally, facilities must be situated or constructed in size, dimension, or design such that an average-size moored watercraft will not interfere with access to other facilities and not obstruct ingress and egress of watercraft.

10. Flotation Materials – Flotation for all facilities and boat mooring buoys shall be of materials manufactured for marine use. Materials must not lose significant buoyancy if punctured, must not generally be subject to damage by animals, and must resist breaking apart under a broad range of wave energies. Uncoated, beaded polystyrene will not be permitted for any new construction or as replacement for existing facilities. Reuse of plastic, metal, or other previously used drums or containers for encasement or flotation purposes is prohibited. Existing flotation on previously approved structures is authorized until it has severely deteriorated and is no longer serviceable, at which time it must be replaced with approved flotation.

11. Reflectors – Reflectors or reflective tape must be placed and maintained by the applicant on the two furthermost corners of the structure that extend into the water and placed along the sides of the structure from the end back toward the shore.

12. Lighting – Low-pressure sodium lights with time or motion sensors to turn lights off when not needed are preferred. All outdoor fixtures should be fully shielded and installed in such a way that light is not emitted above the lowest part of the fixture. Incandescent lights should be well-shielded, low-wattage lamps that include time or motion sensors to turn lights off when not needed.

13. Minimum Elevation of Decking – All fixed pier decking (not including handrails) must be at least one foot above the full pond elevation. Small stair-stepped landings may be constructed on the sides of stationary piers to facilitate boat entry.

14. Enclosure of Facilities – The sides of gazebos, boat shelters, and covered boat slips are not to be enclosed. This includes, but is not limited, to siding and latticework. The bottom portion of gazebos may be enclosed, provided the gazebo is not the furthermost portion of the pier structure. Handrails may be put on for safety, but must not be enclosed.

15. Storage Closet / Locker – Covered boat slips and boat shelters may have one 4 ft by 6 ft (or smaller) enclosed storage closet/locker on one of the corners of the structure closest to shore. (***Note****: This construction must be noted in the application*.)

16. Roofs – Canopy roofs are permitted provided the sides are not enclosed. The canopy must not block cross vision any more than a standard pitched roof.

17. Boat Covers – *Boat covers* (see Glossary) may be permitted provided the following:

    a. The fabric and frame are the same dimensions as the watercraft;

    b. The roof, if a stand-alone structure, is not flat and does not exceed 12 ft in height as measured from the top of the roof to full pond;

    c. The device, if free-standing, does not allow the entire facility to exceed the total square footage limitations for an Individual Private Facility; and

    d. There are no storage compartments placed under boat covers.

18. Liquid and Solid Waste Facilities – Structures built within the Project Boundaries must not contain sinks, toilets, showers, spigots, or any other type of device, which could cause any liquid or solid waste to be discharged into the lake. (*Exception: Water supply lines supporting approved pump-out facilities are exempted from this requirement*.)

19. Houseboats – Watercraft used for habitation shall not be permanently moored at private docks. Permanent mooring must be at marinas that provide pump-out facilities for marine sanitation devices. A watercraft is considered habitable if any of the following exists:

    a. Sleeping overnight on the boat for two or more consecutive nights;

    b. Staying on, around, or within the moored boat for periods exceeding 24 continuous hours;

    c. Hardwiring electric power or hard piping plumbing to the boat; or

    d. Establishing a mailing address for the boat.

20. Boat Ramps – DE-LS will no longer allow the construction of boat ramps for individual private use.

21. Covered Boat Slips – No covered boat slips, boat covers, or *boat shelters* (see Glossary) will be allowed at Common-Use Facilities with more than two slips.

22. Common-Use Facilities – Common-Use Facilities with three or more slips are not eligible for mooring additional watercraft including PWCs.

23. Maximum Size – Maximum allowed slips and surface areas are as follows:

Facility	Number of Slips or Hoists	Maximum Allowed Square Footage (sq. ft)
Individual Private	2 or less*	1,000
Common Use	2 or less*	1,000
Common Use	3 - 8	1,000
Common Use	9 - 10	1,200
Common Use	> 10	N/A**

* A total of two PWC mooring devices are allowed in addition to this maximum.

** Common-Use Facilities that serve a development and are greater than 10 slips are considered Residential Marina Facilities under the Commercial Marina Facilities Program and must be filed with the FERC.

24. Facilities per Project-Front Lot – Unless DE-LS permitted the facility before June 1, 1996, no more than one pier/dock or one Common Use boat slip per project-front lot will be considered for approval. Ownership/interest in a Common-Use Facility that is provided as part of a master-planned development eliminates the option of having a separate facility at the lot attributed a slip in a Common-Use Facility. An individual property owner that is assigned a slip in a Common-Use Facility that is part of a master-planned development may not transition out of the common use arrangement and construct a pier from their property.

25. Converting from a Common-Use Facility – Individual property owners who have ownership/interest in a Common-Use Facility that is not a part of a master-planned development may transition out of the common use arrangement and construct a pier from their own project-front property only if the remaining Common-Use Facility can comply with the guidelines in effect at the time of transition. If modifications are required of the Common-Use Facility, then construction of the Private Facility from an individual project-front lot will not be allowed until the modifications to the Common-Use Facility are complete.

26. Two-Story Structures – Decks, gazebos, covered boat slips, and boat shelters must be single-story structures. They may be roofed and designed to allow second story use (e.g., sundeck); however, the second story must not be roofed creating a two-story roofed structure.

27. Non-Conforming Structures – Facilities permitted under previous guidelines that exceed the current maximum allowable square footage will not be allowed to have any additions made to the existing facility including, but not limited to, adding roofs or decks above any existing portion of the facility.

28. Pilings and Uncovered Boat Hoists – Pilings and uncovered boat hoists constructed alongside a facility do not typically count towards the maximum

square footage but they are considered facility expansions and must meet all other permitting requirements (e.g., maximum number of watercraft, applicable property line projections, and length restrictions).

29. Deadline for Completing Construction – The construction of any facility must be completed as described in the approved application within 12 months following the date of application approval by DE-LS. Failure to complete construction within the build-out period will require the applicant to file a new application within the then-current guidelines. The filing will include any applicable fees and security deposits.

30. Applicant – The applicant for a lake use permit must be the owner or the leaseholder of the tract of land immediately adjoining the Project Boundaries or the Duke Energy-owned peripheral strip. The applicant and subsequent permittee is fully responsible for the permitted lake use including maintaining structures in good repair.

31. Permit Transfer – The responsibilities associated with the lake use permit shall transfer to any new owners or leaseholders of the adjoining land. Duke Energy will transfer the permit at no cost to the new owner or leaseholder, provided either the existing facility meets the current SMG or was permitted by DE-LS prior to the effective date of these revised SMG. To initiate the transfer, the new owner or leaseholder must contact DE-LS and sign both the transferred permit and the "User's Agreement Letter". DE-LS will approve the transfer after determining the facility meets the criteria for approval.

32. Minimum Shoreline Requirement – A lot having less than 100 ft of shoreline (as measured along the Project Boundaries) that is suitable for Residential use in the SMP will not be considered for a pier or common-use slip unless it was subdivided and recorded prior to September 1, 2006. (*Note: In the case of lots subdivided and recorded prior to September 1, 2006, the applicant may be allowed to construct up to 10 square ft of pier for every linear foot of developable shoreline so long as the lot has at least 75 linear ft of shoreline. Lots subdivided and recorded before June 1, 1996, that have less than 75 ft of shoreline are also eligible for 10 square ft of pier for every linear foot of developable shoreline*.) (*Note: The 50-ft Environmental Offset may count in the determination of total shoreline footage eligibility requirements needed for a pier, but it may not be built on and must be left undisturbed*.)

33. Private Facilities In Lease Areas – Private Facilities will not be authorized within areas leased or under a use agreement for Marina Facilities.

34. Electric Utility Line Rights-of-Way – Duke Energy will not authorize lake use permits associated with the new construction or expansion of boat launching/docking/mooring facilities that extend into a power line right-of-way containing existing or planned overhead lines.

35. Boardwalks – Boardwalks in the backs of coves are not allowed within the full pond contour. Boardwalks within the Project Boundaries that extend into any regulated buffer area (e.g., Catawba River Basin Permanent Riparian Buffer Protection Rules [15A NCAC 2B.0243]) may only be authorized if the facility is for a single private project-front lot and so long as there is no violation of any applicable buffer regulations. That portion of the facility that extends into the

Project Boundaries will be included in the maximum square footage calculation and is limited to a maximum width along the Project Boundaries of 25 ft.

36. Relocation and Reconfiguration – Relocation or reconfiguration of an existing facility is considered new construction, and the guidelines in effect at the time of the proposed relocation or reconfiguration will apply.

37. Rebuilds of Multiple-Slip Facilities – Existing multiple-slip facilities, originally approved under the Private Facilities Program (i.e., community use piers), may be rebuilt under the Marina Facilities Program as a Residential Marina Facility, although its use does not conform to the existing guidelines or shoreline classification. As a general rule, applications for rebuilds (see Glossary to note difference from *Facility Expansion*) of these existing multiple-slip private facilities are subject to the same permitting criteria and review processes as new Marina Facilities. (*Note: Such applications will need to be reviewed by all the required consulting agencies, since their original approval was not reviewed and they will now involve conveyance by lease/user's agreement/permit of Project property*.) The following may be considered:

    a. Waiver of the 200-ft setback requirement, provided that the existing structure was initially approved before January 31, 1994, and the rebuilt structure does not further reduce the setback provided.

    b. Waiver of the *minimum lease/easement area* requirements (see Glossary) where there would be unavoidable impacts to existing permitted structures.

    c. Waiver of the requirement that there be 100 ft of developable shoreline, as defined in the SMP for private facilities or Marina Facilities, for each slip in the facility.

    (*Note: Existing facilities that exceed 120 ft in length or the one-third cove width limitation must be rebuilt to meet these criteria to be considered for waivers a–c.*)

38. Residential Marinas – In a development proposed to provide both private piers and Residential Marina access, see also the criteria associated with the Marina Program located in Section 1.

C. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally-licensed hydroelectric project (e.g., Catawba-Wateree and Keowee-Toxaway Projects) is a privilege that can only be granted with authorization from the Licensee. Duke Energy supports use of the Project lands and waters for a variety of activities, provided the use meets the regulatory requirements of the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS, prior to initiating these revised guidelines, which are not compatible with the requirements as contained herein. These structures may be maintained although their use does not conform to the enclosed guidelines. When it becomes necessary to rebuild (see Glossary definition of *Facility Rebuild*) a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

D. Consequences for Violations

1. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. Consequences for violations will include one or more of the following:

   - Unwanted delays;
   - Loss of security deposits;
   - Suspension or cancellation of approved applications;
   - Increases in fees;
   - Modification or removal of non-complying structures and restoration of disturbed areas at the owner's expense; and
   - Loss of any consideration for future reservoir use applications.

2. Violation Examples – Examples of specific violations and their applicable penalties include the following.

   - Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
   - Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.

- Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: Restoration as required in the Vegetation Management Requirements for approved tree removal.
- Refusal to remove an unapproved, dilapidated, or unsafe structure: Removal of the structure from the Project property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a set management fee of $1,000, is paid.
- Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

SECTION 5 – SHORELINE STABILIZATION PROGRAM

A. General

All parties desiring to stabilize shoreline or plant shoreline or aquatic vegetation must first contact DE-LS and obtain written authorization prior to beginning any activity/construction inside the Project Boundaries or on Duke Energy property. Shoreline stabilization is encouraged to control soil erosion in high-energy areas. Applicants are encouraged to use bioengineering techniques and landscape plantings before using rip-rap. Seawalls should be the last option for shoreline stabilization. In certain areas, an engineering justification may be required for the use of seawalls (see Figure 5A-1 for Shoreline Stabilization Technique Selection Process). DE-LS may require the applicant to enter into a lease or other form of conveyance and sign a user's agreement to ensure that long-term operation of the facility or use of Project lands and waters does not conflict with DE-LS objectives. (*NOTE FOR ALL NON-PROJECT USE APPLICANTS: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as Shoreline Stabilization. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities*.)

B. Criteria for Shoreline Stabilization

1. Special Rulings – Since every possible scenario can not be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Projection of Property Lines – Property lines will be projected by DE-LS by extending an imaginary line perpendicular to the Project Boundaries at each property corner. These projected lines are determined by bisecting the angle formed by the two lakefront property lines that intersect at each property corner. On reservoirs with local ordinances that dictate property line projections utilizing a different methodology, DE-LS will accept projection in accordance with local regulations with enforcement being the responsibility of the governing entity. Unless the necessary written release is received from the adjoining property owner, no part of the proposed shoreline stabilization (including anchoring systems) may cross the property lines as projected (Figure 4B-1). (*Note: Pier Zones are planning tools used in some developments, but their use does not supersede requirements of the DE-LS SMG, the General Permits in South Carolina, or county or local jurisdiction's requirements in either North Carolina or South Carolina*.)

3. Compliance with Regulations – All stabilization must comply with all local, state, and federal regulations. Also, prior to beginning any activity/construction within the Project Boundaries, the applicant must obtain all necessary governmental permits or approvals, and written authorization from DE-LS, especially for any stabilization activities associated with water willow beds.

4. Clearing to Support Stabilization Projects – Minimal clearing within the Project Boundaries is allowed to create corridors for equipment access for stabilization projects. Access corridors should be incorporated into permanent pier/dock access corridors (i.e., footpaths) where practical. Native vegetation removed to

accommodate construction access for shoreline stabilization shall be replaced in accordance with the Vegetation Management Requirements with native vegetation of a similar species or type.

5. Water Willow Beds – Applicants are encouraged to avoid activities (including stabilization) that could have an adverse impact upon existing water willow beds. Bioengineering is a preferred shoreline stabilization technique and is encouraged, especially in eroded areas associated with water willow beds. Shoreline stabilization activities are limited to the eroded bank and any unavoidable impacts to existing water willow beds, as a result of stabilization installation, require replanting water willow in the impacted area(s). Rip-rap installed below the normal lake level elevation and associated with water willow beds must be limited to one layer deep to allow spaces between the stone for water willow recruitment. Removal of water willow for continued lake access may be allowed, but only for the specific and limited area necessary. Removal of water willow by means of chemical application can only be conducted in accordance with state and federal pesticide application regulations.

6. Rip-Rap Use with Bulkheads – A layer of rip-rap (Class B or larger) extending six feet lakeward from full pond must be placed along the entire base of all bulkheads (except for loosely stacked, dry-stacked boulder walls). The six foot requirement for steep slopes is measured vertically. For more gradual slopes where the vertical measurement would prove impractical, a horizontal measure may be used (Figure 5B-2).

7. Bioengineering Vegetation – The types of plantings used in bioengineering and landscape-planting projects should be native to North Carolina and South Carolina, and must be reviewed and approved by DE-LS prior to introduction.

8. Seawalls – Seawalls are not allowed in areas with an average eroded bank height of less than three feet.

9. Bioengineering – Proposals for stabilization where the eroded bank height is less than two ft may use approved bioengineering technique and enhanced rip-rap technique only (see Figure 5B-3 for example of acceptable enhanced rip-rap technique).

10. Length of Shoreline to be Stabilized – An individual permit from the SCDHEC for activities in South Carolina and the US Army Corps of Engineers for activities in North Carolina is required for stabilization that exceeds 500 linear ft of shoreline. Multiple applications for less than 500 ft of stabilization activities on a parcel exceeding 500 linear ft will not be accepted within a five year timeframe.

11. Stabilization of Banks Three Ft or Higher – Stabilization of eroded banks that are three ft in height or higher or that are not associated with water willow beds must include Class B or larger size rip-rap with filter cloth and/or significant live staking, planting, or other forms of bioengineering within the rip-rap.

12. Bank Reshaping – Stabilization of eroded banks that are three feet in height or higher may be considered for bank reshape by either cut or fill techniques, provided the following:

    a. The stabilized bank uses a combination of rip-rap (not installed any higher than one foot above full pond) and bioengineering techniques;

b. The cut or filled area, above the height of the rip-rap, is stabilized using vegetation in density and composition similar to other naturally vegetated areas in the vicinity of the stabilized shoreline;

c. The toe of the rip-rap is vegetated if the lower limit of the rock provides a stable beach-shelf at an elevation two to four feet below full pond elevation;

d. The work can be conducted in accordance with all applicable buffer regulations; and

e. The amount of cut or fill does not substantially alter the full pond contour, is strictly limited to only that necessary to provide a stable angle for rip-rap and revegetation, and is specifically quantified in the written authorization from DE-LS for the project.

13. Timeframe for Stabilization – No stabilization is allowed from March 1 through June 30 in areas identified as Impact Minimization Zones in Duke Energy's SMP.

14. Impact Minimization Zones – Stabilization in Impact Minimization Zones requires review and approval by the applicable state wildlife agency. Mitigation may be required on a case-specific basis by the wildlife agency.

15. 50-ft Environmental Offset – New or expanded stabilization activities (excluding bioengineering) may not be undertaken within the 50-ft Environmental Offset (Figure 5B-4) associated with an Environmental classification identified in the SMP.

16. Materials – Tires, scrap metal, crushed block, construction/demolition debris, or other types of material that are not aesthetically acceptable are not allowed for stabilization.

17. Rip-rap – Rip-rap use should be limited to only that necessary to adequately stabilize the existing eroded bank. Rip-rap must be confined to the area between six feet below the full pond elevation and full pond elevation except where the entire placement is above the FERC Project Boundaries or where severely eroded banks must be sloped back or terraced to provide minimum bank stability and where permissible based on any local or state buffer requirements.

18. Deadline for Completing Construction – The construction of any facility must be completed as described in the approved application within 12 months from the date of application approval by DE-LS. Failure to complete construction within this 12-month period will require the applicant to file a new application within the then-current guidelines. The filing will include any applicable fees and security deposits.

19. Applicant – The applicant must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip, or have the written permission of the underlying property owner on water rights tracts (i.e., Duke Energy only has a flowage easement). DE-LS will hold the applicant fully responsible for ongoing adherence to the SMG and all activities associated with the permitted use (including maintaining structures in good repair). This responsibility runs with the land and transfers automatically to any subsequent owners or lessees of the adjoining land.

20. Review of Associated Applications – In a development proposed to provide Residential Marina access, the developer must submit a complete application and receive written confirmation from DE-LS that the application has been

submitted to Duke Energy's Law Department for preparation in filing with the FERC (if applicable), or a copy of the homeowner's covenants and the final recorded subdivision plat, approved by the county or local jurisdiction's planning and zoning office, must be submitted acknowledging the location of the planned facilities prior to DE-LS reviewing applications for lake use activities under the Private Facilities, Excavation Miscellaneous Reservoir Uses and Shoreline Stabilization programs.

C. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally-licensed hydroelectric project (e.g., Catawba-Wateree and Keowee-Toxaway Projects) is a privilege that can only be granted with authorization from the Licensee. Duke Energy supports use of the Project lands and waters for a variety of activities, provided the use meets the regulatory requirements of the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS prior to initiating these revised guidelines, which are not consistent with the requirements as contained herein. These structures may be maintained although their use does not conform to the current guidelines. When it becomes necessary to rebuild (see Glossary definition of *Facility Rebuild*) a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

D. Consequences for Violations

1. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. Consequences for violations will include one or more of the following:

- Unwanted delays;
- Loss of security deposits;
- Suspension or cancellation of approved applications;
- Increases in fees;
- Modification or removal of non-complying structures and restoration of disturbed areas at the owner's expense; and
- Loss of any consideration for future reservoir use applications.

2. Violation Examples – Examples of specific violations and their applicable penalties include the following:

- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: Restoration as required in the Vegetation Management Requirements for approved tree removal.
- Refusal to remove an unapproved, dilapidated, or unsafe structure: Removal of the structure from the Project property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a fixed management fee of $1,000, is paid.
- Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

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SECTION 6 – MISCELLANEOUS RESERVOIR USES PROGRAM

A. General

The following section addresses less frequent types of requests received by DE-LS for uses within the Project Boundaries or on Duke Energy property. Applicants for many of these activities and other activities that may affect Duke Energy property must first contact DE-LS and obtain written authorization prior to beginning any activity/construction inside the FERC Project Boundaries or on Duke Energy property. Application forms and supporting information from the other Lake Use Permitting Programs will be used where applicable for these requests. There may be instances where no application form or other documentation exists that can be used to process a request and in such cases, an applicant may be required to submit a letter of application for the proposal. DE-LS may require the applicant to enter into a lease or other form of conveyance and/or sign a user's agreement to ensure that long-term operation of the facility or use of Project lands and waters does not conflict with DE-LS objectives. Since every possible scenario cannot be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines. (***NOTE FOR ALL NON-PROJECT USE APPLICANTS****: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as those for Miscellaneous Reservoir Uses. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities*.)

B. Uses Controlled by Duke Energy

1. Advertising Signs – Advertising signs within the Project Boundaries will not be authorized, except for inconspicuous manufacturer's labels on permitted structures or temporary "For Sale" signs on boats docked at Duke Energy-approved structures.

2. Inflatable Recreation Equipment – Duke Energy will not authorize the use and placement of any large water-based recreational equipment (see Glossary to differentiate between *Water-based Recreational Equipment* and *Water Toys*) within the Project Boundaries. Existing items considered to fall within the definition of water-based recreational equipment are not authorized and must be removed from within the Project Boundaries and Duke Energy property.

3. Fish Attractors – Duke Energy does not object to the placing of fish attractors made of natural woody material (e.g., brush, Christmas trees) or PVC that are securely tied together and properly anchored so as not to become a hazard to navigation and to remain: 1) at a depth greater than the *Critical Reservoir Elevation* (CRE) (see Glossary) on the specific lake; 2) covered by an approved boat docking facility; or 3) in close association with an approved pier. Nylon rope should be used to tie the materials together and for connecting materials to the anchor. Anchors should consist of concrete blocks or other suitable weight. No materials that are environmentally unacceptable (e.g., car batteries, tires) should be used for anchors or as cover materials.

   Shallow water fish attractors may be placed by wildlife resource agency personnel or individual property owners adjoining the Project Boundaries subject to the following conditions. Attractors may be placed either (i) underneath the

structure or (ii) in shallow water areas associated with a pier, but not directly underneath the structure, provided the attractor: 1) is within 20 ft of the structure; 2) does not extend lakeward any further than the farthest portion of the structure; 3) does not cross the lot lines of the adjoining property, projected lakeward perpendicular to the shoreline; and 4) does not block navigation. (*Note: These requirements are not intended to conflict with trees that fall into the Project Boundaries and provide fish and wildlife habitat and are not a hazard to navigation*.) Applications are made by letter from the applicant.

4. Special Events on Duke Energy Public Access Areas – Permission to use a Duke Energy public access area for a special event (event) (e.g., fishing tournaments, public festivals, boat race headquarters) will be reviewed on a case-by-case basis, and may be approved, provided that:

   a. The applicant applies by letter to DE-LS.

   b. Applications must include a complete narrative description of the event and a graphic site plan for the proposed use of the access area.

   c. With the exception of fishing tournaments, the footprint of the proposed event occupies no more than 50% of the functional surface area of the access area.

   d. The access area remains open for use by the general public for boat launching during the full extent of the event.

   e. The event is not exclusive to any user group.

   f. All trash and debris is removed from the access area as needed during the event and, at a minimum, on a daily basis, and at the end of the event.

   g. Public restrooms (e.g., Port-a-Jons) are provided by the applicant if required by Duke Energy or other regulatory agencies.

   h. Vendors of food, concessions, souvenirs, etc. may be permitted on a case-by-case basis as determined by Duke Energy in its sole discretion. The applicant must specifically identify proposed vendors/vendor areas by type in the narrative description and on the site plan for the proposed event.

   i. It is the applicant's responsibility to ensure that the proposed use of the access area complies with all local, state, and federal guidelines/ordinances.

   j. All required permits are the responsibility of the applicant and copies must be provided to Duke Energy to initiate Duke Energy's review of the application. Specifically, written approval by the applicable state wildlife resource agency must be provided to Duke Energy to initiate Duke Energy's review of the application. Wildlife resource agency and DE-LS review will include consideration of potential conflicts with previously scheduled events, potential impact of the proposed use on the primary function of the access area, potential site impacts, and other factors. Additional resource agency consultation may also be required as determined by Duke Energy.

   k. The applicant executes a lease agreement with Duke Energy with terms, including liability indemnification and insurance requirements, and pays any applicable fees, as specified by Duke Energy.

5. Heat Exchange Coils for Heat Pumps (Geo-thermal Systems) – DE-LS may authorize these structures, provided they do not cause a safety, navigational or environmental hazard. The coils must be anchored to the lakebed and located at

or below the *Critical Reservoir Elevation* (CRE) (see Glossary) on the specific lake unless attached underneath an existing permitted facility in such a manner that the coils and return/supply line will not become a safety, navigational or environmental hazard. All supply/return piping not attached underneath an existing permitted facility must be buried in accordance with the guidelines for submarine utility lines included in the Conveyance Program and located adjacent to the confines of the applicant's project-front property. Applications are made by letter from the applicant.

6. Minor Water Withdrawals – DE-LS may authorize a single irrigation pump for private home use, provided the pump has a rated horsepower of 2 hp or less and is used exclusively for the adjoining project-front lot. Applications are made by letter from the applicant. DE-LS may also authorize small water intakes that do not exceed a maximum instantaneous withdrawal rate of 1 million gallons per day (MGD) within the Conveyance Program (filing with the FERC typically not required). All minor water withdrawals should, to the maximum practicable extent: (a) use passive screens; (b) provide screen openings not to exceed one centimeter; and (c) provide a maximum intake velocity of 0.5 fps or less. For waters with anadromous fish, the applicant must consult with appropriate federal and state resource agencies and determine the appropriate intake and screen design specifications. Additionally, all minor water withdrawals must meet the requirements for submarine utility lines included in the Conveyance Program unless the intake line and intake head are attached underneath an approved facility (e.g., private pier, marina slip). (*NOTE: Major water withdrawals include both single and cumulative water withdrawals exceeding a 1 MGD maximum instantaneous withdrawal capacity. These larger withdrawals must be approved under the Conveyance Program and require FERC approval. Additionally, in North Carolina, withdrawals greater than or equal to 100 thousand gallons per day require registration with the NCDENR-Division of Water Resources*.)

7. Satellite Dishes – DE-LS will not authorize these facilities to be located within the Project Boundaries of a reservoir.

8. Ski Ramps/Slalom Courses – DE-LS may authorize ski ramps, slalom courses, and other similar structures, provided: 1) the state wildlife resources agency approves of the activity; 2) the facility and its use will not impact areas identified as Environmental on the SMP; 3) SCDHEC approval is obtained in South Carolina; 4) there are no objections from adjacent property owners; and 5) the applicant complies with the terms and conditions of the "User's Agreement". Applications are made by letter from the applicant.

9. Private Swimming Areas – DE-LS will not authorize private individuals to "rope off" or exclude the public from a portion of the Project area for the purpose of creating a private swimming area.

10. Concession Sales at Public Access Areas – DE-LS will not allow any sales on the access areas except for areas under lease to an entity or concession sales that are in association with an approved special event, identified and managed by the event sponsor.

11. Special Use Facilities – These are facilities which are similar in nature to those permitted under the Private Facilities Program, but are not associated with a single-family type private residence and are used as part of the operation of an organization or business. The types of facilities that may be included are piers,

boat slips, boat shelters, and covered boat slips, etc. Some examples of organizations that use this type of facility are hunting clubs, ski clubs, churches, industries or businesses for employee recreation areas, and agencies for monitoring piers, etc. These types of facilities will be permitted using the Private Facilities Program and Conveyance Program guidelines (including application forms) to the maximum extent practicable. Applicants may be required to lease the underlying Project property and may be assessed annual user fees.

12. Business Staging Areas – These are facilities or areas along the shoreline that are used to support a business directly associated with one of the lake use permitting activities (e.g., loading ramp for shoreline stabilization, pier to moor construction/excavation equipment, barge mooring area, pier assembly area), temporary staging areas for public infrastructure construction and maintenance, and temporary sales piers for large developments. These types of facilities will be permitted using the Private Facilities Program and Conveyance Program guidelines (including application forms) to the maximum extent practicable. Applicants will be required to enter into a conveyance agreement (for operations that exceed two years in duration); sign user's agreement letter(s); obtain individual permits for activities outside the scope of the General Permits; obtain all necessary local, state, and federal permits; and pay annual user's fees. Areas used for a period greater than two years will be required to complete a Conveyance Application including filing a notification with the FERC.

13. Wildlife Enhancement Activities – DE-LS may authorize wildlife enhancement activities such as wood duck boxes and other similar structures, regardless of the shoreline classification, provided the activity does not pose a hazard to public safety or navigation, the state wildlife agency approves of the activity, and there are no objections from adjacent property owners. In South Carolina, approval is obtained from SCDHEC. Applications to Duke Energy are made by letter from the applicant.

14. Project Operation and Public Service Facilities – This category includes new and existing facilities needed to directly support comprehensive management of the lakes used by Duke Energy or public agencies (e.g., rescue squads; Power Squadron and US Coast Guard Auxiliary emergency support facilities; state wildlife agency management facilities; police department non-recreational facilities; Duke Energy mosquito control facilities; Duke Energy hydro, fossil, and nuclear power non-recreational facilities) to carry out their official responsibilities. The construction of new facilities and the maintenance of existing facilities may have more flexible permitting requirements, provided the applicant can provide justification based on a legitimate need and not just a preference. Applications are reviewed on a case-by-case basis and consultation of the Sr. Lake Services Representative(s) is required.

15. Explosives – The limited use of explosives may be allowed to facilitate the removal of man-made structures (i.e., bridge pilings, intake structures), provided their use can be substantiated based on need rather than preference and the use adheres to all local, state, and federal regulations. The use of explosives within the Project Boundaries supporting excavation activities will be allowed for public need projects where the applicant is usually a public entity (e.g., municipality, state transportation department, utility line owner supporting a regional public need) and there is no other practicable alternative. DE-LS must be provided the appropriate documentation to ensure compliance with all regulations prior to the

use of any explosives. Any other uses of explosives to excavate within the Project Boundaries will not be authorized.

16. Dry Hydrants – Fire hydrants that draw water from the reservoir for fire protection may be reviewed by letter from the applicant. The applicant must be an official representing a municipal, state, federal or volunteer fire fighting organization. The applicant must indicate the location, pipe diameter, and fire department/district being served and responsible for maintenance of the structure. The intake line must meet the requirements for submarine utility lines under the Conveyance Program to the maximum practicable extent. Unless attached to an existing facility in such a manner that the intake will not become a safety or navigational hazard, the intake should be located at/below the CRE required for any existing Large Water Intakes used for Public Water Supply, industrial or regional non-hydroelectric power plant operation on the specific lake. This depth requirement is necessary to provide for the reliability of the hydrant even during drawdown conditions and to ensure the intake does not pose a hazard to navigation and public safety. In cases where lake topography makes meeting the requirements for submarine utility lines impracticable, the intake and/or intake line may be considered at a lesser depth, provided the applicant can provide a Lake Facility Safety Plan that clearly marks along the shoreline and with a buoy(s) the location of the intake and/or intake line. Standardized signs 2 ft by 3 ft in dimension with the wording “Danger Stay Clear, Underwater Fire Intake”, will be provided by DE-LS and must be installed conspicuously and maintained along the shoreline by the applicant. Additionally, at least one, 10-inch diameter cylindrical buoy, provided and maintained by the applicant, that extends a minimum of 36 inches above the surface of the water with the word “Danger” and the open diamond shape, must remain stationed at all times lakeward and no further than 10 ft of the dry hydrant line intake structure.

C. Uses Under the Control of Other Agencies

1. Boat Race Courses – Under the control of the U.S. Coast Guard.
2. Kites, Parasails, Ultra-light Aircraft, and Hang Gliders – If regulated, under the control of the Federal Aviation Administration (FAA) while airborne and state wildlife agency and/or local planning and zoning office while on water.
3. Navigational Aids – Under the control of the state wildlife agency and/or applicable marine commission.
4. No-Wake Buoys – Under the control of applicable marine commission and state wildlife agency.
5. Seaplanes – Under the control of the FAA while airborne and state wildlife agency and/or local planning and zoning office while on water, if regulated.
6. Vending Operations on Water – Under the control of the county Health Department.
7. Net Pens and Aquaculture Operations – These uses are not authorized.

D. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally-licensed hydroelectric project (e.g., Catawba-Wateree and Keowee-Toxaway

Projects) is a privilege that can only be granted with authorization from the Licensee. Duke Energy supports use of the Project lands and waters for a variety of activities, provided the use meets the regulatory requirements of the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS, prior to initiating these revised guidelines, which are not compatible with the requirements as contained herein. These structures may be maintained although their use does not conform to the enclosed guidelines. When it becomes necessary to rebuild (see Glossary definition of *Facility Rebuild*) a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

E. Consequences for Violations

1. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. Consequences for violations will include one or more of the following:

   - Unwanted delays;
   - Loss of security deposits;
   - Suspension or cancellation of approved applications;
   - Increases in fees;
   - Modification or removal of non-complying structures and restoration of disturbed areas at the owner's expense; and
   - Loss of any consideration for future reservoir use applications.

2. Violation Examples – Examples of specific violations and their applicable penalties include the following:

- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: Restoration as required in the Vegetation Management Requirements for approved tree removal.
- Refusal to remove an unapproved, dilapidated, or unsafe structure: Removal of the structure from the Project property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a set management fee of $1,000, is paid.
- Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

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SECTION 7 – GENERAL POLICIES THAT ARE NOT LAKE-SPECIFIC

The policies stated in this subsection apply to all lakes within the Catawba-Wateree Project, unless specifically stated otherwise.

A. Lake Uses Allowed Without Specific Duke Energy Written Approval

There are some lake uses that are implicit parts of Duke Energy's lake access philosophy and therefore do not require any specific written permission from Duke Energy. These *implicit uses* (see Glossary) include:

1. Ingress and Egress – Ingress and egress by adjoining property owners to view the lake or to access Duke Energy approved lake use facilities either for their use or for *facility maintenance* or *facility emergency repair* (see Glossary for differences between *Facility Maintenance, Facility Emergency Repair, Facility Rebuild*, and *Facility Expansion*.)
2. Management of Dead Trees – Ability for adjoining property owners to remove dead trees consistent with any local buffer ordinances or habitat protection requirements provided by the resource agencies.
3. Public Recreation – Pursuit of any lawful public recreation activity within the FERC Project Boundaries of a licensed lake or the full pond contour of an unlicensed lake that does not violate Duke Energy's Public Safety Plan, create a public nuisance as declared by law enforcement officials, create a public health/safety hazard, or otherwise endanger people or trespass on or damage property. Exceptions are any public recreation activity specifically identified as not being allowed in this document or that requires Duke Energy's written approval.
4. Public Access Areas – DE-LS will allow uses of the Duke Energy-owned public access areas for boat launching and bank fishing with the following activities prohibited:
    a. Littering;
    b. Consuming alcoholic beverages or other controlled substances;
    c. Destroying or defacing property or harassing wildlife;
    d. Disorderly conduct;
    e. Parking in non-designated areas;
    f. Discharging firearms;
    g. Operation of motorized trail bikes or off road vehicles;
    h. Open fires (unless allowed by the leasing agency or facilities are specifically provided by Duke Energy for this purpose); and
    i. Camping (unless allowed by the leasing agency or facilities are specifically provided by Duke Energy for this purpose).

B. Lake Uses That Are Not Authorized

Considering the objectives of these SMG as stated in the introduction, a number of potential lake uses will not be authorized. The following list includes some of the more frequently requested lake uses that will not be approved within the full pond contour, the FERC Project Boundaries, or within any Duke Energy-owned peripheral strip of a Duke Energy-operated lake. (*Note: Some of these uses have been allowed by Duke Energy in the past. Applications for rebuilds or permit/lease/easement transfers or renewals of any previously approved facilities for the listed uses will be reviewed on a case-by-case basis and require approval, at a minimum, by the management of DE-LS*.)

1. Septic tanks, septic drain lines and drain fields, toilet facilities, sinks, water faucets, showers, or any other type of device that could produce a wastewater discharge, except for certain Marina Facilities, Public Recreation Facilities, or Conveyance Facilities necessary for waste disposal (e.g., marine pump-out facilities);
2. Stormwater inlet pipes and their associated settling basins;
3. Washing (except with biodegradable detergents specifically formulated for use in reservoirs), painting, or resurfacing of vehicles or watercraft;
4. Any portion of a private dwelling;
5. Any facility including, but not limited to, porches, patios, decks, driveways, or other structures(s) not permitted as part of a Private Facilities Permit;
6. Swimming pools, except at Public Recreational Facilities specifically approved for that use;
7. Camping, except at Commercial Marina Facilities or Public Recreational Facilities specifically approved for that use;
8. Littering or dumping of trash and debris;
9. Abandonment of personal property including, but not limited to, vehicles, watercraft, boat trailers, lake use facilities, and building materials;
10. Pens, kennels, or other facilities for the housing and care of pets;
11. Fences, except as necessary to confine livestock watering to a small area of the shoreline;
12. Net pens and aquaculture operations;
13. Placement of structures designed to submerge and then resurface, except for buoys for ski slalom and boating courses, and boat hoists associated with an approved facility;
14. Wells, except where necessary to support an approved Project Use Facility;
15. Rope swings, cables, platforms, or springboards used for diving and swimming that are not associated with an approved facility or located outside of Public Recreation or Commercial Marina Facilities specifically approved for that use;
16. Any use that violates an applicable federal, state, or local law or regulation; and
17. Any other use that is determined to be unacceptable by Duke Energy, in its sole discretion.

C. Authority and Responsibility of Lake Use Permit Applicants

Except for the implicit uses described above, all other lake uses must be authorized in writing by Duke Energy through one of the lake use permitting programs. Occasionally, questions arise concerning what exactly the applicant is getting when they receive an approved lake use permit from Duke Energy. Duke Energy has incorporated some type of user's agreement/permit, lease, or easement document in the vast majority of lake use permits the company issues in an effort to ensure applicants understand what they do/do not own, their maintenance responsibilities, and their authority with regard to controlling actions of others within the lake area. The following information also helps clarify those issues.

1. Responsibilities of Applicant – The applicant is the owner of the approved lake use facility during construction and once it is complete. Duke Energy holds the applicant completely responsible for:

    a. The safety of themselves and others they allow to use the facility (i.e., use at your own risk);

    b. Payment of any applicable fees and taxes;

    c. Maintaining the facility in a state of good repair;

    d. Ensuring the facility does not create a public nuisance or public health/safety hazard (including marking facilities during and after construction to reduce hazards to navigation and public safety);

    e. Ensuring the facility remains in compliance with all applicable federal, state, and local regulations and codes, as well as directives of the FERC, Duke Energy, and any jurisdictional agency, including modification of the facility in the future if necessary; and

    f. Removing the facility in its entirety and restoring the disturbed area as necessary at their own expense should the facility's use be discontinued, or if directed to do so by Duke Energy or any entity having the legal authority to do so.

2. Transfer of Applicant Responsibilities – If ownership of the adjoining property changes, then responsibility for the lake use facility also changes. Facility owners must contact Duke Energy to get their applicable permits transferred to the new owner when property ownership changes. Note that some types of lake uses require written transfer of lease/easement/user's agreement/permit documents when property ownership changes.

3. Non-Structural Lake Uses – Some types of approved lake uses (e.g., excavations) do not include any structures. The applicant is still responsible for ensuring the approved use does not create a public nuisance or public health/safety hazard, and that it is modified as needed in the future to comply with any applicable regulations or Duke Energy lake management requirements.

4. Land Ownership – Duke Energy lake use permits do not transfer title to any land.

5. Cancellation of Lake Use Permits – The Private Facilities and Shoreline Stabilization Programs' permits are simply permission to use the applicable land for construction, operation, use, and maintenance of the approved structure. Consistent with the approval, the permit may be cancelled by Duke Energy and

the permittee would be required to remove the structure and restore the disturbed area at their expense.

6. Leases and Easements – The Marina Facilities Program and Conveyance Program have leases or easements (except for water rights tracts which have permits/user's agreements). These programs generally result in much larger facilities or facilities with a much greater potential for impact than the Private Facilities or Shoreline Stabilization Programs. To limit company liabilities and comply with the Standard Land Use Article, Duke Energy uses leases, permits and easements to assign the minimal property rights necessary to construct, operate, use, and maintain the approved facility. These programs will also have a specified term and a cancellation clause covering what happens if the agreement is cancelled or not renewed at expiration.

7. Public Access – Lake use permit holders have the authority to prevent others from trespassing on the structures they have built. They do not, however, have any authority to impede anyone from pursuit of the lawful public recreational enjoyment of FERC Project lands and waters. Except as specified otherwise in this document or other Duke Energy documents (e.g., Public Safety Plan), anyone may fish around/under structures built by others, may walk/wade/fish within the FERC Project Boundaries or any Duke Energy-owned peripheral strip, boat in the lake's waters, etc., without having to obtain permission to do so.

D. Storm Damage and Facility Repair/Replacement

A facility may be entirely rebuilt and consideration given to waiver of any application filing fees if it can be substantiated that the reason for the rebuild is the result of an act of God (e.g., significant high water, high wind, heavy snow, fire as a result of a direct lightning strike) that destroys enough of a facility that it can no longer be used and cannot be repaired within what is considered a maintenance activity. A documented, written application must be made to DE-LS within six months following the verifiable date of the event. Consideration for complete restoration will only be given to permitted facilities that complied with the SMG in effect (if applicable) at the time of construction. The need to obtain written release from an adjoining property owner if the original facility encroached across the projected property line may not be required especially if there is no practicable alternative for reconstruction of the facility within the current guidelines in another location. Consideration will not be given to facilities that have been previously identified and not repaired as part of the Structure Renovation Program or other written directives (e.g., Stop-Work Notice, navigation hazard/public safety notification) from DE-LS.

E. Use of Islands

For FERC licensed lakes, islands are normally fully within the FERC Project Boundaries, and the FERC's general policy for maximizing public recreation uses of Project lands would apply. The islands are within the FERC Project boundaries on all Duke Energy-owned, licensed lakes except under the existing license issued in 1958 for the Catawba-Wateree Project. These guidelines apply to islands on the Catawba-Wateree Project regardless of whether the islands are included as Project lands. Their location makes them attractive stops for boaters, yet their small size usually intensifies concerns about user impacts and waste disposal. Public recreation opportunity support is the primary intended use of all Duke Energy-owned islands, except for certain Duke Energy-owned

islands with special management considerations (e.g., cultural resources, heron rookeries, safety concerns, etc.).

Duke Energy allows the boating public to pursue lawful recreation activities on all Duke Energy-owned islands at the user's own risk, provided that:

1. Fires and Camping – No fires are built and no camping is conducted outside of specifically approved facilities that are managed by a Non-Duke Energy entity that has leased the site for public recreation uses.

2. Nighttime Use – Other than hunting and nighttime bank fishing, no uses occur between 30 minutes after sunset and 30 minutes before the following sunrise, unless specifically allowed by a non-Duke Energy entity that has leased the site for public recreation uses. (*Note: In Mecklenburg and Gaston counties, per the request of local law enforcement, islands are posted as No Trespassing from sunrise to sunset including prohibiting nighttime bank fishing and hunting*.)

3. Site-specific Restrictions – Use of the island has not been restricted for other reasons (e.g., environmental sensitivity, cultural resource protection, history of unruly gatherings).

4. Island Users' Responsibilities – Island users remain responsible for their own safety and activities including, but not limited to:

   a. Taking trash with them or depositing it within trash receptacles provided by a non-Duke Energy entity that has leased the site for public recreation, environmental/scenic protection, or cultural resource protection;

   b. Taking personal property with them;

   c. Ensuring they do not create a public nuisance or public health/safety hazard as declared by a law enforcement or public health official having jurisdictional authority;

   d. Ensuring no trees are cut;

   e. Ensuring no structures are built, unless specifically authorized in writing by DE-LS; and

   f. Ensuring no removal of natural vegetation or cultural resources (artifacts).

F. Hunting and Trapping

1. Compliance with Regulations – Both hunting and trapping are public recreation activities. Hunting and trapping may be pursued at the user's own risk within the full pond contour or on Duke Energy-owned islands within lakes operated by Duke Energy. All such hunting and trapping must be done in accordance with the applicable federal, state, and local regulations.

2. Facilities – Except for construction of duck blinds (for waterfowl hunting), no other facility construction will be permitted within the Project Boundaries for the sole purpose of supporting hunting or trapping.

3. Duck Blinds – Duck blinds must be constructed within and as close to the full pond contour as reasonably attainable. In no cases shall they extend beyond one-third the distance to the opposite shoreline or 120 ft from the full pond contour, whichever is more restrictive. Duck blinds that are located such that water depth would be greater than six ft with the lake at its full pond level must

also be fitted with reflectors. Duck blinds must also include a conspicuously located weatherproof marking that clearly identifies the name, address, and phone number of the individual or group responsible for the blind. Duck blinds may be used by any hunter(s) at any time allowed by law and are used on a first-come, first-served basis. Duck blind owners, however, must ensure the blind is maintained in a state of good repair and must remove it in its entirety if it's not planned to be used during the next waterfowl season or if directed to do so by Duke Energy or the state wildlife agency.

4. Traps – Traps must not injure other lake users or pets owned by lake neighbors. Leg-hold traps and snares are specifically prohibited. Traps must be checked regularly during use according to state law and must be removed when not in use or when directed to do so by Duke Energy or the state wildlife agency. Traps must also be fitted with a weatherproof marking providing the name, address, and phone number of the responsible party.

G. Handling of Lakeside Buffers, Building Setbacks, and Minimum Lot Sizes

Maintenance of vegetated lakeside buffers is an important factor in protecting and enhancing a lake's values. Buffers primarily filter runoff and can help reduce shoreline erosion when vegetation extends to the shoreline, thus helping to reduce sedimentation and protect water quality. They also provide wildlife corridors and habitat and can enhance recreational opportunities.

1. With regard to lakeside buffer policies, Duke Energy:

   a. Supports maintaining existing buffers in their natural vegetated state, except where necessary to operate its electric business; where limited pruning, topping, thinning, or clearing is necessary to facilitate reasonable access to Duke Energy-approved, water-dependent structures; to provide nominal width pathways, trails, and walkways to allow recreation access or to provide reasonable views of the water from adjoining properties; all such vegetation removal being done in accordance with the Vegetation Area Management Requirements (see Section 8) and any applicable ordinances.

   b. Encourages lake use permit applicants to plan their work to avoid and minimize buffer impacts to the maximum practicable extent.

   c. Reserves the right to delay or refuse lake use permit approval, cancel existing permits, or take other necessary actions when adjoining property owners violate buffer restrictions or the vegetation removal or erosion control criteria within local buffer ordinances.

   d. Will not allow vegetation removal in some specifically designated areas (e.g., areas classified as Environmental on the SMP) to support non-public projects.

   e. Participates in development of local buffer ordinances.

   f. Will not support releasing adjoining property owners from buffer regulation requirements including, but not limited to, providing release statements, unless it is very clear that every effort has been made by the adjoining property owner to alter their plans to avoid/minimize the buffer disturbance.

2. With regard to building setbacks and minimum lot size policies, Duke Energy will not become involved in the practice by some jurisdictions of using land within the

full pond contour of a Duke Energy-owned lake as land area for consideration toward meeting minimum lot size or building setback regulations, even if Duke Energy only holds a flowage easement on the lakebed tract in question.

H. Native Shoreline and Aquatic Vegetation Management

1. Shoreline and aquatic plants are important components of the aquatic life in lakes, rivers, and streams. They provide a number of contributions to the overall health of a water body including:
   a. Food and shelter to many shoreline and aquatic animals;
   b. Use of nutrients from land surface runoff, thus helping to maintain good water quality;
   c. Improved clarity by allowing suspended silt and clay particles to settle out; and
   d. Increase dissolved oxygen levels in the water and thus supporting aquatic life.
2. Growth of native aquatic and shoreline plants is preferred to the growth of exotic (i.e., non-native) species.
   a. Shoreline stabilization using native plants, in areas where shoreline slope and wave energy are compatible with plantings, will normally be successful if the activity is carefully planned and carried out.
3. Duke Energy supports the planting of <u>native North Carolina and South Carolina</u> plant species within and adjoining the full pond contours of Duke Energy-owned lakes for the purposes of shoreline stabilization or establishing or restoring wildlife/fisheries habitat.
4. Duke Energy <u>will not authorize</u> the planting of any plant species within the full pond contour of any Duke Energy-owned lake or on Duke Energy-owned shoreline property that is not native to North Carolina and South Carolina or is not otherwise approved by Duke Energy.
5. Plans for the introduction of vegetation within the full pond contour of a Duke Energy-owned lake or on Duke Energy property must be submitted in writing to DE-LS. Plans must contain a species list of the proposed plant species to be used and a planting diagram and schedule. Plant species selection and schedules should consider site conditions to optimize survival.
6. Duke Energy will not authorize removal of native aquatic vegetation unless it is necessary for continued lake access (e.g., swimming areas). In these specific instances, removal may be allowed, provided that removal of only vegetation necessary for limited access in specifically identified areas is approved in writing by DE-LS.

I. Contractor Use of Duke Energy-owned Access Areas

Duke Energy is required under the license granted by the FERC for the FERC licensed Projects to arrange for the construction, maintenance, and management of public access areas. As licensee, one of Duke Energy's primary responsibilities for management of these areas is to ensure that any activity at the access areas does not prohibit or

interfere with the public's use of the area for boating, fishing, or other authorized recreational uses.

Duke Energy recognizes the service provided by lake construction contractors to project-front property owners (e.g., commercial marina operators, individual pier owners) for facility construction/maintenance and shoreline stabilization activities, and the necessity for lake access for these activities while minimizing environmental impacts. Duke Energy further recognizes that these public access areas provide a convenient means for lake construction contractors to obtain access to the lakes to carry out their activities. However, contractors' use of access areas can potentially interfere with the public's use of the access areas, cause damage to the areas, and create liability concerns for Duke Energy. Therefore, conditional use of these areas is primarily being offered to allow a point of access to the lake with only very limited availability of the site for minor approved staging activities.

To ensure that contractors' use of the public access areas does not prohibit or hinder the public from using the access areas in the manner intended and to address the other items noted above, DE-LS has implemented a number of requirements regarding contractors' use of the public access areas. In general, authorization for generic limited use of the area may be requested for an entire year. Otherwise, special permits with specific concessions will be required for more complex work activities. Duke Energy will only consider allowing use of the public access areas to provide a point of access for individual construction activities if the respective lake construction contractor complies with the following requirements:

1. Metal Cable Anchors – No cable anchors will be allowed in any location on the access area.

2. Launching Ramps – Damage to ramps may occur as a result of contractors using these ramps to load or unload heavy equipment and materials such as tractor-trailers, loaders, tractors, pole-trailers, tandem-axle trucks, etc. These ramps were designed and built for boat launching and retrieval only and are generally not intended to support heavy equipment. These ramps are not to be used for any activity other than that included in the Special Use Permit. In no event shall rip rap or other rock be loaded, unloaded, or transferred on the access area, including the boat ramp(s).

3. Prohibited Activities – DE-LS has allowed the access areas to be used as staging areas, as a courtesy to lake construction contractors and adjoining property owners, as long as the work being performed did not interfere with public recreation and access. Duke Energy and the North Carolina Wildlife Resources Commission (for Duke-owned access areas in NC) will continue to allow permitted use of these areas with the understanding that the following work practices are not allowed:

    a. Parking commercial vehicles – All contractor vehicles must be parked in designated spaces. Parking will be allowed in the turnarounds long enough to unload material, at which time the vehicle will need to be moved to a designated space.

    b. Leaving docks/equipment unattended – Docks and equipment will not be left unattended at the access areas at any time.

c. Restricting public access – Structures and/or materials will not be placed on the access area or within the lake in a manner that restricts recreational use by the public.

d. Using the area during hours of primary recreation – The area shall not be used by contractors from 9:00am–6:00pm on weekends and holidays during the period from April 1 through September 30.

e. Using heavy equipment – Use of heavy equipment is generally not permitted on the access area. Permission is not granted to use the boat ramps for any activity other than that specified in the Special Use Permit.

f. Loading, unloading, or transfer of rip-rap or other rock – In no event shall rip-rap or other rock be loaded, unloaded, or transferred on the access area, including the boat ramp(s).

g. Using the area for more than point of access – Use of the area is primarily for access to the lake. Staging activities are not permitted unless specified and approved by NCWRC in the Special Use Permit.

h. Demolition activities – Debris may be loaded onto trailers for removal from the lake utilizing the boat ramp as a point of access, but demolition activities are prohibited at the access area.

i. Clearing vegetation and other damage – Removal of any vegetation from the access area is prohibited. In no event shall use of the area result in damage to access area facilities including, but not limited to, entrance roads, parking lots, turn-arounds, ramps, piers, pilings, signs, landscaping, and shoreline stabilization (including bioengineering).

j. Encroaching in front of adjoining property – Materials and/or structures shall not encroach across the imaginary projection of the property line between the access area and any adjoining property.

4. Existing Conditions – Contractors are expected to leave the area(s) in the same or better condition as when they arrived by removing all their equipment and materials, and removing any trash and construction debris they generate. Contractors are also expected to immediately report and make arrangements for reimbursement for any damage they cause as a result of utilizing the site. Duke Energy considers commercial use of the areas to be a privilege that can and will be revoked individually or as a whole for any reason if deemed necessary by DE-LS, the applicable wildlife resource management agency, or the access area lessee.

5. Insurance – Contractors must provide each year to DE-LS, prior to long-term access area use, a certificate of insurance endorsed to add the NCWRC (for use of Duke-owned access areas in NC) and Duke Energy as an additional insured including waivers of any right of subrogation of the insurers against the NCWRC and Duke Energy, its officers, directors, and employees. Contractors shall and will require each Subcontractor to (a) furnish properly executed certificates of insurance to DE-LS prior to commencement of work, which certificates shall clearly evidence all coverage's required and provide that such insurance shall not be terminated nor expire except on thirty days' prior written notice to DE-LS; (b) maintain such insurance from the time work first commences until completion of

the work under this agreement; and (c) replace such certificates for policies expiring prior to completion of work under this agreement.

J. Other Uses of Duke Energy-owned Access Areas

As Licensee, one of Duke Energy's primary responsibilities for management of the Duke Energy-owned Access Areas is to ensure that any activity at the areas does not prohibit or interfere with the public's use of the area for boating, fishing, or other authorized recreational uses. Use of these areas by entities in support of a business (e.g., storage of materials or boats), unless allowed as a Special Event or Contractor Use and identified in an application submitted and approved by DE-LS, is prohibited.

SECTION 8 – VEGETATION MANAGEMENT REQUIREMENTS

Vegetation management and maintenance of vegetated terrestrial and riparian areas is an important factor in protecting and enhancing a lake's values. Riparian and terrestrial areas primarily filter runoff and can help reduce shoreline erosion when vegetation extends to and/or below the shoreline, thus helping to reduce sedimentation and protect water quality. Vegetated shorelines also provide wildlife corridors and habitat and can enhance recreational opportunities. Therefore, DE-LS has developed requirements to protect riparian wildlife corridors on shoreline property within the FERC Project boundaries, in consultation with various lake stakeholders and stakeholder teams, as part of the relicensing process for the Catawba-Wateree Hydroelectric Project (FERC Project No. 2232), and with consideration given to impacts to private landowners with property adjoining the FERC Project Boundaries.

These Vegetated Management Requirements apply to lands within the FERC Project Boundaries of the Catawba-Wateree Project:

RESERVOIR	FERC PROJECT #
Lake James	2232
Lake Rhodhiss	2232
Lake Hickory	2232
Lookout Shoals Lake	2232
Lake Norman	2232
Mountain Island Lake	2232
Lake Wylie	2232
Fishing Creek Reservoir	2232
Great Falls Reservoir	2232
Cedar Creek Reservoir	2232
Lake Wateree	2232

A. General

Protection of areas (riparian and terrestrial) for wildlife movement is considered important by state and federal wildlife resource agencies concerned with the potential for development adjoining these environmentally important areas, and consideration should also be given to impacts to private landowners adjoining these areas.

1. The Duke Energy property within the Project Boundaries shall be maintained in a vegetated forested condition, where existing, that is typical of forested areas of the region. A properly vegetated area shall include canopy trees, sub-canopy trees, shrubs, herbaceous plants, and forest floor leaf and humus layers.
2. No clearing, thinning, spraying, planting, or sowing of any vegetation, except for removal of hazardous trees in imminent danger of falling on an individual, a structure or a proposed structure (constructed outside the Project Boundaries), or

removal of non-native invasive plants and poisonous plants, shall be undertaken by any person or party without written concurrence from DE-LS, unless the alteration is consistent with an approved activity authorized by local ordinance or the Catawba River Riparian Buffer Rules in North Carolina. Non-native invasive plant lists can be found on the Internet at the following addresses:

http://plants.usda.gov/cgi_bin/topics.cgi?earl=noxious.cgi

http://www.nps.gov/plants/alien/

B. Vegetation Planting

Protection and enhancement of the important habitat areas can be accomplished by accommodating and supplementing the exiting native vegetation.

1. Vegetation native to the Piedmont region shall be required. (*Note: A sample plant list of commonly acceptable vegetation native to the Piedmont Region is available from DE-LS*.)
2. Native vegetation beneficial to wildlife shall be encouraged.
3. Turf grasses (e.g., fescue, Bermuda) shall not be planted and may not be allowed to become permanently established.
4. Native ground cover other than permanent turf grasses may be planted as an enhancement to existing native vegetation.
5. Permanent grasses (not including turf grasses) and other native vegetative cover may be permitted in conjunction with shoreline stabilization projects with written concurrence from DE-LS.

C. Vegetation Removal and Disturbance – General

Access to the lake over Project lands and waters can be accommodated, provided a primarily vegetated buffer is maintained with limited clearing.

1. Hand-Held Tools – Clearing, thinning, and pruning shall generally be accomplished with hand-held tools.
2. Mechanical Clearing – Mechanical clearing (e.g., bulldozers, backhoes, or other heavy equipment) shall not be used (Note 1) unless in conjunction with a shoreline stabilization project or as a remedial activity, approved by DE-LS, as a result of pest infestations. Disturbance for installation of stabilizing structures shall be restricted to the minimum needed to gain access and install stabilizing structures and shall not include clearing outside of the limits of the stabilization project.
3. Forest Floor – All soil and existing forest floor leaf and humus layers shall remain undisturbed and intact except for the construction of footpaths, authorized clearing, or the minimum disturbance needed to stabilize shoreline or install a DE-LS-approved structure.
4. Footpaths – Footpaths for individual lots shall be no more than four ft wide and should be designed in a winding manner, avoiding trees (> 3 inches *diameter at breast height [dbh]*) (see Glossary) and/or stepped to prevent surface runoff and erosion. The least damaging alternative that will prevent erosion and sedimentation shall be selected.

5. Standing Trees – Standing trees that are dead, diseased, and in imminent danger of falling on an individual or structure may be removed without specific written concurrence from DE-LS. Dead trees that do not pose a hazard can provide habitat for wildlife, and adjoining property owners are encouraged to leave dead large diameter trees standing whenever possible.

6. Fallen Trees – Trees that fall into the lake and do not block or unnecessarily restrict navigational access should be left in place to benefit fish and/or wildlife.

7. Fallen Trees as Fish Habitat – Trees that are allowed to be cut from the land or shoreline, and where there is a desire to create fish habitat, should be securely anchored along the shoreline to improve fish and/or wildlife habitat or placed in the buffer as a downed log. Trees should be securely attached or anchored to prevent movement away from the shoreline. Trees that need to be cut but are away from the shoreline should be placed within the buffer to serve as downed logs.

8. Viewshed Management – Standing live trees (> 3 inches dbh) that are intentionally removed for the creation of viewsheds or access paths shall be replaced by a quantity of trees totaling the diameter of the tree removed. Replacement trees are not to be less than two inches in diameter (e.g., three 2-inch trees may replace one 6-inch tree). Diameter shall be measured at breast height (dbh) four and a half ft above the base of the tree. Replacement trees should be a native "ecological equivalent" of what is removed (i.e., a tree removed from the canopy should be replaced with a similar species that also has the potential to reach the canopy and sub-canopy trees should be replaced with similar sub-canopy species). Soil types, soil moisture, and shade tolerance should be considered when selecting replacement trees.

9. Pruning – Individual trees may not be pruned except for viewsheds and access paths as provided below.

10. Debris Removal Following Storms – Activities necessary for clearing debris and pruning existing trees as a result of substantial alteration of the natural forested canopy by extreme weather conditions (e.g., wind and ice storms) will be considered on an individual basis.

11. Grubbing or Grinding Tree Stumps – Grubbing or grinding of tree stumps of any size is not allowed except in the establishment of footpaths (large trees > 10 dbh must be avoided) and as approved as part of authorized stabilization activities.

12. Herbicide Use – Chemicals (herbicides) approved for use in water shall not be used to kill native non-invasive vegetation. Chemicals (herbicides) approved for use on land shall not be used to kill native non-invasive vegetation except poison ivy, poison sumac, and/or poison oak or exotic species listed in the NCDENR-Division of Parks and Recreation Exotic Plant Guidelines #30 as allowed in the Catawba River Basin Permanent Riparian Buffer Protection Rules.

13. Aquatic Herbicides – Chemical control of vegetation in or over water must be by approved aquatic herbicides. In North Carolina, approved aquatic herbicides applied to a public water body must be applied by a state certified aquatic pesticide applicator. In South Carolina, herbicides applied to a water body used for public drinking water must have permission from the SCDHEC. In addition, all aquatic herbicide labels require applicators to notify a state natural resource agency before their application of a herbicide to public waters.

D. Viewsheds

Viewsheds are intended to allow adjoining home or structure owner's views of the lake and/or other surrounding natural features while maintaining a vegetated forested condition that includes a varied forest canopy (Figures 8D-1 through 8D-4).

1. A single viewshed may be established in consultation with a DE-LS representative once a home or building is constructed.
2. An on-site meeting between the DE-LS representative, the home or business owner, and any landscape contractor is required to establish the viewshed. The meeting will result in an approval letter that specifically identifies and lists all activities that can be accomplished to provide a viewshed including, but not limited to, pruning, topping, tree and/or vegetation removal, tree and/or vegetation replanting, etc.
3. Selective pruning/limbing may be allowed in accordance with the requirements of the Catawba River Basin Permanent Riparian Buffer Protection Rules to facilitate a viewshed. Native shrubs and vines shall not be pruned from the ground to a height of four ft.
4. A joint single viewshed may be created by two adjoining property owners with written concurrence from DE-LS.
5. Minimal topping and removal of only selected trees will be considered to establish a viewshed.
6. Viewsheds will not be allowed to be created within the Project Boundaries within the confines of adjoining areas designated as Environmental on the SMP.

Notes

1. Eminent Domain – Activities conducted by federal, state, or local governments, railroads, public utilities, or other entities that typically have the power of eminent domain (e.g., utility or roadway right of way, construction, and maintenance) are not subject to the provisions of this Section. However, such activities, where practical, should be conducted in a manner that is consistent with these requirements.
2. Approvals Prior to Adoption of Requirements – The provisions of these requirements shall not apply to DE-LS-approved maintenance or rebuild activities or activities (e.g., pier/docks, stabilization, mowing) which were allowed and/or approved by DE-LS prior to September 1, 2006.
3. North Carolina Catawba River Basin Permanent Riparian Buffer Protection Rules – The Catawba River Basin Permanent Riparian Buffer Protection Rules have been in effect since August 1, 2004 (a temporary rule was in effect from July 1, 2001 until July 31, 2004) in North Carolina. The temporary buffer protection rule and now the permanent rule 15A NCAC 2B.0243 requires maintaining and protecting existing 50-ft wide vegetated riparian (shoreline) areas along the mainstem lake shorelines from Lake James to Lake Wylie. This rule does not require establishment of new buffers unless the existing use in the buffer area changes. The footprints of existing uses such as agriculture, buildings, commercial and other facilities, maintained lawns, and utility lines are exempt. Within this 50 ft of buffer, the first 30 ft closest to the water, referred to as Zone 1,

is to remain undisturbed with the exception of certain activities. The outer 20 ft, referred to as Zone 2, must be vegetated, but certain additional uses are allowed.

4. Local Riparian Buffer Ordinances – All local governments that have land use authority along the mainstem of the Catawba River may adopt local riparian buffer ordinances. These local riparian buffer ordinances in North Carolina may be approved by the NCDENR- Division of Water Quality if it is determined by the Division that the local ordinances provide equal to or greater protection for water quality than the Catawba River Riparian Buffer Rule. Buffer regulations in South Carolina are governed by local ordinance.

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GLOSSARY

Activity – Any occupancy or use of lands and waters within the Project Boundaries or Duke Energy-owned peripheral strip.

Annual Average Capacity – A term used in conjunction with water intakes and wastewater effluent discharges to refer to the raw water withdrawal rate or wastewater discharge rate, both of which are expressed in million gallons per day (MGD) that the facility would have to operate at continuously for the calendar year in question to withdraw or discharge a given total volume of water. *(Note: See differences between annual peak capacity and ultimate capacity*.)

Annual Peak Capacity – A term used in conjunction with water intakes and wastewater effluent discharges to refer to the highest instantaneous raw water withdrawal rate or wastewater discharge rate, both of which are expressed in million gallons per day (MGD) that the facility will reach in a given calendar year. (*Note: See differences between annual average capacity and ultimate capacity*.)

Application – A Duke Energy form upon which the applicant describes and officially requests a given lake use. Each permitting program will typically have one or more application forms.

Area of Potential Effect – Term used when considering potential lake use activity effects on historic and archaeological resources and describing the geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist.

Boat Cover – A structurally simple device (i.e., frame) with an outer-woven fabric cover that conforms specifically to the size (i.e., length, width, and height) of a single watercraft.

Boat house/Covered Boat Slip – A floating, single-story roofed structure with open sides and designed for long-term or temporary watercraft storage. (*Note: In the past, boathouses could also have enclosed sides, but this practice is no longer authorized.*)

Boat ramp/Marine Railway – An inclined structure extending from the shoreline into the lake for the purpose of launching and retrieving watercraft.

Boat Shelter – A non-floating, single-story roofed structure with open sides and designed for long-term or temporary watercraft storage. (*Note: In the past, boat shelters could also have enclosed sides, but this practice is no longer authorized*.)

Boat Slip – Also referred to simply as a slip, it is an unroofed structure designed for temporary or long-term watercraft storage. A boat slip is normally 10 ft wide by 20 ft long and confined by at least three sides; however, other sizes do exist and fewer than three sides may be confined. Boat slip is synonymous with the term “boat docking location” and means one boat slip can accommodate only one watercraft at a time.

Boat Lift/hoist – A mooring device that lifts the watercraft above the lake level normally utilizing buoyant pontoons or a series of cables and winches. By definition, the area where the boatlift/hoist is located is also considered a boat slip.

Build-out Period – Time period allowed to complete construction, excavation or shoreline stabilization work under an approved Duke Energy lake use permit. The build-out period

begins with the date of application approval by DE-LS and ends with the last date of any approved time extensions.

Business/Industrial Access – Lake access that directly supports a privately-owned industrial or commercial business, but which has little to no effect on boating. Examples include, but are not limited to, water intakes and discharges for factories, sand mining operations, certain utility connections, plant/business access roads, and commercial business staging areas.

Catawba-Wateree Hydroelectric Project – A hydroelectric project (also referred to simply as the Project) located on the Catawba and Wateree rivers and their tributaries in North Carolina and South Carolina. The Project consists of 11 hydroelectric developments, each having a reservoir formed by one or more dams and one or more hydroelectric stations. The Project is operated pursuant to a license issued by the FERC (FERC Project No. 2232).

Causeway – A raised road crossing a ravine, stream, or portion of a lake on which soil and/or rock are placed to build up the roadbed to a point where surface water will not typically over-top the road. Culvert pipes are typically used to allow surface water to pass under/through the road.

Commercial Marina Facility – A shoreline classification and the related business operation that involves the non-project use of project lands and waters for facilities where boats can be launched, retrieved, or moored and where provisions for food services or convenience retailing, including petroleum dispensing, wet and dry storage of watercraft, and other activities customarily associated with marinas and yacht clubs are made. (*Note: See Glossary for definitions of True Public Marina, Residential Marina, Project Use, and non-project use to differentiate between the different types and uses of marinas*.)

Common-Use Facility – A shared boat dock or other recreational facility that can accommodate no more than 10 watercraft at a time and is intended to serve only the owners or leaseholders of private, project-front lots. (*Note: Common-Use Facilities may not serve off-water lots or any lot containing a multi-family dwelling*.)

Conveyance – The granting of rights for the use of Project lands and waters under a given set of conditions. Duke Energy may use easements, rights-of-way, leases, certain types of user's agreements/permits, or fee title transfers to grant these rights.

Cove Width – Horizontal length of the shortest imaginary line extending from the full pond contour on one side of a cove and connecting to the full pond contour on the opposite side of the cove. Except for constricted coves, the cove width will not decrease as one moves from the head (i.e., closed end) of the cove to its mouth (i.e., open end).

Critical Reservoir Elevation (CRE) – Unless it is otherwise stated as applying only to a specific intake or type of intake, the Critical Reservoir Elevation is the highest level of water in a reservoir (measured in feet above Mean Sea Level (msl) or feet relative to the full pond contour with 100.0 ft. corresponding to full pond) below which any Large Water Intake used for Public Water Supply or industrial uses, or any regional power plant intake located on the reservoir will not operate at its Licensee-approved capacity.

Cut-off Area – Portion of the lake that is physically cut off for navigational purposes from the majority of the lake by a man-made structure (e.g., existing dam, causeway, low bridge) or a natural feature when the lake is at or above its normal target operating level during the peak recreation season.

Diameter at Breast Height (dbh) – The diameter of the stem of a tree measured at 4.5 ft from the ground. On sloping ground, this measurement is taken on the uphill side.

Dock/pier – A structure for storing/mooring watercraft or providing other recreational access to a lake (e.g., fishing).

Double Handling – The placement of excavated material within the Project Boundaries before final removal.

Earthfill – The placement of unauthorized fill material (soil or rock) within the Project Boundaries.

Easement – The granting or definition of certain rights in real property within the Project Boundaries or on Duke Energy property. Easements are typically handled through the Conveyance Program and are used to regulate activities such as utility lines, roadway crossings, water intakes, and discharges.

Encroachment – Lake use structure or activity, which was placed/done without obtaining the necessary permits/approvals.

Environmental Assessment (EA) – The process of examining proposed projects and their reasonable alternatives for potential environmental impacts prior to making decisions on implementation. The Environmental Assessment document is prepared by the FERC staff or a DE-LS-approved contractor and evaluates the Project's merits and no-action alternatives to determine a conclusion and make appropriate recommendations to the FERC and/or Duke Energy concerning project approval, disapproval, or modification.

Environmental Offset – An area measured laterally along the shoreline that extends 50 ft from an Environmental classification. This area along the shoreline within the Project Boundaries shall remain undisturbed and act as a buffer between the Environmental classification and any future lake use permitting activities except for maintenance and access to previously approved facilities.

Environmentally-Important Areas – Areas along the shoreline within the Project Boundaries that provide important habitat for fish and wildlife. These areas may have additional lake use restrictions because of their unique character.

Excavation/Dredging – Removal of soil or rock material, either by hand or with mechanized equipment, from within the Project Boundaries by permit only.

FERC – Federal Energy Regulatory Commission. The FERC is responsible for licensing and ensuring regulatory compliance for the nation's non-federal hydropower projects.

Facility – A structure or combination of structures that is/are placed within the Project Boundaries by the applicant.

Facility Emergency Repair – The immediate and major repair of an existing facility to prevent imminent loss of personnel property, human life, or a major environmental incident. The need for a facility emergency repair will typically arise from catastrophic structural failure and the risks are too great to afford going through normal lake use permitting channels. (*Note: Facility owners must notify DE-LS personnel in a timely manner following an emergency repair. Only those repairs needed to stabilize the situation and remove the immediate risks are considered emergency repairs. Any additional modifications or modifications that are not done immediately must go through required permitting channels*.)

Facility Expansion – The modification of an existing facility that results in an increase of its lakeward extension, increases in calculated square footage, an increase in the number of boats it can accommodate, increases in water quantities withdrawn from or discharged to the Project, or an increase in the amount of Project area leased. (*Note: The addition of an uncovered boatlift/hoist within a previously approved slip is not considered an expansion*.)

Facility Maintenance – The ongoing minor repair of an existing permitted facility (i.e., structure or combination of structures) that does not involve repair of more than 25% of a primary component or any combination of primary components (e.g., decking, joists, roof, rafters) with each individual component at or less than 25% or complete repair of one single primary component (e.g., decking, joists, roof, rafters) of that facility in any amount or complete repair of one single structure (e.g., boathouse, float, stationary pier) in a multi-structure facility, within a calendar year. Replacement of flotation and pilings, in any amount, is considered maintenance. (*Note: Maintenance activities are minor in nature compared to rebuilds, and require application and written authorization from DE-LS prior to initiation*.)

If a primary component or any combination of primary components (with each individual component at or less than 25 %) becomes in such a state of disrepair that more than 25% repair or complete repair of more than one single component or complete repair of one single structure in a multi-structure facility within a calendar year is the only practical alternative, then the work would be considered a rebuild and not maintenance. (*Note: Of the three types of facility modification –expansion, maintenance, and rebuild– Facility Maintenance is the most minor in nature*.)

Facility Rebuild – The total replacement of an existing, permitted facility or replacement of more than 25% of a primary component (e.g., decking, joists, roof, rafters) when rebuilding a single component (or any combination of components when rebuilding more than one component of an existing permitted facility) or any other repair or replacement of the facility if a single structure in a multi-structure facility is replaced within a calendar year.

Facility Reconfiguration – The modification of an existing facility that is not considered a Facility Expansion but merely a rearrangement of the orientation of the combination of structures that comprise a permitted facility. Reconfiguration is only allowed with permitted facilities that comply with the current guidelines in effect at the time of the proposed reconfiguration. (*Note: Reconfiguration requests are considered to be minor in nature and similar to Facility Maintenance. However, since on-site inspections are required for reconfiguration requests, the same fees will apply as those charged for a Facility Rebuild*.)

Facility Reduction – The removal of any portion of a permitted facility from within the Project Boundaries. (*Note: The reduction must be approved in writing by DE-LS and does not require the entire facility to comply with the guidelines in effect at the time of reduction for non-conforming facilities*.)

Fee – A dollar amount paid by the applicant or lake user to Duke Energy to help offset Duke Energy's costs for operating a comprehensive lake management program.

Float – A floating platform for use by swimmers or for docking watercraft, which is attached to a permitted structure.

Flood Easement – An easement (typically covering 10 or more ft vertical above full pond elevation) that is reserved on a tract-by-tract basis to protect Duke Energy from liability

claims following high water events and to reserve certain rights necessary for operation of the company's electric business.

Full Pond Elevation – The elevation, measured in feet above mean sea level (ft msl), of the top of a lake's spillway or the top of the floodgates (if applicable).

Historic Property (HP) – Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places.

Houseboat – Watercraft equipped with facilities customarily found necessary to support human habitation (e.g., enclosed cabin, restroom, sink, or shower, sleeping facility).

Implicit Uses – Lake uses that are implied parts of Duke Energy's lake access philosophy and therefore do not require any specific written approval from Duke Energy (see Section 7A.).

Individual Private Facility – A facility that provides access to the lake for the owner of a single, project-front lot. Individual private facilities may include, but are not limited to, piers, docks, boathouses, boat shelters, floats, boat slips, existing boat ramps, and marine railways. (*Note: Individual private facilities may not serve multiple project-front lots, off-water lots, or any lot containing a multi-family dwelling*.)

Lake Access Service Programs – Broad-based Duke Energy programs that are needed as a result of allowed lake access or that directly benefit lake users (e.g., lake use permitting programs, mosquito and aquatic weed control programs, lake facility operation and maintenance programs, shoreline management and public recreation planning programs, public safety programs, dam repair programs).

Lake Access – Ability to use land or water within the Project Boundaries or Duke Energy-owned peripheral strip of a Duke Energy lake. Uses include, but are not limited to, piers, existing boat ramps and marine railways, mooring buoys, boathouses, boat shelters, boatlifts, marinas, utility line, roadway and other infrastructure rights-of-way, excavation areas, shoreline stabilization devices, beaches, water intakes, wastewater discharges, boating access areas, bankfishing areas, public parks, trails, and sand mining operations.

Lake Use Permit Request – A written request from any party requesting written authorization from Duke Energy (i.e., a permit) to use land or water within the full pond contour, Project Boundaries, or Duke Energy-owned peripheral strip of a Duke Energy lake.

Large Water Intake – Any water 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) that withdraws water from the Catawba-Wateree River Basin..

Licensee – The entity holding a hydroelectric project's operating license from the FERC at any given time. As of October 2006, the Licensee for the Catawba-Wateree Hydro Project (FERC No. 2232) is Duke Energy Carolinas, LLC.

Low Inflow Protocol (LIP) – The written protocol (see Appendix C: Low Inflow Protocol) that provides procedures for how the Project will be operated by the Licensee and how other water users should respond during low inflow periods. The LIP was developed on the basis that all parties with interests in water quantity will reduce their water consumption as needed and therefore share the responsibility of conserving the limited water supply. The LIP also identifies communications channels to help coordinate between water users.

Maintenance Excavation – The removal of accumulated sand/sediments, needed to restore the necessary water depth to allow the continued use of a previously approved lake use activity (not including facility expansion).

Marine Railway – An inclined structure consisting of a combination of tracks and a cradle, normally extending from a boathouse or boat shelter, for the purpose of launching and retrieving watercraft.

Minimum Lease/Easement Area – The conveyed area typically associated with leases or easements of Project property that includes the minimum area necessary for boating access. This maneuvering area consists of 2 times the slip length at the point of slip ingress/egress and 15 ft along all other sides of the facility.

Mitigation – Actions required of the applicant/lake user for a proposed activity to offset the activity's impacts and to ensure the lake's scenic, environmental, recreational, and cultural values are protected and enhanced. *(Note: Applicants/lake users should first seek to avoid any such impacts. If complete avoidance is not feasible or practicable, then redesigns should be explored to minimize impacts before mitigation is considered*.)

Non-Conforming Structure – An existing, previously permitted lake structure that does not comply with later revisions of the SMG or other permitting policies.

Non-Project Uses – Term used by the FERC to identify all uses of FERC Project land and water except those directly associated with the hydro station, the lake's dams and flow diversion devices, and the license-required uses (e.g., specific public recreational and environmental enhancements).

Normal Drawdown – The vertical distance in feet from the full pond elevation to the lowest lake elevation that is normally targeted in a calendar year. (*Note: The actual, lowest lake level reached in a given year may vary significantly from the normal drawdown target due to a number of factors including, but not limited to, weather conditions and electricity demand*.)

Normal 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(s) if the licensee took no action. This level corresponds to the lowest point along the top of the spillway (including flashboards) for reservoirs without floodgates and to the lowest point along the top of the floodgates for reservoirs that have them. To avoid confusion among the many reservoirs the licensee operates; it has adopted the practice of referring to the Full Pond Elevation for all of its reservoirs as equal to 100.0 ft relative.

Normal Maximum Elevation – The level of a reservoir, measured in feet above mean sea level (ft msl) or feet relative to the full pond contour with 100.0 ft corresponding to full pond, that defines the top 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 range of the average or expected amounts, hydroelectric project equipment is operating properly, and no protocols for abnormal conditions have been implemented, reservoir level excursions above the Normal Maximum Elevation should not occur.

Normal Minimum Elevation – The level of a reservoir, measured in feet above mean sea level (ft msl) or feet relative to the full pond contour with 100.0 ft corresponding to full pond, 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 range of the average or expected amounts, hydroelectric 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.

Normal Operating Range for Lake 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 and a Normal Minimum Elevation. If inflows and outflows to the reservoir are kept within some reasonable range of the average or expected amounts, hydroelectric 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.

Off-water Lot – A tract of land that is defined by a registered survey plat and that does not have a common boundary with the full pond elevation contour, the Project Boundaries, or the Duke Energy-owned peripheral strip bordering a Duke Energy lake.

Peripheral Strip – Also referred to as the *shoreline strip*, it is the strip of Duke Energy-owned land adjoining and lying above the full pond elevation of some Duke Energy lakes. In certain areas there may be little to no peripheral strip, whereas in others, such as portions of Belews Lake and Lakes Keowee and Jocassee, the peripheral strip may extend to a contour 10 to 15 vertical ft or more above full pond elevation. Except for the implicit uses, all uses of land and water within the peripheral strip must be authorized by Duke Energy.

Permanent Water Intake – Any intake (e.g., power plant, public water supply, industrial) that is used as a primary means of transporting water to immobile processing facilities.

Permit – The written authorization from Duke Energy that is required prior to beginning any construction, excavation, shoreline stabilization, vegetation removal, or activating a conveyance within the full pond contour, Project Boundaries, or Duke Energy-owned peripheral strip of a Duke Energy lake.

Pier Zone – A planning tool used by some real estate developers to aid property owners in defining an area in which water-based facilities may be constructed. Where they exist, these pier zones will often be incorporated into subdivision covenants. The use of pier zones does not supersede the requirements of the applicable SMG criteria, ordinances, or regulations (e.g., General Permits in South Carolina and county requirements limiting crossing of projected property lines, pier lengths). Duke Energy also does not handle enforcement of pier zones and the presence of a pier zone does not guarantee any form of lake access will actually be approved by Duke Energy.

Power Line Rights-of-Way – Strip of land identified by an easement, fee-simple deed description, or other means that contains or is planned to contain any type of power line. Examples of power lines include transmission, distribution, and retail lines (both Duke Energy and non-Duke Energy, overhead and underground) for transmitting electric power, cable TV lines, telephone lines, telegraph lines, railroad signal lines, or any type of line that carries electric power.

Private Access – Lake access that is restricted to selected individuals according to where they live, where they work, membership in a specific club, etc. Examples include, but are not limited to, Individual Private Facilities, common-use facilities, slips in Residential Marina Facilities, slips in marinas developed for clubs, recreation areas for employees of a specific company, slips for non-transient campgrounds (i.e., rent for more than 14 days), heat exchange coil zones for heat pumps, and private roadways.

Private Roadway – Any combination of roads, causeways, bridges, etc. that do not meet the requirements of a public roadway.

Project Boundaries – The area surrounding hydroelectric project facilities and features necessary to operate the Project as delineated in Exhibit G or K of the FERC license.

Project-front Lot – A tract of land that is defined by a registered survey plat and that has a common boundary with the full pond elevation contour, the Project Boundaries, or the Duke Energy-owned peripheral strip bordering a Duke Energy lake.

Project Uses – A term used in conjunction with FERC licensed projects to include those uses of FERC Project land and water that are required for construction, operation and maintenance of the Project's dam(s), powerhouse(s), electric transmission facilities (typically powerhouse to and including the tie station), and any facilities required to meet the Project's licensing commitments for recreation and wildlife management. Project uses are considered mandatory by the FERC and other uses must not be allowed to impair them.

Property Reclamation – Adding significant fill material, beyond the customary minimum amount of backfilling necessary for a Duke Energy-permitted shoreline stabilization activity, to re-establish dry land in areas where shoreline erosion has caused the loss of dry land owned by adjoining property owners.

Public Entity – Agency, organization, department, etc. that is charged with providing services and/or maintaining basic facilities for the general public.

Public Infrastructure Access – Non-recreational lake access that directly supports regional public infrastructure needs. Examples include, but are not limited to, county, municipal, or utility water intakes and discharges, public roadway, and utility line rights-of-way, railroad crossings, boat mooring/launching facilities for emergency response activities and for state and local law enforcement support.

Public Recreational Access – Lake access that provides for the operation and management of recreational opportunities for the general public that directly support the requirements of Duke Energy's FERC licenses and are not restricted to selected individuals. Examples include, but are not limited to, Duke Energy-owned public access areas, federal, state, and local parks and recreation areas and True Public Marinas.

Public Roadway – Any combination of roads, causeways, bridges, etc. that is required to meet transportation needs of the general public, is open to the general public for their use, and is maintained by a public entity.

Public Water Supply – any water delivery system owned and/or operated by any governmental or private entity that utilizes waters from the Catawba-Wateree River Basin for the public interest including drinking water; residential, commercial, industrial, and institutional uses; irrigation, and/or other public uses.

Registered Survey – Scaled drawing, prepared and stamped by a duly licensed Registered Land Surveyor, to provide a metes and bounds description of a particular tract of land. (*Note: A survey plat does not have to be recorded at the local Register of Deeds Office to be considered a registered survey*.)

Residential Marina Facility – A shoreline classification that involves the non-project use of project lands and waters for facilities where watercraft can be launched, retrieved, or moored for the purpose of providing access to the lake for certain residential property owners (e.g., off-water and project-front lots, non-transient campgrounds, multi-family

dwellings). Residential properties associated with this classification include townhouses, condominiums, apartments, some campgrounds, and subdivision access lots.

Rip-Rap – Large crushed stone Class B or larger.

Seawall – Also called a retaining wall or bulkhead, a seawall is a vertical wall constructed at or near the Project Boundaries for shoreline stabilization. Seawalls commonly consist of treated wood, masonry, formed concrete, or sheet piling.

Security Deposit – A dollar amount paid by the applicant to Duke Energy at the time a permit is applied for that will be refunded if the applicant complies with all permitting program guidelines.

Shoreline Management Guidelines (SMG) – The written document that contains conditions and limitations required for certain types of access to the Project's shoreline properties, and also guidelines designed to meet the Licensee's regulatory requirements, protect the Licensee's hydroelectric generation interests, protect the scenic, cultural and environmental values of the Project's shoreline property, provide recreational benefits to the general public, and provide a guide to adjacent property owners on permitted uses of Project properties. The Shoreline Management Guidelines are often provided as additional information within the Shoreline Management Plan and provide permitting criteria that are applied on a site-specific basis.

Shoreline Management Plan (SMP) –. A written document that provides guidance to the Licensee for implementing a comprehensive lake use permitting program to manage uses of lands and waters within the FERC Project Boundaries. Components of the Shoreline Management Plan may include but are not limited to programmatic agreements for addressing specific issues, maps depicting classifications of the shoreline of each reservoir, and lake use permitting restrictions associated with each classification.

Shoreline Stabilization Expansion – An increase in the linear distance of shoreline stabilized, regardless of the stabilization technique (i.e., bulkhead, rip-rap, landscape plantings), and/or an increase in the vertical height of bulkheads.

Shoreline Stabilization Maintenance – The ongoing minor repair of existing permitted shoreline stabilization that does not involve repair of more than 25% of a primary component or any combination of primary components (e.g., pilings, deadmen, anchors, blocks, boards) with each individual component at or less than 25% or complete repair of one single primary component (e.g., pilings, deadmen, anchors, blocks, boards) of that facility in any amount, within a calendar year. Replenishing existing rip-rap or landscape plantings within the confines of the originally stabilized area of the bank is considered maintenance. (*Note: Maintenance activities are minor in nature compared to rebuilds, and require application and written authorization from DE-LS prior to initiation*.)

If a primary component or any combination of primary components (with each individual component at or less than 25%) becomes in such a state of disrepair that more than 25% repair or complete repair of more than one single component within a calendar year is the only practical alternative, then the work would be considered a rebuild and not maintenance. (*Note: Of the three types of facility modification – expansion, maintenance, and rebuild – Facility Maintenance is the most minor in nature.*)

Shoreline Stabilization Rebuild – The total replacement of existing, permitted shoreline stabilization or replacement of more than 25% of a primary component (e.g., pilings,

deadmen, anchors, blocks, boards) when replacing more than one component of shoreline stabilization within a calendar year.

Small Water Intake – Any water intake (e.g., public water supply, industrial, agricultural, power plant) having a maximum instantaneous capacity less than 1 million gallons per day (MGD).

Special Ruling – Duke Energy decision on a proposed activity that is necessary due to a lack of applicable permitting processes, policies, or criteria or to prevent guideline manipulation that would allow uses that violate the intent of the permitting programs.

Stop-Work Directive – Verbal or written statement from DE-LS directing an immediate halt to an activity within the Project Boundaries or peripheral strip. Such directives are issued when any violation of this manual is detected. Violations will have negative consequences for the applicant and additional written authorization from DE-LS is required before the activity can resume.

Subdivision – An area of land that has been divided into multiple residential lots.

Subdivision Access Lot – A tract of project-front property within the boundaries of a residential subdivision that has been set aside for providing lake access for owners of off-water and/or project-front lots.

Substantial Equity Interest – Financial interest in real property adjoining a Duke Energy lake that significantly exceeds the value of facilities an applicant desires to place within the Project Boundaries or on the Duke Energy-owned peripheral strip. (*Note: To retain full legal compliance avenues, Duke Energy will normally only consider lake use permit requests from applicants who have a substantial equity interest [as determined by Duke Energy in its sole discretion]. With few exceptions, this equity interest must be established through fee-simple ownership of the adjoining property. Easements may be considered as a substantial equity interest where fee-simple ownership is not customary [e.g., for public need projects where the applicant is a public entity].*)

Temporary Water Intake – Any intake (e.g., irrigation, industrial, agricultural, fire suppression) that is used on an intermittent and/or short-term (less than one year) basis that can have the supply line removed and/or installed in one day.

True Public Marina (TPM) – A business operation that involves the public's use of project lands and waters for facilities where boats can be launched, retrieved or moored and where activities customarily associated with marinas are provided to the public. There is no predetermination of user groups for the use of any of the land or water-based facilities, no membership requirements, and transient services (e.g., use of the gas dock, restrooms, or pump-out facility) do not require wet slip or dry storage rental. Land and water-based services for transient users are provided at less than or equal to a reasonable and customary fee. (*Exception: There are existing Marina Facilities that are characteristically operated as True Public Marinas although they allow Residential Marina-type access on a very limited basis. These existing marinas may be afforded the same considerations provided new True Public Marina facilities if the number of wetslips and dry storage bays dedicated for Residential Marina-type access is ≤ 10% of the total number of wetslips and dry storage bays within the marina facility and any considerations are approved by DE-LS. This exception only applies to the very limited number of exiting marina facilities that meet the ≤ 10% requirement as of January 1, 2006*.)

Ultimate Capacity – A term used in conjunction with water intakes and wastewater effluent discharges to refer to the maximum, instantaneous raw water withdrawal rate or wastewater discharge rate, both of which are expressed in million gallons per day (MGD), that the facility is designed to achieve throughout its design life. (*Note: See differences between annual average capacity and annual peak capacity*.)

Utility Line Crossing – Any combination of wires, cables, or pipelines and their associated structural supports that are used to transport energy, fuel, telecommunications signals, water, wastewater, etc. and that fall within a common maintenance right-of-way which crosses any part of the FERC Project Boundaries or Duke Energy-owned peripheral strip. Examples include, but are not limited to, transmission, distribution, and retail lines for telephone, telegraph, cable TV, railroad signal, petroleum product, and electric utilities; water mains; and sewer lines.

Variance – Selective deviation from applicable and established permitting policies and criteria to allow a proposed activity's approval. (*Note: Except for project uses and non-project uses for public infrastructure access, Duke Energy will not consider variance requests from its established policies and criteria; and even then, only in cases where there is no other feasible alternative and a variance is clearly the best option for meeting the specific lake user needs while still preserving the DE-LS Goals and Objectives*.)

Violation – Any activity within the Project Boundaries or peripheral strip that does not comply with the requirements established by this manual.

Watercraft – A boat, personal watercraft (e.g., jet ski), or any vessel that can transport a person on water.

Water-based Recreational Equipment – Any large recreational equipment placed within the Project Boundaries that is not specifically designed to be used in conjunction with watercraft. (*Note: These items include, but are not limited to, trampolines, sliding and diving boards not permanently attached to a permitted structure, blobs, > three-person towables, and other large inflatable recreational items*.)

Water Toys – Any small recreational equipment that is temporarily placed within the Project Boundaries that is primarily used in conjunction with moving watercraft. (*Note: These items include, but are not limited to, ski and inner tubes, ski bobs, and less than three-person towables*.)

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FIGURES

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5A-1 Shoreline Stabilization Technique Selection Process

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[1] Figure number refers first to the Section (e.g., Marina Facilities Program), second to the Paragraph within the Section, and third to the sequential figure number within that Section.

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8D-1 C-W[2] Viewshed Guidelines (Steep Slope)

8D-2 C-W Viewshed Guidelines (Gradual Slope)

8D-3 Viewshed Examples

8D-4 Viewshed Examples

[2] C-W refers to the Catawba-Wateree Hydro Project

DUKE ENERGY EVALUATION PROCESS FOR NON-PROJECT-USE REQUESTS

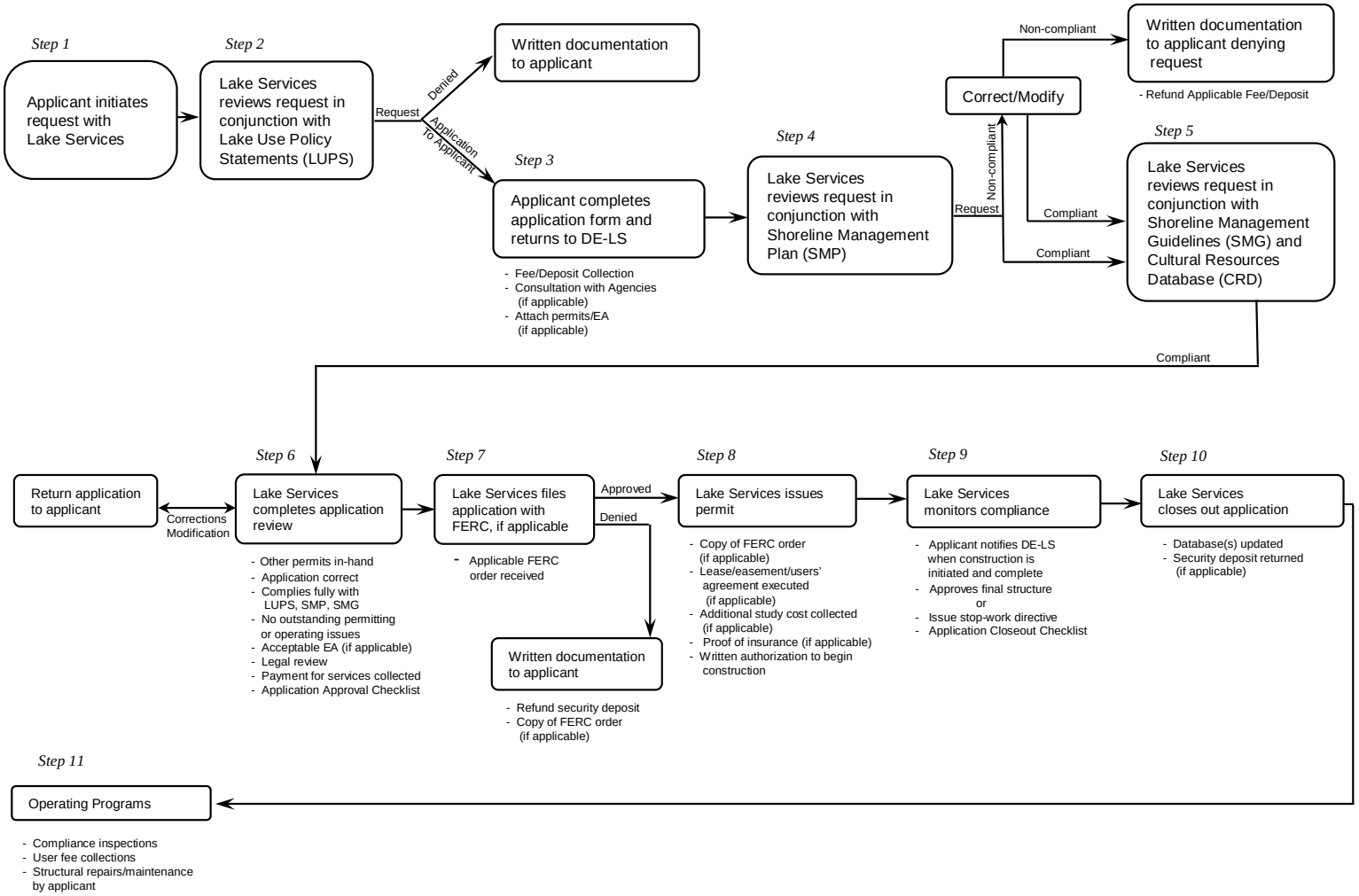
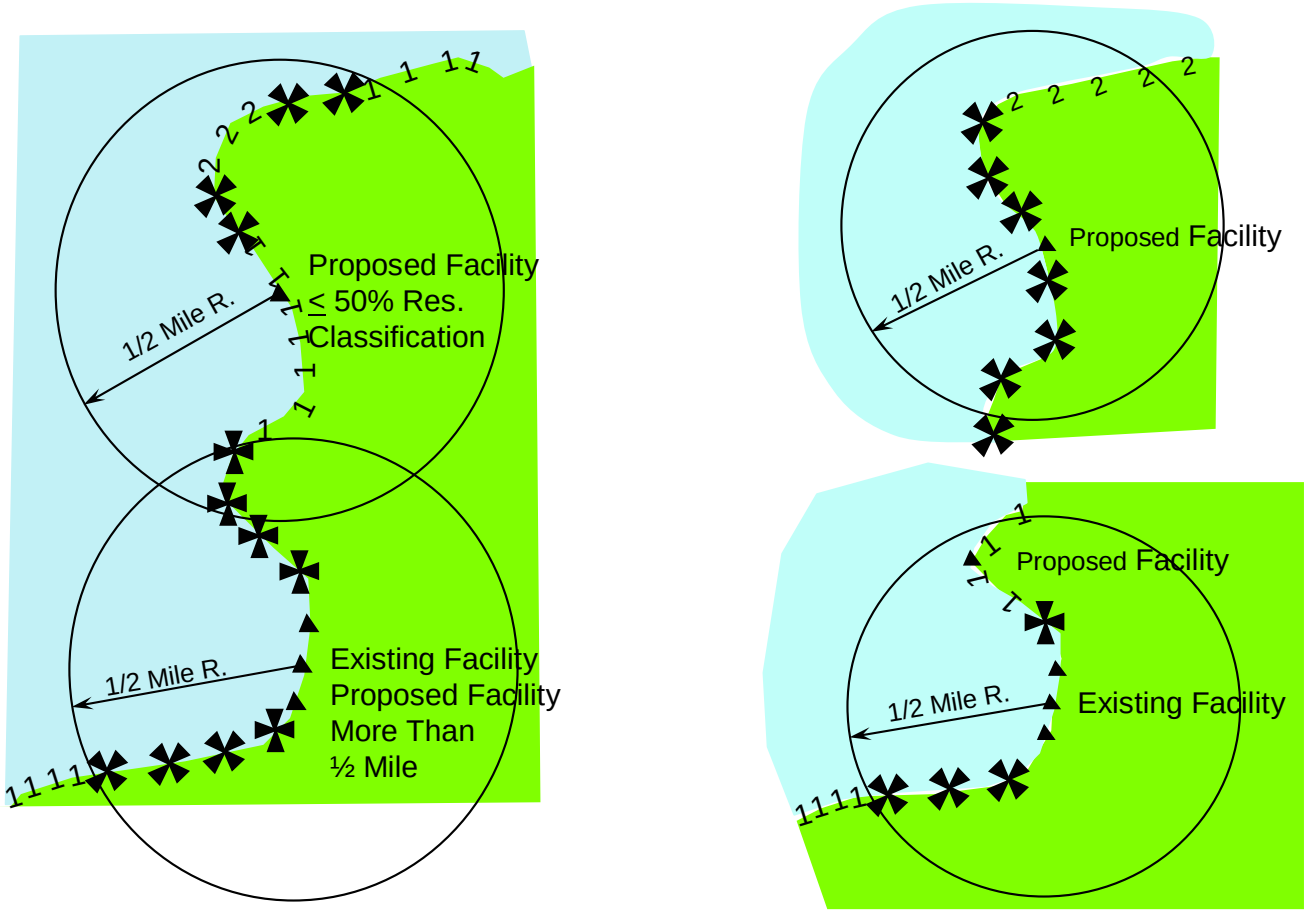


Figure 1

LOCATION OF NEW COMMERCIAL MARINA FACILITIES



Compliant

Non-Compliant

Figure 1B-1

NO NEW OR EXPANDED FACILITIES WITHIN 50-FOOT ENVIRONMENTAL AREA OFFSET

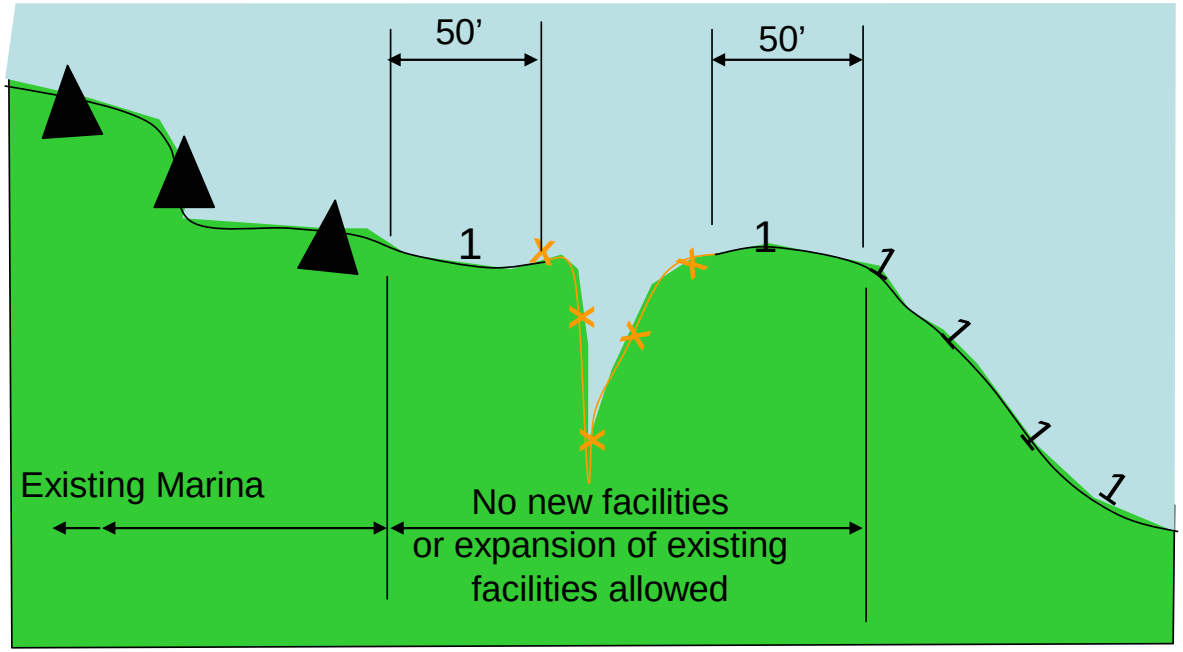


Figure 1B-2

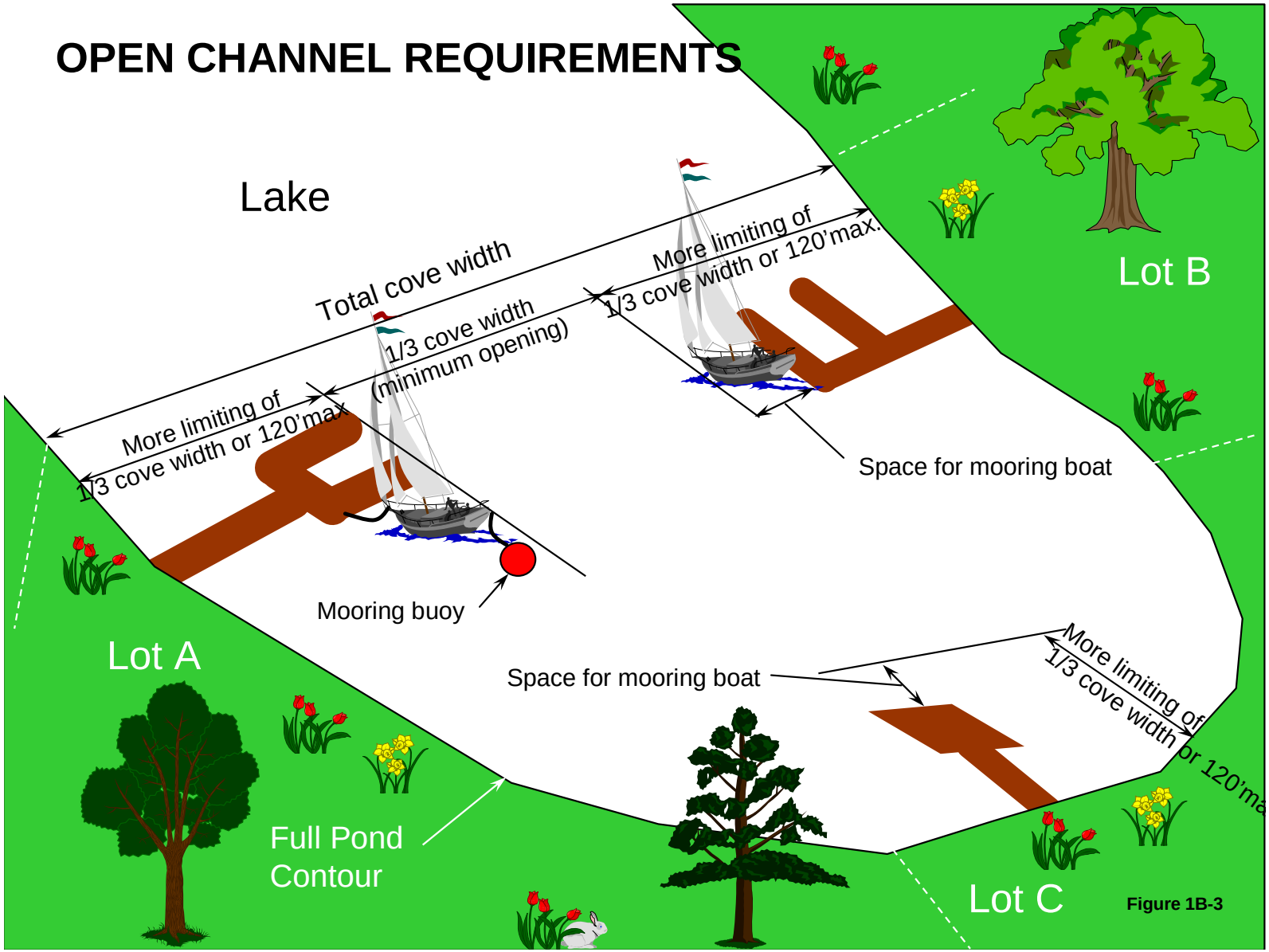

OPEN CHANNEL REQUIREMENTS
Lake
Total cove width
More limiting of
1/3 cove width or 120'max.
1/3 cove width
(minimum opening)
More limiting of
1/3 cove width or 120'max
Space for mooring boat
Mooring buoy
Lot A
Lot B
Lot C
Space for mooring boat
More limiting of
1/3 cove width or 120'ma
Full Pond
Contour

Figure 1B-3

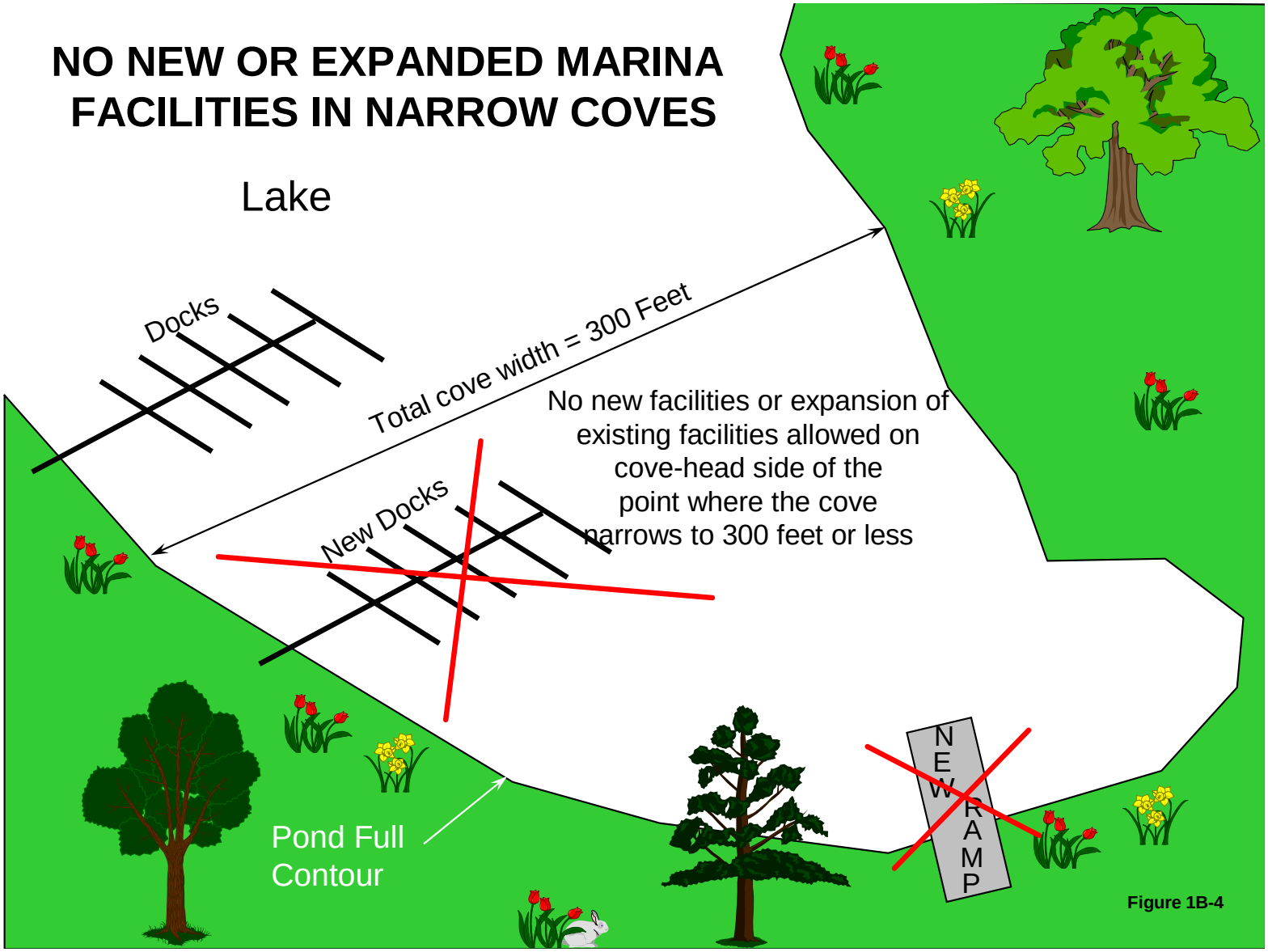

NO NEW OR EXPANDED MARINA FACILITIES IN NARROW COVES
Lake
Docks
Total cove width = 300 Feet
No new facilities or expansion of existing facilities allowed on cove-head side of the point where the cove narrows to 300 feet or less
New Docks
NEW RAMP
Pond Full Contour

Figure 1B-4

MINIMUM GUIDANCE FOR METES AND BOUNDS DESCRIPTION OF PROJECT AREA LEASES/USE AGREEMENTS FOR MARINA FACILITIES

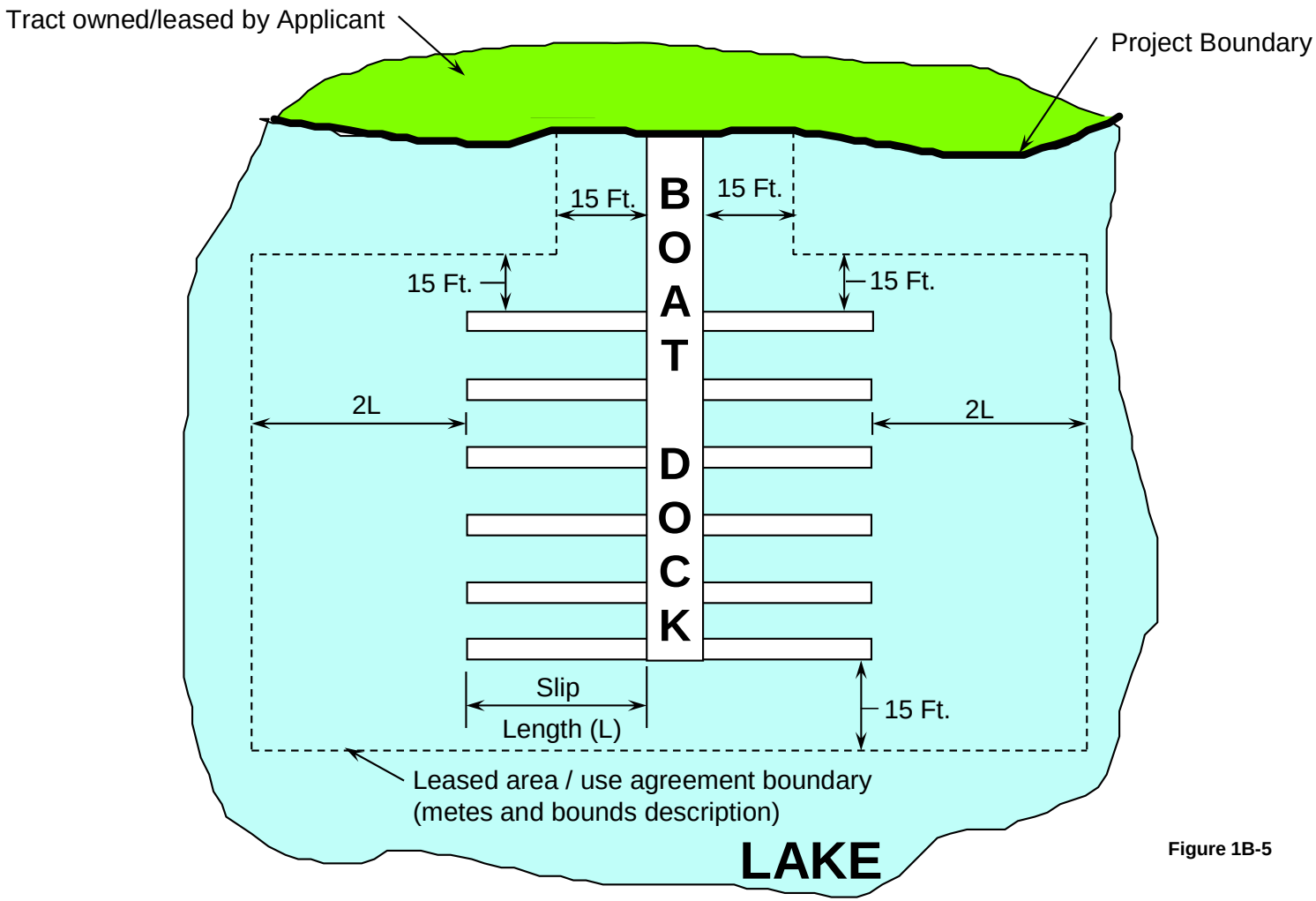


Figure 1B-5

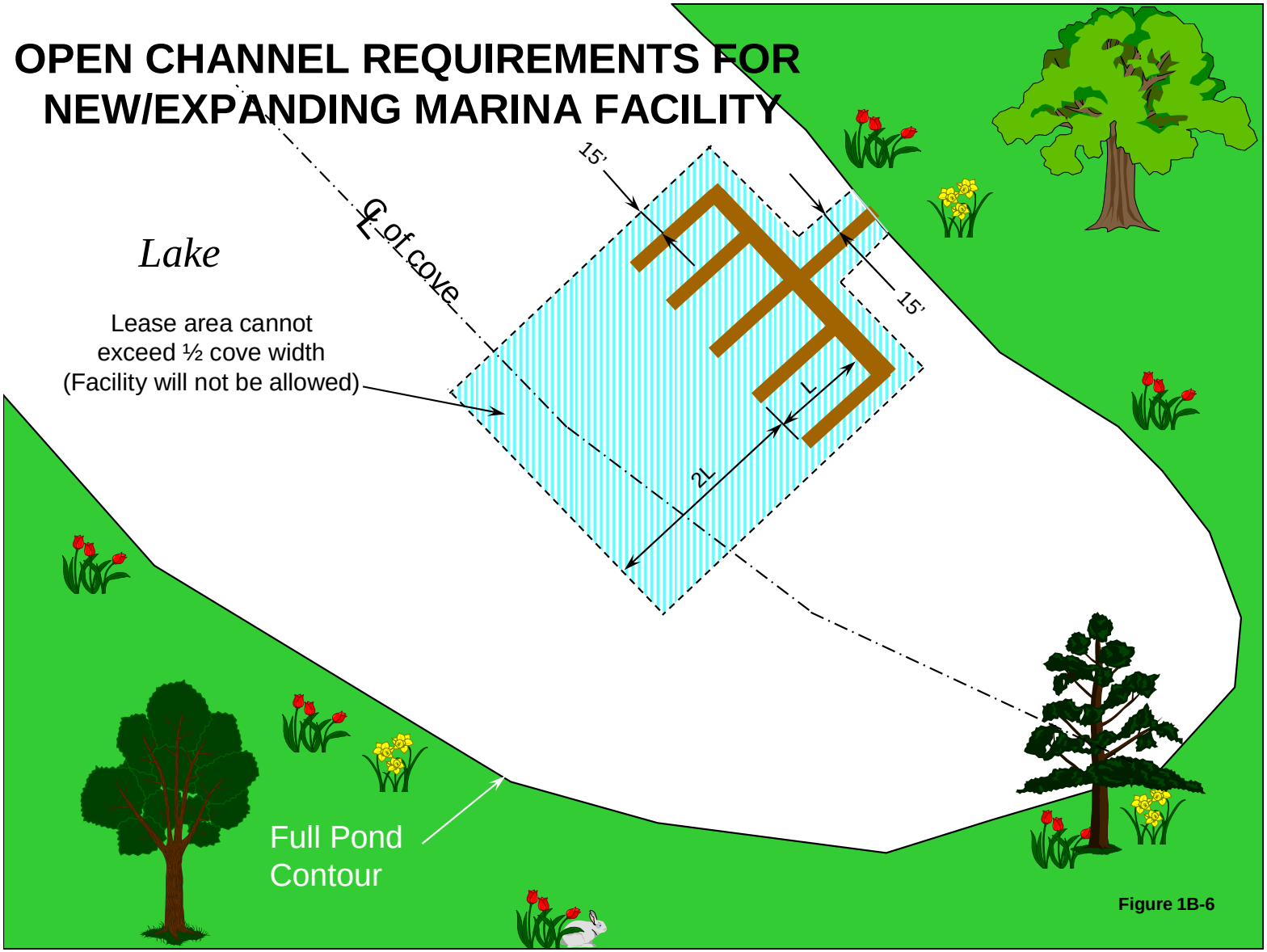

OPEN CHANNEL REQUIREMENTS FOR
NEW/EXPANDING MARINA FACILITY
Lake
℄ of cove
15'
15'
L
2L
Lease area cannot
exceed ½ cove width
(Facility will not be allowed)
Full Pond
Contour

Figure 1B-6

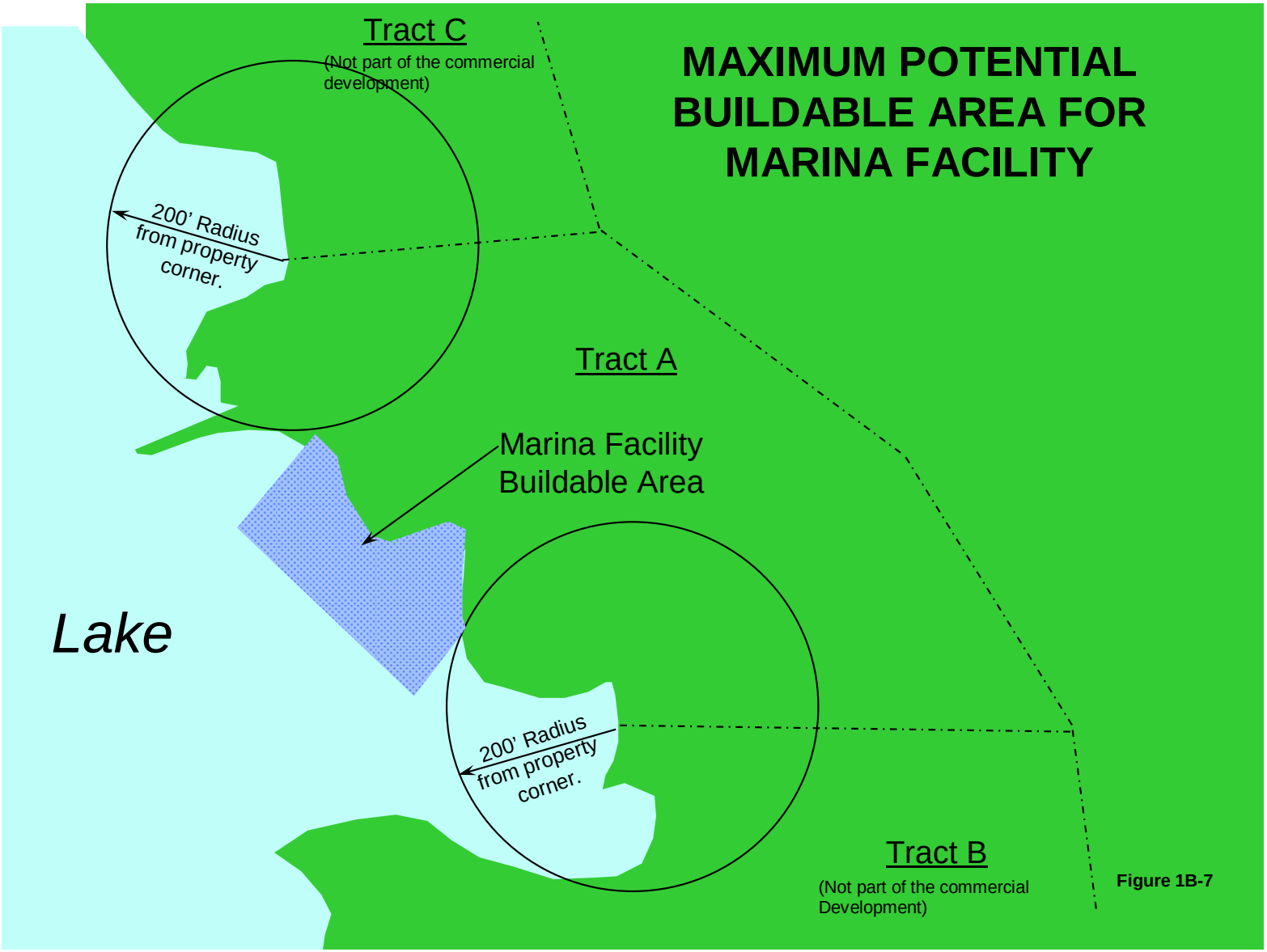

MAXIMUM POTENTIAL BUILDABLE AREA FOR MARINA FACILITY
Tract C
(Not part of the commercial development)
200' Radius from property corner.
Tract A
Marina Facility Buildable Area
Lake
200' Radius from property corner.
Tract B
(Not part of the commercial Development)

Figure 1B-7

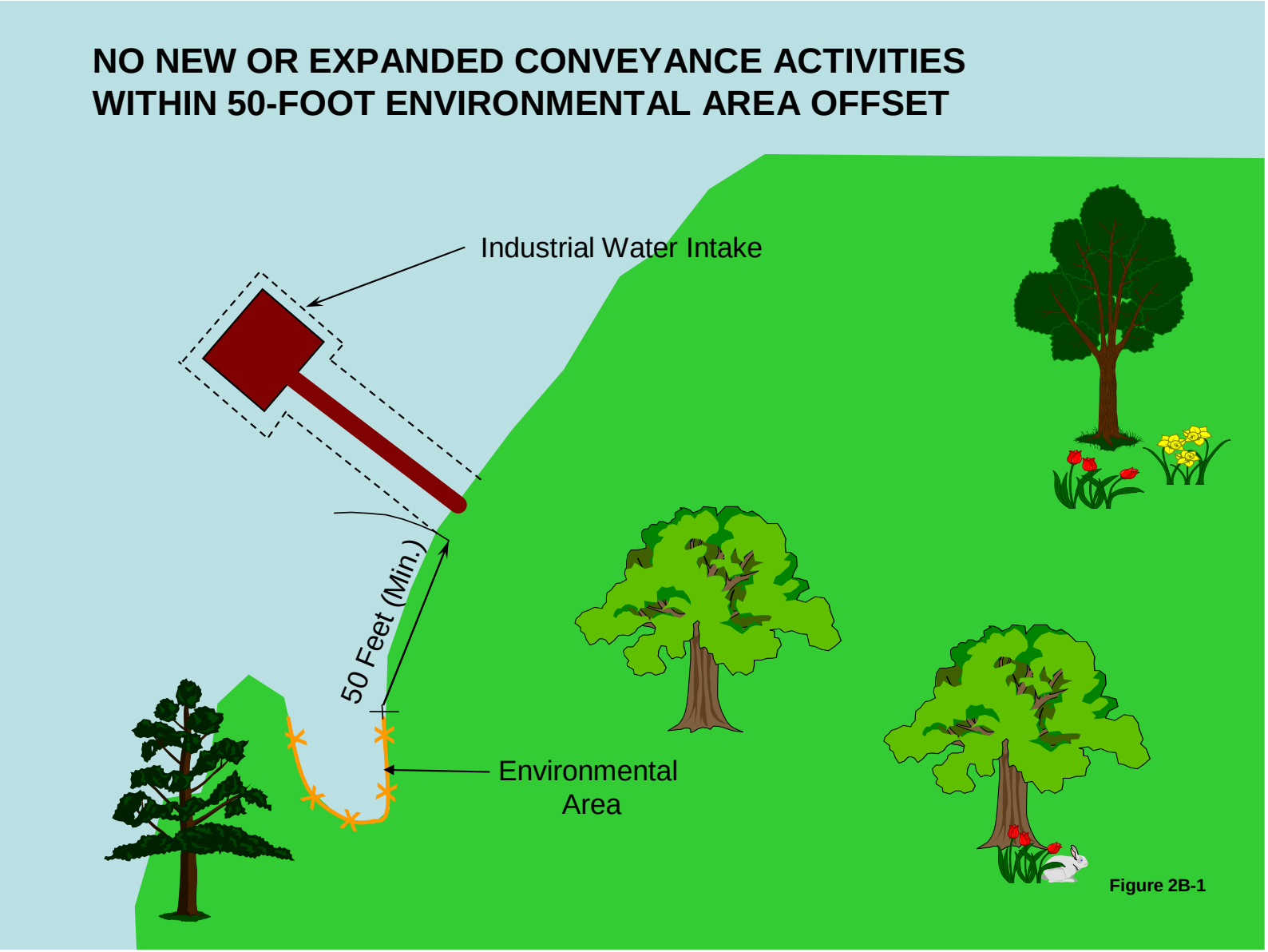

NO NEW OR EXPANDED CONVEYANCE ACTIVITIES
WITHIN 50-FOOT ENVIRONMENTAL AREA OFFSET
Industrial Water Intake
50 Feet (Min.)
Environmental
Area

Figure 2B-1

SUBMARINE UTILITY LINE AND INTAKE/OUTFALL REQUIREMENTS

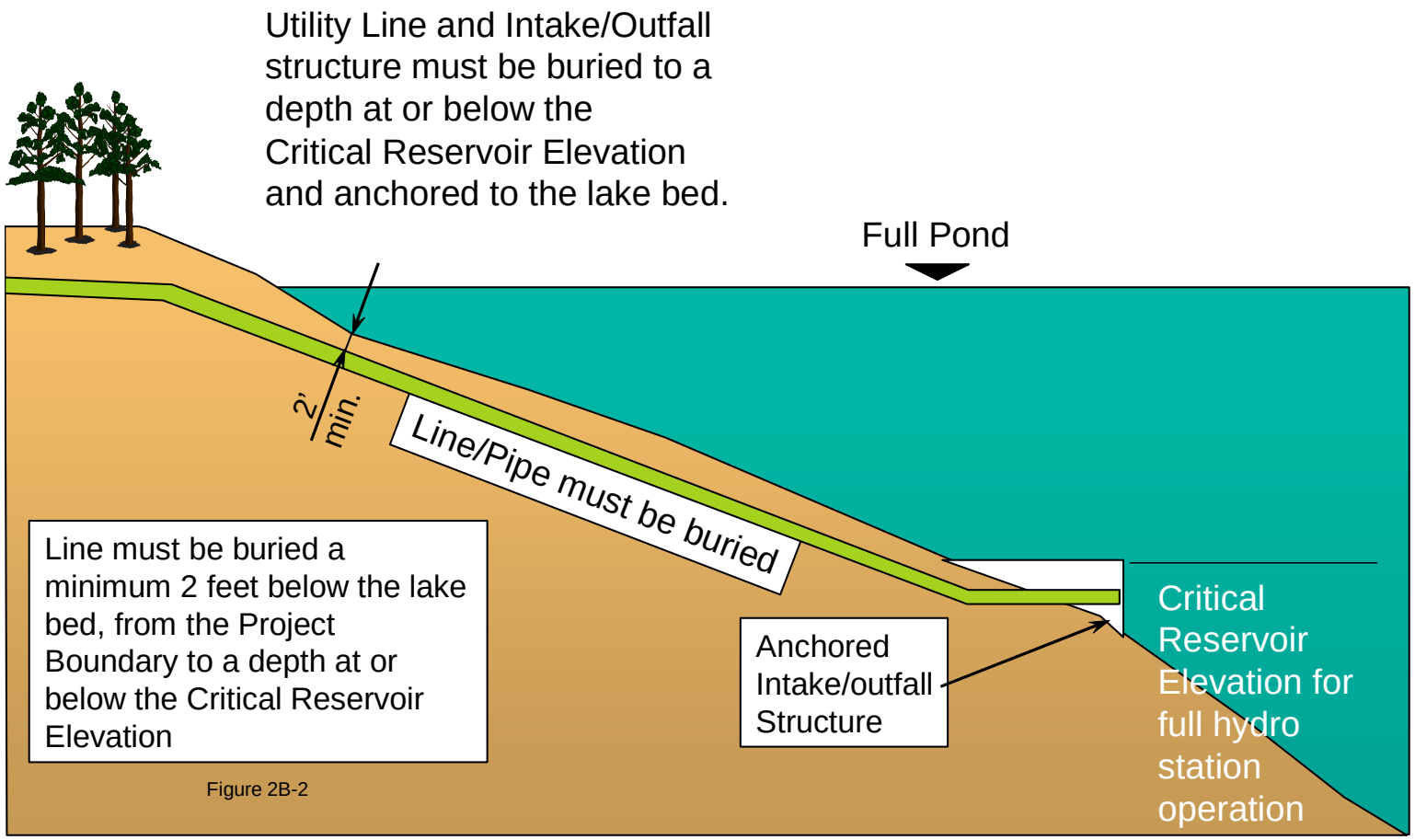


Figure 2B-2

NEW NON-PUBLIC CONSTRUCTION WITHIN THE FERC PROJECT BOUNDARY OR ON ANY DUKE-OWNED PERIPHERAL STRIP

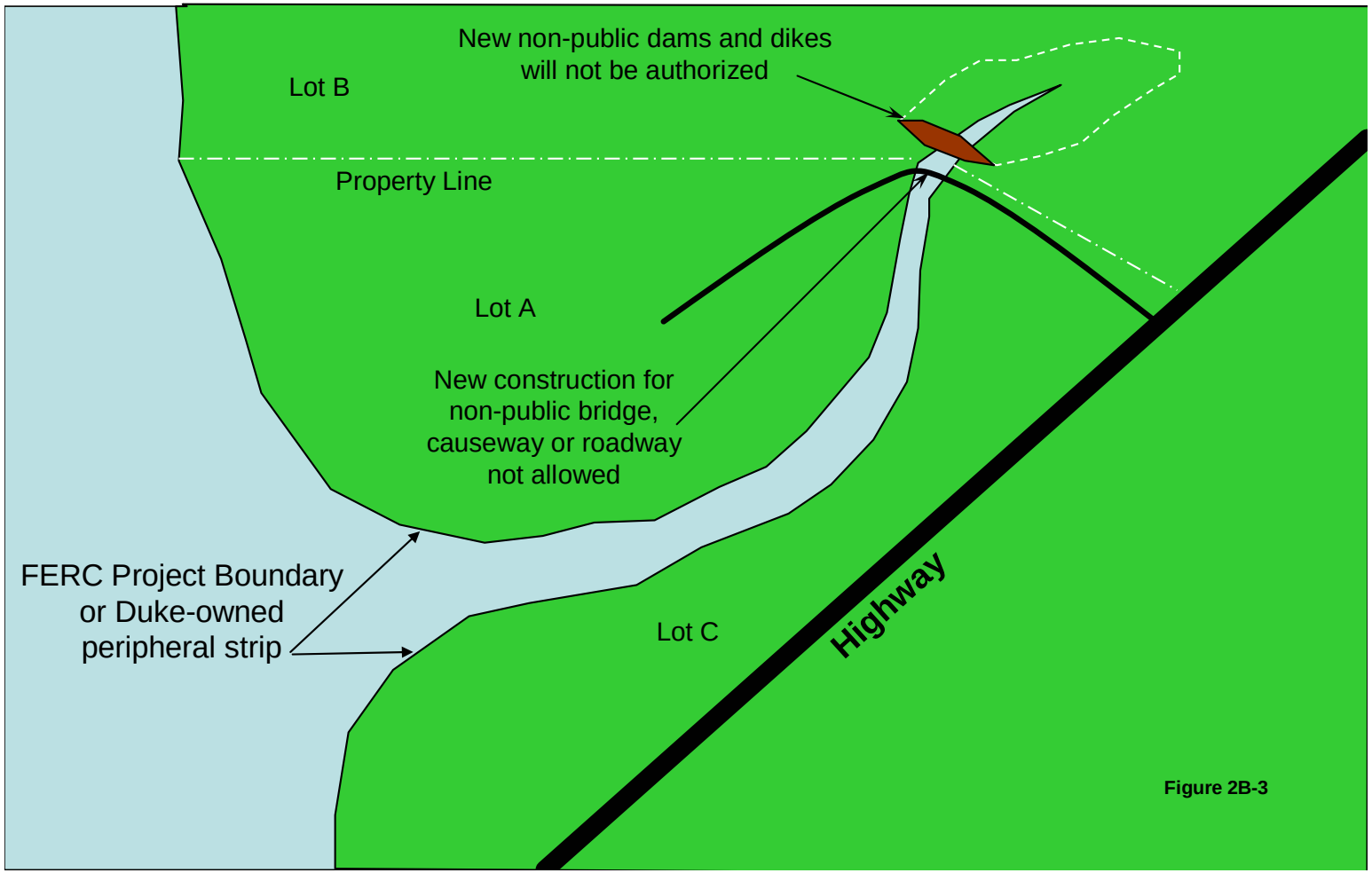


Figure 2B-3

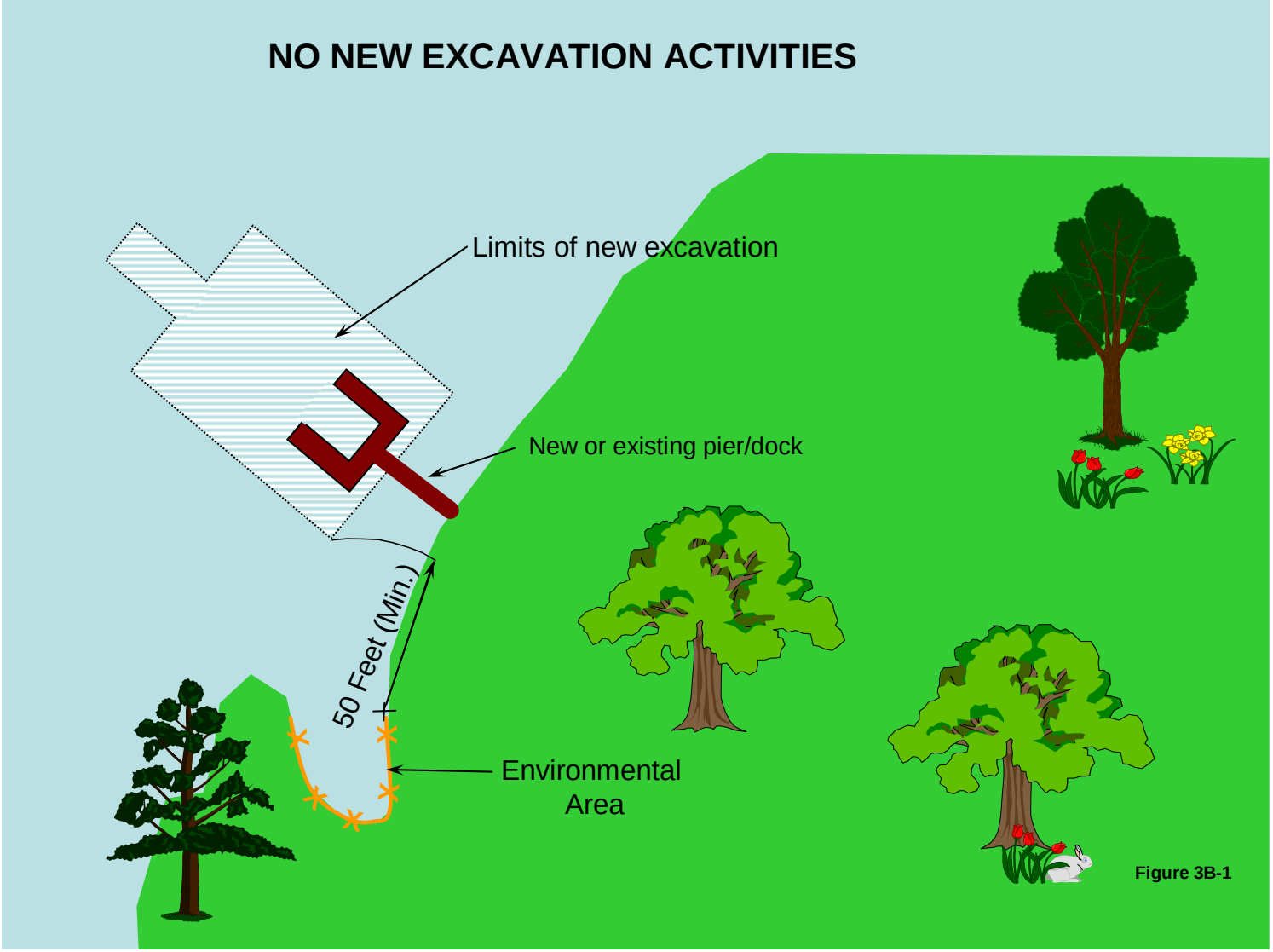

NO NEW EXCAVATION ACTIVITIES
Limits of new excavation
New or existing pier/dock
50 Feet (Min.)
Environmental
Area

Figure 3B-1

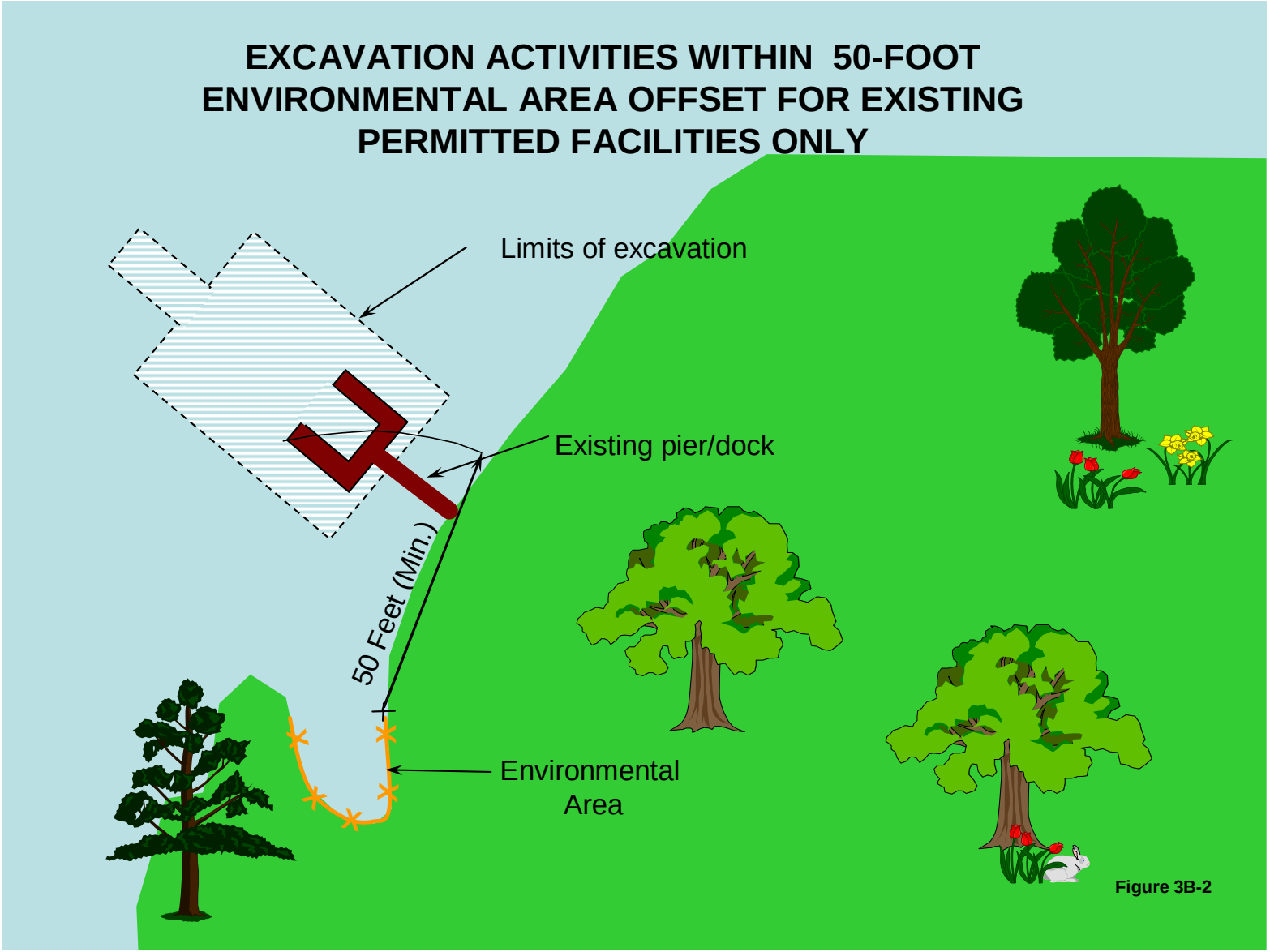
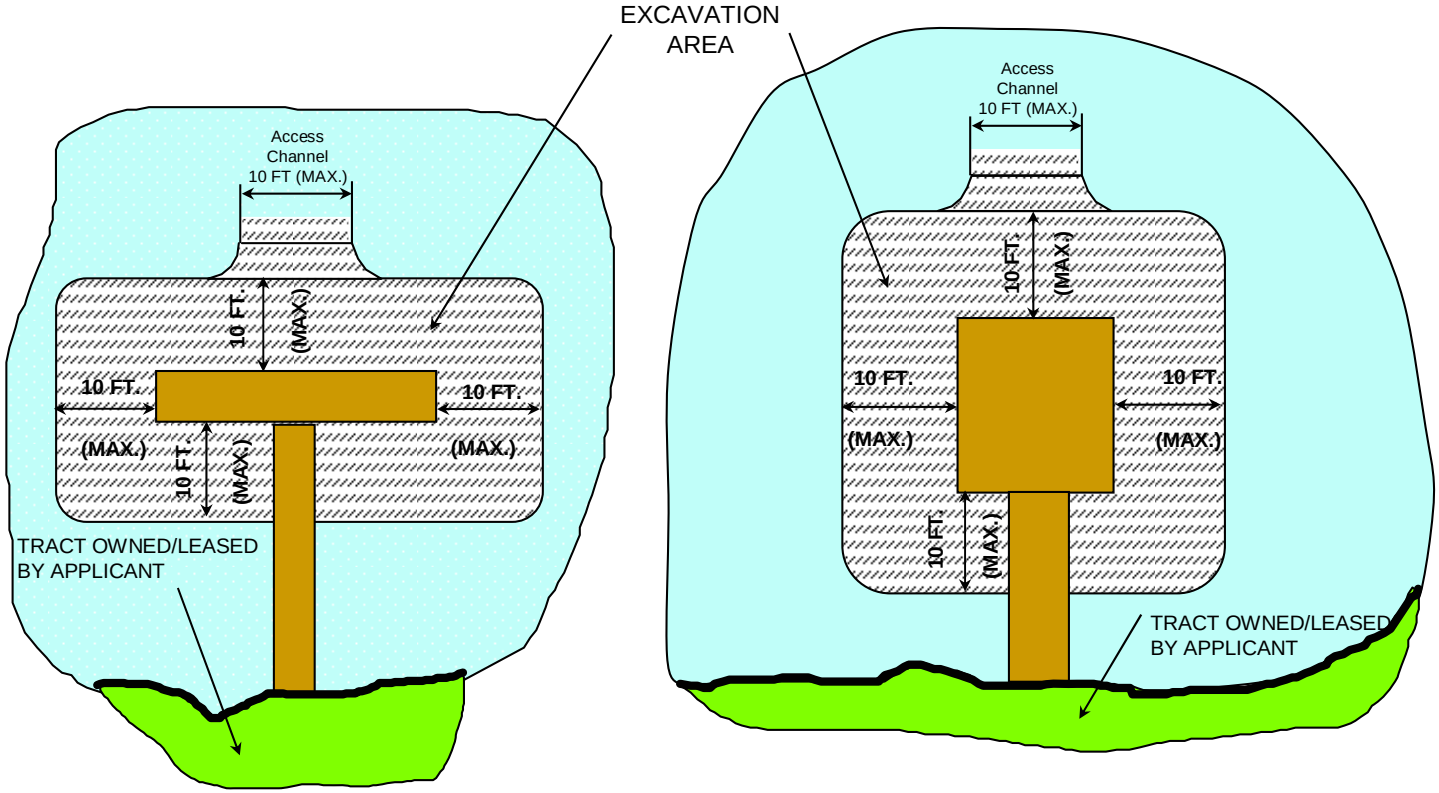

EXCAVATION ACTIVITIES WITHIN 50-FOOT ENVIRONMENTAL AREA OFFSET FOR EXISTING PERMITTED FACILITIES ONLY
Limits of excavation
Existing pier/dock
50 Feet (Min.)
Environmental Area

Figure 3B-2

GUIDANCE FOR MINIMIZING EXCAVATIONS NEEDED FOR A "T" CONFIG. AND AN "I" CONFIG. FACILITY

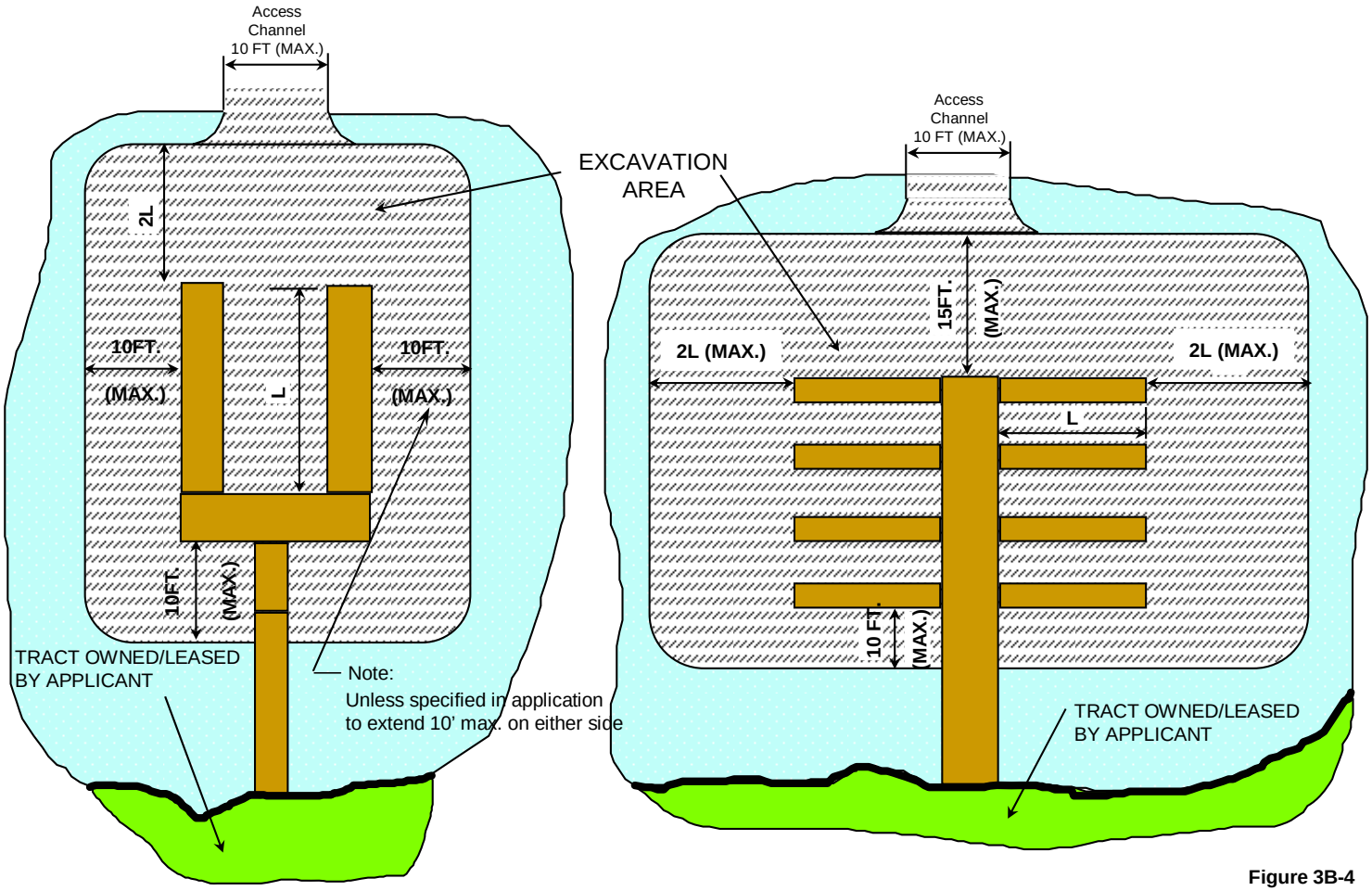


"T" CONFIGURATION FACILITY

"I" CONFIGURATION FACILITY

Figure 3B-3

GUIDANCE FOR MINIMIZING EXCAVATIONS NEEDED FOR SINGLE-SLIP AND MULTI-SLIP FACILITIES

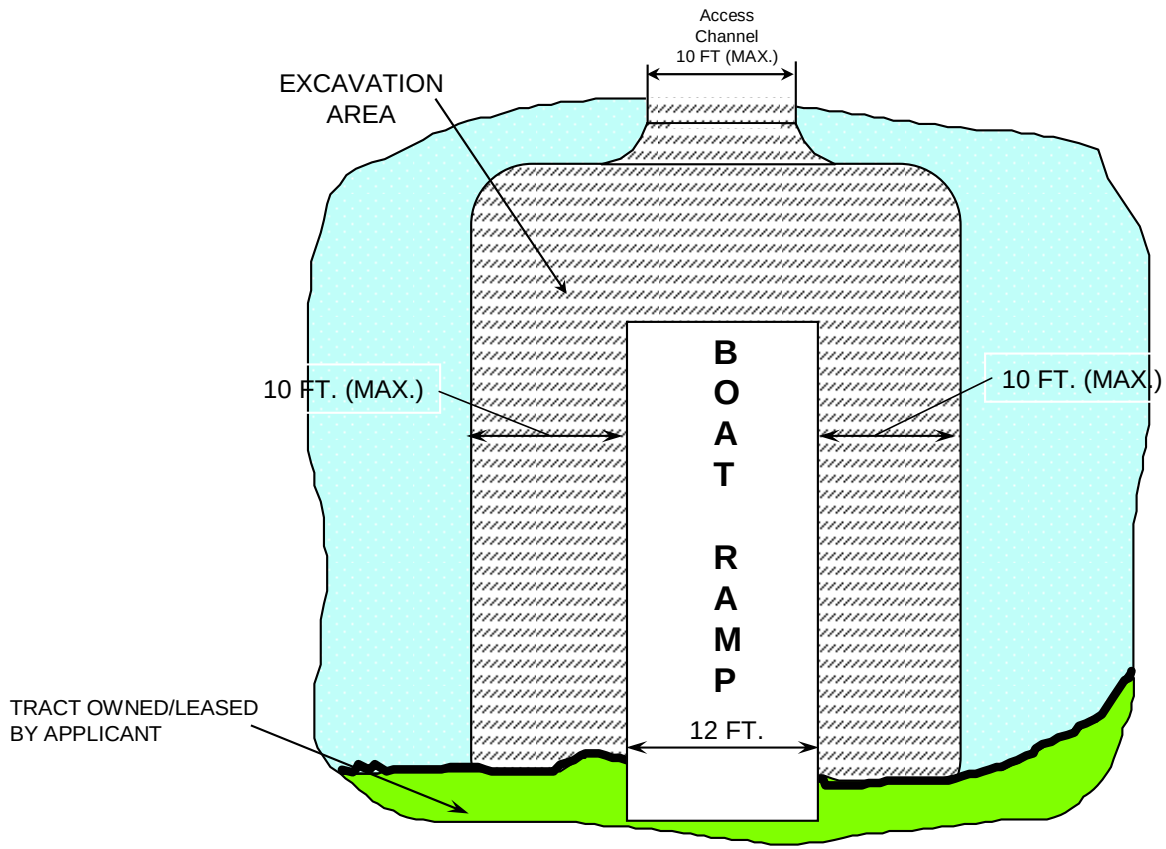


SINGLE-SLIP FACILITIES

MULTI-SLIP FACILITIES

Figure 3B-4

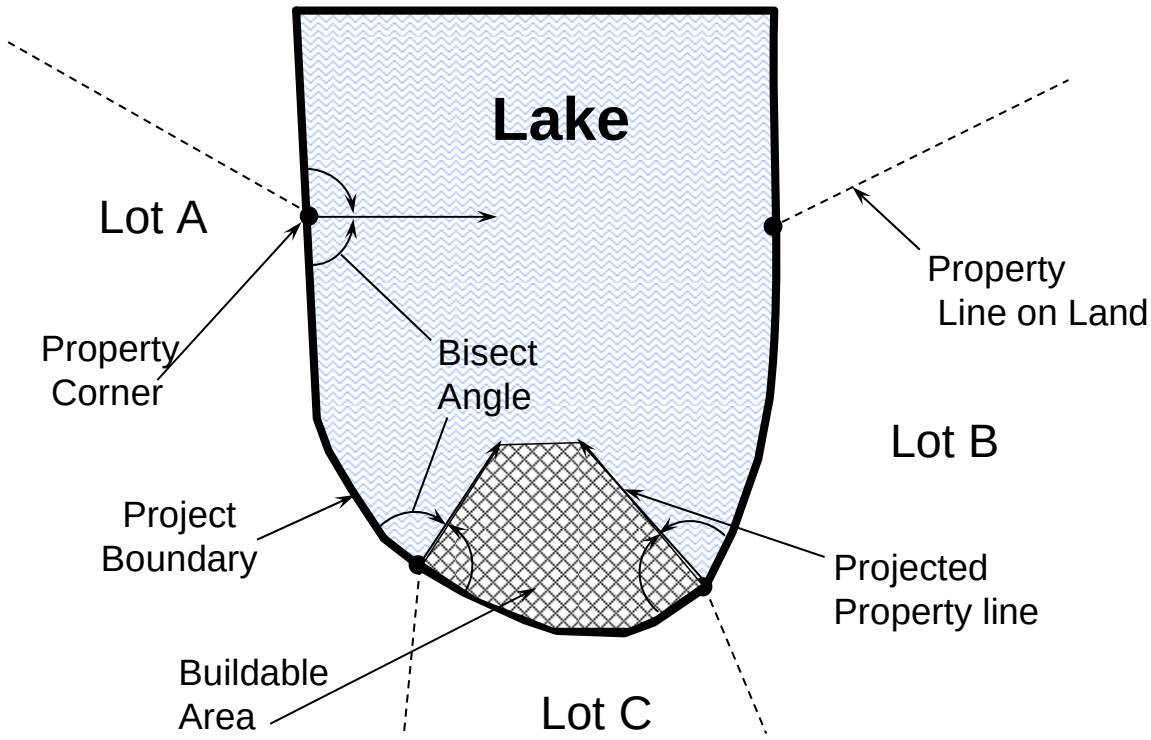
GUIDANCE FOR MINIMIZING EXCAVATIONS NEEDED FOR MAINTENANCE OF SINGLE LANE BOAT RAMP



SINGLE LANE BOAT RAMP

Figure 3B-5

TYPICAL DUKE ENERGY-LAKE SERVICES PROPERTY LINE PROJECTION



(NOTE: Local ordinances may provide an alternative property line projection methodology)

Figure 4B-1

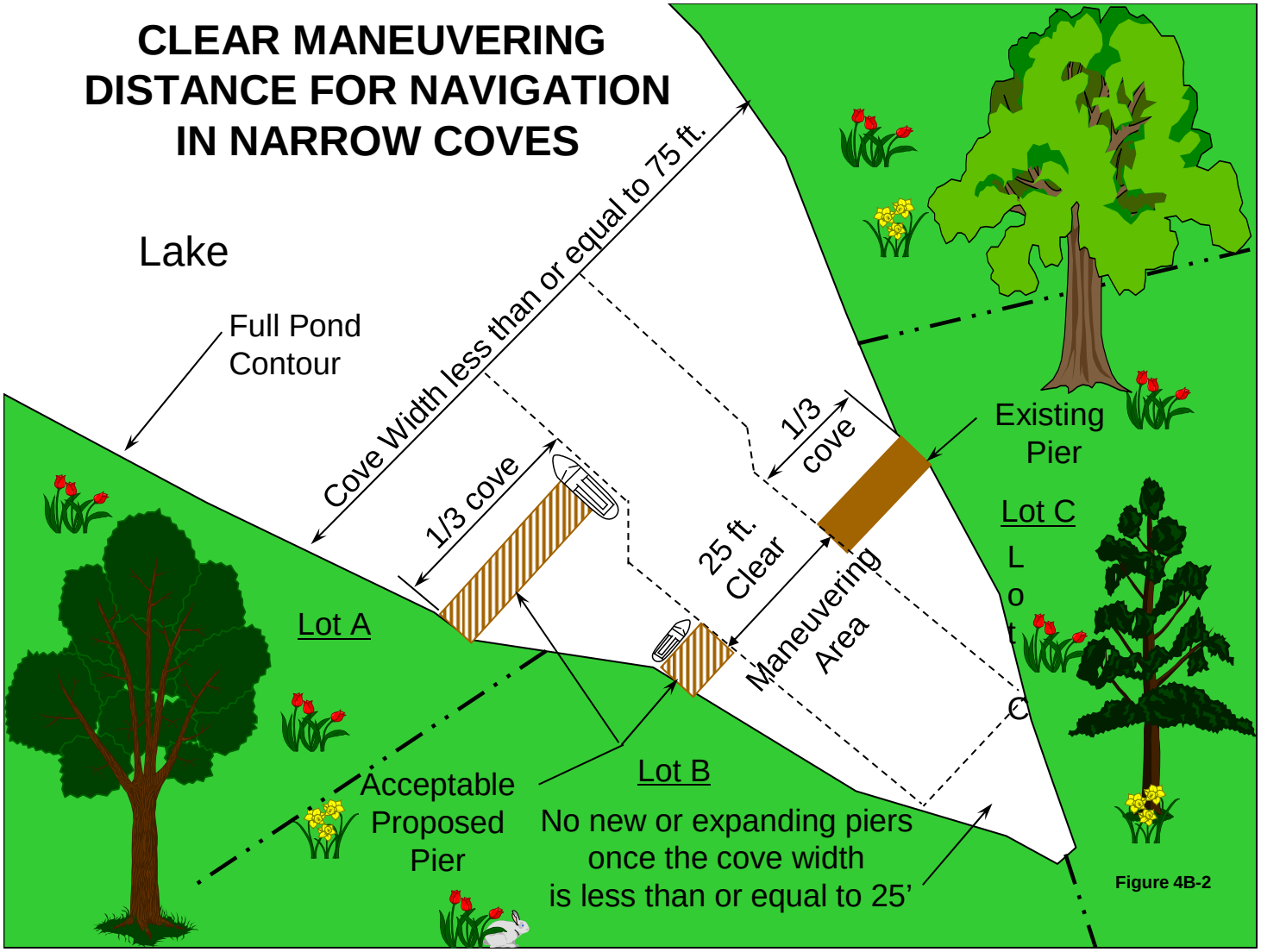
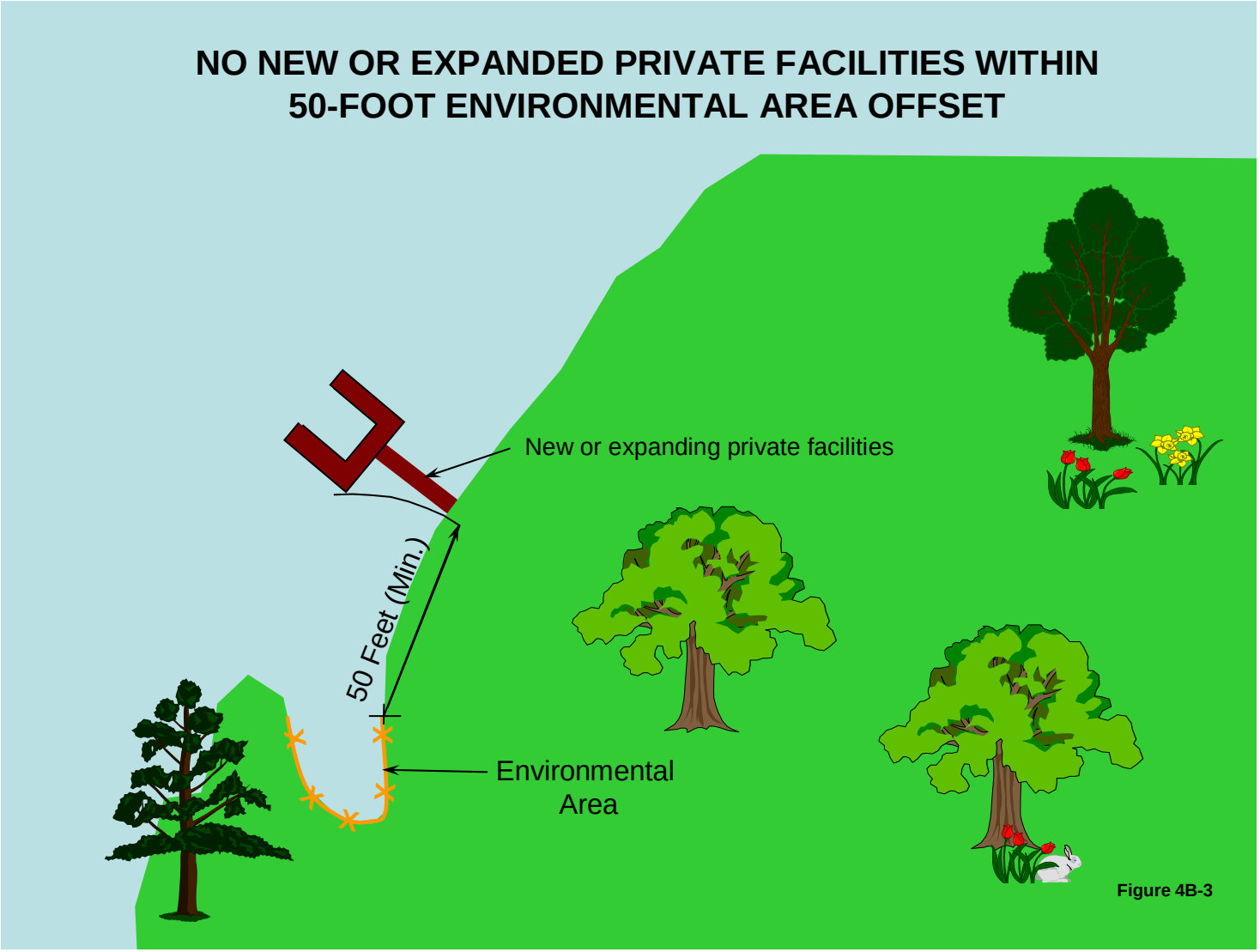

CLEAR MANEUVERING DISTANCE FOR NAVIGATION IN NARROW COVES
Lake
Full Pond Contour
Cove Width less than or equal to 75 ft.
1/3 cove
1/3 cove
25 ft. Clear Maneuvering Area
Existing Pier
Lot C
Lot A
Lot B
Acceptable Proposed Pier
No new or expanding piers once the cove width is less than or equal to 25'

Figure 4B-2


NO NEW OR EXPANDED PRIVATE FACILITIES WITHIN
50-FOOT ENVIRONMENTAL AREA OFFSET
New or expanding private facilities
50 Feet (Min.)
Environmental
Area
Figure 4B-3

SHORELINE STABILIZATION TECHNIQUE SELECTION PROCESS

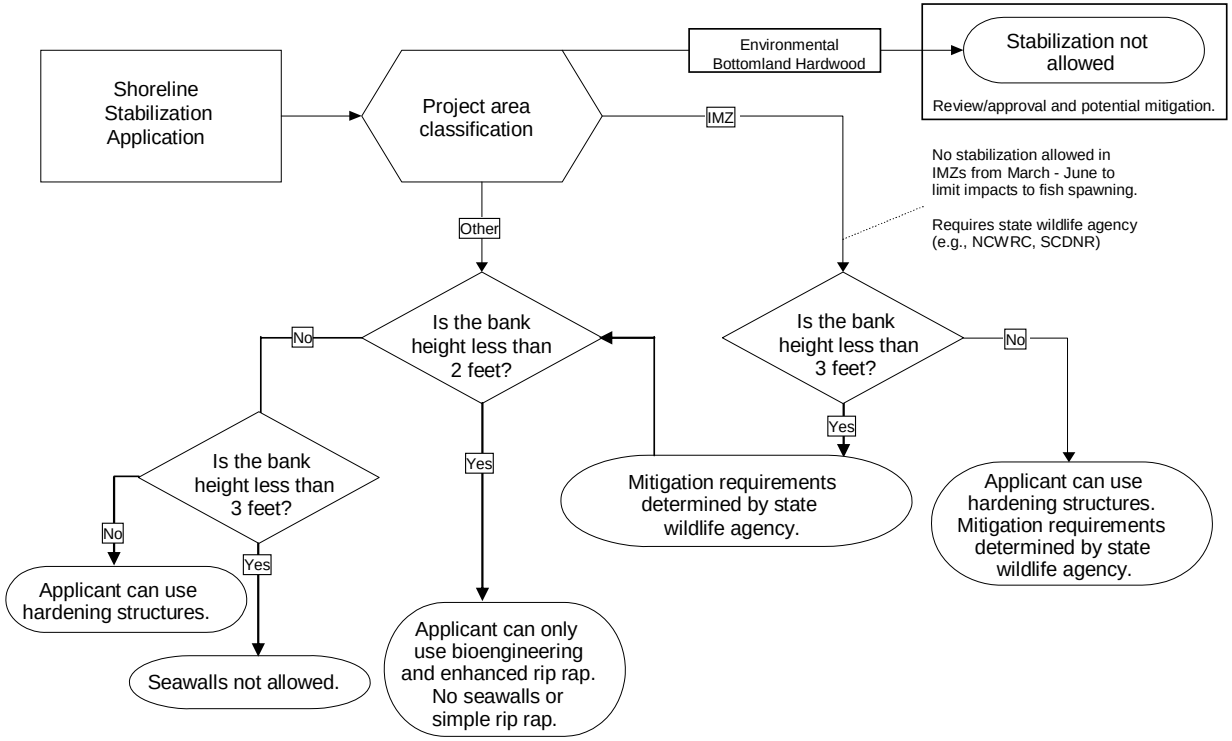


Figure 5A-1

TYPICAL SEAWALL FOR SHORELINE STABILIZATION

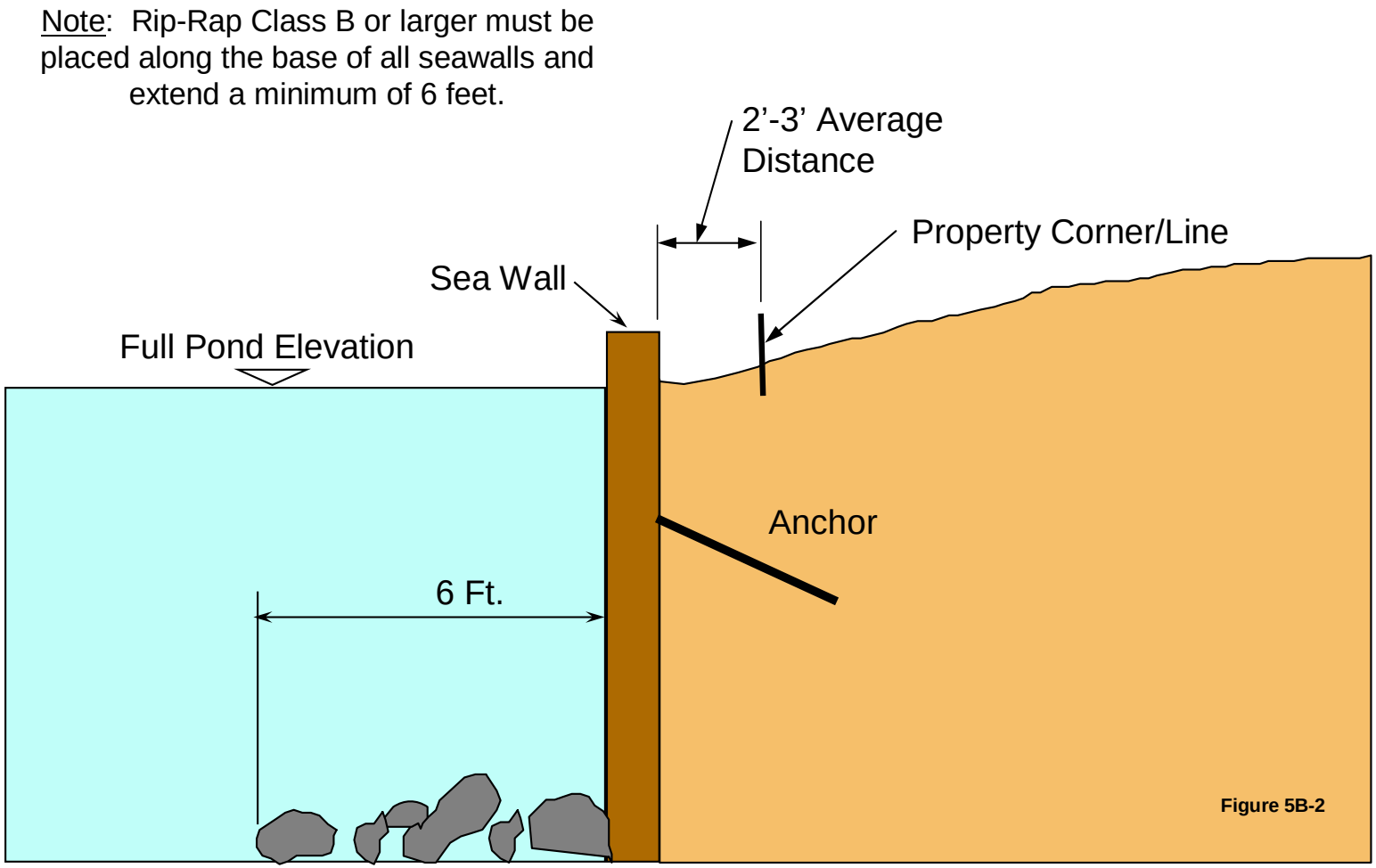


Figure 5B-2

ENHANCED RIP-RAP (WITH BOULDERS AND PLANTINGS)

Figure 5B-3

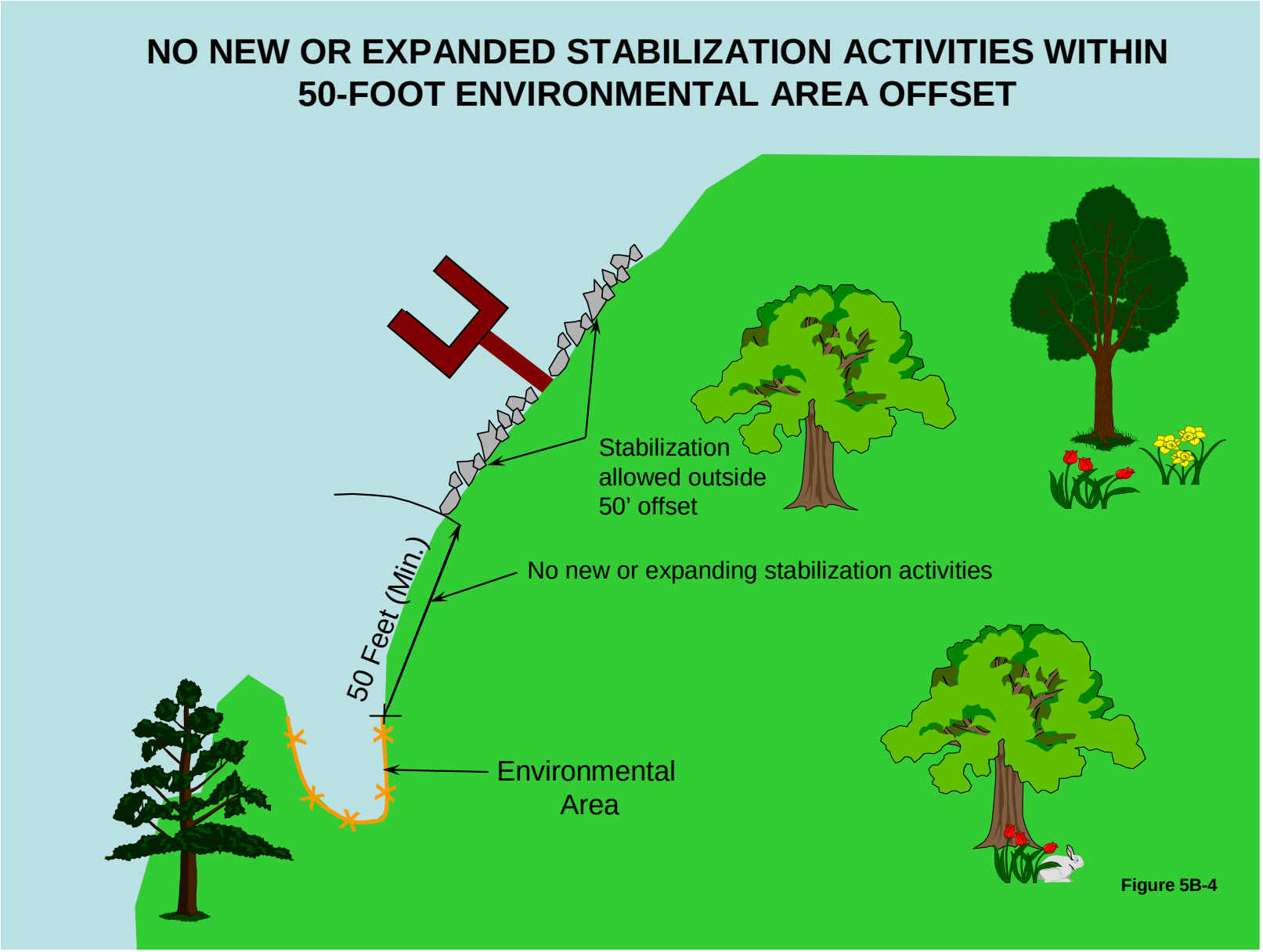

NO NEW OR EXPANDED STABILIZATION ACTIVITIES WITHIN
50-FOOT ENVIRONMENTAL AREA OFFSET
Stabilization allowed outside 50' offset
No new or expanding stabilization activities
50 Feet (Min.)
Environmental Area

Figure 5B-4

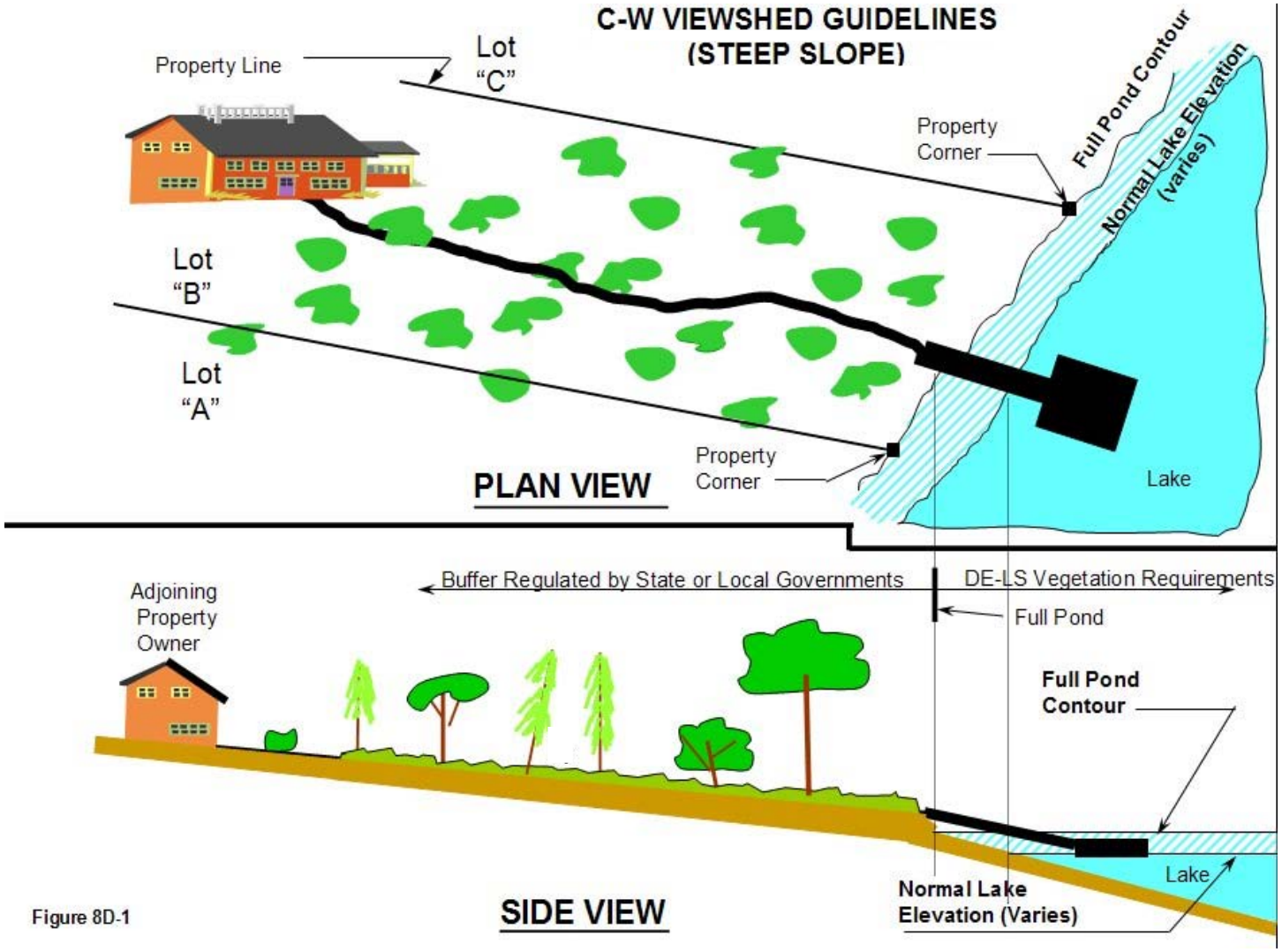

C-W VIEWSHED GUIDELINES
(STEEP SLOPE)
Property Line
Lot
"C"
Lot
"B"
Lot
"A"
Property
Corner
Full Pond Contour
Normal Lake Elevation
(varies)
Property
Corner
Lake
PLAN VIEW
Adjoining
Property
Owner
Buffer Regulated by State or Local Governments
DE-LS Vegetation Requirements
Full Pond
Full Pond
Contour
Lake
Normal Lake
Elevation (Varies)
SIDE VIEW

Figure 8D-1

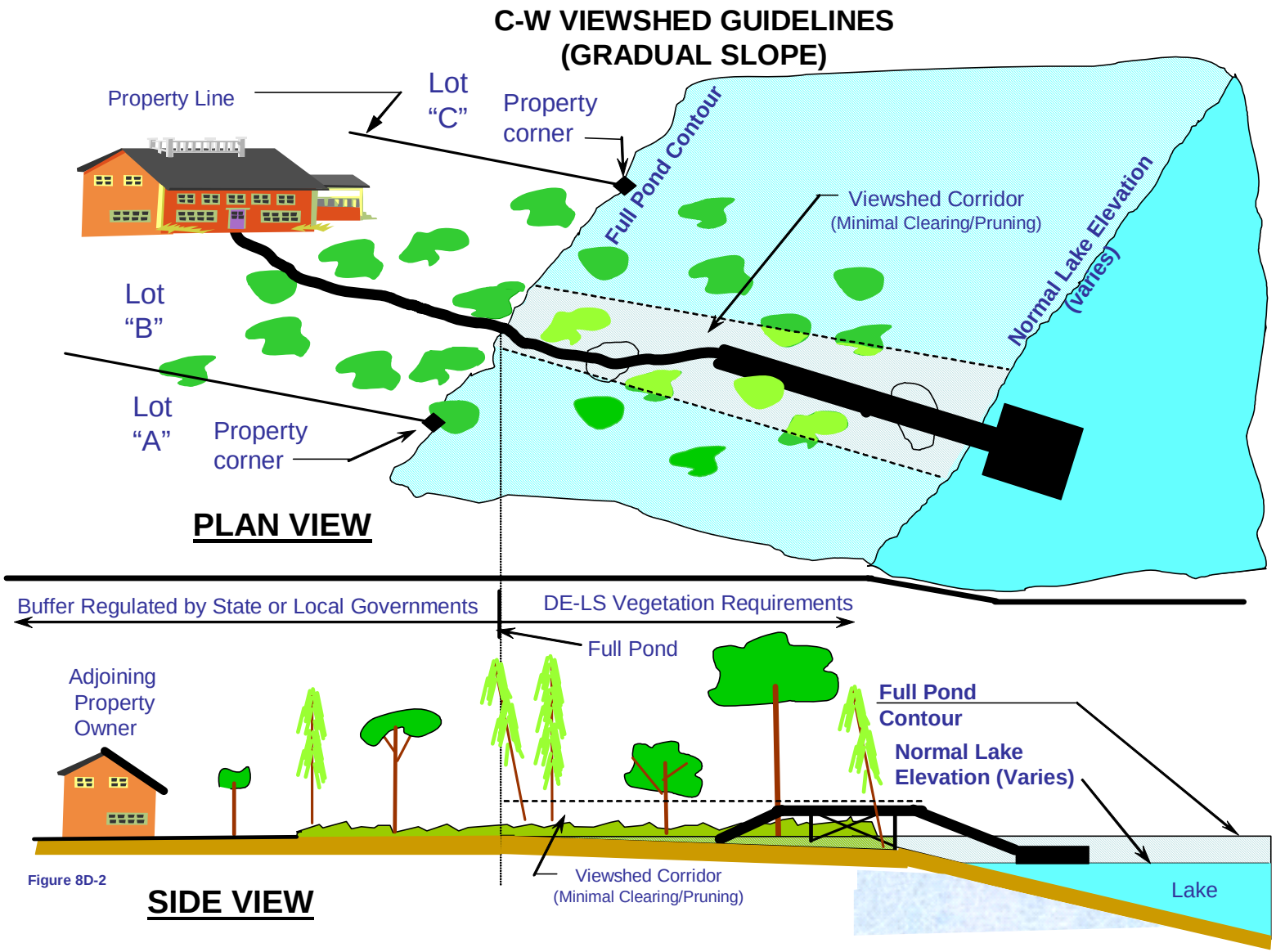

C-W VIEWSHED GUIDELINES
(GRADUAL SLOPE)
Property Line
Lot
"C"
Property
corner
Full Pond Contour
Viewshed Corridor
(Minimal Clearing/Pruning)
Normal Lake Elevation
(Varies)
Lot
"B"
Lot
"A"
Property
corner
PLAN VIEW
Buffer Regulated by State or Local Governments
DE-LS Vegetation Requirements
Full Pond
Adjoining
Property
Owner
Full Pond
Contour
Normal Lake
Elevation (Varies)
Viewshed Corridor
(Minimal Clearing/Pruning)
Lake
SIDE VIEW

Figure 8D-2

VIEWSHED EXAMPLES

ACCEPTABLE

UNACCEPTABLE

Figure 8D-3

VIEWSHED EXAMPLES

ACCEPTABLE

UNACCEPTABLE

Figure 8D-4

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TRUE PUBLIC MARINA REQUIREMENTS

The following information will be used to determine the classification of marinas at the projects. To be classified as a ***True Public Marina***, the facility must meet all of the requirements in sections 1 - 3. Section 4 identifies the application fee and security deposit to be paid.

1. No predetermination of user groups for any of the existing or proposed land and water-based facilities.
    a. No Residential Marina Facility access (existing or proposed) except those existing marina facilities that are characteristically operated as True Public Marinas although they allow Residential Marina-type access on a very limited basis. These existing marinas may be afforded the same considerations provided new True Public Marina facilities if the number of wetslips and dry storage bays dedicated for Residential Marina-type access is ≤ 10% of the total number of wetslips and dry storage bays within the marina facility and any considerations are approved by DE-LS. This exception only applies to the very limited number of existing marina facilities that meet the ≤ 10% requirement as of 1/1/06.
    b. No membership requirements
    c. Transient services do not require wet or dry storage rental
2. Existing and/or proposed facilities will provide land and water based recreation services for transient users at less than or equal to a reasonable and customary fee.
    a. Services are available for transient users
    b. Offers services for lake and land based users
3. Provides publicly available marine pump-out and restroom facilities.
4. Application filing fee and security deposit reductions
    a. If adding only the following type of facilities; courtesy dock, hiking trail, wildlife viewing , gas dock, fishing pier, boat ramp, swimming area, beach, boat repair/servicing, public restrooms or any other truly public service, then the application fee and security deposit will be reduced by 100%.
    b. If adding facilities that will be rented for greater than 14 days, but less than or equal to 365 days, there will be a 50% reduction in the application fee and security deposit.
    c. If the plan is the same as b., but also includes adding more types of items in 2 a., then the application fee and security deposit will be reduced by 100%.

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SHORELINE STABILIZATION TECHNIQUE SELECTION PROCESS

General Conditions

1. All seawalls must have Class B or larger rip-rap extending 6 feet lakeward from the base.
2. Considering current lake level operating targets and variability and the desire to prevent unnecessary impacts, rip-rap must be confined to the area between 6 feet below full pond elevation and no more than one foot above full pond elevation to the maximum practicable extent. Potential exceptions include areas where entire placement is above the FERC Project Boundary, where banks are already eroded above the full pond elevation or where severely eroded banks must be sloped back or terraced to provide minimum bank stability.
3. Seawalls are not allowed in areas with an average eroded bank height of less than 3 feet.
4. Proposals for stabilization where bank height is less than 2 feet can use approved bioengineering techniques and enhanced rip-rap techniques only.
5. The bank height is the average height of the eroded shoreline (measured from the original lake bed to the top of the eroded bank) in the area to be stabilized.
6. Bio-engineering is a stabilization approach that uses natural and living material.
7. Bio-Bioengineering techniques may include use of rip-rap with live stakes, rock filled gabions, live staked crib walls, biologs, and numerous other approaches.
8. Applicants can use bioengineering, rip-rap, seawalls or any combination of stabilization techniques where use of hardening structures are allowed.
9. Stabilization in an IMZ requires review/approval by the applicable state wildlife agency and reasonable mitigation requirements as determined through consultation with the state wildlife agencies.
10. Stabilization is not allowed from March 1 through June 30 in areas identified as IMZs in the SMP.
11. New or expanded stabilization activities (excluding bioengineering) may not be undertaken within the 50-foot Environmental Offset associated with an Environmental classification in the SMP.
12. Stabilization of eroded banks that are 3 feet in height or higher may be considered for bank reshaping by either cut or fill techniques provided:
    a. The stabilized bank uses a combination of rip-rap (not installed any higher than one foot above full pond) and bioengineering techniques;
    b. The cut or filled area, above the height of the rip-rap, is stabilized using vegetation in density and composition similar to other naturally vegetated areas in the vicinity of the stabilized shoreline;
    c. The toe of the rip-rap is vegetated if the lower limit of the rock provides a stable beach-shelf at an elevation 2-4 feet below full pond;

d. The work can be conducted in accordance with all applicable buffer regulations; and

e. The amount of cut or fill does not substantially alter the full pond contour, is strictly limited to only that necessary to provide a stable angle for rip-rap and revegetation, and is specifically quantified in the written authorization from DE-LS for the project.

13. Stabilization in areas classified as Natural, due to the presence of significant cultural resources, should not have artifacts impacted by using any shoreline stabilization techniques.

14. Applicants are encouraged to avoid activities (including stabilization) that could have an adverse impact upon existing water willow beds. Rip-rap installed below the normal lake level elevation and associated with water willow beds must be limited to one layer deep to allow spaces between the stone for water willow recruitment.

SHORELINE STABILIZATION TECHNIQUE SELECTION PROCESS

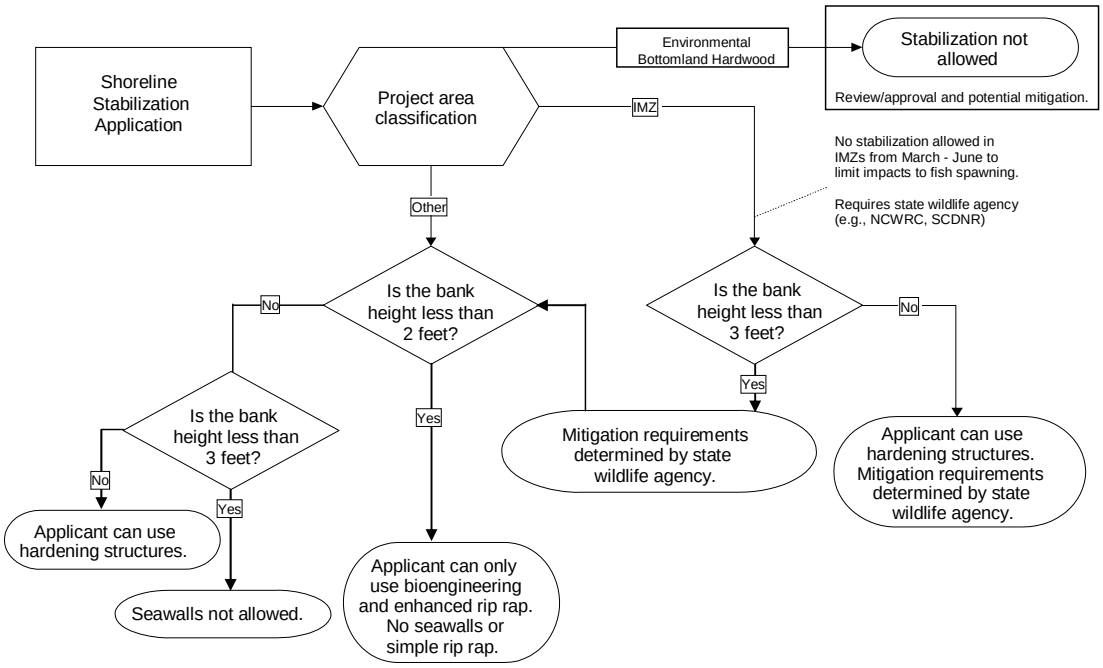

Figure 5A-1

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APPENDIX K: TEMPLATE FOR A MEMORANDUM OF UNDERSTANDING BETWEEN THE LICENSEE AND STATES, COUNTIES, AND MUNICIPALITIES

Memorandum of Understanding
Between Duke Energy Carolinas, LLC
and the
States, Counties, and Municipalities
Adjoining the Catawba-Wateree Hydro Project (FERC No. 2232)

I. PARTIES

This Memorandum of Understanding (MOU) is made and entered into by and between _____ {State / County / Municipality}, bordered by the Catawba-Wateree Hydro Project No. 2232 (the" **Project"**); hereafter referred to as the **"Governmental Entity";** and Duke Energy Carolinas, LLC ("Duke"). Collectively, the Governmental Entity and Duke are hereinafter referred to as the "**Parties**".

II. PURPOSE

To promote coordination of activities to the mutual benefit of the Parties of this MOU, the public being served by the Parties and the Project's resource values.

III. SCOPE OF WORK

Duke operates the Project under a license from the Federal Energy Regulatory Commission (FERC) and the license includes, among other things, the responsibility for Duke to manage uses of Project lands and waters. The Governmental Entity also has certain responsibilities to manage land and/or water uses either within or adjoining the FERC Project Boundaries.

Duke and the Governmental Entity desire to provide an effective means to coordinate their land and/or water management responsibilities including: 1) availability and sharing of data associated with the Project, 2) reservoir buffer monitoring and enforcement activities, 3) lake use permitting review, and 4) land use and zoning considerations in the protection and enhancement of the Project and adjoining lands within each Party's jurisdiction.

A. <u>Data Availability</u>

The Parties agree to allow the mutual sharing of data to the greatest extent possible and subject to any mutually agreed-upon reservations. The various types and formats for data may be modified from time to time, but typically involve non-proprietary public data such as, but not limited to: 1) Shoreline Management Plan Maps (GIS); 2) County tax parcels (GIS coverages); 3) Duke aerial photography; 4) Light Detection and

Ranging (LiDAR) contours; 5) Project wetlands mapping data layers; 6) Hydro Licensing Land Committee publicly-available data layers and 7) other similar data.

B. Lake Monitoring/Enforcement Activities

The Parties agree to support the management of the shoreline and upland buffer by coordinating buffer monitoring and enforcement activities. Duke will provide additional buffer monitoring capabilities to enhance the existing monitoring conducted by the Governmental Entity. The Governmental Entity will provide Duke the most current buffer regulations for the Governmental Entity's jurisdiction. Duke will provide this information to its appropriate Lake Services Representatives ("Reps") for the particular region. The Reps will become familiar with the basic requirements of the regulations. During routine lake use permitting surveillance activities, the Reps will note any potential buffer violations and report the location and nature of the activity to the appropriate Governmental Entity within three (3) business days of noting the activity.

Likewise, Duke will provide the Governmental Entity its most current Shoreline Management Guidelines (SMG) with the expectation that any Governmental Entity will notify Duke within a similar timeframe (i.e., 3 business days) of any potential SMG violation within the Project Boundaries (full pond contour MSL) of a particular reservoir. Duke will document this interaction by tabulating the number of reported incidents, to whom reports were provided and when, and the nature of the potential violation.

The Parties further agree to coordinate and support each other's enforcement activities (as allowed by state regulation or county / municipal ordinance). In addition Duke will withhold review of any pending or future permitting activities for the property in question until all buffer, sedimentation/erosion control and SMG violation issues are resolved or a remedial action plan, satisfactory to the affected Parties, is accepted. Coordination of these enforcement activities will be in the form of e-mail or fax notification. See Attachment A {to be developed when the MOU is finalized} for a listing of the specific contacts within Duke and the Governmental Entity.

C. Lake Use Permitting Review

The Parties also agree to coordinate and support each other's permit review processes for activities within the Project Boundaries. Duke will continue to require, as part of its SMG criteria that all facility construction, stabilization, and/or excavation activities comply with all applicable local, state and federal regulations. Duke will coordinate with the Governmental Entity to develop a mutually satisfactory protocol to notify one another that authorization has been granted or denied. Typically, this will involve all lake use permit applicants being directed by Duke to contact the appropriate Governmental Entity for review and any required authorizations prior to Duke accepting a lake use permit application as complete. Also, for the benefit of the lake use permit applicant and those Governmental Entities involved in permit review, Duke will require lake use permit applicants to include copies of any required building permits or other authorization documentations in its applications. This verification can be provided by either the applicant or the Governmental Entity.

D. Land Use and Zoning Considerations

While the Shoreline Management Plan (SMP) classification maps and associated lake use restrictions provide a function similar to zoning in considering future uses of shoreline areas within the FERC Project Boundaries, they are not intended to be a substitute for or directly tied to local land use and zoning plans. Local land use and zoning plans are typically more restrictive and tailored to the conditions that exist in a very specific location. Additionally, local land use and zoning plans often include a mechanism that provides some degree of flexibility for modification to meet specific circumstances. Because of this fact, and the fact that the SMP classifications and lake use restrictions are determined and implemented based on Project specific conditions, and have little or no flexibility to modify the future uses without FERC review and approval, the SMP classifications may not be consistent with local land use plans and zoning. It is critical to understand that although there may be instances of inconsistency between the two, the SMP classifications do not supersede or alter the authority and effectiveness of the local plans.

The Parties agree that considerable effort has been invested in the development and implementation of local land use and zoning plans. Further, these plans should not be superseded by other entities that may require less restriction associated with a particular use. To continue to reinforce the effectiveness and implementation of these local plans, Duke agrees to not issue a permit for activities in conflict with local plans, provided Duke is made aware of the conflict by the Governmental Entity. Additionally, Duke will not interfere with implementation of the local plans, by either supporting a position by a lake use permit applicant that is contrary to the allowed use under the local plans or by circumventing an established permit review protocol as identified in the Lake Use Permitting Review section of this MOU or the requirements of the SMG that require all lake use permit applicants to comply with all applicable local, state, and federal regulations.

IV. MUTUAL AGREEMENTS

{Specific detailed protocols will be developed on an individual basis with the Parties at the time of negotiating a final Memorandum of Understanding. This will allow flexibility in assuring each individual Memorandum of Understanding will more adequately meet the needs of all Parties.}

It is mutually agreed by all Parties to this MOU that:

A. The Parties will review the effectiveness of the MOU after the first year and every ten years beginning in 2008 and evaluate potential modifications that more adequately address the purpose of this MOU.

B. The Parties will work in partnership to promote the MOU, and its benefits to the Project and community, in discussions with other resource management agencies, adjoining property owners, land developers, governments, elected officials, non-governmental organizations, and the general public.

C. Duke, within the limits of its permitting authority, will support implementation and enforcement by the Governmental Entity of regulations within and adjacent to the FERC Project Boundaries, including but not limited to sedimentation and erosion control, buffer creation/maintenance/restoration, and land use planning

and zoning, but Duke will not as part of this MOU directly implement and enforce any regulation except as specifically identified in this MOU or as required by law.

D. Should the Governmental Entity desire to create and develop a visioning or long-range planning process related to the overall character of the reservoir area and future development within and adjacent to the FERC Project Boundaries, then Duke will participate in, but not lead, that effort.

E. In the event that a Party no longer approves implementation of any of the provisions referenced in this MOU, the individual Party and Duke agree to promptly confer to determine what, if any, modifications to this MOU should be made to address the issue(s) of concern.

F. In the event that a Party no longer desires to be a part of this MOU or any modification(s), then the individual Party and Duke in their sole discretion may terminate their relationship within this MOU. Written notice must be provided by the Party desiring to withdraw from the MOU at least thirty days prior to termination.

G. Each Party agrees that it will be responsible for its own acts and the results thereof and shall not be responsible for the acts of the other Party and the results thereof. Each Party, therefore, agrees that it will assume all risk and liability to itself, its agents or employees, for any injury to persons or property resulting in any manner from the conduct of its own operations, and the operation of its agents or employees under this MOU, for any loss, cost, damage, or expense resulting at any time from any and all causes due to any act or acts, negligence, or the failure to exercise proper precautions, of or by itself or its agents or its own employees, while occupying or visiting the premises under and pursuant to the MOU.

H. The terms of the MOU will apply to the following reservoirs of the Catawba-Wateree Project No. 2232 even if any of the associated hydro developments are included in different FERC licenses:

{List applicable reservoir names.}

I. This MOU will terminate with the expiration of the New License unless the Parties agree to renew this MOU, but no Party is obligated to renew.

V. FUNCTIONS

{Specific detailed protocols will be developed on an individual basis with the Parties at the time of negotiating a final Memorandum of Understanding. This will allow flexibility in assuring each individual Memorandum of Understanding will more adequately meet the needs of all Parties. This could include such items as coordinated permit review based on buffer regulations, sedimentation/erosion control and other regulations.}

A. Duke Energy Carolinas, LLC

Duke agrees to:

B. The Governmental Entity

The Governmental Entity agrees to:

VI. SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have executed this MOU as of the last written date below.

Governmental Entity

_____ *(Printed Name of Signer)*

_____ *(Signature)*

_____ *(Title)*

_____ *(Date)*

Duke Energy Carolinas, LLC

_____ *(Printed Name of Signer)*

_____ *(Signature)*

_____ *(Title)*

_____ *(Date)*

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APPENDIX L: FLOW AND WATER QUALITY IMPLEMENTATION PLAN (FWQIP)

The Flow and Water Quality Implementation Plan (FWQIP) table that follows presents an outline of:

- A site-specific list of measures that the Licensee will take for providing aquatic flows, recreation flows and for meeting the applicable water quality standards;
- A schedule for when these measures will be implemented; and
- A schedule for any interim measures that will be taken to address flow releases or dissolved oxygen (DO) improvements prior to completing the necessary physical modifications to the Project.

Dates are subject to change due to items beyond the Licensee's control such as materials availability, manufacturing capacity, transportation schedules and installation contractor availability. The Licensee will however make every reasonable effort in its planning and implementation to minimize the chance of delays in this schedule.

Location	**Timeframe for Operational Change to Implement Flows and/or Enhance DO where No Physical Modifications are Anticipated** (Note 7)	**Physical Modifications Proposed to Meet Flow and/or DO Requirements** (Note 8)	**Timeframe for Completing Physical Modifications and Implementing Flows and/or DO Enhancements** (Note 1)	**Interim Measures for Providing Aquatic Flow and/or DO Enhancement until Physical Modifications are Complete** (Notes 3, 7)
Bridgewater Development (Notes 2, 4, 6)				
Catawba Dam	N/A	New flow valve with aerating capability	15 months following FERC approval of FWQIP to be coordinated with the Bridgewater Dam Upgrade Project	None
Linville Dam	N/A	New Powerhouse with aerating capability on all units or flow valve system (Note 2)	2010 (subject to schedule and FERC approvals related to Bridgewater Dam Upgrade Project).	None

Location	**Timeframe for Operational Change to Implement Flows and/or Enhance DO where No Physical Modifications are Anticipated** (Note 7)	**Physical Modifications Proposed to Meet Flow and/or DO Requirements** (Note 8)	**Timeframe for Completing Physical Modifications and Implementing Flows and/or DO Enhancements** (Note 1)	**Interim Measures for Providing Aquatic Flow and/or DO Enhancement until Physical Modifications are Complete** (Notes 3, 7)
Rhodhiss Development				
Rhodhiss Dam & Powerhouse	N/A	New aerating runner on Unit 3	48 months following FERC approval of the FWQIP	Beginning within 60 days after the date of closure of the New License, when DO is below state standards, operate units with existing stay vanes and vacuum breaker aeration (two units) on a first-on, last-off hierarchy whenever the station is being operated for flow release, reservoir level control, or generation.
Oxford Development				
Oxford Dam	N/A	- New flow valve with aerating capability - New aerating runner on one existing unit	-19 months following FERC approval of FWQIP - 36 months following FERC approval of FWQIP	Beginning within 60 days following the date of closure of the New License, raise a flood gate during periods of no generation to release and aerate the Minimum Continuous Flow.
Lookout Shoals Development				
Lookout Shoals Powerhouse	Beginning within 60 days following the date of closure of the New License, operate existing vacuum breakers (three units) as needed to meet state standards for DO while monitoring Oxford DO carry-over benefits. If necessary, add aerating capacity to auxiliary units. Operate existing large or auxiliary units as needed to provide minimum flow.	N/A	N/A	N/A

Location	**Timeframe for Operational Change to Implement Flows and/or Enhance DO where No Physical Modifications are Anticipated** (Note 7)	**Physical Modifications Proposed to Meet Flow and/or DO Requirements** (Note 8)	**Timeframe for Completing Physical Modifications and Implementing Flows and/or DO Enhancements** (Note 1)	**Interim Measures for Providing Aquatic Flow and/or DO Enhancement until Physical Modifications are Complete** (Notes 3, 7)
Cowans Ford Development				
Cowans Ford Powerhouse & Dam	Beginning within 60 days following the date of closure of the New License, operate existing units as needed. No flow or DO enhancements are needed.	N/A	N/A	N/A
Mountain Island Development (Note 5)				
Mountain Island Powerhouse & Dam	Beginning within 60 days following the date of closure of the New License, operate existing stay vane aeration units as needed. No flow or DO enhancements are needed.	N/A	N/A	N/A
Wylie Development				
Wylie Powerhouse	N/A	Replace one existing hydro unit with a smaller unit with aerating capability	30 months following FERC approval of FWQIP	Beginning within 60 days following the date of closure of the New License, pulse an existing unit 1 hr on, 2 hrs off during periods when at least 1 unit is not running continuously. When DO is below state standards, operate two existing units with hub-venting capability on a first-on, last-off hierarchy whenever the station is being operated for flow release, reservoir level control or generation.

Location	**Timeframe for Operational Change to Implement Flows and/or Enhance DO where No Physical Modifications are Anticipated** (Note 7)	**Physical Modifications Proposed to Meet Flow and/or DO Requirements** (Note 8)	**Timeframe for Completing Physical Modifications and Implementing Flows and/or DO Enhancements** (Note 1)	**Interim Measures for Providing Aquatic Flow and/or DO Enhancement until Physical Modifications are Complete** (Notes 3, 7)
Fishing Creek Development				
Fishing Creek Powerhouse & Dam	Beginning within 60 days following the date of closure of the New License, operate existing stay vanes (two units) and hub venting (one unit) as needed to meet state standards for DO.	N/A	N/A	N/A
Great Falls – Dearborn Development				
Great Falls Diversion Dam (Long Bypass)	N/A	Combination notches/gates and/ or bladder dam	21 months following FERC approval of FWQIP	None
Great Falls Headworks (Short Bypass)	N/A	Combination existing trash gate and/or bladder dam	21 months following FERC approval of FWQIP	Beginning within 60 days following the date of closure of the New License, provide as close as possible to the prescribed aquatic flows via the existing trash gate.
Dearborn Powerhouse	Beginning within 60 days following the date of closure of the New License, operate existing vacuum breakers (three units) as needed to meet state standards for DO while monitoring Fishing Creek DO carry-over benefits.	N/A	N/A	N/A

Location	Timeframe for Operational Change to Implement Flows and/or Enhance DO where No Physical Modifications are Anticipated (Note 7)	Physical Modifications Proposed to Meet Flow and/or DO Requirements (Note 8)	Timeframe for Completing Physical Modifications and Implementing Flows and/or DO Enhancements (Note 1)	Interim Measures for Providing Aquatic Flow and/or DO Enhancement until Physical Modifications are Complete (Notes 3, 7)
Rocky Creek – Cedar Creek Development				
Cedar Creek Powerhouse & Dam	Beginning within 60 days following the date of closure of the New License, operate existing hub venting capability (three units) as needed to meet state standards for DO while monitoring the benefit of continuous flows through Great Falls Bypassed Reaches.	N/A	N/A	N/A
Wateree Development				
Wateree Powerhouse	Beginning within 60 days following the date of closure of the New License, operate existing hydro units as necessary to provide downstream flow requirement. Also operate existing units with auto-venting capability as needed to meet state standards for DO.	Replace one existing hydro unit with a smaller unit with aerating capability	30 months following FERC approval of FWQIP	Beginning within 60 days following the date of closure of the New License, approximate minimum continuous flows by (1) pulsing an existing unit 1 hr on, 2 hrs off from May 16 thru Feb 14 during periods when at least 1 unit is not running continuously and (2) running an existing hydro unit continuously from Feb 15 thru May 15. When DO is below state standards, operate existing units with auto-venting capability on a first-on, last off hierarchy whenever the station is being operated for flow release, reservoir level control or generation.

Notes:

1. The FWQIP will be filed with NCDWQ and SCDHEC during the 401 Water Quality Certification processes as the recommended flow and water quality implementation plan. NCDWQ and SCDHEC will take the recommended FWQIP under advisement and will approve and/or modify the FWQIP in the 401 Water Quality Certification. The FERC must then approve the FWQIP before the Licensee can begin construction at any

location, except for Bridgewater (see Note 2 below). Also, since the FERC approval order for the FWQIP can substantially modify the Licensee's proposed FWQIP, the Licensee will not contract for the manufacture or installation of large capital cost items until FERC approval is obtained.

2. At Bridgewater, retirement of the existing powerhouse and its replacement with a new powerhouse (or flow valve system) is being performed as part of the ongoing Bridgewater Dam Upgrade Project, and FERC approval will be obtained in conjunction with that project. The Licensee's final decision on replacing the existing powerhouse with a new powerhouse or a flow valve system may not be made until after the application for a New License is filed with the FERC. Regardless of the alternative chosen, the new facilities will be designed to provide the prescribed flows and meet the applicable state water quality standards.

3. The interim measures will be implemented as indicated except when the Licensee is operating under the Low Inflow Protocol (LIP) or the Maintenance and Emergency Protocol (MEP).

4. Paddy Creek Bypassed Reach: No flow releases are proposed in the Paddy Creek Bypassed Reach. Parties to this Agreement agree to recommend the mitigation package as presented in Section 4.0 of this Agreement in lieu of flow releases into the Paddy Creek Bypassed Reach for consideration by the NCDWQ and the FERC in the 401 Water Quality Certification process and the license issuance process, respectively.

5. Mountain Island Bypassed Reach: No flow releases are proposed in the Mountain Island Bypassed Reach. Parties to this Agreement agree to recommend the mitigation package as presented in Section 4.0 of this Agreement in lieu of flow releases into the Mountain Island Bypassed Reach for consideration by the NCDWQ and the FERC in the 401 Water Quality Certification process and the license issuance process, respectively.

6. The Licensee will consult with the resource agencies during further development of the FWQIP to discuss options for reducing resource impacts during any periods of reduced flow associated with the Bridgewater Dam Upgrade Project.

7. For the purpose of this Appendix L only, "date of closure for the New License" will mean the first day following the issuance of the New License and the closure or all rehearing and administrative challenge periods related to water quantity, including Project flow releases and reservoir levels, and water quality.

8. If a state water quality agency requires equipment modifications in addition to those listed in this Appendix L to assure compliance with applicable state water quality standards for Dissolved Oxygen (DO), the fact that such modifications are not currently specified in this Appendix L does not render those modifications inconsistent with this Agreement pursuant to Section 21.0. However, any equipment modifications necessary to assure compliance with any other applicable state water quality standard or any other regulatory requirements to provide flow releases, and/or reservoir levels other than the flow releases and reservoir levels specified in this Agreement may be inconsistent with this Agreement and may be subject to review pursuant to the provisions of Section 21.0.

APPENDIX M: FLOW, GROUNDWATER AND WATER QUALITY MONITOR SUMMARY

Component Type	Purpose	Device	Installation Cost Paid by	Annual O&M Costs Paid by	Installed by	Calibration and Mainte-nance by	Installation Date	Installation and Mainte-nance Assured by
Streamflow Gages	Low Inflow Protocol (LIP) and High Inflow Protocol (HIP) monitoring	USGS Gage #02137727 (Catawba River near Pleasant Gardens, NC) located upstream of the Bridgewater Development.	N/A (existing)	Licensee (currently paid by Licensee)	N/A (existing)	USGS	N/A (existing)	New License
Streamflow Gages	Low Inflow Protocol (LIP) and High Inflow Protocol (HIP) monitoring	USGS Gage #02140991 (Johns River at Arney's Store, NC) located upstream of the Rhodhiss Development.	N/A (existing)	Licensee (currently paid by Licensee)	N/A (existing)	USGS	N/A (existing)	New License
Streamflow Gages	Low Inflow Protocol (LIP) and High Inflow Protocol (HIP) monitoring	USGS Gage #02145000 (South Fork Catawba River at Lowell, NC) located on the South Fork of the Catawba River upstream of the Wylie Development	N/A (existing)	Licensee (currently paid by Licensee)	N/A (existing)	USGS	N/A (existing)	New License

Component Type	Purpose	Device	Installation Cost Paid by	Annual O&M Costs Paid by	Installed by	Calibration and Mainte-nance by	Installation Date	Installation and Mainte-nance Assured by
Streamflow Gages	Low Inflow Protocol (LIP) and High Inflow Protocol (HIP) monitoring	USGS Gage #02147500 (Rocky Creek at Great Falls, SC) located upstream of the Great Falls-Dearborn Development	N/A (existing)	Licensee (Not currently paid by Licensee)	N/A (existing)	USGS	N/A (existing)	New License
Streamflow Gages	Ensure a ready source of public information on river flows and verify hydro flow release compliance.	New USGS gage to be located between the Linville Dam and the confluence of the Linville River and Catawba River.	Licensee	Licensee	USGS	USGS	12 months after FERC approval of FWQIP pending USGS availability to site, design and install.	New License
Streamflow Gages	Ensure a ready source of public information on river flows and verify hydro flow release compliance.	USGS Gage #02146000 (Catawba River near Rock Hill, SC) located downstream of the Wylie Development.	N/A (existing)	Licensee (currently paid by Licensee)	N/A (existing)	USGS	N/A (existing)	New License
Streamflow Gages	Ensure a ready source of public information on river flows and verify hydro flow release compliance.	USGS Gage #02148000 (Wateree River near Camden, SC) located downstream of the Wateree Development.	N/A (existing)	Licensee (currently paid by Licensee)	N/A (existing)	USGS	N/A (existing)	New License

Component Type	Purpose	Device	Installation Cost Paid by	Annual O&M Costs Paid by	Installed by	Calibration and Mainte-nance by	Installation Date	Installation and Mainte-nance Assured by
Groundwater Monitors	Include groundwater data to determine recovery from a LIP.	Existing well: USGS Langtree Peninsula RS Reg. well MW-2 & BR well MW-2D	N/A (existing)	To be discussed with Water Mgmt Group and decision by December 31, 2007	N/A (existing)	USGS	N/A (existing)	Final Agreement
Groundwater Monitors	Include groundwater data to determine recovery from a LIP.	Existing well: USGS Linville RS NC-220 BR well	N/A (existing)	To be discussed with Water Mgmt Group and decision by December 31, 2007	N/A (existing)	USGS	N/A (existing)	Final Agreement
Groundwater Monitors	Include groundwater data to determine recovery from a LIP.	Existing well: NC DWR Glen Alpine BR well L 76G2 (Note: This well needs to be deepened.)	To be discussed with Water Mgmt Group and decision by December 31, 2007	To be discussed with Water Mgmt Group and decision by December 31, 2007	USGS	USGS	Deepening to be completed in calendar year 2009 - 2012.	Final Agreement
Groundwater Monitors	Include groundwater data to determine recovery from a LIP.	Up to seven new groundwater wells (CW-DMAG to review and approve)	To be discussed with Water Mgmt Group and decision by December 31, 2007	To be discussed with Water Mgmt Group and decision by December 31, 2007	USGS	USGS	Calendar Year 2009 - 2012	Final Agreement

Component Type	Purpose	Device	Installation Cost Paid by	Annual O&M Costs Paid by	Installed by	Calibration and Mainte-nance by	Installation Date	Installation and Mainte-nance Assured by
Project Reservoir Level Monitors	To verify compliance with the reservoir level requirements of the New License.	Existing reservoir level monitors	N/A (existing)	Licensee	N/A (existing)	Licensee	N/A (existing)	New License
Project Flow Monitors	To verify hydro flow release compliance.	New flow monitors (Refer to Water Quality Monitoring Plan, Appendix F.)	Licensee	Licensee	TBD	TBD	12 months after FERC approval of FWQIP (as recom-mended to and subject to approval by NCDWQ, SCDHEC and FERC).	New License
Water Quality Monitors	To verify compliance with the Clean Water Act, Section 401 Water Quality Certification requirements of the New License	New water quality monitors (Refer to Water Quality Monitoring Plan, Appendix F.)	Licensee	Licensee	TBD	TBD	12 months after FERC approval of FWQIP (subject to approval in NC and SC 401 Water Quality Certifications and by FERC).	New License

APPENDIX N: CATAWBA-WATEREE BASIN WATER MANAGEMENT GROUP (WMG)

1. OVERVIEW

1.1. During the term of the New License for the Catawba-Wateree Hydro Project, the demands on both the basin's water supply and the Project's storage capability are anticipated to increase significantly and approach or exceed the storage limits that the Project can provide during certain drought situations. A group of voluntary members that identifies, encourages, funds and helps implement water resource improvements to help preserve, extend, and enhance the Project's reliability and usefulness to support water withdrawers and to improve water use efficiency is described in this Appendix N.

2. WATER MANAGEMENT GROUP

2.1. A **Water Management Group** (Group) will be formed to identify, fund, and manage projects that will help preserve, extend, and enhance the capabilities of the Catawba-Wateree River Basin to provide water resources for human needs (water supply, power production, industry, agriculture, and commerce) while maintaining the ecological integrity of the waterway.

2.2. **Group Purpose**: The purpose for forming this Group is to improve coordination of efforts and the pooling of resources to accomplish the Group's objectives.

2.3. **Group Objectives**: The Group's objectives include, but are not limited to, the following:

2.3.1. Promote water and energy conservation;

2.3.2. Prepare for and manage drought impacts;

2.3.3. Improve water quality;

2.3.4. Enhance the suitability of reservoirs for public water supply and electric generation;

2.3.5. Address intake and storage security;

2.3.6. Promote best management practices (BMP) for water management; and

2.3.7. Ensure the continued use of the available resource supports human needs for water.

2.4. **Group Activities**: The Group's principal activities will include:

2.4.1. Identify projects that further the Group's objectives;

2.4.2. Oversee a Water Management Fund to help implement these projects;

2.4.3. Develop and maintain a running five-year plan of projects, an annual funding budget, and a member contribution schedule to fund approved projects;

2.4.4. Manage its projects through appropriate contractual agreements;

2.4.5. Conduct periodic studies of safe-yield capacity related to public water supply;

2.4.6. Coordinate with appropriate resource agencies and other interested parties, including the Drought Management Advisory Group (DMAG), when the Low Inflow Protocol is reviewed; and

2.4.7. Provide periodic reports and status updates to Members and interested parties.

3. GROUP MEMBERSHIP

3.1. **Eligible Participants**: Membership in the Group will be available to the Licensee and to public water systems that have the installed intake capacity to withdraw 100,000 gallons per day or more from the Project's reservoirs and/or regulated river reaches.

Eligible Participants withdrawing one mgd or more as of June 1, 2006, are shown in Table A.

3.2. **Group Members**: Group membership is voluntary, and the Group will include only those Eligible Participants who pay dues to the Group's Fund based on a dues schedule developed by the Group.

3.3. **Member Representation**: Each Group Member that withdraws one mgd or more will be represented by one person identified by the Member. The Eligible Participants that withdraw less than one mgd and that elect to join the Group will be represented by one representative from North Carolina and one representative from South Carolina. These two representatives will be selected by the Group Members withdrawing one or more mgd and will serve for a term to be defined in the Group's Charter.

3.4. **Members in Good Standing**: To be a Member in Good Standing, the Member must be current in paying its dues, in substantial compliance with any FERC orders affecting the Project and applicable Licensee easements and permits, and be engaged in good faith in fulfilling the purpose and objectives of this agreement, including among other things complying with the Low Inflow Protocol.

3.5. **Representation of Interests**: Group Members are expected to represent their own interests as well as the interests of their customers whether they be end users or secondary distributors.

3.6. **Best-Management-Practices Commitment**: Group Members are expected to make good-faith efforts to design, maintain, and operate their new or expanded systems consistently with best management practices.

3.7. **Licensee Water Withdrawal Fees**: Members in Good Standing will not be assessed water withdrawal fees by the Licensee during the term of the New License.

3.8. **No Waiver of Rights**: The Licensee maintains that it has the necessary authority and rights under state and federal law to assess a fee, consistent with any contract or other limitations that may be in place, to water withdrawers with intakes located within the FERC Project Boundaries or with intakes that benefit from storage provided by Project reservoirs. By participating in this Group,

other water withdrawers will not be required to concede that the Licensee has such authority. None of the Group Members including the Licensee waives any rights relative to the Licensee's authority to charge water withdrawal fees under state or federal law.

3.9. **Membership Additions**: An Eligible Participant who initially chooses not to become a Member may join the Group on the anniversary of the Group's initial dues contribution date by paying the current year's dues. A Withdrawer who later becomes an Eligible Participant may join the Group by contributing its current year's dues, or a pro-rata amount if joining sometime after the dues payment date anniversary. Additional membership will be decided on by the Group per Section 8.2 of this Appendix N.

3.10. **Member Resignations**: Any Member may choose to resign from the Group for any reason and may do so at any time. However, no dues refunds will be made.

3.11. **Member Expulsion**: A Member who fails to make its scheduled dues contribution within ninety days following the anniversary of its initial dues payment date will be expelled from the Group. However, the remaining Group Members may permit up to a six-month total grace period for extenuating circumstances.

3.12. **Resigned Member Reinstatement**: Any Member that has resigned may rejoin the Group on each anniversary of the Group's initial dues payment date by contributing the current year's dues plus the dues for each year since their resignation up to three years (four total years maximum). Member reinstatement will be decided on by the Group per Section 8.2 of this Appendix N.

3.13. **Expelled Member Reinstatement**: Any Member who has been expelled may rejoin the Group on each anniversary of the initial dues payment date by contributing the current year's dues plus any dues owed when expelled plus the dues for each year (up to five years) since their expulsion. Member reinstatement will be decided on by the Group per Section 8.2 of this Appendix N.

4. CONTRIBUTIONS TO THE WATER MANAGEMENT FUND

4.1. **Basis for Dues**: The Fund's dues will be apportioned on each Member's gross withdrawals (mgd) for the previous calendar year plus a 20 percent surcharge for amounts transferred out of the portion of the Catawba-Wateree River Basin that drains to Lake Wateree to another river basin. If a Member's withdrawal is used only for cooling, then that Member's contribution will be based on net withdrawal. However, certain "credits," as determined by the Group, may also be allowed. The dues structure is intended to discourage transferring water out of the Catawba-Wateree River Basin to other river basins without discouraging reuse of treated wastewater. The dues structure uses gross withdrawal amounts simply as a means to proportionately share the funding of project expenditures identified and approved by the Group Members.

4.2. **Calculation of Dues**: Each Member's annual dues will be calculated by the following approach. The Member's Apportioned Amount defined below will be recalculated every five years.

Member's Annual Dues ($/yr) =

Total Funds Needed for Year to Support Group's Approved Project List

X [Member's Apportioned Amount]

where:

Member's Apportioned Amount =

[(Member's Gross Withdrawal or Net Cooling Withdrawal) + (0.20 x Member's Wastewater Discharge Outside Basin)]

/

[(Group's Gross Withdrawal or Net Cooling Withdrawal) + (0.20 x Group's Wastewater Discharge Outside Basin)]

Gross or Net Cooling Withdrawal = Annual Average Daily withdrawal for the previous calendar year from the Catawba-Wateree River Basin; and,

Wastewater Discharged Outside Basin = Annual Average Daily discharge for the previous calendar year of treated Catawba-Wateree River Basin water that is discharged from wastewater treatment plants owned by the Group Member(s) and/or by others who purchase water from the Group Member and/or by others who provide wastewater treatment services for the Group Member(s) to other river basins outside of the portions of the Catawba-Wateree River Basin that drain to Lake Wateree.

Any treated wastewater that is re-used, whether the re-use takes place inside the Catawba-Wateree River Basin or outside the Catawba-Wateree River Basin, is excluded for the purpose of calculating dues.

4.3. **First-Year Dues:** The dues for the first year will not exceed the dollar amounts shown in Table A. The proportionate shares of the dues shown in Table A were based on actual 2005 gross withdrawals (net withdrawals for Member's whose water use was for cooling water) and wastewater treatment plant discharges. The proportionate shares for the first five years (2009-2013) will be based on these same 2005 withdrawals and discharges although the dues amounts may change depending on the Group's future decisions on total dues and the withdrawers that chose to participate in the Group.

4.4. **Coordinating with Member Budgeting Cycles**: The development of the annual dues contribution amounts and the timing of the actual dues contributions will be coordinated with Group Members' budgeting cycles.

4.5. **Group Formation**: Eligible Participants who are Parties to this Agreement will form a Convening Committee before or during January 2007 to begin organizational activities including development of the Group's Charter. In January 2008, the Licensee will provide its annual dues payment not to exceed the amount in Table A to support the Group's organization and project planning activities. In January 2009, all Eligible Participants that choose to be Group Members will begin paying their annual dues into the Fund in amounts not to exceed those in Table A and will begin operation of the Group in accordance with the adopted Group Charter. The Convening Committee will disband in February 2009, provided their services are no longer required to ensure the

Group is fully operational. The Licensee will not assess water withdrawal fees to Eligible Participants prior to January 2009.

5. PROJECT AND BUDGET DETERMINATIONS

5.1. **Initial Projects and Dues Schedule**: By December 31, 2007, the Convening Committee will confirm and/or modify the five-year project plan developed during the Relicensing. The Group will review and adopt the Group's Charter and the five-year project plan at its first official meeting in January 2009.

5.2. **Project Development**: Group Members will collectively determine the projects to address the Group's purpose and objectives, the appropriate funding levels for the Group, and the required dues for each Member according to the methodology described in this Appendix N (see Sections 4.1 and 4.2).

5.3. **Planning Horizon**: Each year the Group will develop a five-year project and funding plan and a current-year project implementation plan. The five-year budget and the dues contribution schedule should provide funds to support regular and ongoing projects as well as to accumulate money reserved for ad hoc projects that may require several years of accumulated funds to accomplish.

5.4. **Self Assessment**: At the end of the first five years after the Group is formed and every five years thereafter, the Group will conduct a brief written assessment of its accomplishments in the previous five years.

5.5. **Project Recommendations**: Project recommendations may be submitted by individual Group Members or solicited from interested third parties. Third parties may also present project recommendations to the Group for consideration.

5.6. **Cost-Shared Funding**: Special emphasis will be provided for projects that can take advantage of cost-shared funding to leverage the Fund's budgets.

5.7. **Project Restrictions**: Funding will not be provided to support any withdrawer's project that is specifically required by permits or license conditions. However, projects for individual withdrawers that support the Group's larger objectives will be considered. For example, modifying an individual withdrawer's intake to allow it to operate at lower reservoir levels could add storage available to other Group Members. There is no obligation by the Group to participate in funding any improvement that benefits only one withdrawer. No funding will be provided to relieve any Member of its existing responsibilities or to shift costs to others.

6. MISCELLANEOUS

6.1. **Coordinating with Other Entities**: The Group will establish approaches to coordinate basin-wide projects and water supply study updates with resource agencies as appropriate. The Group will establish approaches to get input from other interested entities such as Non-Member withdrawers, the Drought Management Advisory Group, non-governmental organizations, and customers.

6.2. **Survival**: All the provisions of this Appendix N, which includes Section 3.7 (which prohibits the assessment of water withdrawal fees by the Licensee from Members in Good Standing during the term of the New License), will continue

to apply to the Members in Good Standing as long as there is one or more Members in Good Standing of the Group.

6.3. **Good-Faith**: All Parties have negotiated in good faith and agree that the terms, agreement, charter, by-laws and other implementing documents will be negotiated and implemented in good faith and in accordance with the objectives of the Agreement-in-Principle, this Agreement, and other related agreements.

6.4. **Relationship to Final Agreement**: Group Members that are Parties to this Agreement agree to all the provisions in the relicensing Final Agreement including the LIP. Group Members that were not eligible to sign the Final Agreement or that were eligible, but chose not to sign, will be subject to the terms and conditions of Section 5.0 of the Final Agreement; the Low Inflow Protocol for the Catawba-Wateree Project, and the Final Agreement's Dispute Resolution Procedures related to disputes arising in the Group.

7. PROJECTS

The following are the types of potential projects that would be consistent with the objectives of the Group and do not necessarily list every project type:

7.1. Water and energy conservation

7.1.1. Consumer education on water and energy conservation and drought issues

7.1.2. Coordination of basin-wide public information and outreach

7.1.3. Support for regional water and energy conservation programs

7.2. Drought preparation and management

7.2.1. Installation and maintenance of streamflow and groundwater gages needed for drought monitoring.

7.2.2. Sharing information about local ordinances and plans consistent with the Low Inflow Protocol

7.2.3. Coordinated, basin-wide public information and enforcement systems

7.2.4. Active participation on the Drought Management Advisory Group

7.2.5. Evaluation of inter-system connections that can be used during drought and low reservoir level conditions

7.3. Improved water quality

7.3.1. Water quality monitoring and modeling

7.3.2. Participation in sedimentation prevention and management

7.3.3. Research and marketing related to water reuse

7.4. Sustained suitability of reservoirs for public water supply and electric generation

7.4.1. Feasibility studies on improvements to reservoir safe yield, water conservation, and other areas of benefit to water withdrawers

7.4.2. Funding for engineering studies (e.g., safe yield improvement feasibility studies)

7.4.3. Evaluation of options to increase intakes' operating ranges relative to reservoir levels

7.4.4. Participation in management/control of invasive species (fish, mussels, aquatic weeds, etc.) that threaten water intakes and/or the suitability of the reservoir for water supply use

7.5. Intake and storage security

7.5.1. Identification of security vulnerabilities for intakes, water storage and quality, and remedial measures

7.6. Best management practices

7.6.1. Identification and implementation of Best Management Practices (BMP), BMP audits, BMP training for Members and others

7.6.2. Standards/protocol development of regular self-audits using consistent methods to identify real water losses

7.6.3. Standards/protocol development of leak detection/prevention programs when trigger points are reached to reduce real water losses

7.6.4. Progress toward per-capita water consumption goals

8. GROUP AND FUND GOVERNANCE

8.1. **Charter**: Before or during January 2007, the Convening Committee will meet to develop a charter defining the governance of both the Group and the Fund. Important elements of the charter are described in this Section 8. The Convening Committee may decide to incorporate the Group (e.g., as a 501(c)(3) non-profit organization) and establish bylaws.

8.2. **Decisions**

8.2.1. **Decisions Requiring Consensus**: Group decisions that may have significant impacts on all Members will be made by consensus, meaning that all Members can "live with" the outcome of the decision; that is, there is either unanimous support for the decision or at least no opposition from any Member. Decisions requiring consensus will include:

1. Establishing the Fund's annual target amounts (If consensus cannot be reached, the Fund's annual target amount will be the previous year's amount);
2. Establishing the allocation basis and timing of dues contributions; and
3. Disbanding the Group.

8.2.2. **Decisions Not Requiring Consensus**: The Group will make numerous decisions not related to topics in the previous section, most notably about the five-year list of projects, project evaluation criteria, and the contracts for performing the work.

8.2.2.1. For its Charter, the Group may decide to require a super majority (e.g., more than two-thirds) for approving projects. Other topics for super-majority voting include:

1. Determining Member expulsion and/or reinstatement;

2. Developing or changing the Group's charter or bylaws including the Group's governance;
3. Determining Eligible Participants; and
4. Determining Members in Good Standing.

8.2.3. The Group may want to develop standard evaluation and scoring criteria for evaluating projects.

8.2.4. Many decisions will not require "voting" but will be discussed and made informally. If votes are required for decisions on topics not identified earlier in this Section 8, simple-majority voting will be used.

8.3. **Dispute Resolution**: Any disputes including disputes about Members in Good Standing will be resolved according to the Dispute Resolution Procedure in the Section 31.0 of the Final Agreement, but participation in such procedures will only be available to the Members of the WMG.

8.4. **Management**

8.4.1. **Management**: The Group will provide for managing the Group's activities. Some of the important functions of this management are described in this Section 8.4. The management could be a Group Member, an existing entity, or a new entity. In identifying management, the Group will seek to minimize the administrative cost to be covered by the Fund.

8.4.2. **Collections**: The management will collect contributions to the Fund based on the annual dues contribution schedule. Monies collected will be held in a WMG Fund account.

8.4.3. **Distributions and Project Management**: The management will manage contracts with entities completing the Group's projects including making payments. At a minimum, contracts will include the following:

1. a detailed scope of work statement;
2. schedules for completion of work and disbursement of funds;
3. the funding requirement necessary and available to accomplish the scope of work;
4. procedures for amending, modifying, or terminating the contract; and
5. Other necessary particulars.

8.4.4. **Annual Report**: Prior to January 1 of each year, the management will provide to the Group an accounting of the funds expended during the previous federal fiscal year.

Table A: Water Management Group Eligible Participants (> 1 mgd)

Eligible Participant (> 1 mgd)	Source Water	First-Year Dues (January 2009) ($)	Apportioned Amount (%)
City of Morganton	Catawba River	$14,650	2.66
Town of Granite Falls	Lake Rhodhiss	$2,254	0.41
City of Lenoir	Lake Rhodhiss	$11,684	2.12
Town of Valdese	Lake Rhodhiss	$7,513	1.37
City of Hickory	Lake Hickory	$25,430	4.62
Town of Longview	Lake Hickory	$2,817	0.51
City of Statesville	Lookout Shoals Lake	$8,769	1.59
Charlotte-Mecklenburg Utilities	Lake Norman Mountain Island Lake	$201,529	36.64
Lincoln County	Lake Norman	$4,571	0.83
Town of Mooresville	Lake Norman	$8,452	1.54
City of Gastonia	Mountain Island Lake	$25,355	4.61
City of Mount Holly	Mountain Island Lake	$5,635	1.02
City of Belmont	Lake Wylie	$3,775	0.69
City of Rock Hill	Lake Wylie	$27,609	5.02
Union (NC) and Lancaster (SC) Counties	Catawba River	$32,661	5.94
City of Chester Metro	Fishing Creek Reservoir	$7,963	1.45
City of Camden	Lake Wateree	$5,022	0.91
Lugoff Elgin Water Authority	Lake Wateree	$3,681	0.67
Licensee	Lake Norman Mountain Island Lake Lake Wylie	$150,630	27.39
	TOTALS	$550,000	

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APPENDIX O: CONCEPTUAL CONSERVATION EASEMENT OUTLINE

Width – 100 ft measured horizontally from the top of the stream bank

Term – Perpetual

Holder/Manager of Easement – State or local governmental agency or land trust

Public Access – In North Carolina, to be determined by the joint team process identified in Paragraph 4.5.2. In South Carolina, public access is at the sole discretion of the fee-simple owner of the underlying property.

Prohibited Uses

- Construction of any buildings or structures other than those specifically identified as an allowable use.
- Any alteration of the surface of the land including dumping, excavation, and removal of sand, gravel, rock or sod other than activities specifically identified as an allowable use.
- The alteration of vegetation other than those activities identified as an allowable use.
- Exploration for, or development or extraction of, minerals and hydrocarbons by any method.
- Housing, watering, or grazing of livestock.
- Private boat ramps.

Allowable Uses

Access Trails – Pedestrian access trails leading to or following along the surface water. Pedestrian access trails are restricted to the minimum width practicable and do not exceed four feet in width of disturbance within the easement area, and provided that installation and use does not result in removal of trees and no impervious surfaces are added to the easement area. (Note: Trees are defined as woody plants with a diameter at breast height (dbh) equal to or exceeding five inches.)

Drainage Ditches, Roadside Ditches and Stormwater Outfalls – Existing drainage ditches, roadside ditches and stormwater outfalls provided that they are managed to minimize the sediment, nutrients, and other pollution that convey to water bodies.

Fences – Fences provided that disturbance is minimized, the movement of wildlife is not prevented, and installation does not result in removal of trees.

Greenway Trails – Trails that are part of a larger system of publicly accessible greenways are allowed as long as they do not exceed 10 feet in width of disturbance

within the easement area, do not include impervious surfaces, and are designed to ensure diffuse flow of water through the easement area.

Motorized Vehicles – Motorized vehicles are allowed only for management of the easement area.

Pumps – Pumps for agricultural irrigation or conveying water to holding tanks outside of the easement area provided that installation and use does not result in the removal of trees. The pump itself shall not be located within 25 feet of the shoreline.

Stream Bank Stabilization – Stream bank stabilization is allowed only if necessary to prevent or reduce erosion of the stream bank and subject to the following requirements.

- Bioengineering techniques are preferred. Where bioengineering is not feasible, the least hardening techniques feasible for site conditions must be selected.
- Tree removal must be minimized and generally limited to only those trees that have already been undercut to some degree or those trees that must be removed to allow adequate stream bank stabilization.
- Any vegetation disturbed during the stabilization project must be restored to the extent practicable within six months of initial disturbance.
- Written approval must be obtained from the applicable state agency that issues water quality certifications under the Clean Water Act and the easement holder before the stabilization work is initiated. Also, all other permits and approvals must be obtained.

Roads – Temporary roads that cross tributaries to the Catawba River, Johns River and Lake Wateree. All temporary roads must meet the forestry Best Management Practices (BMPs) for the respective state. For purposes of this easement, temporary roads are roads that are in use for six months or less following their initial development. The roads must be returned to natural slope to the extent practical and revegetated within 30 days following the end of their useful life.

Utility Lines – Utility lines may be allowed provided that written approval is obtained from the applicable state agency that issues water quality certifications under the Clean Water Act and the easement holder before the construction work is initiated. Additional mitigation will be required.

Vegetation Management – Planting native vegetation to improve the water quality protection function of the easement area; pruning forest vegetation provided that the health and function of the forest vegetation is not compromised; removal of poison ivy and poison oak; removal of understory nuisance vegetation listed in Appendix III of: Smith, Cherri L. 1998. *Exotic Plant Guidelines*. Department of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC Guideline #30.

View Corridors – View corridors up to 25 percent of the length of waterfront property to a maximum of 150 feet per ownership tract are allowed subject to the following restrictions. Thinning of underbrush, shrubs, and limbs up to 50 percent of individual tree height to enhance a view provided soils are undisturbed, diffuse surface water

flow is maintained across the easement area and no stems of woody vegetation larger than three inches dbh are removed.

Water Dependent Structures – Water dependent structures (i.e., docks and piers) that do not result in the removal of trees are allowed at Lake Wateree subject to the conditions of the Shoreline Management Plan for the Catawba-Wateree Hydroelectric Project.

Water Wells – Single family residential water wells that do not result in the removal of trees. Any vegetation disturbed must be restored within six weeks of initial disturbance.

Wildlife and Fisheries Habitat Management – In conjunction with a management plan developed by the appropriate wildlife management agencies in the respective states, activities to enhance wildlife habitat are allowed. Such activities include, but are not necessarily limited to, the introduction of non-native species for the purpose of controlling exotic or invasive species, the introduction of native and desired non-native wildlife species, and the management of vegetation, including the removal of trees, to enhance wildlife diversity.

Any other uses not identified here must be approved by the applicable state agency that issues water quality certifications under the Clean Water Act and the easement holder.

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