

APPENDIX D

INTERBASIN TRANSFER CERTIFICATE AND REGULATIONS

Interbasin Transfer Certificate 1

NCGS 143-215.22I Surface Water Transfer Regulations..... 9

15A NCAC 2B .0600-.0609 Site Specific Water Quality Management
Plan for the Goose Creek Watershed 13

ENVIRONMENTAL MANAGEMENT COMMISSION

Certificate Authorizing the Charlotte-Mecklenburg Utilities
to Increase Their Transfer of Water
from the Catawba River basin to the Rocky River basin
under the Provisions of G.S. 143-215.22I

In August 2001, the Charlotte-Mecklenburg Utilities (CMU) petitioned the Environmental Management Commission (EMC) for an increase in interbasin transfer (IBT) from the Catawba River Basin to the Rocky River Basin. CMU requested an increase from the grandfathered IBT of 16.1 million gallons per day (mgd) to 33 mgd (maximum day basis). The proposed IBT is based on additional water withdrawals from Lake Norman and Mountain Island Lake in the source basin (Catawba River Basin). The IBT will increase due to transfer of the water to the receiving basin (Rocky River Basin) via consumptive use in eastern Mecklenburg County and existing discharges at Mallard Creek Wastewater Treatment Plant [WWTP] and Water and Sewer Authority of Cabarrus County's [WSACC] Rocky River Regional (RRR) WWTP. CMU requested an increase to 33 mgd, will allow CMUD to meet projected water supply demands through the year 2030 in eastern Mecklenburg County. *This IBT does not include transfers associated with water or wastewater service provided to the Goose Creek watershed in the Town of Mint Hill in Mecklenburg County.* Public hearings on the proposed transfer increase were held in Huntersville on December 11, 2001 pursuant to G.S. 143-215.22I.

The EMC considered the petitioner's request at its regular meeting on March 14, 2002. According to G.S. 143-215.22I (g), the EMC shall issue a transfer certificate only if the benefits of the proposed transfer outweigh the detriments of the proposed transfer, and the detriments have been or will be mitigated to a reasonable degree.

The EMC may grant the petition in whole or in part, or deny it, and may require mitigation measures to minimize detrimental effects. In making this determination, the EMC shall specifically consider:

1. The necessity, reasonableness, and beneficial effects of the transfer.
2. Detrimental effects on the source river basin.
- 2a. The cumulative effect on the source major river basin of any water transfer or consumptive water use.
3. Detrimental effects on the receiving basin.
4. Reasonable alternatives to the proposed transfer.
5. Use of impounded storage.
6. Purposes and water storage allocations in a US Army Corps of Engineers multi-purpose reservoir.
7. Any other facts or circumstances necessary to carry out the law.

In addition, the certificate may require a drought management plan. The plan will describe the actions a certificate holder will take to protect the source basin during drought conditions.

The members of the EMC reviewed and considered the complete record which included the hearing officer's report, staff recommendations, the applicant's petition, the Final Environmental Assessment, the public comments relating to the proposed interbasin transfer, and all of the criteria specified above. Based on that record, the Commission makes the following findings of fact.

Finding of Fact

THE COMMISSION FINDS:

(1) **Necessity, Reasonableness, and Benefits of the Transfer**

The proposed transfer will provide water to Mecklenburg County, City of Charlotte, and other communities in the county. The current population served is about 636,000 with a maximum day water use of about 154 million gallons per day (mgd). Projections assume a 2.6 percent annual increase through 2010 decreasing to 1.3 percent by 2030. The projected 2030 serve population is 1,101,000 with a maximum day water use of about 245 mgd.

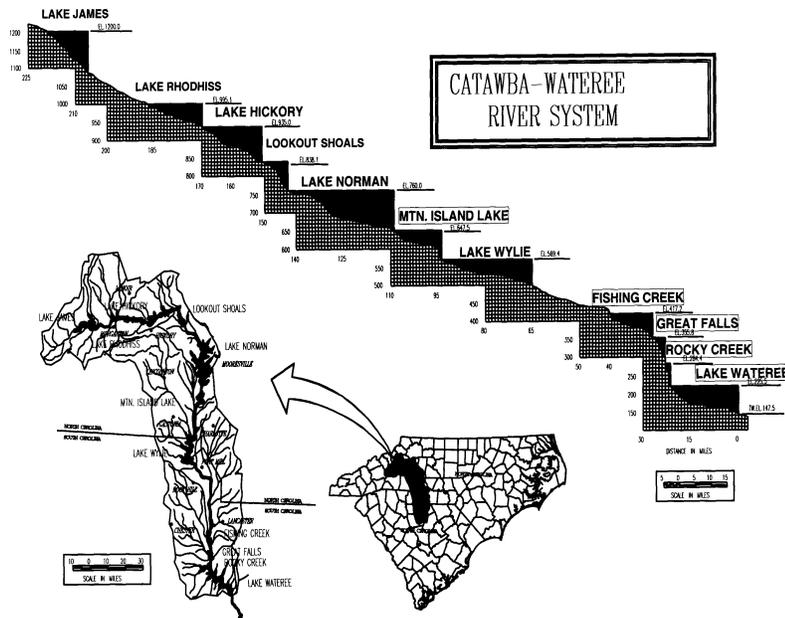
The western boundary of Mecklenburg county includes Lake Norman and Mountain Island Lake which are CMU's two water sources. CMU's current combined withdrawal capacity from both lakes is adequate to meet average day demands until about 2020. CMU has requested an increase from the Federal Energy Regulatory Commission (FERC) to increase their Mountain Island Lake withdrawal capacity. The requested increase from 165 mgd to 330 mgd (instantaneous maximum) will meet projected 2030 demands and add pumping flexibility.

The transfer of water will benefit the Mecklenburg County region by guaranteeing water to support the economic development and associated population growth that has occurred and projected to occur in this region of the State.

Based on the record the Commission finds the transfer is necessary to supply water to the growing communities of this area. Water from the source basin is readily available and within a short distance from the service area. Therefore the transfer is a reasonable allocation to these communities. The transfer will greatly benefit these communities by providing raw water of high quality for residential and industrial purposes.

(2) **Detrimental Effects on the Source Basin**

In order to assess the direct impacts of the proposed transfer on the source basin, the petitioners utilized Duke Energy's Hydro-Electric Operations and Planning Model of the Catawba-Wateree Project. The Catawba-Wateree model simulates reservoir operations and withdrawals from Lake James in North Carolina to Lake Wateree in South Carolina (see the following figure the *Catawba-Wateree River System*). Details of the modeling analysis are included in this report Part V Applicant Supplemental Information.



As required under G.S. 143-215.22I(f)(2), local water supply plans were considered in developing the model. In addition, industrial and agricultural withdrawals were model inputs. Model runs were evaluated for present conditions, 2030 CMU water demands, and cumulative 2030 water demands.

As seen in the following table, a summary of daily releases from Lake Wylie, the transfer will have minimal impact on low flows. Similarly the model results show minimal impacts to both lake levels and hydropower generation.

Percent of Time that Daily Flow Releases from Lake Wylie Would Equal or Exceed Selected Average Daily Flow Thresholds During the Entire Year							
	400 cfs	500 cfs	700 cfs	1,000 cfs	1,250 cfs	1,500 cfs	2,00 cfs
Average Year							
Existing 2000	100%	100%	97%	87%	82%	82%	79%
CMU 2030	100%	100%	96%	87%	82%	82%	78%
Cumulative 2030	100%	100%	96%	87%	82%	82%	79%
Dry Year							
Existing 2000	100%	95%	88%	81%	76%	73%	61%
CMU 2030	100%	95%	88%	81%	76%	72%	60%
Cumulative 2030	100%	95%	88%	81%	75%	70%	59%
Drought Year							
Existing 2000	100%	85%	82%	70%	52%	39%	29%
CMU 2030	100%	84%	82%	62%	44%	35%	28%
Cumulative 2030	100%	84%	79%	55%	41%	32%	26%

Based on the modeling results the Commission finds that the detrimental effects on the source basin described in G.S. §143-215.22I(f)(2) will be insignificant.

(2a) **Cumulative effect on Source Basin of any transfers or consumptive water use projected in local water supply plans**

Local water supply plan data, including current and projected water use and water transfers, were used to develop the input data sets for the model discussed in Finding Number 2. The model was used to evaluate current and future scenarios of basin water use.

The safe yield of the reservoir system has not been determined. Duke Power does not have a policy on reallocation of power pool storage to water supply, for example unlike the Corps of Engineers. However, based on two 2030 model scenarios and current drought operations, the safe yield is at least as large or larger than the cumulative 2030 scenario of 624 mgd.

Based on the modeling discussed in Finding No. 2, the Commission finds the cumulative effects of this and other future water transfers or consumptive uses as described in G.S. §143-215.22I(f)(2a) will be insignificant.

(3) **Detrimental Effects on the Receiving Basin**

The proposed transfer will utilize existing permitted wastewater discharges to the Rocky River basins; therefore no additional permitted capacities will be required. Previous studies for the existing plant indicated no significant direct water quality or wastewater assimilation on the receiving stream. Additional growth and development in the receiving basin may impact water quality, stormwater runoff, frequency and intensity of flooding, and land use.

The Goose Creek watershed in Mecklenburg County was removed from the area to be served by this transfer certificate until the impacts of additional urban growth on Federally listed endangered mussel species are fully evaluated.

Based on the record the Commission finds the transfer will support continued population growth and the attendant impacts of that growth. These impacts include effects on wastewater assimilation, fish and wildlife habitat, and water quality. However, these impacts will be minimal. Reasonable mitigation includes:

1. *Require the County to evaluate the feasibility of each element of the Surface Water Improvement and Management Program (SWIM) on an annual basis.*
2. *Require the County and the Town of Mint Hill to consider the conclusions of Wildlife Resources Commission's Goose Creek watershed study when complete.*
3. *Require Mecklenburg County and the City of Charlotte to continue the stakeholder process to investigate water quantity control from single-family development and water quality control for all development.*
4. *The Goose Creek subbasin in Mecklenburg County is removed from the area to be served by the IBT. A moratorium on the installation of new IBT water lines into Goose Creek subbasin is in effect until the impacts of additional growth urban growth on the endangered species are fully evaluated.*

(4) **Alternatives to Proposed Transfer**

The petitioners evaluated three alternatives to the proposed transfer. The alternatives considered included:

1. No Action – Growth would be served by individual wells and septic tanks. The region is already experiencing water quality problems related septic tanks and package sewage plants. Also, a number of individual wells in this region have both low yields and poor water quality.
2. Obtain Water from the Rocky River – New reservoir project. Development of new impoundments for water supply in rapidly developing urban area face significant regulatory requirements and considerable public controversy.
3. Return wastewater discharge to the Catawba – Return wastewater to the McAlpine WWTP. Returning water to the Catawba would increase McAlpine's discharge by 17 mgd. SC DHEC considers the McAlpine plant to be a significant contributor to phosphorus in the Catawba basin already at it's current discharge level.
4. Proposed Action. The proposed action of using the Mallard Creek WTTP and the Rocky Regional WTTP increases the existing discharge of 8 mgd to 18 mgd by 2030 into the Rocky River.

Based on the information provided in the EA and the petition, the Commission finds that the proposed alternative is the most feasible means of meeting the petitioners' long-term water supply needs while minimizing overall impacts and cost.

(5) **Impoundment Storage**

This criterion is not applicable, as the petitioners do not have an impoundment.

(6) **The water to be withdrawn or transferred is stored in a multipurpose reservoir constructed by the United States Army Corps of Engineers**

This criterion is not applicable, as the petitioners are using storage in Duke Power reservoirs.

(7) **Other Considerations**

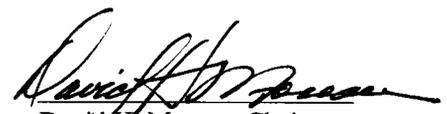
The Commission finds that to protect the source basin during drought conditions, to mitigate the future need for allocations of the limited resources of this basin, and as authorized by G.S. § 143-215.22I(h), a drought management plan is appropriate. The plan should describe the actions that the Charlotte-Mecklenburg Utilities will take to protect the Catawba River Basin during drought conditions.

The Commission notes that future developments may prove the projections and predictions in the EIS to be incorrect and new information may become available that shows that there are substantial environmental impacts associated with this transfer. Therefore, to protect water quality and availability and associated benefits, modification of the terms and conditions of the certificate may be necessary at a later date.

Based on the hearing record and the recommendation of the hearing officers, the Commission, on March 14, 2002 by duly made motions concludes that by a preponderance of the evidence based upon the Findings of Fact stated above that (1) the benefits of the proposed transfer outweigh the detriments of the proposed transfer, and (2) the detriments of the proposed transfer will be mitigated to a reasonable degree. Therefore, and by duly made motions, the Commission grants the petition of the Charlotte-Mecklenburg Utilities (with conditions) to increase their transfer of water from the Catawba River basin to the Rocky River basin. The permitted transfer amount shall be 33 million gallons per day (mgd) on a maximum day basis from the effective date. This certificate is effective immediately. The certificate is subject to the following conditions, imposed under the authority of G.S. § 143-215.22I:

1. Require Mecklenburg County to summarize progress in implementation of watershed management approaches of the Surface Water Improvement and Management Program (SWIM) on an annual basis. The Division of Water Resources shall have the authority to approve modifications to and need for continued reporting as necessary.
2. Require Mecklenburg County and the City of Charlotte to continue the stakeholder process to investigate water quantity control from single-family development and water quality control for all development until completed. To accomplish this end, the stakeholder group should consider evaluating the feasibility of single-family detention and recommending ordinance revisions based on technical, political, long-term maintenance, cost, and benefits related to the proposed ordinance changes.
3. The Goose Creek subbasin in Mecklenburg County is removed from the area to be served by the IBT. A moratorium on the installation of new interbasin transfer water lines (water lines crossing the ridgeline) into Goose Creek subbasin is in effect until the impacts of additional growth urban growth on the endangered species are fully evaluated. This moratorium will not impact Charlotte-Mecklenburg Utility's ability to fully utilize existing water lines. The Division of Water Resources shall have the authority to grant exemptions for reasons of public health and safety for dwellings existing on or before March 14, 2002.
4. If either the EA is found at a later date to be incorrect or new information becomes available such that the environmental impacts associated with this transfer are substantially different from those projected impacts that formed the basis for the above Findings of Fact and this certificate, the Commission may reopen the certificate to adjust the existing conditions or require new conditions to ensure that the detriments continue to be mitigated to a reasonable degree.
5. Require the applicant to develop a compliance and monitoring plan for reporting maximum daily transfer amounts, compliance with certificate conditions, progress on mitigation measures, and drought management activities. The Division of Water Resources shall have the authority to approve modifications to the compliance and monitoring plan and drought management plan as necessary.

This is the 14th day of March, 2002.


David H. Moreau, Chairman

G.S. 143-215.22I Regulation of Surface Water Transfers

as required by this subsection.

(e) Any person who is required to register a water transfer or withdrawal under this section and fails to do so shall pay, in addition to the registration fee required under G.S. 143-215.3(a)(1a) and G.S. 143-215.3(a)(1b), a late registration fee of five dollars (\$5.00) per day for each day the registration is late up to a maximum of five hundred dollars (\$500.00). A person who is required to update a registration under this section and fails to do so shall pay a fee of five dollars (\$5.00) per day for each day the updated information is late up to a maximum of five hundred dollars (\$500.00). A late registration fee shall not be charged to a farmer who submits a registration that pertains to farming operations. (1991, c. 712, s. 1; 1993, c. 344, s. 1; c. 553, s. 81; 1998-168, s. 3.)

§ 143-215.22I. Regulation of surface water transfers.

(a) No person, without first securing a certificate from the Commission, may:

(1) Initiate a transfer of 2,000,000 gallons of water or more per day from one river basin to another.

(2) Increase the amount of an existing transfer of water from one river basin to another by twenty-five percent (25%) or more above the average daily amount transferred during the year ending July 1, 1993, if the total transfer including the increase is 2,000,000 gallons or more per day.

(3) Increase an existing transfer of water from one river basin to another above the amount approved by the Commission in a certificate issued under G.S. 162A-7 prior to July 1, 1993.

(b) Notwithstanding the provisions of subsection (a) of this section, a certificate shall not be required to transfer water from one river basin to another up to the full capacity of a facility to transfer water from one basin to another if the facility was existing or under construction on July 1, 1993.

(c) An applicant for a certificate shall petition the Commission for the certificate. The petition shall be in writing and shall include the following:

(1) A description of the facilities to be used to transfer the water, including the location and capacity of water intakes, pumps, pipelines, and other facilities.

(2) A description of the proposed uses of the water to be transferred.

(3) The water conservation measures to be used by the applicant to assure efficient use of the water and avoidance of waste.

(4) Any other information deemed necessary by the Commission for review of the proposed water transfer.

(d) Upon receipt of the petition, the Commission shall hold a public hearing on the proposed transfer after giving at least 30 days' written notice of the hearing as follows:

(1) By publishing notice in the North Carolina Register.

(2) By publishing notice in a newspaper of general circulation in the area of the river basin downstream from the point of withdrawal.

(3) By giving notice by first-class mail to each of the following:

a. A person who has registered under this Part a water withdrawal or transfer from the same river basin where the water for the proposed transfer would be withdrawn.

b. A person who secured a certificate under this Part for a water transfer from the same river basin where the water for the proposed transfer would be withdrawn.

c. A person holding a National Pollutant Discharge Elimination System (NPDES) wastewater discharge permit exceeding 100,000 gallons per day for a discharge located downstream from the proposed withdrawal point of the proposed transfer.

d. The board of county commissioners of each county that is located entirely or partially within the river basin that is the source of the proposed transfer.

e. The governing body of any public water supply system that withdraws water downstream from the withdrawal point of the proposed transfer.

(e) The notice of the public hearing shall include a nontechnical description of the applicant's request and a conspicuous statement in bold type as to the effects of the water transfer on the source and receiving river basins. The notice shall further indicate the procedure to be followed by anyone wishing to submit comments on the proposed water transfer.

(f) In determining whether a certificate may be issued for the transfer, the Commission shall specifically consider each of the following items and state in writing its findings of fact with regard to each item:

(1) The necessity, reasonableness, and beneficial effects of the amount of surface water proposed to be transferred and its proposed uses.

(2) The present and reasonably foreseeable future detrimental effects on the source river basin, including present and future effects on public, industrial, and agricultural water supply needs, wastewater assimilation, water quality, fish and wildlife habitat, hydroelectric power generation, navigation, and recreation. Local water supply plans that affect the source major river basin shall be used to evaluate the projected future municipal water needs in the source major river basin.

(2a) The cumulative effect on the source major river basin of any water transfer or consumptive water use that, at the time the Commission considers the application for a certificate is occurring, is authorized under this section, or is projected in any local water supply plan that has been submitted to the Department in accordance with G.S. 143-355(1).

(3) The detrimental effects on the receiving river basin, including effects on water quality, wastewater assimilation, fish and wildlife habitat, navigation, recreation, and flooding.

(4) Reasonable alternatives to the proposed transfer, including their probable costs, and environmental impacts.

(5) If applicable to the proposed project, the applicant's present and proposed use of impoundment storage capacity to store water during high-flow periods for use during low-flow periods and the applicant's right of withdrawal under G.S. 143-215.44 through G.S. 143-215.50.

(6) If the water to be withdrawn or transferred is stored in a multipurpose reservoir constructed by the United States Army Corps of Engineers, the purposes and water storage allocations established for the reservoir at the time the reservoir was authorized by the Congress of the United States.

(7) Any other facts and circumstances that are reasonably necessary to carry out the purposes of this Part.

(f1) An environmental assessment as defined by G.S. 113A- 9(1) shall be prepared for any petition for a certificate under this section. The determination of whether an environmental impact statement shall also be required shall be made in accordance with the provisions of Article 1 of Chapter 113A of the General Statutes. The applicant who petitions the Commission for a certificate under this section shall pay the cost of special studies necessary to comply with Article 1 of Chapter 113A of the General Statutes.

(g) A certificate shall be granted for a water transfer if the applicant establishes and the Commission concludes by a preponderance of the evidence based upon the findings of fact made under subsection (f) of this section that: (i) the benefits of the proposed transfer outweigh the detriments of the proposed transfer, and (ii) the detriments have been or will be mitigated to a reasonable degree. The conditions necessary to ensure that the detriments are and continue to be mitigated to a reasonable degree shall be attached to the certificate in accordance with subsection (h) of this section.

(h) The Commission may grant the certificate in whole or in part, or deny the certificate. The Commission may also grant a certificate with any conditions attached that the Commission believes are

necessary to achieve the purposes of this Part. The conditions may include mitigation measures proposed to minimize any detrimental effects of the proposed transfer and measures to protect the availability of water in the source river basin during a drought or other emergency. The certificate shall include a drought management plan that specifies how the transfer shall be managed to protect the source river basin during drought conditions. The certificate shall indicate the maximum amount of water that may be transferred. No person shall transfer an amount of water that exceeds the amount in the certificate.

(i) In cases where an applicant requests approval to increase a transfer that existed on July 1, 1993, the Commission shall have authority to approve or disapprove only the amount of the increase. If the Commission approves the increase, however, the certificate shall be issued for the amount of the existing transfer plus the requested increase. Certificates for transfers approved by the Commission under G.S. 162A-7 shall remain in effect as approved by the Commission and shall have the same effect as a certificate issued under this Part.

(j) In the case of water supply problems caused by drought, a pollution incident, temporary failure of a water plant, or any other temporary condition in which the public health requires a transfer of water, the Secretary of the Department of Environment and Natural Resources may grant approval for a temporary transfer. Prior to approving a temporary transfer, the Secretary of the Department of Environment and Natural Resources shall consult with those parties listed in G.S. 143-215.22I(d)(3) that are likely to be affected by the proposed transfer. However, the Secretary of the Department of Environment and Natural Resources shall not be required to satisfy the public notice requirements of this section or make written findings of fact and conclusions in approving a temporary transfer under this subsection. If the Secretary of the Department of Environment and Natural Resources approves a temporary transfer under this subsection, the Secretary shall specify conditions to protect other water users. A temporary transfer shall not exceed six months in duration, but the approval may be renewed for a period of six months by the Secretary of the Department of Environment and Natural Resources based on demonstrated need as set forth in this subsection.

(k) The substantive restrictions and conditions upon surface water transfers authorized in this section may be imposed pursuant to any federal law that permits the State to certify, restrict, or condition any new or continuing transfers or related activities licensed, relicensed, or otherwise authorized by the federal government.

(l) When any transfer for which a certificate was issued under this section equals eighty percent (80%) of the maximum amount authorized in the certificate, the applicant shall submit to the Department a detailed plan that specifies how the applicant intends to address future foreseeable water needs. If the applicant is required to have a local water supply plan, then this plan shall be an amendment to the local water supply plan required by G.S. 143-355(l). When the transfer equals ninety percent (90%) of the maximum amount authorized in the certificate, the applicant shall begin implementation of the plan submitted to the Department.

(m) It is the public policy of the State to maintain, protect, and enhance water quality within North Carolina. Further, it is the public policy of the State that the cumulative impact of transfers from a source river basin shall not result in a violation of the antidegradation policy set out in 40 Code of Federal Regulations § 131.12 (1 July 1997 Edition) and the statewide antidegradation policy adopted pursuant thereto. (1993, c. 348, s. 1; 1997-443, ss. 11A.119(a), 15.48(c); 1997-524, s. 1; 1998-168, s. 4.)

15A NCAC 2B .0600-.0609

Site Specific Water Quality Management Plan for the
Goose Creek Watershed



STATE OF NORTH CAROLINA DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES

Site Specific Water Quality Management Plan for the **Goose Creek Watershed**

Yadkin Pee-Dee River Basin



Reprint from North Carolina
Administrative Code:
15A NCAC 2B .0600-.0609

Last Amended: February 1, 2009

<http://h2o.enr.state.nc.us/csu/GooseCreek.html>



SECTION .0600 - WATER QUALITY MANAGEMENT PLANS**15A NCAC 02B .0601 SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN FOR THE GOOSE CREEK WATERSHED (YADKIN PEE-DEE RIVER BASIN): PURPOSE**

The Goose Creek watershed in the Yadkin Pee-Dee River Basin provides habitat for an aquatic animal species that is listed as federally endangered by the U.S. Fish and Wildlife Service under the provisions of the Endangered Species Act, 16 U.S.C. 1531-1544. Maintenance and recovery of the water quality conditions required to sustain and recover the federally-listed endangered species thereby protects the biological integrity of the waters. The Goose Creek watershed, which includes Goose Creek (Index # 13-17-18), Stevens Creek (Index # 13-17-18-1), Paddle Branch (Index # 13-17-18-2), Duck Creek (Index # 13-17-18-3) and all tributaries, shall be protected by the site-specific management strategy described in Rules .0601 through .0609 of this Section.

The purpose of the actions required by this site-specific management strategy is for the maintenance and recovery of the water quality conditions required to sustain and recover the federally endangered Carolina heelsplitter (*Lasmigona decorata*) species. Management of the streamside zones to stabilize streambanks and prevent sedimentation are critical measures to restore water quality to sustain and enable recovery of the federally endangered Carolina heelsplitter. Site-specific management strategies shall be implemented to:

- (1) control stormwater for projects disturbing one acre or more of land as described in Rule .0602,
- (2) control wastewater discharges as described in Rule .0603,
- (3) control toxicity to streams supporting the Carolina heelsplitter as described in Rule .0604, and
- (4) maintain riparian buffers as described in Rules .0605 through .0609.

History Note: Authority G.S. 143-214.1; 143-215.3(a)(1); 143-215.8A;
Eff. January 1, 2009.

15A NCAC 02B .0602 SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN FOR THE GOOSE CREEK WATERSHED (YADKIN PEE-DEE RIVER BASIN): STORMWATER CONTROL REQUIREMENTS

(a) Any new development activity that disturbs one acre or more of land within the Goose Creek watershed and will result in addition of impervious surface shall control and treat the difference in the stormwater runoff from the predevelopment and post-development conditions for the one-year, 24-hour storm, with structural stormwater controls, with the exception of NC Department of Transportation and NC Turnpike Authority activities that shall be regulated in accordance with provisions of that agency's NPDES Stormwater Permit. Development and redevelopment shall implement stormwater management measures that promote infiltration of flows and groundwater recharge for the purpose of maintaining stream base flow or the delegated local government shall maintain a written explanation when it is not practical to use infiltration methods.

(b) Structural stormwater controls shall meet the following requirements:

- (1) Remove an 85 percent average annual amount of Total Suspended Solids;
- (2) Draw down the treatment volume no faster than 48 hours, but no slower than 120 hours, for detention ponds;
- (3) Discharge the storage volume at a rate equal or less than the pre-development discharge rate for the one-year, 24-hour storm; and
- (4) Meet Design of Stormwater Management Measures set forth in 15A NCAC 02H .1008.

(c) Local governments may submit a written request to the Commission for authority to implement and enforce the state's stormwater protection requirements of G.S. 143-214.7 and S.L. 2006-246 within their jurisdiction. The written request shall be accompanied by information that shows:

- (1) The local government has land use jurisdiction for the riparian buffer demonstrated by delineating the local land use jurisdictional boundary on USGS 1:24,000 topographical map(s) or other finer scale map(s);
- (2) The local government has the administrative organization, staff, legal authority, financial and other resources necessary to implement and enforce the state's stormwater requirements based on its size and projected amount of development;
- (3) The local government has adopted ordinances, resolutions, or regulations necessary to establish and maintain the state's stormwater requirements; and
- (4) The local government has provided a plan to address violations with civil or criminal remedies and actions as well as remedies that shall restore buffer functions on violation sites and provide a deterrent against the occurrence of future violations.

(d) Within 90 days after the Commission has received the request for delegation, the Commission shall notify the local government based on standards as set out in Paragraph (c) of this Rule whether it has been approved, approved with modifications, or denied.

(e) The Commission, upon determination that a delegated local authority is failing to implement or enforce the requirements in keeping with a delegation, shall notify the delegated local authority in writing of the local program's inadequacies. If the delegated local authority has not corrected the deficiencies within 90 days of receipt of the written notification, then the Commission shall rescind the delegation of authority to the local government and shall implement and enforce the state's stormwater requirements.

(f) Limits of delegated local authority are as follows: The Commission shall have jurisdiction to the exclusion of local governments to implement the state's stormwater protection requirements for the following types of activities:

- (1) Activities undertaken by the State;
- (2) Activities undertaken by the United States;
- (3) Activities undertaken by multiple jurisdictions; and
- (4) Activities undertaken by local units of government.

(g) Recordkeeping requirements are as follows: Delegated local authorities shall maintain on-site records for a minimum of five years. Delegated local authorities must furnish a copy of these records to the Director within 30 days of receipt of a written request for the records. The Division of Water Quality shall inspect local stormwater programs to ensure that the programs are being implemented and enforced in keeping with an approved delegation.

History Note: Authority G.S. 143-214.1; 143-215.3(a)(1); 143-215.8A; 143-214.7, S.L. 2006-246; Eff. February 1, 2009.

**15A NCAC 02B .0603 SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN FOR THE GOOSE CREEK
WATERSHED (YADKIN PEE-DEE RIVER BASIN): WASTEWATER CONTROL
REQUIREMENTS**

No new National Pollution Discharge Elimination System "NPDES" wastewater discharges or expansions to existing discharges shall be permitted.

*History Note: Authority G.S. 143-214.1; 143-215.3(a)(1); 143-215.8A;
Eff. January 1, 2009.*

15A NCAC 02B .0604 SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN FOR THE GOOSE CREEK WATERSHED (YADKIN PEE-DEE RIVER BASIN): CONTROL TOXICITY INCLUDING AMMONIA

No activity that results in direct or indirect discharge is allowed if it causes toxicity to the Carolina heelsplitter (*Lasmigona decorata*) endangered mussel. For any direct or indirect discharge that may cause ammonia toxicity to the Carolina heelsplitter freshwater mussel, action shall be taken to reduce ammonia (NH₃-N) inputs to achieve 0.5 milligrams per liter or less of total ammonia based on chronic toxicity defined in 15A NCAC 02B .0202. This level of total ammonia is based on ambient water temperature equal to or greater than 25 degrees Celsius.

History Note: Authority G.S. 143-214.1; 143-215.3(a)(1); 143-215.8A;
Eff. February 1, 2009.

15A NCAC 02B .0605 SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN FOR THE GOOSE CREEK WATERSHED (YADKIN PEE-DEE RIVER BASIN): RIPARIAN BUFFER WIDTHS

In this watershed, undisturbed riparian buffers are required within 200 feet of waterbodies within the 100-Year Floodplain and within 100 feet of waterbodies that are not within the 100-Year Floodplain. The 100-Year Floodplain is the one percent Annual Chance Floodplain as delineated by the North Carolina Floodplain Mapping Program in the Division of Emergency Management. Within the buffer areas that are regulated by this Rule, redevelopment is allowed for residential structures and redevelopment of non-residential structures is allowed provided that less than an additional half acre is disturbed during the redevelopment activity for non-residential structures. Redevelopment is defined in 15A NCAC 02H .1002(14). Exceptions to undisturbed forested riparian buffer requirements are set forth in Rule .0607 of this Section. Activities shall require stormwater control as required by Rule .0602 of this Section.

History Note: Authority G.S. 143-214.1; 143-215.3(a)(1); 143-215.8A;
Eff. January 1, 2009.

15A NCAC 02B .0606 SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN FOR THE GOOSE CREEK WATERSHED (YADKIN PEE-DEE RIVER BASIN): VARIANCE FOR ACTIVITIES WITHIN RIPARIAN BUFFERS

Persons who wish to undertake uses designated as prohibited within the protected riparian buffer area may pursue a variance. Persons who wish to undertake forest harvesting beyond the requirements set forth in 15A NCAC 02B .0608 may pursue a variance. The variance request procedure shall be as follows:

- (1) For any variance request, the Division of Water Quality shall make a finding of fact as to whether the following requirements have been met:
 - (a) There are practical difficulties or unnecessary hardships that prevent compliance with the strict letter of the riparian buffer protection requirements. Practical difficulties or unnecessary hardships shall be evaluated in accordance with the following:
 - (i) If the applicant complies with the provisions of the buffer requirements, he/she can secure no reasonable return from, nor make reasonable use of, his/her property. Merely proving that the variance would permit a greater profit from the property is not adequate justification for a variance. Moreover, the Division of Water Quality shall consider whether the variance is the minimum possible deviation from the terms of the buffer requirements that will make reasonable use of the property possible.
 - (ii) The hardship results from application of the buffer requirements to the property rather than from other factors such as deed restrictions or other hardship.
 - (iii) The hardship is due to the physical nature of the applicant's property and is unique to the applicant's property, such as its size, shape, or topography, such that compliance with provision of this Rule would not allow reasonable use of the property.
 - (iv) The applicant did not cause the hardship by knowingly or unknowingly violating the buffer requirements.
 - (v) The applicant did not purchase the property after the effective date of this Rule, and then request a variance.
 - (b) The variance is in harmony with the general purpose and intent of the State's riparian buffer protection requirements and preserves its spirit; and
 - (c) In granting the variance, the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.
- (2) A variance request pertains to any activity that is proposed to impact any portion of the riparian buffer. If the Division of Water Quality has determined that a major variance request meets the requirements in Item (1) of this Rule, then it shall prepare a preliminary finding and submit it to the Environmental Management Commission. Preliminary findings on variance requests shall be reviewed by the Commission within 90 days after receipt by the Director. Requests for appeals of determinations that the requirements of Item (1) of this Rule have not been met shall be made to the Office of Administrative Hearings for determinations made by the Division of Water Quality or the appropriate Board of Adjustments under G.S. 160A-388 or G.S. 153A-345 for determinations made by the delegated local authority. The purpose of the Commission's review is to determine if it agrees that the requirements in Item (1) of this Rule have been met. Requests for appeals of decisions made by the Commission shall be made to the Office of Administrative Hearings. The following actions shall be taken depending on the Commission's decision on the major variance request:
 - (a) Upon the Commission's approval, the Division of Water Quality shall issue a final decision granting the variance.
 - (b) Upon the Commission's approval with conditions or stipulations, the Division of Water Quality shall issue a final decision, which includes these conditions or stipulations.
 - (c) Upon the Commission's denial, the Division of Water Quality shall issue a final decision denying the variance.

History Note: Authority G.S. 143-214.1; 143-215.3(a)(1); 143-215.8A; Eff. February 1, 2009.

15A NCAC 02B .0607 SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN FOR THE GOOSE CREEK WATERSHED (YADKIN PEE-DEE RIVER BASIN): BUFFER TYPES AND MANAGING ACTIVITIES WITHIN RIPARIAN BUFFERS

(a) **RIPARIAN BUFFER.** The protected riparian buffer shall consist of an area that is undisturbed except for uses provided for in the table in this Rule. A waterbody shall be considered to be present if the feature is shown as described in the applicability paragraph of 15A NCAC 02B .0233 (3) and 02B .0233(3)(a)(i)-(iii). The location of the riparian buffer shall be as follows:

- (1) For streams, the riparian buffer shall begin at the most landward limit of the top of bank or the rooted herbaceous vegetation and extend landward on all sides of the surface water, measured horizontally on a line perpendicular to the surface water.
- (2) For ponds, lakes and reservoirs located within a natural drainage way, the riparian buffer shall begin at the most landward limit of the normal water level or the rooted herbaceous vegetation and extend landward, measured horizontally on a line perpendicular to the surface water.

(b) **EXEMPTION WHEN USES ARE PRESENT AND ONGOING.** The buffer requirements in this Rule do not apply to portions of the riparian buffer where a use is existing and ongoing. Only the portion of the riparian buffer that contains the footprint of the existing and ongoing use is exempt. The determination of whether a use is existing and ongoing shall be made by the Division of Water Quality. A use is existing and ongoing when it is a completed and maintained activity, an activity with appropriate valid permits, or an activity with documentation for unexpired vested rights, as described below:

- (1) A use that was present within the riparian buffer as of the effective date of this Rule and has continued since that time. Existing uses shall include agriculture, buildings, industrial facilities, commercial areas, transportation facilities, maintained lawns, utility lines and on-site sanitary sewage systems. Change of ownership through purchase or inheritance is not a change of use. Activities necessary to maintain uses are allowed provided that the site remains similarly vegetated, no impervious surface is added within the buffer area where it did not exist as of the effective date of this Rule and existing diffuse flow is maintained.
- (2) A use that can be documented to the Division of Water Quality that meets at least one of the following criteria:
 - (A) Project requires a 401 Certification/404 Permit, issued prior to the effective date of this Rule and are still valid;
 - (B) Project requires a state permit, such as a landfill, NPDES wastewater discharge, land application residuals and road construction activities, and has begun construction or is under contract to begin construction and has received all required state permits prior to the effective date of this Rule;
 - (C) Project is being reviewed through the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process or Safe Accountable Flexible Efficient Transportation Equity Act; a Legacy for Users (published by the US Army Corps of Engineers and Federal Highway Administration, 2003) or its immediate successor and that have reached agreement with Department of Environment and Natural Resources on avoidance and minimization by the effective date of this Rule; or
 - (D) Project is not required to be reviewed by the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process or Safe Accountable Flexible Efficient Transportation Equity Act; a Legacy for Users (published by the US Army Corps of Engineers and Federal Highway Administration, 2003) or its immediate successor if a Finding of No Significant Impact has been issued for the project and the project has the written approval of the Division of Water Quality prior to the effective date of this Rule.
- (3) At the time an existing use is changed to another use, the buffer requirement of this Rule shall apply. Change of use includes the following:
 - (A) To add impervious surface within the riparian buffer;
 - (B) An agricultural operation within the riparian buffer is converted to a non-agricultural; or
 - (C) a lawn within the riparian buffer ceases to be maintained.

(c) **DIFFUSE FLOW REQUIREMENT.** Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation, as follows:

- (1) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow before the runoff enters the riparian buffer; and
- (2) Periodic corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies.

(d) **REQUIREMENTS FOR CATEGORIES OF USES AND MITIGATION.** Uses designated as exempt, potentially allowable, and prohibited location in the chart of uses in this Rule shall have the following requirements:

- (1) **EXEMPT.** Uses designated as exempt are allowed within the riparian buffer. Exempt uses shall be designed, constructed and maintained to minimize soil disturbance and to provide the maximum water quality protection practicable. In addition, exempt uses shall meet requirements listed in the table of this Rule for the specific use.
- (2) **POTENTIALLY ALLOWABLE.** Uses designated as potentially allowable may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to this Rule. These uses require written authorization from the Division of Water Quality. Some of these uses require mitigation, as indicated in the chart in this Rule.

- (3) PROHIBITED. Uses designated as prohibited or not included in this table may not proceed within the riparian buffer unless a variance is granted pursuant to Rule .0606. Site-specific mitigation may be required as one condition of a variance approval.
 - (4) MITIGATION. Persons who wish to undertake uses designated as allowable with mitigation shall obtain approval for a mitigation proposal pursuant to 15A NCAC 02B .0609.
- (e) DETERMINATION OF "NO PRACTICAL ALTERNATIVES." Persons who wish to undertake uses designated as potentially allowable shall submit a request for a "no practical alternatives" determination to the Division of Water Quality. The applicant shall certify that the criteria identified in Subparagraph (e)(1) of this Rule are met. The Division shall grant an Authorization Certificate upon a "no practical alternatives" determination. The procedure for making an Authorization Certificate shall be as follows:
- (1) For any request for an Authorization Certificate, the Division shall review the entire project and make a finding of fact as to whether the following requirements have been met in support of a "no practical alternatives" determination:
 - (A) The basic project purpose cannot be practically accomplished in a manner that would better minimize disturbance, preserve aquatic life and habitat, and protect water quality.
 - (B) The use cannot practically be reduced in size or density, reconfigured or redesigned to better minimize disturbance, preserve aquatic life and habitat, and protect water quality.
 - (C) Plans for practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.
 - (D) The Division of Water Quality must consider the impacts that may affect conditions required to sustain and recover the federally endangered Carolin heelsplitter (*Lasmigona decorata*).
 - (2) Requests for an Authorization Certificate shall be either approved or denied within 60 days of receipt of a complete submission based on the criteria in Subparagraph (e)(1) of this Rule by the Division. Failure to issue an approval or denial within 60 days shall constitute that the applicant has demonstrated "no practical alternatives." The Division of Water Quality may attach conditions to the Authorization Certificate that support the purpose, spirit and intent of the riparian buffer protection program. Complete submissions shall include the following:
 - (A) The name, address and phone number of the applicant;
 - (B) The nature of the activity to be conducted by the applicant;
 - (C) The location of the activity, including the jurisdiction;
 - (D) A map of sufficient detail to accurately delineate the boundaries of the land to be utilized in carrying out the activity, the location and dimensions of any disturbance in riparian buffers associated with the activity, and the extent of riparian buffers on the land;
 - (E) An explanation of why this plan for the activity cannot be practically accomplished, reduced or reconfigured to better minimize disturbance to the riparian buffer, preserve aquatic life and habitat and protect water quality; and
 - (F) Plans for any practices proposed to be used to control the impacts associated with the activity.
 - (3) Any disputes over determinations regarding Authorization Certificates shall be referred to the Director for a decision. The Director's decision is subject to review as provided in Articles 3 and 4 of G.S. 150B.
- (f) DELEGATION OF AUTHORITY FOR THE PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS. The Commission shall grant and rescind local government delegation of the Riparian Buffer Protection requirements according to the following procedures:
- (1) Local governments within the Goose Creek Watershed may submit a written request to the Commission for authority to implement and enforce the State's riparian buffer protection requirements within their jurisdiction. The written request shall be accompanied by information that shows:
 - (A) The local government has land use jurisdiction for the riparian buffer demonstrated by delineating the local land use jurisdictional boundary on USGS 1:24,000 topographical map(s) or other finer scale map(s);
 - (B) The local government has the administrative organization, staff, legal authority, financial and other resources necessary to implement and enforce the State's riparian buffer protection requirements based on its size and projected amount of development;
 - (C) The local government has adopted ordinances, resolutions, or regulations necessary to establish and maintain the State's riparian buffer protection requirements; and
 - (D) The local government has provided a plan to address violations with civil or criminal remedies and actions as well as remedies that shall restore buffer functions on violation sites and provide a deterrent against the occurrence of future violations.
 - (2) Within 90 days after the Commission has received the request for delegation, the Commission shall approve the request if the local government has complied with all of Subparagraph (f)(1) of this Rule and notify the local government whether it has been approved, approved with modifications, or denied.
 - (3) The Commission, upon determination that a delegated local authority is failing to implement or enforce the riparian buffer protection requirements in keeping with an approved delegation, shall notify the delegated local authority in writing of the local program's inadequacies. If the delegated local authority has not corrected the deficiencies within 90 days of receipt of the written notification, then the Commission shall rescind the delegation of authority to the local government and shall implement and enforce the State's riparian buffer protection requirements.

(g) **APPOINTMENT OF A RIPARIAN BUFFER PROTECTION ADMINISTRATOR.** Upon receiving delegation, local governments shall appoint a Riparian Buffer Protection Administrator who shall coordinate the implementation and enforcement of the program. The Administrator shall attend an initial training session by the Division of Water Quality and subsequent annual training sessions. The Administrator shall ensure that local government staffs working directly with the program receive training to understand, implement and enforce the program.

(h) **PROCEDURES FOR USES WITHIN RIPARIAN BUFFERS THAT ARE ALLOWABLE AND ALLOWABLE WITH MITIGATION.**

- (1) Upon receiving delegation, local authorities shall review proposed uses within the riparian buffer and issue approvals if the uses meet the riparian buffer protection requirements.
- (2) Delegated local authorities shall issue an Authorization Certificate for uses if the proposed use meets the requirements including provisions for mitigation set forth in Rule .0609.
- (3) The Division of Water Quality may challenge a decision made by a delegated local authority for a period of 30 days after the Authorization Certificate is issued. If the Division of Water Quality does not challenge an Authorization Certificate within 30 days of issuance, then the delegated local authority's decision shall stand.

(i) **VARIANCES.** After receiving delegation, local governments shall review variance requests and make recommendations to the Commission for approval.

(j) **LIMITS OF DELEGATED LOCAL AUTHORITY.** The Commission has jurisdiction to the exclusion of local governments to implement the requirements of this Rule for the following types of activities:

- (1) Activities undertaken by the State;
- (2) Activities undertaken by the United States;
- (3) Activities undertaken by multiple jurisdictions; and
- (4) Activities undertaken by local units of government.

(k) **RECORD-KEEPING REQUIREMENTS.** Delegated local authorities shall maintain on-site records for a minimum of five years. Delegated local authorities must furnish a copy of these records to the Director within 30 days of receipt of a written request for the records. The Division of the Water Quality shall inspect local riparian buffer protection programs to ensure that the programs are being implemented and enforced. Each delegated local authority's records shall include the following:

- (1) A copy of variance requests;
- (2) The variance request's finding of fact;
- (3) The result of the variance proceedings;
- (4) A record of complaints and action taken as a result of the complaint;
- (5) Records for stream origin calls and stream ratings; and
- (6) Copies of request for authorization, records approving authorization and Authorization Certificates.

(l) Riparian buffers along surface waters in this watershed shall be maintained. Some uses within riparian buffers are exempt and some uses are potentially allowable. Any exempt or potentially allowed use shall require stormwater control as outlined in Rule .0602 if the one acre threshold is met. The following chart sets out the uses and their designation under this Rule as exempt, potentially allowable requiring DWQ approval or potentially allowable requiring both DWQ approval and mitigation, or prohibited as described above. The United States Environmental Protection Agency Endangered Species Protection Program at www.epa.gov/espp and NC Pesticide Board regulates pesticide application (see rules at 02 NCAC 09L .2201 through .2203).

	Exempt	Potentially allowable requiring DWQ approval or Potentially allowable requiring both DWQ approval and mitigation* Note: the asterisk (X*) identifies those uses that require both DWQ approval and mitigation.	Prohibited
Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer		X	
Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer		X*	
Archaeological activities	X		
Bridges		X	
Dam maintenance activities	X		
Drainage ditches, roadside ditches and stormwater outfalls			

<p>through riparian buffers:</p> <ul style="list-style-type: none"> Existing drainage ditches, roadside ditches, and stormwater outfalls provided that they are managed to minimize the sediment, nutrients including ammonia and other pollution that convey to waterbodies New drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to minimize the sediment, nutrients including ammonia and other pollution and attenuate flow before the conveyance discharges through the riparian buffer New drainage ditches, roadside ditches and stormwater outfalls that do not minimize the sediment, nutrients including ammonia and other pollution and attenuate flow before discharging through the riparian buffer Excavation of the streambed in order to bring it to the same elevation as the invert of a ditch 	X	X	X
Drainage of a pond in a natural drainage way provided that a new riparian buffer that meets the diffuse flow requirements of this Rule is established adjacent to the new channel	X		
<p>Driveway crossings of streams and other surface waters subject to this Rule:</p> <ul style="list-style-type: none"> Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet in width and are perpendicular³ Driveway crossings on single family residential lots that disturb greater than 25 linear feet in width and are perpendicular³ In a subdivision that cumulatively disturbs equal to or less than 150 linear feet in width and are perpendicular In a subdivision that cumulatively disturbs greater than 150 linear feet in width and are perpendicular 	X	X X X*	
Fences provided that disturbance is minimized and installation does not result in removal of forest vegetation	X		
Forest harvesting – see Rule .0608			
<p>Fertilizer application:</p> <ul style="list-style-type: none"> One-time fertilizer application at agronomic rates to establish replanted vegetation Ongoing fertilizer application 	X		X
Greenway/hiking trails		X	
Historic preservation	X		
Landfills as defined by G.S. 130A-290			X
<p>Mining activities:</p> <ul style="list-style-type: none"> Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the diffuse flow requirements of this Rule are established adjacent to the relocated channels Mining activities that are not covered by the Mining Act OR where new riparian buffers that meet the diffuse flow requirements of this Rule are not established adjacent to the relocated channels Wastewater or mining dewatering wells with approved NPDES permit 		X X*	X
Non-electric utility lines with impacts other than perpendicular crossings ³			

<ul style="list-style-type: none"> • If activity is within 50 feet of the stream • If activity is outside of the inner 50 feet nearest the stream • Wastewater collection system utility lines and lift station lines may impact the riparian zone if both gravity and force main collections systems are made of ductile iron and 50% of the collection system is cleaned annually. • Lift Stations require Supervisory Control and Data Acquisition System (SCADA), telemetry, audio and visual alarms, signage with emergency contact, daily visitation (365 days/year), and documentation must be maintained for 3 years of all of the above and available upon request [note: this requirement also applies to collection system perpendicular crossings, detailed below.] 		<p>X*</p> <p>X</p> <p>X*</p> <p>X*</p>	
<p>Non-electric utility line perpendicular crossing of streams and other surface waters subject to this Rule that are not collection systems³:</p> <ul style="list-style-type: none"> • Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer <p>Non-electric perpendicular utility line crossings that are collections systems as defined in Rule 15A NCAC 02T .0300 (note: must follow constraints listed under wastewater collection system utility lines and lift stations, above):</p> <ul style="list-style-type: none"> • That use any of the following installation methods to minimize the sediment, nutrient and other pollution through the riparian buffer: underground directional boring methods, bore-and-jack techniques or another appropriate microtunnelling method. • That does not minimize the sediment, nutrient and other pollution through the riparian buffer by the most appropriate exempt method. 	<p>X</p>	<p>X</p> <p>X</p> <p>X*</p> <p>X*</p> <p>X</p>	<p>X</p>
<p>On-site sanitary sewage systems - new ones that use ground absorption</p>			<p>X</p>
<p>Overhead electric utility lines^{1,2,3}:</p> <ul style="list-style-type: none"> • Stream crossings that disturb equal to or less than 150 linear feet of riparian buffer • Stream crossings that disturb greater than 150 linear feet of riparian buffer 	<p>X</p>	<p>X*</p>	
<p>Periodic maintenance of modified natural streams such as canals and a grassed travelway on one side of the surface water when alternative forms of maintenance access are not practical.</p>		<p>X</p>	

Playground equipment: <ul style="list-style-type: none"> Playground equipment on single family lots provided that installation and use does not result in removal of vegetation Playground equipment installed on lands other than single-family lots or that requires removal of vegetation 	X	X	
Ponds in natural drainage ways, excluding dry ponds: <ul style="list-style-type: none"> New ponds provided that a riparian buffer that meets the diffuse flow requirements of this Rule is established adjacent to the pond New ponds where a riparian buffer that meets the diffuse flow requirements of this Rule is NOT established adjacent to the pond 		X	X
Protection of existing structures, facilities and streambanks when this requires additional disturbance of the riparian buffer or the stream channel		X	
Railroad impacts other than crossings of streams and other surface waters subject to this Rule			X
Railroad crossings of streams and other surface waters subject to this Rule: <ul style="list-style-type: none"> Railroad crossings that impact equal to or less than 40 linear feet of riparian buffer Railroad crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer Railroad crossings that impact greater than 150 linear feet of riparian buffer 	X	X	X
Removal of previous fill or debris provided that diffuse flow is maintained and any vegetation removed is restored	X		
Road impacts other than crossings of streams and other surface waters subject to this Rule		X*	
Road crossings of streams and other surface waters subject to this Rule: <ul style="list-style-type: none"> Road crossings that impact equal to or less than 40 linear feet of riparian buffer and is perpendicular Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet and is perpendicular Road crossings that impact greater than 150 linear feet of riparian buffer 	X	X X*	
Scientific studies and stream gauging	X		
Stormwater management ponds excluding dry ponds: <ul style="list-style-type: none"> New stormwater management ponds provided that a riparian buffer that meets the diffuse flow requirements of this Rule is established adjacent to the pond New stormwater management ponds where a riparian buffer that meets the diffuse flow requirements of this Rule is NOT established adjacent to the pond 		X	X
Stream restoration	X		
Streambank stabilization		X	
Temporary roads: <ul style="list-style-type: none"> Temporary roads that disturb less than or equal to 2,500 square feet provided that vegetation is restored within six months of initial disturbance Temporary roads that disturb greater than 2,500 square feet provided that vegetation is restored within six months of initial disturbance 	X	X	

<ul style="list-style-type: none"> Temporary roads used for bridge construction or replacement provided that restoration activities, such as soil stabilization and revegetation, are conducted immediately after construction 		X	
Temporary sediment and erosion control devices: <ul style="list-style-type: none"> To control impacts associated with uses approved by the Division or that have received a variance provided that sediment and erosion control for upland areas is addressed to the maximum extent practical outside the buffer In-stream temporary erosion and sediment control measures for work within a stream channel 	X	X	
Underground electric utility lines: <ul style="list-style-type: none"> Impacts other than perpendicular crossings^{3,4} 	X		
Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule: <ul style="list-style-type: none"> Perpendicular crossings that disturb less than or equal to 40 linear feet of riparian buffer^{3,4} Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer^{3,4} 	X	X	
Vegetation management: <ul style="list-style-type: none"> Emergency fire control measures provided that topography is restored Planting vegetation to enhance the riparian buffer Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised Removal of individual trees which are in danger of causing damage to dwellings, other structures or human life Removal of poison ivy Removal of understory nuisance vegetation as defined in: Smith, Cheri L. 1998. Exotic Plant Guidelines. Department of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. Guideline #30 	X X X X X X		
Water dependent structures as defined in 15A NCAC 02B .0202		X	
Water wells	X		
Wetland restoration	X		

¹ Provided that all of the following BMPs for overhead utility lines are used. If all of these BMPs are not used, then the overhead utility lines shall require a no practical alternatives evaluation by the Division of Water Quality.

- A minimum zone of 10 feet wide immediately adjacent to the water body shall be managed such that only vegetation that poses a hazard or has the potential to grow tall enough to interfere with the line is removed.
- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain where trees are cut.
- Rip rap shall not be used unless it is necessary to stabilize a tower.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

² Provided that poles or towers shall not be installed within 10 feet of a water body unless the Division of Water Quality completes a no practical alternatives evaluation.

³ Perpendicular crossings are those that intersect the surface water at an angle between 75 degrees and 105 degrees.

⁴ Provided that all of the following BMPs for underground utility lines are used. If all of these BMPs are not used, then the underground utility line shall require a no practical alternatives evaluation by the Division of Water Quality.

- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain, except in the trench, where trees are cut.
- Underground cables shall be installed by vibratory plow or trenching.
- The trench shall be backfilled with the excavated soil material immediately following cable installation.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

History Note: Authority G.S. 143-214.1; 143-215.8A; 143-214.7;
Eff. February 1, 2009.

15A NCAC 02B .0608 SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN FOR THE GOOSE CREEK WATERSHED (YADKIN PEE-DEE RIVER BASIN): MANAGE ACTIVITIES WITHIN RIPARIAN BUFFERS: FOREST HARVESTING REQUIREMENTS

- (a) The following requirements shall apply for forest harvesting operations and practices in the riparian areas.
- (1) Logging decks and sawmill sites shall not be placed in the riparian buffer.
 - (2) Access roads and skid trails are prohibited except for temporary and permanent stream crossings established in accordance with 15A NCAC 01I .0203. Temporary stream crossings shall be permanently stabilized after any site disturbing activity is completed.
 - (3) Timber felling shall be directed away from the stream or water body.
 - (4) Skidding shall be directed away from the stream or water body and shall be done in a manner that minimizes soil disturbance and prevents the creation of channels or ruts.
 - (5) Individual trees may be treated to maintain or improve their health, form or vigor.
 - (6) Harvesting of dead or infected trees or application of pesticides necessary to prevent or control extensive tree pest and disease infestation is allowed, when approved by the Division of Forest Resources for a specific site in accordance with G.S. 113-60.4. A copy of the Division of Forest Resources approval must be provided to the Division of Water Quality in accordance with Session Law 2001-404.
 - (7) Removal of individual trees that are in danger of causing damage to structures or human life is allowed.
 - (8) Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the riparian buffer is allowed provided that soil disturbance is minimized. Plantings shall consist primarily of native species.
 - (9) High intensity prescribed burns shall not be allowed.
 - (10) Application of fertilizer is not allowed except as necessary for permanent stabilization. Broadcast application of fertilizer or herbicides to the adjacent forest stand shall be conducted so that the chemicals are not applied directly to or allowed to drift into the riparian buffer.
- (b) In the riparian buffer, forest vegetation shall be protected and maintained. Selective harvest as provided for below is allowed on forest lands that have a deferment for use value under forestry in accordance with G.S. 105-277.2 through G.S. 277.6 or on forest lands that have a forest management plan prepared or approved by a registered professional forester. Copies of either the approval of the deferment for use value under forestry or the forest management plan shall be produced upon request. For such forest lands, selective harvest is allowed in accordance with the following:
- (1) Tracked or wheeled vehicles are not permitted within the first 50 feet the riparian buffer top of bank landward except at stream crossings designed, constructed and maintained in accordance with 15A NCAC 01I .0203.
 - (2) Soil disturbing site preparation activities are not allowed.
 - (3) Trees shall be removed with the minimum disturbance to the soil and residual vegetation.
 - (4) The first 10 feet of the riparian buffer directly adjacent to the stream or waterbody shall be undisturbed.
 - (5) In the zone from 10 feet to 50 feet of the riparian buffer, a maximum of 50 percent of the trees greater than five inches diameter breast height (dbh) may be cut and removed. The reentry time for harvest shall be no more frequent than every 15 years, except on forest plantations as defined in 15A NCAC 02B .0233(e) where the reentry time shall be no more frequent than every five years. In either case, the trees remaining after harvest shall be as evenly spaced as possible.
 - (6) In the outer riparian buffer (landward of 50 feet), harvesting and regeneration of the forest stand is allowed provided that sufficient ground cover is maintained to provide for diffusion and infiltration of surface runoff.

History Note: Authority G.S. 143-214.1; 143-215.3(a)(1); 143-215.8A;
Eff. February 1, 2009.

15A NCAC 02B .0609 SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN FOR THE GOOSE CREEK WATERSHED (YADKIN PEE-DEE RIVER BASIN): MANAGE ACTIVITIES WITHIN RIPARIAN BUFFERS: MITIGATION REQUIREMENTS FOR BUFFER IMPACTS

(a) **PURPOSE.** The purpose of this Rule is to set forth the mitigation requirements that apply to the Goose Creek Watershed existing riparian buffer protection program, as described in 15A NCAC 02B .0605, .0606, and .0607.

(b) **APPLICABILITY.** This Rule applies to persons who wish to impact a riparian buffer in the Goose Creek Watershed when one of the following applies:

- (1) A person has received an Authorization Certificate pursuant to 15A NCAC 02B .0607 for a proposed use that is designated as potentially allowable requiring both DWQ approval and mitigation.
- (2) A person has received a variance pursuant to 15A NCAC 02B .0606 and is required to perform mitigation as a condition of a variance approval.

(c) **THE AREA OF MITIGATION.** The required area of mitigation shall be determined by either the Division of Water Quality or the delegated local authority according to the following:

- (1) The impacts in square feet to the riparian buffer shall be determined by the Division of Water Quality or the delegated local authority by adding the following:
 - (A) The area of the footprint of the use causing the impact to the riparian buffer.
 - (B) The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use.
 - (C) The area of any ongoing maintenance corridors within the riparian buffer associated with the use.
- (2) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Subparagraph (c)(1) of this Rule to each zone of the riparian buffer:
 - (A) Impacts to the riparian buffer shall be multiplied by three.
 - (B) Impacts to wetlands within the riparian buffer that are subject to mitigation under 15A NCAC 02H .0506 shall comply with the mitigation ratios in 15A NCAC 02H .0506.

(d) **THE LOCATION OF MITIGATION.** The mitigation effort shall be within the Goose Creek Watershed, as close to the location of the impact as feasible.

(e) **ISSUANCE OF THE MITIGATION DETERMINATION.** The Division of Water Quality or the delegated local authority shall issue a mitigation determination that specifies the required area and location of mitigation pursuant to Paragraph (c) of this Rule.

(f) **OPTIONS FOR MEETING THE MITIGATION DETERMINATION.** The mitigation determination made pursuant to Paragraph (e) of this Rule may be met through one of the following options:

- (1) Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Paragraph (g) of this Rule.
- (2) Donation of real property or of an interest in real property pursuant to Paragraph (h) of this Rule.
- (3) Restoration or enhancement of a non-forested riparian buffer. This shall be accomplished by the applicant after submittal and approval of a restoration plan pursuant to Paragraph (i) of this Rule.

(g) **PAYMENT TO THE RIPARIAN BUFFER RESTORATION FUND.** Persons who choose to satisfy their mitigation determination by paying a compensatory mitigation fee to the Riparian Buffer Restoration Fund shall meet the following requirements:

- (1) **SCHEDULE OF FEES:** The amount of payment into the Fund shall be determined by multiplying the acres or square feet of mitigation determination made pursuant to Paragraph (e) of this Rule by ninety-six cents (\$.96) per square foot or forty-one thousand, six hundred and twenty-five dollars (\$41,625) per acre.
- (2) The required fee shall be submitted to the [North Carolina Ecosystem Enhancement Program, 1652 Mail Service Center, Raleigh, NC 27699-1652] prior to any activity that results in the removal or degradation of the protected riparian buffer for which a "no practical alternatives" determination has been made.
- (3) The payment of a compensatory mitigation fee may be fully or partially satisfied by donation of real property interests pursuant to Paragraph (h) of this Rule.
- (4) The Division of Water Quality shall review the fee outlined in Subparagraph (g)(1) of this Rule every two years and compare it to the actual cost of restoration activities conducted by the Department, including site identification, planning, implementation, monitoring and maintenance costs. Based upon this biennial review, the Division of Water Quality shall recommend revisions to Subparagraph (g)(1) of this Rule when adjustments to this Schedule of Fees are deemed necessary.

(h) **DONATION OF PROPERTY.** Persons who choose to satisfy their mitigation determination by donating real property or an interest in real property shall meet the following requirements:

- (1) The donation of real property interests may be used to either partially or fully satisfy the payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Paragraph (g) of this Rule. The value of the property interest shall be determined by an appraisal performed in accordance with Part (h)(4)(D) of this Rule. The donation shall satisfy the mitigation determination if the appraised value of the donated property interest is equal to or greater than the required fee. If the appraised value of the donated property interest is less than the required fee calculated pursuant to Subparagraph (g)(1) of this Rule, the applicant shall pay the remaining balance due.
- (2) The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity.

- (3) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:
- (A) The property shall be located within an area that is identified as a priority for restoration in the Basinwide Wetlands and Riparian Restoration Plan developed by the Department pursuant to G.S. 143-214.10 or shall be located at a site that is otherwise consistent with the goals outlined in the Basinwide Wetlands and Riparian Restoration Plan;
 - (B) The property shall contain riparian areas for restoration, defined in 15A NCAC 02B .0243, not currently protected by the State's riparian buffer protection program that merit restoration;
 - (C) The size of the restorable riparian buffer on the property to be donated shall equal or exceed the acreage of riparian buffer required to be mitigated under the mitigation responsibility determined pursuant to Paragraph (c) of this Rule;
 - (D) The property shall not require excessive measures for successful restoration, such as removal of structures or infrastructure. Restoration of the property shall be capable of fully offsetting the adverse impacts of the requested use;
 - (E) The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation;
 - (F) The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and land acquisition costs;
 - (G) The property shall not contain any building, structure, object, site, or district that is listed in the National Register of Historic Places established pursuant to Public Law 89-665, 16 U.S.C. 470 as amended;
 - (H) The property shall not contain any hazardous substance or solid waste;
 - (I) The property shall not contain structures or materials that present health or safety problems to the general public. If wells, septic, water or sewer connections exist, they shall be filled, remediated or closed at owner's expense in accordance with state and local health and safety regulations;
 - (J) The property and adjacent properties shall not have prior, current, and known future land use that would inhibit the function of the restoration effort;
 - (K) The property shall not have any encumbrances or conditions on the transfer of the property interests.
- (4) At the expense of the applicant or donor, the following information shall be submitted to the Division of Water Quality with any proposal for donations or dedications of interest in real property:
- (A) Documentation that the property meets the requirements laid out in Subparagraph (h)(3) of this Rule.
 - (B) US Geological Survey 1:24,000 (7.5 minute) scale topographic map, county tax map, USDA Natural Resource Conservation Service County Soil Survey Map, and county road map showing the location of the property to be donated along with information on existing site conditions, vegetation types, presence of existing structures and easements.
 - (C) A current property survey performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the State Board of Registration for Professional Engineers and Land Surveyors in "Standards of Practice for Land Surveying in North Carolina." Copies may be obtained from the North Carolina State Board of Registration for Professional Engineers and Land Surveyors, 3620 Six Forks Road, Suite 300, Raleigh, North Carolina 27609.
 - (D) A current appraisal of the value of the property performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the Appraisal Board in the "Uniform Standards of Professional North Carolina Appraisal Practice." Copies may be obtained from the Appraisal Foundation, Publications Department, P.O. Box 96734, Washington, D.C. 20090-6734.
 - (E) A title certificate.
- (i) **RIPARIAN BUFFER RESTORATION OR ENHANCEMENT.** Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:
- (1) The applicant may restore or enhance riparian buffer defined in 15A NCAC 02B .0243 if either of the following applies:
 - (A) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Paragraph (c) of this Rule; or
 - (B) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Paragraph (c) of this Rule.
 - (2) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Paragraph (d) of this Rule.
 - (3) The riparian buffer restoration or enhancement site shall have a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water and may include the following:
 - (A) Restoration/enhancement of existing riparian areas.
 - (B) Restoration/enhancement and respective preservation of streamside areas when the stream is not depicted on USGS map or Soil Survey.
 - (C) Preservation of streamside areas when the stream is not depicted on USGS map or Soil Survey.

- (D) Restoration/enhancement and respective preservation of streamside areas along first order ephemeral streams that discharge/outlet into intermittent or perennial streams.
- (E) Preservation of the streamside area along first order ephemeral streams that discharge/outlet intermittent or perennial stream.
- (4) Other individual/innovative mitigation projects may be approved by the Division of Water Quality that meet the purpose of this Rule.
- (5) The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of 15A NCAC 02B .0607. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the Division of Water Quality. The Division of Water Quality shall approve plans that meet the requirements of this Rule. The restoration or enhancement plan shall contain the following.
 - (A) A map of the proposed restoration or enhancement site.
 - (B) A vegetation plan. The vegetation plan shall include a minimum of two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity.
 - (C) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer.
 - (D) A fertilization plan.
 - (E) A schedule for implementation.
- (6) Within one year after the Division of Water Quality has approved the restoration or enhancement plan, the applicant shall present proof to the Division of Water Quality that the riparian buffer has been restored or enhanced. If proof is not presented within this timeframe, then the person shall be in violation of the State's or the delegated local authority's riparian buffer protection program.
- (7) The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal functions.
- (8) The applicant shall submit annual reports for a period of five years after the restoration or enhancement showing that the trees planted have survived and that diffuse flow through the riparian buffer has been maintained. The applicant shall replace trees that do not survive and restore diffuse flow if needed during that five-year period.

History Note: Authority G.S. 143-214.1; 143-215.3(a)(1); 143-215.8A;
Eff. February 1, 2009.