SUBCHAPTER 2B - SURFACE WATER AND WETLAND STANDARDS

SECTION .0100 - PROCEDURES FOR ASSIGNMENT OF WATER QUALITY STANDARDS

15A NCAC 02B .0101 GENERAL PROCEDURES

(a) The rules contained in Sections .0100, .0200 and .0300 of this Subchapter which pertain to the series of classifications and water quality standards shall be known as the "Classifications and Water Quality Standards Applicable to the Surface Waters and Wetlands of North Carolina."

(b) The Environmental Management Commission, prior to classifying and assigning standards of water quality to any waters of the state, shall proceed as follows:

(1) The Commission, or its designee, shall determine waters to be studied for the purpose of classification and assignment of water quality standards on the basis of user requests, petitions, or the identification of existing or attainable water uses, as defined by 15A NCAC 2B .0202, not presently included in the water classification.

(2) After appropriate studies of the identified waters to obtain the data and information required for determining the proper classification of the waters or segments of water are completed, the Commission, or its designee, shall make a decision on whether to initiate proceedings to modify the classifications and water quality standards of identified waters. In the case of the Commission's designee deciding to initiate said proceedings, the designee shall inform the Commission of the decision prior to scheduling a public hearing.

(3) In the case of a petition for classification and assignment of water quality standards according to the requirements of General Statute 150B-20, the Director shall make a preliminary recommendation on the appropriate classifications and water quality standards of the identified waters on the basis of the study findings or information included in the petition supporting the classification and standards changes.

(4) The Commission shall make a decision on whether to grant or deny a petition in accordance with the provisions of General Statute 150B-20 based on the information included in the petition and the recommendation of the Director. The Commission may deny the petition and request that the Division study the appropriate classifications and water quality standards for the petitioned waters in accordance with Subparagraph (b)(2) of this Rule.

(5) The Director shall give due notice of such hearing or hearings in accordance with the requirements of General Statute 143-214.1 and G.S. 150B, and shall appoint a hearing officer(s) in consultation with the chairman of the Commission.

(6) The hearing officer(s) shall, as soon as practicable after the completion of the hearing, submit a complete report of the proceedings of the hearing to the Commission. The hearing officer(s) shall include in the report a transcript or summary of testimony presented at such public hearing, relevant exhibits, a summary of relevant information from the stream studies conducted by the technical staff of the Commission, and final recommendations as to classification of the designated waters and the standards of water quality and best management practices which should be applied to the classifications recommended.

(7) The Commission, after due consideration of the hearing records and the final recommendations of the hearing officer(s), shall adopt its final action with respect to the assignment of classifications, and any applicable standards or best management practices applicable to the waters under consideration. The Commission shall publish such action, together with the effective date for the application of the provisions of General Statute 143-215.1 and 143-215.2, as amended, as a part of the Commission's official rules.

(8) The final action of the Commission with respect to the assignment of classification with its accompanying standards and best management practices shall contain the Commission's conclusions relative to the various factors given in General Statute 143-214.1(d), and shall specifically include the class or classes to which such specifically designated waters in the watershed or watersheds shall be assigned on the basis of best usage in the interest of the public.

(c) Freshwater shall be assigned to one of the following classification:

(1) Class C: freshwaters protected for secondary recreation, fishing, aquatic life including propagation and survival, and wildlife. All freshwaters shall be classified to protect these uses at a minimum.

(2) Class B: freshwaters protected for primary recreation which includes swimming on a frequent or organized basis and all Class C uses.

(3) Class WS-I: waters protected as water supplies which are essentially in natural and undeveloped watersheds. Point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter. Local programs to control nonpoint sources and stormwater discharges of pollution are required. Suitable for all Class C uses.

(4) Class WS-II: waters protected as water supplies which are generally in predominantly undeveloped watersheds. Point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter. Local programs to control nonpoint sources and stormwater discharges of pollution shall be required. Suitable for all Class C uses.

(5) Class WS-III: waters protected as water supplies which are generally in low to moderately developed watersheds. Point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter. Local programs to control nonpoint sources and stormwater discharges of pollution shall be required. Suitable for all Class C uses.

(6) Class WS-IV: waters protected as water supplies which are generally in moderately to highly developed watersheds. Point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter. Local programs to control nonpoint sources and stormwater discharges of pollution shall be required; suitable for all Class C uses.

(7) Class WS-V: waters protected as water supplies which are generally upstream of and draining to Class WS-IV waters. No categorical restrictions on watershed development or treated wastewater discharges shall be required. However, the Commission or its designee may apply appropriate management requirements as deemed necessary for the protection of downstream receiving waters (15A NCAC 2B .0203); suitable for all Class C uses.

(8) Class WL: waters that meet the definition of wetlands found in 15A NCAC 2B .0202 except those designated as Class SWL.

(d) Tidal Salt Waters shall be assigned to one of the following:

(1) Class SC: saltwaters protected for secondary recreation, fishing, aquatic life including propagation and survival, and wildlife. All saltwaters shall be classified to protect these uses at a minimum.

(2) Class SB: saltwaters protected for primary recreation which includes swimming on a frequent or organized basis and all Class SC uses.

(3) Class SA: suitable for commercial shellfishing and all other tidal saltwater uses.

(4) Class SWL: waters that meet the definition of coastal wetlands as defined by 15A NCAC 2H .0205, and which are landward of the mean high water line, and wetlands contiguous to estuarine waters as defined by 15A NCAC 2H .0206.

(e) The following are supplemental classifications:

(1) Trout waters (Tr): freshwaters protected for natural trout propagation and survival of stocked trout.

(2) Swamp waters (Sw): waters which have low velocities and other natural characteristics which are different from adjacent streams.

(3) Nutrient Sensitive Waters (NSW): waters subject to growths of microscopic or macroscopic vegetation requiring limitations on nutrient inputs.

(4) Outstanding Resource Waters (ORW): unique and special waters of exceptional state or national recreational or ecological significance which require special protection to maintain existing uses.

(5) High Quality Waters (HQW): waters which are rated as excellent based on biological and physical/chemical characteristics through Division monitoring or special studies, native and special native trout waters (and their tributaries) designated by the Wildlife Resources Commission, primary nursery areas (PNA) designated by the Marine Fisheries Commission and other functional nursery areas designated by the Marine Fisheries Commission, all water supply watersheds which are either classified as WS-I or WS-II or those for which a formal petition for reclassification as WS-I or WS-II has been received from the appropriate local government and accepted by the Division of Water Quality and all Class SA waters.

(6) Future Water Supply (FWS): waters that have been requested by a local government and adopted by the Commission as a future source for drinking, culinary , or food-processing purposes. Local government(s) requesting this reclassification shall provide to the Division evidence of intent which may include one or a combination of the following: capitol improvement plans, a Water Supply Plan as described in G.S. 143-355(1), bond issuance for the water treatment plant or land acquisition records. Local governments shall provide a 1:24,000 scale USGS topographical map delineating the location of the intended water supply intake. Requirements for activities administered by the State of North Carolina, such as the issuance of

permits for landfills, NPDES wastewater discharges, land application of residuals and road construction activities shall be effective upon reclassification for future water supply use. The requirements shall apply to the critical area and balance of the watershed or protected area as appropriate. Upon receipt of the final approval letter from the Division of Environmental Health for construction of the water treatment plant and water supply intake, the Commission shall initiate rule-making to modify the Future Water Supply supplemental classification. Local government implementation is not required until 270 days after the Commission has modified the Future Water Supply (FWS) supplemental classification through the rule-making process and notified the affected local government(s) that the appropriate local government land use requirements applicable for the water supply classifications are to be adopted, implemented and submitted to the Commission for approval. Local governments may also adopt land use ordinances that meet or exceed the state's minimum requirements for water supply watershed protection prior to the end of the 270 day deadline. The requirements for FWS may also be applied to waters formerly used for drinking water supply use, and currently classified for water supply use, at the request of local government(s) desiring protection of the watershed for future water supply use.

(7) Unique wetland (UWL): wetlands of exceptional state or national ecological significance which require special protection to maintain existing uses. These wetlands may include wetlands that have been documented to the satisfaction of the Commission as habitat essential for the conservation of state or federally listed threatened or endangered species.

(f) In determining the best usage of waters and assigning classifications of such waters, the Commission shall consider the criteria specified in General Statute 143-214.1(d) and all existing uses as defined by 15A NCAC 2B .0202. In determining whether to revise a designated best usage for waters through a revision to the classifications, the Commission shall follow the requirements of 40 CFR 131.10(b),(c),(d) and (g) which are hereby incorporated by reference including any subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Water Quality, Water Quality Section, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325 at a cost of thirteen dollars ($13.00).

(g) When revising the classification of waters, the Division shall collect water quality data within the watershed for those substances which require more stringent control than required by the existing classification. However, such sampling may be limited to only those parameters which are of concern. If the revision to classifications involves the removal of a designated use, the Division shall conduct a use attainability study as required by the provisions of 40 CFR 131.10(j) which are hereby incorporated by reference including any subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Water Quality, Water Quality Section, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325 at a cost of thirteen dollars ($13.00).

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 1995; February 1, 1993; August 3, 1992; August 1, 1990;
RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;
Amended Eff. October 1, 1996.

15A NCAC 02B .0102 USE OF CLASSIFICATIONS AND WATER QUALITY STANDARDS

History Note: *Authority G.S. 143-214.1;*
Eff. February 1, 1976;
Repealed Eff. January 1, 1985.

15A NCAC 02B .0103 ANALYTICAL PROCEDURES

(a) Chemical/Physical Procedures. Tests or analytical procedures to determine conformity or non-conformity with standards shall, insofar as practicable and applicable, conform to the guidelines by the Environmental Protection Agency codified as 40 CFR, Part 136, which are hereby incorporated by reference including any subsequent amendments and editions. This material

is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Water Quality, Water Quality Section, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325 at a cost of thirteen dollars ($13.00). Methods not codified by 40 CFR, Part 136 will, insofar as practicable and applicable, conform to the guidelines by the American Public Health Association, American Water Works Association, Water Environment Federation publication A Standard Methods for the Examination of Water and Wastewater, 19th edition@(1996) or subsequent editions which are hereby incorporated by reference. Copies may be obtained from the Water Environment Federation, 601 Wythe St., Alexandria, VA, 22314 at a cost of one hundred and eighty dollars ($180.00).

(b) Biological Procedures. Biological tests to determine conformity or non-conformity with standards shall be based on methods published by the U.S. Environmental Protection Agency as codified as 40 CFR, Part 136, which are hereby incorporated by reference including any subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health and Natural Resources, Division of Water Quality, Water Quality Planning Branch, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325 at a cost of thirteen dollars ($13.00).

(c) Wetland Evaluation Procedures. Evaluations of wetlands for the presence of existing uses shall be based on procedures approved by the Director. The Director shall approve wetland evaluation procedures that have been demonstrated to produce verifiable and repeatable results and that have widespread acceptance in the scientific community. Copies of approved methods or guidance may be obtained by submitting a written request to NCDWQ, Ecological Assessment Group, P.O. Box 29535, Raleigh, NC 27626-0535.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. February 1, 1993; October 1, 1989; January 1, 1985; September 9, 1979;
RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;
Amended Eff. October 1, 1996.

15A NCAC 02B .0104 CONSIDERATIONS/ASSIGNING/IMPLEMENTING WATER SUPPLY CLASSIFICATIONS

(a) In determining the suitability of waters for use as a source of water supply for drinking, culinary or food processing purposes after approved treatment, the Commission will be guided by the physical, chemical, and bacteriological maximum contaminant levels specified by Environmental Protection Agency regulations adopted pursuant to the Public Health Service Act, 42 U.S.C. 201 et seq., as amended by the Safe Drinking Water Act, 42 U.S.C. 300(f) et seq. In addition, the Commission shall be guided by the requirements for unfiltered and filtered water supplies and the maximum contaminant levels specified in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1100, .1200 and .1500 and comments provided by the Division of Environmental Health.

(b) All local governments that have land use authority within designated water supply watersheds shall adopt and enforce ordinances that at a minimum meet the requirements of G.S. 143-214.5 and this Subchapter. The Commission shall approve local water supply protection programs if it determines that the requirements of the local program equal or exceed the minimum statewide water supply watershed management requirements adopted pursuant to this Section. Local governments may adopt and enforce more stringent controls. Local management programs and modifications to these programs must be approved by the Commission and shall be kept on file by the Division of Environmental Management, Division of Environmental Health and the Division of Community Assistance.

(c) All waters used for water supply purposes or intended for future water supply use shall be classified to the most appropriate water supply classification as determined by the Commission. Water supplies may be reclassified to a more or less protective water supply classification on a case-by-case basis through the rule-making process. A more protective water supply classification may be applied to existing water supply watersheds after receipt of a resolution from all local governments having land use jurisdiction within the designated water supply watershed requesting a more protective water supply classification. Local government(s) requesting the Future Water Supply classification must provide to the Division evidence of intent which may include one or a combination of the following: capital improvement plans, a Water Supply Plan as described in G.S. 143-355(l), bond issuance for the water treatment plant or land acquisition records. A 1:24,000 scale USGS topographical map delineating the location of the intended water supply intake is also required. Requirements for activities administered by the State of North Carolina, such as the issuance of permits for landfills, NPDES wastewater discharges, land application of residuals and road construction activities shall be effective upon reclassification for future water supply use.

The requirements shall apply to the critical area and balance of the watershed or protected area as appropriate. Upon receipt of the final approval letter from the Division of Environmental Health for construction of the water treatment plant and water supply intake, the Commission shall initiate rule-making to modify the Future Water Supply supplemental classification. Local government implementation is not required until 270 days after the Commission has modified the Future Water Supply (FWS) supplemental classification through the rule-making process and notified the affected local government(s) that the appropriate local government land use requirements applicable for the water supply classifications are to be adopted, implemented and submitted to the Commission for approval. Local governments may also adopt land use ordinances that meet or exceed the state's minimum requirements for water supply watershed protection prior to the end of the 270 day deadline. The requirements for FWS may also be applied to waters formerly used for drinking water supply purposes, and currently classified for water supply use, at the request of local government(s) desiring protection of the watershed for future water supply use.

(d) In considering the reclassification of waters for water supply purposes, the Commission shall take into consideration the relative proximity, quantity, composition, natural dilution and diminution of potential sources of pollution to determine that risks posed by all significant pollutants are adequately considered.

(e) For the purposes of implementing the water supply watershed protection rules (15A NCAC 2B .0100, .0200 and .0300) and the requirements of G.S. 143-214.5, the following schedule of implementation shall be applicable:

August 3, 1992 - Activities administered by the State of North Carolina, such as the issuance of permits for landfills, NPDES wastewater discharges, and land application of sludge/residuals, and road construction activities, shall become effective regardless of the deadlines for municipal and county water supply watershed protection ordinance adoptions;

By July 1, 1993 - Affected municipalities with a population greater than 5,000 shall adopt and submit the appropriate drinking water supply protection, maps and ordinances that meet or exceed the minimum management requirements of these Rules;

By October 1, 1993 -Affected municipalities with a population less than 5,000 shall adopt and submit the appropriate drinking water supply protection, maps and ordinances that meet or exceed the minimum management requirements of these Rules;

By January 1, 1994 -Affected county governments shall adopt and submit the appropriate drinking water supply protection, maps and ordinances that meet or exceed the minimum management requirements of these Rules.

Affected local government drinking water supply protection ordinances shall become effective on or before these dates. Local governments may choose to adopt, implement and enforce these provisions prior to this date. Three copies of the adopted and effective relevant ordinances shall be sent to the Division along with a cover letter from the municipal or county attorney, or its designated legal counsel, stating that the local government drinking water supply protection ordinances shall meet or exceed the rules in 15A NCAC 2B .0100, .0200 and .0300. If the rules in 15A NCAC 2B .0100, .0200 and .0300 are revised, the Division shall modify and distribute to local governments, as appropriate, a revised model ordinance. The Division shall approve the amended local maps and ordinances, or request the Commission to take appropriate action under G.S. 143-214.5.

(f) Wherever in this Subchapter it is provided that local governments assume responsibility for operation and maintenance of engineered stormwater control(s), this shall be construed to require responsible local governments to inspect such controls at least once per year, to determine whether the controls are performing as designed and intended. Records of inspections shall be maintained on forms supplied by the Division. Local governments may require payment of reasonable inspection fees by entities which own the controls, as authorized by law. In the event inspection shows that a control is not performing adequately, the local government shall order the owning entity to take corrective actions. If the entity fails to take sufficient corrective actions, the local government may impose civil penalties and pursue other available remedies in accordance with the law. The availability of new engineered stormwater controls as an alternative to lower development density and other measures under the provisions of this Subchapter and local ordinances approved by the Commission shall be conditioned on the posting of adequate financial assurance, in the form of a cash deposit or bond made payable to the responsible local government, or other acceptable security. The establishment of a stormwater utility by the responsible local government shall be deemed adequate financial assurance. The purpose of the required financial assurance is to assure that maintenance, repairs or reconstruction necessary for adequate performance of the controls may be made by the owning entity or the local government which may choose to assume ownership and maintenance responsibility.

(g) Where higher density developments are allowed, stormwater control systems must use wet detention ponds as described in 15A NCAC 2H .1003(g)(2), (g)(3), (i), (j), (k), and (l). Alternative stormwater management systems consisting of other treatment options, or a combination of treatment options, may be approved by the Director. The design criteria for approval shall be 85 percent average annual removal of Total Suspended Solids. Also the discharge rate shall meet one of the following criteria:

(1) the discharge rate following the 1-inch design storm shall be such that the runoff draws down to the pre-storm design stage within five days, but not less than two days; or

(2) the post development peak discharge rate shall equal the predevelopment rate for the 1-year, 24 hour storm.

(h) Where no practicable alternative exists, discharge from groundwater remediation projects addressing water quality problems shall be allowed in accordance with other applicable requirements in all water supply classifications.

(i) To further the cooperative nature of the water supply watershed management and protection program provided for herein, local governments with jurisdiction over portions of classified watersheds and local governments which derive their water supply from within such watersheds are encouraged to establish joint water quality monitoring and information sharing programs, by interlocal agreement or otherwise. Such cooperative programs shall be established in consultation with the Division.

(j) Where no practicable alternative exists other than surface water discharge, previously unknown existing unpermitted wastewater discharges shall incorporate the best possible technology treatment as deemed appropriate by the Division.

(k) The Commission may designate water supply watersheds or portions thereof as critical water supply watersheds pursuant to G.S. 143-214.5(b).

(l) A more protective classification may be allowed by the Commission although minor occurrences of nonconforming activities are present prior to reclassification. When the Commission allows a more protective classification, expansions of existing wastewater discharges that otherwise would have been prohibited may be allowed if there is no increase in permitted pollutant loading; other discharges of treated wastewater existing at the time of reclassification may be required to meet more stringent effluent limitations as determined by the Division. Consideration of all practicable alternatives to surface water discharge must be documented.

(m) The construction of new roads and bridges and non-residential development shall minimize built-upon area, divert stormwater away from surface water supply waters as much as possible, and employ best management practices (BMPs) to minimize water quality impacts. To the extent practicable, the construction of new roads in the critical area shall be avoided. The Department of Transportation shall use BMPs as outlined in their document entitled "Best Management Practices for the Protection of Surface Waters" which is hereby incorporated by reference including all subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Environmental Management, Water Quality Planning Branch, 512 North Salisbury Street, Raleigh, North Carolina.

(n) Activities within water supply watersheds are also governed by the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1100, .1200 and .1500. Proposed expansions of treated wastewater discharges to water supply waters must be approved by the Division of Environmental Health.

(o) Local governments shall correctly delineate the approximate normal pool elevation for backwaters of water supply reservoirs for the purposes of determining the critical and protected area boundaries as appropriate. Local governments must submit to the Division a 1:24,000 scale U.S.G.S. topographic map which shows the local government's corporate and extraterritorial jurisdiction boundaries, the Commission's adopted critical and protected area boundaries, as well as the local government's interpreted critical and protected area boundaries. All revisions (expansions or deletions) to these areas must be submitted to the Division and approved by the Commission prior to local government revision.

(p) Local governments shall encourage participation in the Agricultural Cost Share Program. The Soil and Water Conservation Commission is the designated management agency responsible for implementing the provisions of the rules in 15A NCAC 2H .0200 pertaining to agricultural activities. Agricultural activities are subject to the provisions of the Food Security Act of 1985 and the Food, Agriculture, Conservation and Trade Act of 1990 (Public Law 101-624) and 15A NCAC 2H .0217). The following shall be required within WS-I watersheds and the critical areas of WS-II, WS-III and WS-IV watersheds:

(1) Agricultural activities conducted after January 1, 1993 shall maintain a minimum 10 foot vegetated buffer, or equivalent control as determined by the Soil and Water Conservation Commission, along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies; and

(2) Animal operation deemed permitted and permitted under 15A NCAC 2H .0217 are allowed in all classified water supply watersheds.

(q) Existing development is not subject to the requirements of these Rules. Redevelopment is allowed if the rebuilding activity does not have a net increase in built-upon area or provides equal or greater stormwater control than the previous development, except that there are no restrictions on single family residential redevelopment. Expansions to structures classified as existing development must meet the requirements of the rules in 15A NCAC 2B .0100, .0200 and .0300; however, the built-upon area of the existing development is not required to be included in the density calculations. Expansions to structures other than existing development must meet the density requirements of these Rules for the entire project site. If a nonconforming lot of record is not contiguous to any other lot owned by the same party, then that lot of record shall not be

subject to the development restrictions of these Rules if it is developed for single-family residential purposes. Local governments may, however, require the combination of contiguous nonconforming lots of record owned by the same party in order to establish a lot or lots that meet or nearly meet the development restrictions of the rules under 15A NCAC 2B. Any lot or parcel created as part of a family subdivision after the effective date of these Rules shall be exempt from these Rules if it is developed for one single-family detached residence and if it is exempt from local subdivision regulation. Any lot or parcel created as part of any other type of subdivision that is exempt from a local subdivision ordinance shall be subject to the land use requirements (including impervious surface requirements) of these Rules, except that such a lot or parcel must meet the minimum buffer requirements to the maximum extent practicable. Local governments may also apply more stringent controls relating to determining existing development, redevelopment or expansions.

(r) Development activities may be granted minor variances by local governments utilizing the procedures of G.S. 153A Article 18, or G.S. 160A, Article 19. A description of each project receiving a variance and the reason for granting the variance shall be submitted to the Commission on an annual basis by January 1. For all proposed major and minor variances from the minimum statewide watershed protection rules, the local Watershed Review Board shall make findings of fact showing that:

(1) there are practical difficulties or unnecessary hardships that prevent compliance with the strict letter of the ordinance;

(2) the variance is in harmony with the general purpose and intent of the local watershed protection ordinance and preserves its spirit; and

(3) in granting the variance, the public safety and welfare have been assured and substantial justice has been done.

The local Watershed Review Board may attach conditions to the major or minor variance approval that support the purpose of the local watershed protection ordinance. If the variance request qualifies as a major variance, and the local Watershed Review Board decides in favor of granting the major variance, the Board shall then prepare a preliminary record of the hearing and submit it to the Commission for review and approval. If the Commission approves the major variance or approves with conditions or stipulations added, then the Commission shall prepare a Commission decision which authorizes the local Watershed Review Board to issue a final decision which would include any conditions or stipulations added by the Commission. If the Commission denies the major variance, then the Commission shall prepare a Commission decision to be sent to the local Watershed Review Board. The local Watershed Review Board shall prepare a final decision denying the major variance. For all proposed major and minor variances the local government considering or requesting the variance shall notify and allow a reasonable comment period for all other local governments having jurisdiction within the watershed area governed by these Rules and the entity using the water supply for consumption. Appeals from the local government decision on a major or minor variance request are made on certiorari to the local Superior Court. Appeals from the Commission decision on a major variance request are made on judicial review to Superior Court. When local ordinances are more stringent than the state's minimum water supply protection rules a variance to the local government's ordinance is not considered a major variance as long as the result of the variance is not less stringent than the state's minimum requirements.

(s) Cluster development is allowed on a project-by-project basis as follows:

(1) Overall density of the project meets associated density or stormwater control requirements under 15A NCAC 2B .0200;

(2) Buffers meet the minimum statewide water supply watershed protection requirements;

(3) Built-upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas;

(4) Areas of concentrated density development are located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways;

(5) Remainder of tract to remain in vegetated or natural state;

(6) The area in the vegetated or natural state may be conveyed to a property owners association; a local government for preservation as a park or greenway; a conservation organization; or placed in a permanent conservation or farmland preservation easement. A maintenance agreement shall be filed with the property deeds; and

(7) Cluster developments that meet the applicable low density requirements shall transport stormwater runoff by vegetated conveyances to the maximum extent practicable.

(t) Local governments may administer oversight of future development activities in single family residential developments that exceed the applicable low density requirements by tracking dwelling units rather than percentage built-upon area, as long as the wet detention pond or other approved stormwater control system is sized to capture and treat runoff from all pervious and

built-upon surfaces shown on the development plan and any off-site drainage from pervious and built-upon surfaces, and when an additional safety factor of 15 percent of built-upon area of the project site is figured in.
(u) All new development shall meet the development requirements on a project-by-project basis except local governments may submit ordinances and ordinance revisions which use density or built-upon area criteria averaged throughout the local government's watershed jurisdiction instead of on a project-by-project basis within the watershed. Prior to approval of the ordinance or amendment, the local government must demonstrate to the Commission that the provisions as averaged meet or exceed the statewide minimum requirements, and that a mechanism exists to ensure the orderly and planned distribution of development potential throughout the watershed jurisdiction.
(v) Silviculture activities are subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15A NCAC 1I .0101 - .0209). The Division of Forest Resources is the designated management agency responsible for implementing the provisions of the rules in 15A NCAC 2B .0200 pertaining to silviculture activities.
(w) Local governments shall, as the existing laws allow, develop, implement, and enforce comprehensive nonpoint source and stormwater discharge control programs to reduce water pollution from activities within water supply watersheds such as development, forestry, landfills, mining, on-site sanitary sewage systems which utilize ground adsorption, toxic and hazardous materials, transportation, and water based recreation.
(x) When the Commission assumes a local water supply protection program as specified under G.S. 143-214.5(e) all local permits authorizing construction and development activities as regulated by the statewide minimum water supply watershed protection rules of this Subchapter must be approved by the Commission prior to local government issuance.
(y) In the event that stormwater management systems or facilities may impact existing waters or wetlands of the United States, the Clean Water Act requires that these systems or facilities be consistent with all federal and state requirements.
(z) A model local water supply watershed management and protection ordinance, as approved by the Commission in accordance with G.S. 143-214.5, is on file with the Office of Administrative Hearings and may be obtained by writing to: Water Quality Planning Branch, Division of Environmental Management, Post Office Box 29535, Raleigh, North Carolina 27626-0535.
(aa) The Commission may delegate such matters as variance approval, extension of deadlines for submission of corrected ordinances and assessment of civil penalties to the Director.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 1995; August 3, 1992; March 1, 1991; October 1, 1989.

15A NCAC 02B .0105 DETERMINATION OF SAFETY OR SUITABILITY: CLASS A-II WATERS

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. January 1, 1985; September 9, 1979;
Repealed Eff. February 1, 1986.

15A NCAC 02B .0106 CONSIDERATIONS/ASSIGNING CLASSIFICATIONS FOR PRIMARY RECREATION
In assigning the B or SB classification to waters intended for primary recreation, the Commission will take into consideration the relative proximity of sources of water pollution and will recognize the potential hazards involved in locating swimming areas close to sources of water pollution and will not assign this classification to waters in which such water pollution could result in a hazard to public health. Discharges to waters classified as B or SB will meet the reliability requirements specified in 15A NCAC 2H .0124. Discharges to waters where a primary recreational use is determined by the Director to be attainable will be required to meet water quality standards and reliability requirements to protect this use concurrently with reclassification efforts.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. October 1, 1989; January 1, 1985; September 9, 1979.

15A NCAC 02B .0107 DEFINITION OF REGULATIONS: CLASSIFICATIONS: AND STANDARDS

History Note: *Authority G.S. 143-214.1;*
Eff. February 1, 1976;
Repealed Eff. January 1, 1985.

15A NCAC 02B .0108 CONSIDERATIONS IN ASSIGNING THE SHELLFISHING AREA CLASSIFICATION

In determining the safety or suitability of Class SA waters to be used for shellfishing for market purposes, the Commission will be guided by the existing water quality of the area in relation to the standards to protect shellfishing uses, the potential contamination of the area from both point and nonpoint sources of pollution, and the presence of harvestable quantities of shellfish or the potential for the area to have harvestable quantities through management efforts of the Division of Marine Fisheries. Waters will not be classified SA without the written concurrence of the Division of Health Services, North Carolina Department of Human Resources.

History Note: *Authority G.S. 143-214.1;*
Eff. January 1, 1985;
Amended Eff. October 1, 1989.

15A NCAC 02B .0109 WATERS AFFECTED BY DREDGE AND FILL ACTIVITIES

History Note: *Authority G.S. 143-214.1;*
Eff. October 1, 1989;
Repealed Eff. October 1, 1996.

15A NCAC 02B .0110 CONSIDERATIONS FOR FEDERALLY-LISTED THREATENED OR ENDANGERED AQUATIC SPECIES

Certain waters provide habitat for federally-listed aquatic animal species that are listed as threatened or endangered by the U.S. Fish and Wildlife Service or National Marine Fisheries Service under the provisions of the Endangered Species Act, 16 U.S.C. 1531-1544 and subsequent modifications. Maintenance and recovery of the water quality conditions required to sustain and recover federally-listed threatened and endangered aquatic animal species contributes to the support and maintenance of a balanced and indigenous community of aquatic organisms and thereby protects the biological integrity of the waters. The Division shall develop site-specific management strategies under the provisions of 15A NCAC 2B .0225 or 15A NCAC 2B .0227 for those waters. These plans shall be developed within the basinwide planning schedule with all plans completed at the end of each watershed's first complete five year cycle following adoption of this Rule. Nothing in this Rule shall prevent the Division from taking other actions within its authority to maintain and restore the quality of these waters.

History Note: *Authority G. S. 143-214.1; 143-215.3(a)(1); 143-215.8A;*
Eff. August 1, 2000.

SECTION .0200 - CLASSIFICATIONS AND WATER QUALITY STANDARDS APPLICABLE TO SURFACE WATERS AND WETLANDS OF NORTH CAROLINA

15A NCAC 02B .0201 ANTIDEGRADATION POLICY

(a) It is the policy of the Environmental Management Commission to maintain, protect, and enhance water quality within the State of North Carolina. Pursuant to this policy, the requirements of 40 CFR 131.12 are hereby incorporated by reference including any subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Water Quality, Water Quality Section, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents,

Washington, DC 20402-9325 at a cost of thirteen dollars ($13.00). These requirements shall be implemented in North Carolina as set forth in Paragraphs (b), (c), (d), (e) and (f) of this Rule.

(b) Existing uses, as defined by Rule .0202 of this Section, and the water quality to protect such uses shall be protected by properly classifying surface waters and having standards sufficient to protect these uses. In cases where the Commission or its designee determines that an existing use is not included in the classification of waters, a project which shall affect these waters shall not be permitted unless the existing uses are protected.

(c) The Commission shall consider the present and anticipated usage of waters with quality higher than the standards, including any uses not specified by the assigned classification (such as outstanding national resource waters or waters of exceptional water quality) and shall not allow degradation of the quality of waters with quality higher than the standards below the water quality necessary to maintain existing and anticipated uses of those waters. Waters with quality higher than the standards are defined by Rule .0202 of this Section. The following procedures shall be implemented in order to meet these requirements:

(1) Each applicant for an NPDES permit or NPDES permit expansion to discharge treated waste shall document an effort to consider non-discharge alternatives pursuant to 15A NCAC 2H .0105(c)(2).

(2) Public Notices for NPDES permits shall list parameters that would be water quality limited and state whether or not the discharge shall use the entire available load capacity of the receiving waters and may cause more stringent water quality based effluent limitations to be established for dischargers downstream.

(3) The Division may require supplemental documentation from the affected local government that a proposed project or parts of the project are necessary for important economic and social development.

(4) The Commission and Division shall work with local governments on a voluntary basis to identify and develop appropriate management strategies or classifications for waters with unused pollutant loading capacity to accommodate future economic growth.

Waters with quality higher than the standards shall be identified by the Division on a case-by-case basis through the NPDES permitting and waste load allocation processes (pursuant to the provisions of 15A NCAC 2H .0100). Dischargers affected by the requirements of Paragraphs (c)(1) through (c)(4) of this Rule and the public at large shall be notified according to the provisions described herein, and all other appropriate provisions pursuant to 15A NCAC 2H .0109. If an applicant objects to the requirements to protect waters with quality higher than the standards and believes degradation is necessary to accommodate important social and economic development, the applicant may contest these requirements according to the provisions of General Statute 143-215.1(e) and 150B-23.

(d) The Commission shall consider the present and anticipated usage of High Quality Waters (HQW), including any uses not specified by the assigned classification (such as outstanding national resource waters or waters of exceptional water quality) and shall not allow degradation of the quality of High Quality Waters below the water quality necessary to maintain existing and anticipated uses of those waters. High Quality Waters are a subset of waters with quality higher than the standards and are as described by 15A NCAC 2B .0101(e)(5). The procedures described in Rule .0224 of this Section shall be implemented in order to meet the requirements of this part.

(e) Outstanding Resource Waters (ORW) are a special subset of High Quality Waters with unique and special characteristics as described in Rule .0225 of this Section. The water quality of waters classified as ORW shall be maintained such that existing uses, including the outstanding resource values of said Outstanding Resource Waters, shall be maintained and protected.

(f) Activities regulated under Section 404 of the Clean Water Act (33 U.S.C. 1344) which require a water quality certification as described in Section 401 of the Clean Water Act (33 U.S.C. 1341) shall be evaluated according to the procedures outlined in 15A NCAC 2H .0500. Activities which receive a water quality certification pursuant to these procedures shall not be considered to remove existing uses. The evaluation of permits issued pursuant to G.S. 143-215.1 that involve the assimilation of wastewater or stormwater by wetlands shall incorporate the criteria found in 15A NCAC 2H .0506(c) (1)-(5) in determining the potential impact of the proposed activity on the existing uses of the wetland per 15A NCAC 2H .0231.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. October 1, 1995; August 1, 1995; February 1, 1993; April 1,1991; August 1, 1990;
RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;
Amended Eff. October 1, 1996.

15A NCAC 02B .0202 DEFINITIONS

The definition of any word or phrase used in this Section shall be the same as given in G.S. 143, Article 21. The following words and phrases, which are not defined in this article, shall be interpreted as follows:

(1) Acute toxicity to aquatic life means lethality or other harmful effects sustained by either resident aquatic populations or indicator species used as test organisms in a controlled toxicity test due to a short-term exposure (relative to the life cycle of the organism) to a specific chemical or mixture of chemicals (as in an effluent). Short-term exposure for acute tests is generally 96 hours or less. Acute toxicity shall be determined using the following procedures:
   (a) for specific chemical constituents or compounds, acceptable levels shall be equivalent to a concentration of one-half or less of the Final Acute Value (FAV) as determined according to "Guidelines for Deriving Numerical Water Quality Criteria for the Protection of Aquatic Life and its Uses" published by the Environmental Protection Agency and referenced in the Federal Register (50 FR 30784, July 29, 1985) which is hereby incorporated by reference including any subsequent amendments.
   (b) for specific chemical constituents or compounds for which values described under Subparagraph (1)(a) of this Rule can not be determined, acceptable levels shall be equivalent to a concentration of one-third or less of the lowest available LC50 value.
   (c) for effluents, acceptable levels are defined as no statistically measurable lethality (99 percent confidence level using Students t test) during a specified exposure period. Concentrations of exposure shall be determined on a case-by-case basis.
   (d) in instances where detailed dose response data indicate that levels of acute toxicity are significantly different from those defined in this Rule, the Director may determine on a case-by-case basis an alternate acceptable level through statistical analyses of the dose response curve.

(2) Acute to Chronic Ratio (ACR) means the ratio of acute toxicity expressed as an LC50 for a specific toxicant or an effluent to the chronic value for the same toxicant or effluent.

(3) Agricultural uses include the use of waters for stock watering, irrigation, and other farm purposes.

(4) Applicator means any person, firm, corporation, wholesaler, retailer, distributor, any local, state, or federal governmental agency, or any other person who applies fertilizer to the land of a consumer or client or to land they own or to land which they lease or otherwise hold rights.

(5) Approved treatment, as applied to water supplies, means treatment accepted as satisfactory by the Division of Environmental Health or Division of Water Quality.

(6) Average (except bacterial) means arithmetical average and includes the analytical results of all samples taken during the specified period; all sampling shall be done as to obtain the most representative sample under prevailing conditions:
   (a) Daily Average for dissolved oxygen, shall be of at least four samples;
   (b) Weekly Average means the average of all daily composite samples obtained during the calendar week. If only one grab sample is taken each day, the weekly average is the average of all daily grab samples. A minimum of three daily grab samples is needed to calculate a weekly average.
   (c) Monthly Average means the average of all daily composites (or grab samples if only one per day) obtained during the calendar month.

   The definitions in this Paragraph do not affect the monitoring requirements for NPDES permits but rather shall be used by the Division along with other methodologies in determining violations of water quality standards. Arithmetical averages as defined by this Section, and not confidence limits nor other statistical descriptions, shall be used in all calculations of limitations which require the use of averages pursuant to this Section and 40 CFR 122.41(l)(4)(iii).

(7) Best Management Practice (BMP) means a structural or nonstructural management-based practice used singularly or in combination to reduce nonpoint source inputs to receiving waters in order to achieve water quality protection goals.

(8) Best usage of waters as specified for each class means those uses as determined by the Environmental Management Commission in accordance with the provisions of G.S. 143-214.1.

(9) Bioaccumulation factor (BAF) is a unitless value that describes the degree to which substances are taken up or accumulated into tissues of aquatic organisms from water directly and from food or other ingested materials containing the accumulated substances, and is usually measured as a ratio of a substance's

concentration in tissue versus its concentration in water in situations where exposure to the substance is occurring from both water and the food chain.

(10) Bioconcentration factor (BCF) is a unitless value that describes the degree to which substances are absorbed or concentrated into tissues of aquatic organisms from water directly and is usually measured as a ratio of substance's concentration in tissue versus its concentration in water in situations where exposure to the substance is occurring from water only.

(11) Biological integrity means the ability of an aquatic ecosystem to support and maintain a balanced and indigenous community of organisms having species composition, diversity, population densities and functional organization similar to that of reference conditions.

(12) Buffer means a natural or vegetated area through which stormwater runoff flows in a diffuse manner so that the runoff does not become channelized and which provides for infiltration of the runoff and filtering of pollutants. The buffer shall be measured landward from the normal pool elevation of impounded structures and from the bank of each side of streams or rivers.

(13) Built-upon area means that portion of a development project that is covered by impervious or partially impervious cover including buildings, pavement, gravel areas (e.g. roads, parking lots, paths), recreation facilities (e.g. tennis courts), etc. (Note: Wooden slatted decks and the water area of a swimming pool are considered pervious.)

(14) Chronic toxicity to aquatic life means any harmful effect sustained by either resident aquatic populations or indicator species used as test organisms in a controlled toxicity test due to long-term exposure (relative to the life cycle of the organism) or exposure during a substantial portion of the duration of a sensitive period of the life cycle to a specific chemical substance or mixture of chemicals (as in an effluent). In absence of extended periods of exposure, early life stage or reproductive toxicity tests may be used to define chronic impacts.

(15) Chronic value for aquatic life means the geometric mean of two concentrations identified in a controlled toxicity test as the No Observable Effect Concentration (NOEC) and the Lowest Observable Effect Concentration (LOEC).

(16) Cluster development means the grouping of buildings in order to conserve land resources and provide for innovation in the design of the project including minimizing stormwater runoff impacts. This term includes nonresidential development as well as single-family residential and multi-family developments. For the purpose of Sections .0100, .0200 and .0300 of this Subchapter, planned unit developments and mixed use development shall be considered as cluster development.

(17) Commercial applicator means any person, firm, corporation, wholesaler, retailer, distributor or any other person who for hire or compensation applies fertilizer to the land of a consumer or client.

(18) Concentrations are the mass of a substance per volume of water and for the purposes of this Section shall be expressed as milligrams per liter (mg/l), micrograms per liter (ug/l), or nanograms per liter (ng/l).

(19) Contiguous refers to those wetlands landward of the mean high water line or normal water level and within 575 feet of classified surface waters which appear as solid blue lines on the most recently published versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps.

(20) Critical area means the area adjacent to a water supply intake or reservoir where risk associated with pollution is greater than from the remaining portions of the watershed. The critical area is defined as extending either 1/2 mile from the normal pool elevation of the reservoir in which the intake is located or to the ridge line of the watershed (whichever comes first); or 1/2 mile upstream from and draining to the intake (or other appropriate downstream location associated with the water supply) located directly in the stream or river (run-of-the-river), or to the ridge line of the watershed (whichever comes first). Since WS-I watersheds are essentially undeveloped, establishment of a critical area is not required. Local governments may extend the critical area as needed. Major landmarks such as highways or property lines may be used to delineate the outer boundary of the critical area if these landmarks are immediately adjacent to the appropriate outer boundary of 1/2 mile. The Commission may adopt a different critical area size during the reclassification process.

(21) Cropland means agricultural land that is not covered by a certified animal waste management plan and is used for growing corn, grains, oilseed crops, cotton, forages, tobacco, beans, or other vegetables or fruits.

(22) Designated Nonpoint Source Agency means those agencies specified by the Governor in the North Carolina Nonpoint Source Management Program, as approved by the Environmental Protection Agency.

(23) Development means any land disturbing activity which adds to or changes the amount of impervious or partially impervious cover on a land area or which otherwise decreases the infiltration of precipitation into the soil.

(24) Director means the Director of the Division of Water Quality.

(25) Discharge is the addition of any man-induced waste effluent either directly or indirectly to state surface waters.

(26) Division means the Division of Water Quality or its successors.

(27) Domestic wastewater discharge means the discharge of sewage, non-process industrial wastewater, other domestic wastewater or any combination of these items. Domestic wastewater includes, but is not limited to, liquid waste generated by domestic water using fixtures and appliances, from any residence, place of business, or place of public assembly even if it contains no sewage. Examples of domestic wastewater include once-through non-contact cooling water, seafood packing facility discharges and wastewater from restaurants.

(28) Effluent channel means a discernable confined and discrete conveyance which is used for transporting treated wastewater to a receiving stream or other body of water as provided in Rule .0215 of this Section.

(29) Existing development, for projects that do not require a state permit, shall be defined as those projects that are built or those projects that at a minimum have established a vested right under North Carolina zoning law as of the effective date of the local government water supply ordinance, or such earlier time that an affected local government's ordinances shall specify, based on at least one of the following criteria:

(a) substantial expenditures of resources (time, labor, money) based on a good faith reliance upon having received a valid local government approval to proceed with the project, or

(b) having an outstanding valid building permit in compliance with G.S. 153A-344.1 or G.S. 160A-385.1, or

(c) having an approved site specific or phased development plan in compliance with G.S. 153A-344.1 or G.S. 160A-385.1.

For projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities, existing development shall be defined as those projects that are built or those projects for which a state permit was issued prior to August 3, 1992.

(30) Existing uses mean uses actually attained in the water body, in a significant and not incidental manner, on or after November 28, 1975, whether or not they are included in the water quality standards, which either have been actually available to the public or are uses deemed attainable by the Environmental Management Commission. At a minimum, uses shall be deemed attainable if they can be achieved by the imposition of effluent limits and cost-effective and reasonable best management practices (BMPs) for nonpoint source control.

(31) Family subdivision means a division of a tract of land:

(a) to convey the resulting parcels, with the exception of parcels retained by the grantor, to a relative or relatives as a gift or for nominal consideration, but only if no more than one parcel is conveyed by the grantor from the tract to any one relative; or

(b) to divide land from a common ancestor among tenants in common, all of whom inherited by intestacy or by will.

(32) Fertilizer means any substance containing nitrogen or phosphorus which is used primarily for its plant food content.

(33) Fishing means the taking of fish by sport or commercial methods as well as the consumption of fish or shellfish or the propagation of fish and such other aquatic life as is necessary to provide a suitable environment for fish.

(34) Forest vegetation means the plants of an area which grow together in disturbed or undisturbed conditions in various wooded plant communities in any combination of trees, saplings, shrubs, vines and herbaceous plants. This includes mature and successional forests as well as cutover stands.

(35) Freshwater means all waters that under natural conditions would have a chloride ion content of 500 mg/l or less.

(36) Industrial discharge means the discharge of industrial process treated wastewater or wastewater other than sewage. Stormwater shall not be considered to be an industrial wastewater unless it is contaminated with industrial wastewater. Industrial discharge includes:

(a) wastewater resulting from any process of industry or manufacture, or from the development of any natural resource;
(b) wastewater resulting from processes of trade or business, including wastewater from laundromats and car washes, but not wastewater from restaurants; or
(c) wastewater discharged from a municipal wastewater treatment plant requiring a pretreatment program.

(37) Land-disturbing activity means any use of the land that results in a change in the natural cover or topography that may cause or contribute to sedimentation.

(38) LC50 means that concentration of a toxic substance which is lethal (or immobilizing, if appropriate) to 50 percent of the organisms tested during a specified exposure period. The LC50 concentration for toxic materials shall be determined for sensitive species as defined by Subparagraph (43) of this Rule under aquatic conditions characteristic of the receiving waters.

(39) Local government means a city or county in singular or plural as defined in G.S. 160A-1(2) and G.S. 158A-10.

(40) Lower piedmont and coastal plain waters mean those waters of the Catawba River Basin below Lookout Shoals Dam; the Yadkin River Basin below the junction of the Forsyth, Yadkin, and Davie County lines; and all of the waters of Cape Fear, Lumber, Roanoke, Neuse, Tar-Pamlico, Chowan, Pasquotank, and White Oak River Basins; except tidal salt waters which are assigned S classifications.

(41) MF is an abbreviation for the membrane filter procedure for bacteriological analysis.

(42) Major variance means a variance from the minimum statewide watershed protection rules that results in the relaxation, by a factor greater than five percent of any buffer, density or built-upon area requirement under the high density option; any variation in the design, maintenance or operation requirements of a wet detention pond or other approved stormwater management system; or relaxation by a factor greater than 10 percent, of any management requirement under the low density option.

(43) Minor variance means a variance from the minimum statewide watershed protection rules that results in a relaxation, by a factor of up to five percent of any buffer, density or built-upon area requirement under the high density option; or that results in a relaxation by a factor up to 10 percent, of any management requirement under the low density option.

(44) Mixing zone means a region of the receiving water in the vicinity of a discharge within which dispersion and dilution of constituents in the discharge occurs and such zones shall be subject to conditions established in accordance with 15A NCAC 2B .0204(b).

(45) Mountain and upper piedmont waters mean all of the waters of the Hiwassee; Little Tennessee, including the Savannah River drainage area; French Broad; Broad; New; and Watauga River Basins; and those portions of the Catawba River Basin above Lookout Shoals Dam and the Yadkin River Basin above the junction of the Forsyth, Yadkin, and Davie County lines.

(46) Nonconforming lot of record means a lot described by a plat or a deed that was recorded prior to the effective date of local watershed regulations (or their amendments) that does not meet the minimum lot-size or other development requirements of Rule .0211 of this Subchapter.

(47) Nonpoint source pollution means pollution which enters waters mainly as a result of precipitation and subsequent runoff from lands which have been disturbed by man's activities and includes all sources of water pollution which are not required to have a permit in accordance with G.S. 143-215.1(c).

(48) Non-process discharge means industrial effluent not directly resulting from the manufacturing process. An example would be non-contact cooling water from a compressor.

(49) Nutrient sensitive waters mean those waters which are so designated in the classification schedule in order to limit the discharge of nutrients (usually nitrogen and phosphorus). They are designated by "NSW" following the water classification.

(50) Offensive condition means any condition or conditions resulting from the presence of sewage, industrial wastes or other wastes within the waters of the state or along the shorelines thereof which shall either directly or indirectly cause foul or noxious odors, unsightly conditions, or breeding of abnormally large quantities of mosquitoes or other insect pests, or shall damage private or public water supplies or other structures, result in the development of gases which destroy or damage surrounding property, herbage or grasses, or which may cause the impairment of taste, such as from fish flesh tainting, or affect the health of any person residing or working in the area.

(51) Primary Nursery Areas (PNAs) are tidal saltwaters which provide essential habitat for the early development of commercially important fish and shellfish and are so designated by the Marine Fisheries Commission.

(52) Primary recreation includes swimming, skin diving, skiing, and similar uses involving human body contact with water where such activities take place in an organized or on a frequent basis.

(53) Protected area means the area adjoining and upstream of the critical area in a WS-IV water supply in which protection measures are required. The boundaries of the protected areas are defined as within five miles of the normal pool elevation of the reservoir and draining to water supply reservoirs (measured from the normal pool elevation) or to the ridge line of the watershed (whichever comes first); or 10 miles upstream and draining to the intake located directly in the stream or river (run-of-the-river), or to the ridge line of the watershed (whichever comes first). Local governments may extend the protected area. Major landmarks such as highways or property lines may be used to delineate the outer boundary of the protected area if these landmarks are immediately adjacent to the appropriate outer boundary of five or 10 miles. In some cases the protected area shall encompass the entire watershed. The Commission may adopt a different protected area size during the reclassification process.

(54) Residential development means buildings for residence such as attached and detached single family dwellings, apartment complexes, condominiums, townhouses, cottages, and their associated outbuildings such as garages, storage buildings, and gazebos.

(55) Residuals means any solid or demisolid waste generated from a wastewater treatment plant, water treatment plant or air pollution control facility permitted under the authority of the Environmental Management Commission.

(56) Riparian area means an area that is adjacent to a body of water.

(57) Secondary recreation includes wading, boating, other uses not involving human body contact with water, and activities involving human body contact with water where such activities take place on an infrequent, unorganized, or incidental basis.

(58) Sensitive species for aquatic toxicity testing is any species utilized in procedures accepted by the Commission or its designee in accordance with Rule .0103 of this Subchapter, or the following genera:

(a) Daphnia;
(b) Ceriodaphnia;
(c) Salmo;
(d) Pimephales;
(e) Mysidopsis;
(f) Champia;
(g) Cyprinodon;
(h) Arbacia;
(i) Penaeus;
(j) Menidia;
(k) Notropis;
(l) Salvelinus;
(m) Oncorhynchus;
(n) Selenastrum;
(o) Chironomus;
(p) Hyalella;
(q) Lumbriculus.

(59) Shellfish culture includes the use of waters for the propagation, storage and gathering of oysters, clams, and other shellfish for market purposes.

(60) Stormwater collection system means any conduit, pipe, channel, curb or gutter for the primary purpose of transporting (not treating) runoff. A stormwater collection system does not include vegetated swales, swales stabilized with armoring or alternative methods where natural topography prevents the use of vegetated swales (subject to case-by-case review), curb outlet systems or pipes used to carry drainage underneath built-upon surfaces that are associated with development controlled by the provisions of 15A NCAC 2H .1003(c)(1).

(61) Source of water supply for drinking, culinary or food-processing purposes means any source, either public or private, the waters from which are used for human consumption, or used in connection with the processing of milk, beverages, food, or other purpose which requires water suitable for human consumption.

(62) Swamp waters mean those waters which are classified by the Environmental Management Commission and which are topographically located so as to generally have very low velocities and other characteristics which are different from adjacent streams draining steeper topography. They are designated by "Sw" following the water classification.

(63) Tidal salt waters mean all tidal waters which are classified by the Environmental Management Commission which generally have a natural chloride ion content in excess of 500 parts per million and include all waters assigned S classifications.

(64) Toxic substance or toxicant means any substance or combination of substances (including disease-causing agents), which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, has the potential to cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions or suppression in reproduction or growth) or physical deformities in such organisms or their offspring.

(65) Trout waters are those waters which have conditions which shall sustain and allow for trout propagation and survival of stocked trout on a year-round basis. These waters shall be classified by the Commission after considering the requirements of Rule .0101(b) and (c) of this Subchapter and include all waters designated by "Tr" in the water classification.

(66) Waste disposal includes the use of waters for disposal of sewage, industrial waste or other waste after approved treatment.

(67) Water dependent structures are those structures for which the use requires access or proximity to or siting within surface waters to fulfill its basic purpose, such as boat ramps, boat houses, docks and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots and commercial boat storage areas are not water dependent structures.

(68) Water quality based effluent limits and best management practices are limitations or best management practices developed by the Division for the purpose of protecting water quality standards and best usage of surface waters consistent with the requirements of G.S. 143-214.1 and the Federal Water Pollution Control Act as amended.

(69) Waters with quality higher than the standards means all waters for which the determination of waste load allocations (pursuant to Rule .0206 of this Section) indicates that water quality is sufficiently greater than that defined by the standards such that significant pollutant loading capacity still exists in those waters.

(70) Watershed means the entire land area contributing surface drainage to a specific point. For the purpose of the water supply protection rules in 15A NCAC 2B .0104 and .0211 local governments may use major landmarks such as highways or property lines to delineate the outer boundary of the drainage area if these landmarks are immediately adjacent to the ridgeline.

(71) Wetlands are "waters" as defined by G.S. 143-212(6) and are areas that are inundated or saturated by an accumulation of surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands classified as waters of the state are restricted to waters of the United States as defined by 33 CFR 328.3 and 40 CFR 230.3.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 1995; February 1, 1993; August 3, 1992; August 1, 1990;
RRC Objection Eff. July 18, 1996 due to lack of authority and ambiguity;
Amended Eff. August 1, 1998; October 1, 1996.

15A NCAC 02B .0203 PROTECTION OF WATERS DOWNSTREAM OF RECEIVING WATERS

Water quality based effluent limitations or management practices for direct or indirect discharges of waste or for other sources of water pollution will be developed by the Division such that the water quality standards and best usage of receiving waters and all downstream waters will not be impaired.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. October 1, 1989; January 1, 1985; September 9, 1979.

15A NCAC 02B .0204 LOCATION OF SAMPLING SITES AND MIXING ZONES

(a) Location of Sampling Sites: in conducting tests or making analytical determinations of classified waters to determine conformity or nonconformity with the established standards, samples shall be collected outside the limits of prescribed mixing zones. However, where appropriate, samples shall be collected within the mixing zone in order to ensure compliance with in-zone water quality requirements as outlined in Paragraph (b) of this Rule.

(b) Mixing Zones: a mixing zone may be established in the area of a discharge in order to provide reasonable opportunity for the mixture of the wastewater with the receiving waters. Water quality standards shall not apply within regions defined as mixing zones, except that such zones shall be subject to the conditions established in accordance with this Rule. The limits of such mixing zones shall be defined by the division on a case-by-case basis after consideration of the magnitude and character of the waste discharge and the size and character of the receiving waters. Mixing zones shall be determined such that discharges shall not:

(1) result in acute toxicity to aquatic life [as defined by Rule .0202(1) of this Section] or prevent free passage of aquatic organisms around the mixing zone;
(2) result in offensive conditions;
(3) produce undesirable aquatic life or result in a dominance of nuisance species outside of the assigned mixing zone; or
(4) endanger the public health or welfare.

In addition, a mixing zone shall not be assigned for point source discharges of fecal coliform organisms in waters classified "WS-II," "WS-III," "B," or "SA". Mixing zones shall not be assigned for point source discharges of enterococci in waters classified "SB" or "SA". For the discharge of heated wastewater, compliance with federal rules and regulations pursuant to Section 316(a) of the Federal Water Pollution Control Act, as amended, shall constitute compliance with Subparagraph (b) of this Rule.

History Note: *Authority G.S. 143-214.1;*
Eff. February 1, 1976;
Amended Eff. May 1, 2007; October 1, 1989; February 1, 1986; September 9, 1979.

15A NCAC 02B .0205 NATURAL CHARACTERISTICS OUTSIDE STANDARDS LIMITS

Natural waters may on occasion, or temporarily, have characteristics outside of the normal range established by the standards. The adopted water quality standards relate to the condition of waters as affected by the discharge of sewage, industrial wastes or other wastes including those from nonpoint sources and other sources of water pollution. Water quality standards will not be considered violated when values outside the normal range are caused by natural conditions. Where wastes are discharged to such waters, the discharger will not be considered a contributor to substandard conditions provided maximum treatment in compliance with permit requirements is maintained and, therefore, meeting the established limits is beyond the discharger's control.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. October 1, 1989; January 1, 1985.

15A NCAC 02B .0206 FLOW DESIGN CRITERIA FOR EFFLUENT LIMITATIONS

(a) Water quality based effluent limitations are developed to allow appropriate frequency and duration of deviations from water quality standards so that the designated uses of receiving waters are protected. There are water quality standards for a number of categories of pollutants and to protect a range of water uses. For this reason, the appropriate frequency and duration of deviations from water quality standards is not the same for all categories of standards. A flow design criterion is used in the development of water quality based effluent limitations as a simplified means of estimating the acceptable frequency and duration of deviations. More complex modeling techniques can also be used to set effluent limitations directly based on frequency and duration criteria published by the U.S. Environmental Protection Agency pursuant to Section 304(a) of the Federal Clean Water Act as amended. Use of more complex modeling techniques to set water quality based effluent

limitations will be approved by the Commission or its designee on a case-by-case basis. Flow design criteria to calculate water quality based effluent limitations for categories of water quality standards are listed as follows:

(1) All standards except toxic substances and aesthetics will be protected using the minimum average flow for a period of seven consecutive days that has an average recurrence of once in ten years (7Q10 flow). Other governing flow strategies such as varying discharges with the receiving waters ability to assimilate wastes may be designated by the Commission or its designee on a case-by-case basis if the discharger or permit applicant provide evidence which establishes to the satisfaction of the Director that the alternative flow strategies will give equal or better protection for the water quality standards. Better protection for the standards means that deviations from the standard would be expected less frequently than provided by using the 7Q10 flow.

(2) Toxic substance standards to protect aquatic life from chronic toxicity will be protected using the 7Q10 flow.

(3) Toxic substance standards to protect human health will be:

(A) The 7Q10 flow for standards to protect human health through the consumption of water, fish and shellfish from noncarcinogens;

(B) The mean annual flow to protect human health from carcinogens through the consumption of water, fish and shellfish unless site specific fish contamination concerns necessitate the use of an alternative design flow;

(4) Aesthetic quality will be protected using the minimum average flow for a period of 30 consecutive days that has an average recurrence of once in two years (30Q2 flow).

(b) In cases where the stream flow is regulated, a minimum daily low flow may be used as a substitute for the 7Q10 flow except in cases where there are acute toxicity concerns for aquatic life. In the cases where there are acute toxicity concerns, an alternative low flow such as the instantaneous minimum release may be used on a case-by-case basis.

(c) Flow design criteria are used to develop water quality based effluent limitations and for the design of wastewater treatment facilities. Deviations from a specific water quality standard resulting from discharges which are affirmatively demonstrated to be in compliance with water quality based effluent limitations for that standard will not be a violation pursuant to G.S. 143-215.6 when the actual flow is significantly less than the design flow.

(d) In cases where the 7Q10 flow of the receiving stream is estimated to be zero, water quality based effluent limitations will be assigned as follows:

(1) Where the 30Q2 flow is estimated to be greater than zero, effluent limitations for new or expanded (additional) discharges of oxygen consuming waste will be set at BOD_5= 5 mg/l, NH_3-N = 2 mg/l and DO = 6 mg/l, unless it is determined that these limitations will not protect water quality standards. Requirements for existing discharges will be determined on a case-by-case basis by the Director. More stringent limits will be applied in cases where violations of water quality standards are predicted to occur for a new or expanded discharge with the limits set pursuant to this Rule, or where existing limits are determined to be inadequate to protect water quality standards.

(2) If the 30Q2 and 7Q10 flows are both estimated to be zero, no new or expanded (additional) discharge of oxygen consuming waste will be allowed. Requirements for existing discharges to streams where the 30Q2 and 7Q10 flows are both estimated to be zero will be determined on a case-by-case basis.

(3) Other water quality standards will be protected by requiring the discharge to meet the standards unless the alternative limitations are determined by the Director to protect the classified water uses.

(e) Receiving water flow statistics will be estimated through consultation with the U.S. Geological Survey. Estimates for any given location may be based on actual flow data, modeling analyses, or other methods determined to be appropriate by the Commission or its designee.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. February 1, 1993; October 1, 1989; August 1, 1985; January 1, 1985.

15A NCAC 02B .0207 MINIMUM ACCEPTABLE DEGREE OF TREATMENT

History Note: *Authority G.S. 143-214.1;*
Eff. February 1, 1976;

Repealed Eff. September 9, 1979.

15A NCAC 02B .0208 STANDARDS FOR TOXIC SUBSTANCES AND TEMPERATURE

(a) Toxic Substances: the concentration of toxic substances, either alone or in combination with other wastes, in surface waters shall not render waters injurious to aquatic life or wildlife, recreational activities, public health, or impair the waters for any designated uses. Specific standards for toxic substances to protect freshwater and tidal saltwater uses are listed in Rules .0211 and .0220 of this Section, respectively. Procedures for interpreting the narrative standard for toxic substances and numerical standards applicable to all waters are as follows:

(1) Aquatic life standards: the concentration of toxic substances shall not result in chronic toxicity. Any levels in excess of the chronic value shall be considered to result in chronic toxicity. In the absence of direct measurements of chronic toxicity, the concentration of toxic substances shall not exceed the concentration specified by the fraction of the lowest LC50 value that predicts a no effect chronic level (as determined by the use of acceptable acute/chronic ratios). If an acceptable acute/chronic ratio is not available, then that toxic substance shall not exceed one-one hundredth (0.01) of the lowest LC50 or if it is affirmatively demonstrated that a toxic substance has a half-life of less than 96 hours the maximum concentration shall not exceed one-twentieth (0.05) of the lowest LC50;

(2) Human health standards: the concentration of toxic substances shall not exceed the level necessary to protect human health through exposure routes of fish tissue consumption, water consumption, or other route identified as appropriate for the water body. Fish tissue consumption includes the consumption of shellfish;

(A) For non-carcinogens, these concentrations shall be determined using a Reference Dose (RfD) as published by the U.S. Environmental Protection Agency pursuant to Section 304(a) of the Federal Water Pollution Control Act as amended or a RfD issued by the U.S. Environmental Protection Agency as listed in the Integrated Risk Information System (IRIS) file or a RfD approved by the Director after consultation with the State Health director. Water quality standards or criteria used to calculate water quality based effluent limitations to protect human health through the different exposure routes are determined as follows:

(i) Fish tissue consumption:

WQS = (RfD x RSC) x Body Weight / (FCR x BCF)

where:

WQS = water quality standard or criteria;

RfD = reference dose;

RSC = Relative Source Contribution;

FCR = fish consumption rate (based upon 17.5 gm/person-day);

BCF = bioconcentration factor, or bioaccumulation factor (BAF), as appropriate.

Pursuant to Section 304(a) of the Federal Water Pollution Control Act as amended BCF or BAF values, literature values, or site specific bioconcentration data approved by the Commission or its designee are based on U.S. Environmental Protection Agency publications; FCR values are average consumption rates for a 70 Kg adult for the lifetime of the population; alternative FCR values may be used when it is considered necessary to protect localized populations that may be consuming fish at a higher rate; RSC values, when made available through U.S. Environmental Protection Agency publications pursuant to Section 304(a) of the Federal Clean Water Pollution Control Act to account for non-water sources of exposure may be either a percentage (multiplied) or amount subtracted, depending on whether multiple criteria are relevant to the chemical;

(ii) Water consumption (including a correction for fish consumption):

WQS = (RfD x RSC) x Body Weight / [WCR+(FCRxBCF)]

where:

WQS = water quality standard or criteria;

RfD = reference dose;

RSC = Relative Source Contribution;

FCR = fish consumption rate (based upon 17.5 gm/person-day);

BCF = bioconcentration factor, or bioaccumulation factor (BAF), as appropriate;

WCR = water consumption rate (assumed to be two liters per day for adults).

To protect sensitive groups, exposure is based on a 10 Kg child drinking one liter of water per day. Standards may also be based on drinking water standards based on the requirements of the Federal Safe Drinking Water Act [42 U.S.C. 300(f)(g)-1]. For non-carcinogens, specific numerical water quality standards have not been included in this Rule because water quality standards to protect aquatic life for all toxic substances for which standards have been considered are more stringent than numerical standards to protect human health from non-carcinogens through consumption of fish; standards to protect human health from non-carcinogens through water consumption are listed under the water supply classification standards in Rule .0211 of this Section; the equations listed in this Subparagraph shall be used to develop water quality based effluent limitations on a case-by-case basis for toxic substances that are not presently included in the water quality standards. Alternative FCR values may be used when it is considered necessary to protect localized populations that may be consuming fish at a higher rate;

(B) For carcinogens, the concentrations of toxic substances shall not result in unacceptable health risks and shall be based on a Carcinogenic Potency Factor (CPF). An unacceptable health risk for cancer shall be considered to be more than one case of cancer per one million people exposed (10-6 risk level). The CPF is a measure of the cancer-causing potency of a substance estimated by the upper 95 percent confidence limit of the slope of a straight line calculated by the Linearized Multistage Model or other appropriate model according to U.S. Environmental Protection Agency Guidelines [FR 51 (185): 33992-34003; and FR 45 (231 Part V): 79318-79379]. Water quality standards or criteria for water quality based effluent limitations are calculated using the procedures given in Subparagraphs (A) and (B) of this Rule. Standards to protect human health from carcinogens through water consumption are listed under the water supply classification standards in Rules .0212, .0214, .0215, .0216, and .0218 of this Section; standards to protect human health from carcinogens through the consumption of fish (and shellfish) only are applicable to all waters as follows:

(i) Aldrin: 0.05 ng/l;
(ii) Arsenic: 10 ug/l;
(iii) Benzene: 51 ug/l;
(iv) Carbon tetrachloride: 1.6 ug/l;
(v) Chlordane: 0.8 ng/l;
(vi) DDT: 0.2 ng/l;
(vii) Dieldrin: 0.05 ng/l;
(viii) Dioxin: 0.000005 ng/l;
(ix) Heptachlor: 0.08 ng/l;
(x) Hexachlorobutadiene: 18 ug/l;
(xi) Polychlorinated biphenyls (total of all identified PCBs and congeners): 0.064 ng/l;
(xii) Polynuclear aromatic hydrocarbons (total of all PAHs): 31.1 ng/l;
(xiii) Tetrachloroethane (1,1,2,2): 4 ug/l;
(xiv) Tetrachloroethylene: 3.3 ug/L;
(xv) Trichloroethylene: 30 ug/l;
(xvii) Vinyl chloride: 2.4 ug/l.

The values listed in Subparts (i) through (xvii) may be adjusted by the Commission or its designee on a case-by-case basis to account for site-specific or chemical-specific information pertaining to the assumed BCF, FCR or CPF values or other data;

(b) Temperature: the Commission may establish a water quality standard for temperature for specific waterbodies other than the standards specified in Rules .0211 and .0220 of this Section, upon a case-by-case determination that thermal discharges to these waters, that serve or may serve as a source or receptor of industrial cooling water provide for the maintenance of the designated best use throughout a reasonable portion of the water body. Such revisions of the temperature standard must be consistent with the provisions of Section 316(a) of the Federal Water Pollution Control Act as amended. A listing of existing thermal revisions shall be maintained and made available to the public by the Division.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. May 1, 2007; April 1, 2003; February 1, 1993; October 1, 1989; January 1, 1985; September 9, 1979.

15A NCAC 02B .0209 VARIANCES FROM APPLICABLE STANDARDS
15A NCAC 02B .0210 BEST USE CRITERIA

History Note: *Authority G.S. 143-214.1;*
Eff. February 1, 1976;
Amended Eff. September 9, 1979;
Repealed Eff. January 1, 1985.

15A NCAC 02B .0211 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS C WATERS

General. The water quality standards for all fresh surface waters are the basic standards applicable to Class C waters. See Rule .0208 of this Section for standards for toxic substances and temperature. Additional and more stringent standards applicable to other specific freshwater classifications are specified in Rules .0212, .0214, .0215, .0216, .0217, .0218, .0219, .0223, .0224 and .0225 of this Section.

(1) Best Usage of Waters: aquatic life propagation and maintenance of biological integrity (including fishing and fish), wildlife, secondary recreation, agriculture and any other usage except for primary recreation or as a source of water supply for drinking, culinary or food processing purposes;

(2) Conditions Related to Best Usage: the waters shall be suitable for aquatic life propagation and maintenance of biological integrity, wildlife, secondary recreation, and agriculture. Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard;

(3) Quality standards applicable to all fresh surface waters:

(a) Chlorophyll a (corrected): not greater than 40 ug/l for lakes, reservoirs, and other waters subject to growths of macroscopic or microscopic vegetation not designated as trout waters, and not greater than 15 ug/l for lakes, reservoirs, and other waters subject to growths of macroscopic or microscopic vegetation designated as trout waters (not applicable to lakes or reservoirs less than 10 acres in surface area). The Commission or its designee may prohibit or limit any discharge of waste into surface waters if, in the opinion of the Director, the surface waters experience or the discharge would result in growths of microscopic or macroscopic vegetation such that the standards established pursuant to this Rule would be violated or the intended best usage of the waters would be impaired;

(b) Dissolved oxygen: not less than 6.0 mg/l for trout waters; for non-trout waters, not less than a daily average of 5.0 mg/l with a minimum instantaneous value of not less than 4.0 mg/l; swamp waters, lake coves or backwaters, and lake bottom waters may have lower values if caused by natural conditions;

(c) Floating solids, settleable solids, or sludge deposits: only such amounts attributable to sewage, industrial wastes or other wastes as shall not make the water unsafe or unsuitable for aquatic life and wildlife or impair the waters for any designated uses;

(d) Gases, total dissolved: not greater than 110 percent of saturation;

(e) Organisms of the coliform group: fecal coliforms shall not exceed a geometric mean of 200/100ml (MF count) based upon at least five consecutive samples examined during any 30 day period, nor exceed 400/100ml in more than 20 percent of the samples examined during such period. Violations of the fecal coliform standard are expected during rainfall events and, in some cases, this violation is expected to be caused by uncontrollable nonpoint source pollution. All coliform concentrations are to be analyzed using the membrane filter technique unless high turbidity or other adverse conditions necessitate the tube dilution method; in case of controversy over results, the MPN 5-tube dilution technique shall be used as the reference method;

(f) Oils, deleterious substances, colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation or to aquatic life and wildlife or adversely affect the palatability of fish, aesthetic quality or impair the waters for any designated uses. For the purpose of implementing this Rule, oils, deleterious substances, colored or other wastes shall include but not be limited to substances that cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines pursuant to 40 CFR 110.3(a)-(b) which are hereby incorporated by reference including any subsequent amendments and additions. This material is available for inspection at the Department of Environment and Natural Resources, Division of Water Quality, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402-9325 at a cost of forty-five dollars ($45.00);

(g) pH: shall be normal for the waters in the area, which generally shall range between 6.0 and 9.0 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions;

(h) Phenolic compounds: only such levels as shall not result in fish-flesh tainting or impairment of other best usage;

(i) Radioactive substances:

(i) Combined radium-226 and radium-228: the maximum average annual activity level (based on at least four samples collected quarterly) for combined radium-226 and radium-228 shall not exceed five picoCuries per liter;

(ii) Alpha Emitters: the average annual gross alpha particle activity (including radium-226, but excluding radon and uranium) shall not exceed 15 picoCuries per liter;

(iii) Beta Emitters: the maximum average annual activity level (based on at least four samples, collected quarterly) for strontium-90 shall not exceed eight picoCuries per liter; nor shall the average annual gross beta particle activity (excluding potassium-40 and other naturally occurring radio-nuclides) exceed 50 picoCuries per liter; nor shall the maximum average annual activity level for tritium exceed 20,000 picoCuries per liter;

(j) Temperature: not to exceed 2.8 degrees C (5.04 degrees F) above the natural water temperature, and in no case to exceed 29 degrees C (84.2 degrees F) for mountain and upper piedmont waters and 32 degrees C (89.6 degrees F) for lower piedmont and coastal plain Waters; the temperature for trout waters shall not be increased by more than 0.5 degrees C (0.9 degrees F) due to the discharge of heated liquids, but in no case to exceed 20 degrees C (68 degrees F);

(k) Turbidity: the turbidity in the receiving water shall not exceed 50 Nephelometric Turbidity Units (NTU) in streams not designated as trout waters and 10 NTU in streams, lakes or reservoirs designated as trout waters; for lakes and reservoirs not designated as trout waters, the turbidity shall not exceed 25 NTU; if turbidity exceeds these levels due to natural background conditions, the existing turbidity level shall not be increased. Compliance with this turbidity standard can be met when land management activities employ Best Management Practices (BMPs) [as defined by Rule .0202 of this Section] recommended by the Designated Nonpoint Source Agency [as defined by Rule .0202 of this Section]. BMPs must be in full compliance with all specifications governing the proper design, installation, operation and maintenance of such BMPs;

(l) Toxic substances: numerical water quality standards (maximum permissible levels) for the protection of human health applicable to all fresh surface waters are in Rule .0208 of this Section. Numerical water quality standards (maximum permissible levels) to protect aquatic life applicable to all fresh surface waters:

(i) Arsenic: 50 ug/l;

(ii) Beryllium: 6.5 ug/l;

(iii) Cadmium: 0.4 ug/l for trout waters and 2.0 ug/l for non-trout waters; attainment of these water quality standards in surface waters shall be based on measurement of total recoverable metals concentrations unless appropriate studies have been conducted to translate total recoverable metals to a toxic form. Studies used to determine the toxic form or translators must be designed according to the "Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or "The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion" published by the Environmental Protection

Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators;

(iv) Chlorine, total residual: 17 ug/l;

(v) Chromium, total recoverable: 50 ug/l;

(vi) Cyanide, 5.0 ug/l, unless site-specific criteria are developed based upon the aquatic life at the site utilizing The Recalculation Procedure in Appendix B of Appendix L in the Environmental Protection Agency's Water Quality Standards Handbook hereby incorporated by reference including any subsequent amendments;

(vii) Fluorides: 1.8 mg/l;

(viii) Lead, total recoverable: 25 ug/l, collection of data on sources, transport and fate of lead shall be required as part of the toxicity reduction evaluation for dischargers who are out of compliance with whole effluent toxicity testing requirements and the concentration of lead in the effluent is concomitantly determined to exceed an instream level of 3.1 ug/l from the discharge;

(ix) Mercury: 0.012 ug/l;

(x) Nickel: 88 ug/l, attainment of these water quality standards in surface waters shall be based on measurement of total recoverable metals concentrations unless appropriate studies have been conducted to translate total recoverable metals to a toxic form. Studies used to determine the toxic form or translators must be designed according to the "Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or "The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion" published by the Environmental Protection Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators;

(xi) Pesticides:

(A) Aldrin: 0.002 ug/l;

(B) Chlordane: 0.004 ug/l;

(C) DDT: 0.001 ug/l;

(D) Demeton: 0.1 ug/l;

(E) Dieldrin: 0.002 ug/l;

(F) Endosulfan: 0.05 ug/l;

(G) Endrin: 0.002 ug/l;

(H) Guthion: 0.01 ug/l;

(I) Heptachlor: 0.004 ug/l;

(J) Lindane: 0.01 ug/l;

(K) Methoxychlor: 0.03 ug/l;

(L) Mirex: 0.001 ug/l;

(M) Parathion: 0.013 ug/l;

(N) Toxaphene: 0.0002 ug/l;

(xii) Polychlorinated biphenyls: (total of all PCBs and congeners identified) 0.001 ug/l;

(xiii) Selenium: 5 ug/l;

(xiv) Toluene: 11 ug/l or 0.36 ug/l in trout waters;

(xv) Trialkyltin compounds: 0.07 ug/l expressed as tributyltin;

(4) Action Levels for Toxic Substances:

(a) Copper: 7 ug/l;

(b) Iron: 1.0 mg/l;

(c) Silver: 0.06 ug/l;

(d) Zinc: 50 ug/l;

(e) Chloride: 230 mg/l;

If the Action Levels for any of the substances listed in this Subparagraph (which are generally not bioaccumulative and have variable toxicity to aquatic life because of chemical form, solubility, stream characteristics or associated waste characteristics) are determined by the waste load allocation to be exceeded in a receiving water by a discharge under the specified low flow criterion for toxic substances (Rule .0206 in this Section), the discharger shall monitor the chemical or biological effects of the discharge; efforts shall be made by all dischargers to reduce or eliminate these substances from their effluents. Those substances for which Action Levels are listed in this Subparagraph shall be limited as appropriate in the NPDES permit based on the Action Levels listed in this Subparagraph if sufficient information (to be determined for metals by measurements of that portion of the dissolved instream concentration of the Action Level parameter attributable to a specific NPDES permitted discharge) exists to indicate that any of those substances may be a causative factor resulting in toxicity of the effluent. NPDES permit limits may be based on translation of the toxic form to total recoverable metals. Studies used to determine the toxic form or translators must be designed according to "Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or "The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion" published by the Environmental Protection Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators.

For purposes other than consideration of NPDES permitting of point source discharges as described in this Subparagraph, the Action Levels in this Rule, as measured by an appropriate analytical technique, per 15A NCAC 02B .0103(a), shall be considered as numerical ambient water quality standards.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. May 1, 2007; April 1, 2003; August 1, 2000; October 1, 1995; August 1, 1995; April 1, 1994; February 1, 1993.

15A NCAC 02B .0212 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-I WATERS

The following water quality standards apply to surface waters within water supply watersheds that are classified WS-I. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class WS-I waters.

(1) The best usage of WS-I waters are as follows: a source of water supply for drinking, culinary, or food-processing purposes for those users desiring maximum protection of their water supplies; waters located on land in public ownership; and any best usage specified for Class C waters;

(2) The conditions related to the best usage are as follows: waters of this class are protected water supplies within essentially natural and undeveloped watersheds in public ownership with no permitted point source dischargers except those specified in Rule .0104 of this Subchapter; waters within this class must be relatively unimpacted by nonpoint sources of pollution; land use management programs are required to protect waters from nonpoint source pollution; the waters, following treatment required by the Division of Environmental Health, shall meet the Maximum Contaminant Level concentrations considered safe for drinking, culinary, and food-processing purposes which are specified in the national drinking water regulations and in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1500. Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard. The Class WS-I classification may be used to protect portions of Class WS-II, WS-III and WS-IV water supplies. For reclassifications occurring after the July 1, 1992 statewide reclassification, the more protective classification requested by local governments shall be considered by the Commission when all local governments having jurisdiction in the affected area(s) have adopted a resolution and the appropriate ordinances to protect the watershed or the Commission acts to protect a watershed when one or more local governments has failed to adopt necessary protection measures;

(3) Quality standards applicable to Class WS-I Waters are as follows:

(a) MBAS (Methylene-Blue Active Substances): not greater than 0.5 mg/l to protect the aesthetic qualities of water supplies and to prevent foaming;

(b) Nonpoint Source Pollution: none shall be allowed that would adversely impact the waters for use as a water supply or any other designated use;
(c) Organisms of coliform group: total coliforms not to exceed 50/100 ml (MF count) as a monthly geometric mean value in watersheds serving as unfiltered water supplies;
(d) Chlorinated phenolic compounds: not greater than 1.0 ug/l to protect water supplies from taste and odor problems from chlorinated phenols;
(e) Sewage, industrial wastes: none shall be allowed except those specified in Subparagraph (2) of this Paragraph or Rule .0104 of this Subchapter;
(f) Solids, total dissolved: not greater than 500 mg/l;
(g) Total hardness: not greater than 100 mg/l as calcium carbonate;
(h) Toxic and other deleterious substances:
    (i) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for non-carcinogens in Class WS-I waters:
        (A) Barium: 1.0 mg/l;
        (B) Chloride: 250 mg/l;
        (C) Manganese: 200 ug/l;
        (D) Nickel: 25 ug/l;
        (E) Nitrate nitrogen: 10.0 mg/l;
        (F) 2,4-D: 100 ug/l;
        (G) 2,4,5-TP (Silvex): 10 ug/l;
        (H) Sulfates: 250 mg/l;
    (ii) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for carcinogens in Class WS-I waters:
        (A) Aldrin: 0.05 ng/1;
        (B) Arsenic: 10 ug/l;
        (C) Benzene: 1.19 ug/1;
        (D) Carbon tetrachloride: 0.254 ug/l;
        (E) Chlordane: 0.8 ng/1;
        (F) Chlorinated benzenes: 488 ug/l;
        (G) DDT: 0.2 ng/1;
        (H) Dieldrin: 0.05 ng/1;
        (I) Dioxin: 0.000005 ng/l;
        (J) Heptachlor: 0.08 ng/1;
        (K) Hexachlorobutadiene: 0.44 ug/l;
        (L) Polynuclear aromatic hydrocarbons (total of all PAHs): 2.8 ng/l;
        (M) Tetrachloroethane (1,1,2,2): 0.17 ug/l;
        (N) Tetrachloroethylene: 0.7 ug/l;
        (O) Trichloroethylene: 2.5 ug/l;
        (P) Vinyl Chloride: 0.025 ug/l.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. May 1, 2007; April 1, 2003; October 1, 1995; February 1, 1993; March 1, 1991; October 1, 1989.

15A NCAC 02B .0213 REVISIONS TO DISSOLVED OXYGEN STANDARDS

History Note: *Authority G.S. 143-214.1;*
Eff. December 14, 1978;
Amended Eff. July 1, 1988;
Repealed Eff. October 1, 1989.

15A NCAC 02B .0214 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-II WATERS

The following water quality standards apply to surface waters within water supply watersheds that are classified WS-II. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class WS-II waters.

(1) The best usage of WS-II waters are as follows: a source of water supply for drinking, culinary, or food-processing purposes for those users desiring maximum protection for their water supplies where a WS-I classification is not feasible and any best usage specified for Class C waters;

(2) The conditions related to the best usage are as follows: waters of this class are protected as water supplies which are in predominantly undeveloped watersheds and meet average watershed development density levels as specified in Sub-Items (3)(b)(i)(A), (3)(b)(i)(B), (3)(b)(ii)(A) and (3)(b)(ii)(B) of this Rule; discharges which qualify for a General Permit pursuant to 15A NCAC 2H .0127, trout farm discharges, recycle (closed loop) systems that only discharge in response to 10-year storm events and other stormwater discharges are allowed in the entire watershed; new domestic and industrial discharges of treated wastewater are not allowed in the entire watershed; the waters, following treatment required by the Division of Environmental Health, shall meet the Maximum Contaminant Level concentrations considered safe for drinking, culinary, and food-processing purposes which are specified in the national drinking water regulations and in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1500. Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard. The Class WS-II classification may be used to protect portions of Class WS-III and WS-IV water supplies. For reclassifications of these portions of Class WS-III and WS-IV water supplies occurring after the July 1, 1992 statewide reclassification, the more protective classification requested by local governments shall be considered by the Commission when all local governments having jurisdiction in the affected area(s) have adopted a resolution and the appropriate ordinances to protect the watershed or the Commission acts to protect a watershed when one or more local governments has failed to adopt necessary protection measures;

(3) Quality standards applicable to Class WS-II Waters are as follows:

(a) Sewage, industrial wastes, non-process industrial wastes, or other wastes: none shall be allowed except for those specified in either Item (2) of this Rule and Rule .0104 of this Subchapter; none shall be allowed that have an adverse effect on human health or that are not effectively treated to the satisfaction of the Commission and in accordance with the requirements of the Division of Environmental Health, North Carolina Department of Environment and Natural Resources. Any discharger may be required upon request by the Commission to disclose all chemical constituents present or potentially present in their wastes and chemicals which could be spilled or be present in runoff from their facility which may have an adverse impact on downstream water quality. These facilities may be required to have spill and treatment failure control plans as well as perform special monitoring for toxic substances;

(b) Nonpoint Source and Stormwater Pollution: none that would adversely impact the waters for use as a water supply or any other designated use;

(i) Nonpoint Source and Stormwater Pollution Control Criteria for Entire Watershed:

(A) Low Density Option: development density must be limited to either no more than one dwelling unit per acre of single family detached residential development (or 40,000 square foot lot excluding roadway right-of-way) or 12 percent built-upon area for all other residential and non-residential development in the watershed outside of the critical area; stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: if new development exceeds the low density option requirements as stated in Sub-Item (3)(b)(i)(A) of this Rule, then engineered stormwater controls must be used to control runoff from the first inch of rainfall; new residential and non-residential development shall not exceed 30 percent built-upon area;

(C) Land within the watershed shall be deemed compliant with the density requirements if the following condition is met: the density of all existing development at the time of reclassification does not exceed the density requirement when densities are averaged throughout the entire watershed area at the time of classification;

(D) Cluster development is allowed on a project-by-project basis as follows:

(I) overall density of the project meets associated density or stormwater control requirements of this Rule;

(II) buffers meet the minimum statewide water supply watershed protection requirements;

(III) built-upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas;

(IV) areas of concentrated development are located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways;

(V) remainder of tract to remain in vegetated or natural state;

(VI) area in the vegetated or natural state may be conveyed to a property owners association, a local government for preservation as a park or greenway, a conservation organization, or placed in a permanent conservation or farmland preservation easement;

(VII) a maintenance agreement for the vegetated or natural area shall be filed with the Register of Deeds; and

(VIII) cluster development that meets the applicable low density option requirements shall transport stormwater runoff from the development by vegetated conveyances to the maximum extent practicable;

(E) A maximum of 10 percent of each jurisdiction's portion of the watershed outside of the critical area as delineated on July 1, 1993 may be developed with new development projects and expansions of existing development of up to 70 percent built-upon surface area in addition to the new development approved in compliance with the appropriate requirements of Sub-Item (3)(b)(i)(A) or Sub-Item (3)(b)(i)(B) of this Rule. For expansions to existing development, the existing built-upon surface area is not counted toward the allowed 70 percent built-upon surface area. A local government having jurisdiction within the watershed may transfer, in whole or in part, its right to the 10 percent/70 percent land area to another local government within the watershed upon submittal of a joint resolution and review by the Commission. When the water supply watershed is composed of public lands, such as National Forest land, local governments may count the public land acreage within the watershed outside of the critical area in calculating the acreage allowed under this provision. For local governments that do not choose to use the high density option in that WS-II watershed, each project must, to the maximum extent practicable, minimize built-upon surface area, direct stormwater runoff away from surface waters and incorporate best management practices to minimize water quality impacts. If the local government selects the high density development option within that WS-II watershed, then engineered stormwater controls must be employed for the new development;

(F) If local governments choose the high density development option which requires stormwater controls, then they shall assume ultimate responsibility for operation and maintenance of the required controls as outlined in Rule .0104 of this Subchapter;

(G) Minimum 100 foot vegetative buffer is required for all new development activities that exceed the low density option requirements as specified in

Sub-Items (3)(b)(i)(A) and Sub-Item (3)(b)(ii)(A) of this Rule, otherwise a minimum 30 foot vegetative buffer for development activities is required along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies. Nothing in this Rule shall stand as a bar to artificial streambank or shoreline stabilization;

(H) No new development is allowed in the buffer; water dependent structures, or other structures such as flag poles, signs and security lights, which result in only de minimus increases in impervious area and public projects such as road crossings and greenways may be allowed where no practicable alternative exists. These activities shall minimize built-upon surface area, direct runoff away from the surface waters and maximize the utilization of BMPs;

(I) No NPDES permits shall be issued for landfills that discharge treated leachate;

(ii) Critical Area Nonpoint Source and Stormwater Pollution Control Criteria:

(A) Low Density Option: new development is limited to either no more than one dwelling unit of single family detached residential development per two acres (or 80,000 square foot lot excluding roadway right-of-way) or six percent built-upon area for all other residential and non-residential development; stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: if new development density exceeds the low density requirements specified in Sub-Item (3)(b)(ii)(A) of this Rule, then engineered stormwater controls must be used to control runoff from the first inch of rainfall; new residential and non-residential development density not to exceed 24 percent built-upon area;

(C) No new permitted sites for land application of residuals or petroleum contaminated soils are allowed;

(D) No new landfills are allowed;

(c) MBAS (Methylene-Blue Active Substances): not greater than 0.5 mg/l to protect the aesthetic qualities of water supplies and to prevent foaming;

(d) Odor producing substances contained in sewage or other wastes: only such amounts, whether alone or in combination with other substances or wastes, as shall not cause taste and odor difficulties in water supplies which cannot be corrected by treatment, impair the palatability of fish, or have a deleterious effect upon any best usage established for waters of this class;

(e) Chlorinated phenolic compounds: not greater than 1.0 ug/l to protect water supplies from taste and odor problems from chlorinated phenols;

(f) Total hardness: not greater than 100 mg/l as calcium carbonate;

(g) Total dissolved solids: not greater than 500 mg/l;

(h) Toxic and other deleterious substances:

(i) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for non-carcinogens in Class WS-II waters:

(A) Barium: 1.0 mg/l;

(B) Chloride: 250 mg/l;

(C) Manganese: 200 ug/l;

(D) Nickel: 25 ug/l;

(E) Nitrate nitrogen: 10 mg/l;

(F) 2,4-D: 100 ug/l;

(G) 2,4,5-TP (Silvex): 10 ug/l;

(H) Sulfates: 250 mg/l;

(ii) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for carcinogens in Class WS-II waters:

(A) Aldrin: 0.05 ng/l;

(B) Arsenic: 10 ug/l;
(C) Benzene: 1.19 ug/l;
(D) Carbon tetrachloride: 0.254 ug/l;
(E) Chlordane: 0.8 ng/l;
(F) Chlorinated benzenes: 488 ug/l;
(G) DDT: 0.2 ng/l;
(H) Dieldrin: 0.05 ng/l;
(I) Dioxin: 0.000005 ng/l;
(J) Heptachlor: 0.08 ng/l;
(K) Hexachlorobutadiene: 0.44 ug/l;
(L) Polynuclear aromatic hydrocarbons (total of all PAHs): 2.8 ng/l;
(M) Tetrachloroethane (1,1,2,2): 0.17 ug/l;
(N) Tetrachloroethylene: 0.7 ug/l;
(O) Trichloroethylene: 2.5 ug/l;
(P) Vinyl Chloride: 0.025 ug/l.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. May 10, 1979;
Amended Eff. May 1, 2007; April 1, 2003; January 1, 1996; October 1, 1995.

15A NCAC 02B .0215 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-III WATERS

The following water quality standards apply to surface water supply waters that are classified WS-III. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class WS-III waters.

(1) The best usage of WS-III waters are as follows: a source of water supply for drinking, culinary, or food-processing purposes for those users where a more protective WS-I or WS-II classification is not feasible and any other best usage specified for Class C waters;

(2) The conditions related to the best usage are as follows: waters of this class are protected as water supplies which are generally in low to moderately developed watersheds and meet average watershed development density levels as specified in Sub-Items (3)(b)(i)(A), (3)(b)(i)(B), (3)(b)(ii)(A) and (3)(b)(ii)(B) of this Rule; discharges that qualify for a General Permit pursuant to 15A NCAC 2H .0127, trout farm discharges, recycle (closed loop) systems that only discharge in response to 10-year storm events, and other stormwater discharges are allowed in the entire watershed; treated domestic wastewater discharges are allowed in the entire watershed but no new domestic wastewater discharges are allowed in the critical area; no new industrial wastewater discharges except non-process industrial discharges are allowed in the entire watershed; the waters, following treatment required by the Division of Environmental Health, shall meet the Maximum Contaminant Level concentrations considered safe for drinking, culinary, or food-processing purposes which are specified in the national drinking water regulations and in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1500. Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard. The Class WS-III classification may be used to protect portions of Class WS-IV water supplies. For reclassifications of these portions of WS-IV water supplies occurring after the July 1, 1992 statewide reclassification, the more protective classification requested by local governments shall be considered by the Commission when all local governments having jurisdiction in the affected area(s) have adopted a resolution and the appropriate ordinances to protect the watershed or the Commission acts to protect a watershed when one or more local governments has failed to adopt necessary protection measures;

(3) Quality standards applicable to Class WS-III Waters are as follows:

(a) Sewage, industrial wastes, non-process industrial wastes, or other wastes: none shall be allowed except for those specified in Item (2) of this Rule and Rule .0104 of this Subchapter; none shall be allowed that have an adverse effect on human health or that are not effectively treated to the satisfaction of the Commission and in accordance with the requirements of the Division of Environmental Health, North Carolina Department of Environment and Natural Resources. Any discharger may be required by the Commission to disclose all chemical constituents present or potentially present in their wastes and chemicals which could be spilled or be present in runoff from their facility which may have an adverse impact on downstream water quality. These facilities

may be required to have spill and treatment failure control plans as well as perform special monitoring for toxic substances;

(b) Nonpoint Source and Stormwater Pollution: none that would adversely impact the waters for use as water supply or any other designated use;

(i) Nonpoint Source and Stormwater Pollution Control Criteria For Entire Watershed:

(A) Low Density Option: development density must be limited to either no more than two dwelling units of single family detached residential development per acre (or 20,000 square foot lot excluding roadway right-of-way) or 24 percent built-upon area for all other residential and non-residential development in watershed outside of the critical area; stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: if new development density exceeds the low density option requirements specified in Sub-Item (3)(b)(i)(A) of this Rule then development must control runoff from the first inch of rainfall; new residential and non-residential development shall not exceed 50 percent built-upon area;

(C) Land within the watershed shall be deemed compliant with the density requirements if the following condition is met: the density of all existing development at the time of reclassification does not exceed the density requirement when densities are averaged throughout the entire watershed area;

(D) Cluster development is allowed on a project-by-project basis as follows:

(I) overall density of the project meets associated density or stormwater control requirements of this Rule;

(II) buffers meet the minimum statewide water supply watershed protection requirements;

(III) built-upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas;

(IV) areas of concentrated development are located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways;

(V) remainder of tract to remain in vegetated or natural state;

(VI) area in the vegetated or natural state may be conveyed to a property owners association, a local government for preservation as a park or greenway, a conservation organization or placed in a permanent conservation or farmland preservation easement;

(VII) a maintenance agreement for the vegetated or natural area shall be filed with the Register of Deeds; and

(VIII) cluster development that meets the applicable low density option requirements shall transport stormwater runoff from the development by vegetated conveyances to the maximum extent practicable;

(E) A maximum of 10 percent of each jurisdiction's portion of the watershed outside of the critical area as delineated on July 1, 1993 may be developed with new development projects and expansions of existing development of up to 70 percent built-upon surface area in addition to the new development approved in compliance with the appropriate requirements of Sub-Item (3)(b)(i)(A) or Sub-Item (3)(b)(i)(B) of this Rule. For expansions to existing development, the existing built-upon surface area is not counted toward the allowed 70 percent built-upon surface area. A local government having jurisdiction within the watershed may transfer, in whole or in part, its right to the 10 percent/70 percent land area to another local government within the watershed upon submittal of a joint resolution and review by the Commission. When the water supply watershed is composed of public lands, such as National Forest land, local

governments may count the public land acreage within the watershed outside of the critical area in figuring the acreage allowed under this provision. For local governments that do not choose to use the high density option in that WS-III watershed, each project must, to the maximum extent practicable, minimize built-upon surface area, direct stormwater runoff away from surface waters, and incorporate best management practices to minimize water quality impacts. If the local government selects the high density development option within that WS-III watershed, then engineered stormwater controls must be employed for the new development;

(F) If local governments choose the high density development option which requires engineered stormwater controls, then they shall assume ultimate responsibility for operation and maintenance of the required controls as outlined in Rule .0104 of this Subchapter;

(G) Minimum 100 foot vegetative buffer is required for all new development activities that exceed the low density requirements as specified in Sub-Item (3)(b)(i)(A) and Sub-Item (3)(b)(ii)(A) of this Rule, otherwise a minimum 30 foot vegetative buffer for development is required along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies. Nothing in this Rule shall stand as a bar to artificial streambank or shoreline stabilization;

(H) No new development is allowed in the buffer; water dependent structures, or other structures such as flag poles, signs and security lights, which result in only de minimus increases in impervious area and public projects such as road crossings and greenways may be allowed where no practicable alternative exists. These activities shall minimize built-upon surface area, direct runoff away from surface waters and maximize the utilization of BMPs;

(I) No NPDES permits shall be issued for landfills that discharge treated leachate;

(ii) Critical Area Nonpoint Source and Stormwater Pollution Control Criteria:

(A) Low Density Option: new development limited to either no more than one dwelling unit of single family detached residential development per acre (or 40,000 square foot lot excluding roadway right-of-way) or 12 percent built-upon area for all other residential and non-residential development; stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: if new development exceeds the low density requirements specified in Sub-Item (3)(b)(ii)(A) of this Rule, then engineered stormwater controls must be used to control runoff from the first inch of rainfall; development shall not exceed 30 percent built-upon area;

(C) No new permitted sites for land application of residuals or petroleum contaminated soils are allowed;

(D) No new landfills are allowed;

(c) MBAS (Methylene-Blue Active Substances): not greater than 0.5 mg/l to protect the aesthetic qualities of water supplies and to prevent foaming;

(d) Odor producing substances contained in sewage, industrial wastes, or other wastes: only such amounts, whether alone or in combination with other substances or wastes, as shall not cause taste and odor difficulties in water supplies which cannot be corrected by treatment, impair the palatability of fish, or have a deleterious effect upon any best usage established for waters of this class;

(e) Chlorinated phenolic compounds: not greater than 1.0 ug/l to protect water supplies from taste and odor problems from chlorinated phenols;

(f) Total hardness: not greater than 100 mg/l as calcium carbonate;

(g) Total dissolved solids: not greater than 500 mg/l;

(h) Toxic and other deleterious substances:

(i) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for non-carcinogens in Class WS-III waters:
(A) Barium: 1.0 mg/l;
(B) Chloride: 250 mg/l;
(C) Manganese: 200 ug/l;
(D) Nickel: 25 ug/l;
(E) Nitrate nitrogen: 10 mg/l;
(F) 2,4-D: 100 ug/l;
(G) 2,4,5-TP (Silvex): 10 ug/l;
(H) Sulfates: 250 mg/l;

(ii) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for carcinogens in Class WS-III waters:
(A) Aldrin: 0.05 ng/l;
(B) Arsenic: 10 ug/l;
(C) Benzene: 1.19 ug/l;
(D) Carbon tetrachloride: 0.254 ug/l;
(E) Chlordane: 0.8 ng/l;
(F) Chlorinated benzenes: 488 ug/l;
(G) DDT: 0.2 ng/l;
(H) Dieldrin: 0.05 ng/l;
(I) Dioxin: 0.000005 ng/l;
(J) Heptachlor: 0.08 ng/l;
(K) Hexachlorobutadiene: 0.44 ug/l;
(L) Polynuclear aromatic hydrocarbons (total of all PAHs): 2.8 ng/l;
(M) Tetrachloroethane (1,1,2,2): 0.17 ug/l;
(N) Tetrachloroethylene: 0.7 ug/l;
(O) Trichloroethylene: 2.5 ug/l;
(P) Vinyl Chloride: 0.025 ug/l.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. September 9, 1979;
Amended Eff. May 1, 2007; April 1, 2003; January 1, 1996; October 1, 1995; October 1, 1989.

15A NCAC 02B .0216 FRESH SURFACE WATER QUALITY STANDARDS FOR WS-IV WATERS

The following water quality standards apply to surface water supply waters that are classified WS-IV. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class WS-IV waters.

(1) The best usage of WS-IV waters are as follows: a source of water supply for drinking, culinary, or food-processing purposes for those users where a more protective WS-I, WS-II or WS-III classification is not feasible and any other best usage specified for Class C waters;

(2) The conditions related to the best usage are as follows: waters of this class are protected as water supplies which are generally in moderately to highly developed watersheds or protected areas and meet average watershed development density levels as specified in Sub-Items (3)(b)(i)(A), (3)(b)(i)(B), (3)(b)(ii)(A) and (3)(b)(ii)(B) of this Rule; discharges which qualify for a General Permit pursuant to 15A NCAC 02H .0127, trout farm discharges, recycle (closed loop) systems that only discharge in response to 10-year storm events, other stormwater discharges and domestic wastewater discharges shall be allowed in the protected and critical areas; treated industrial wastewater discharges are allowed in the protected and critical areas; however, new industrial wastewater discharges in the critical area shall be required to meet the provisions of 15A NCAC 02B .0224(1)(b)(iv), (v) and (vii), and 15A NCAC 02B .0203; new industrial connections and expansions to existing municipal discharges with a pretreatment program pursuant to 15A NCAC 02H .0904 are allowed; the waters, following treatment required by the Division of Environmental Health, shall meet the Maximum Contaminant Level concentrations considered safe for drinking, culinary, or food-processing purposes which are specified in the national drinking water regulations and in the North Carolina Rules

Governing Public Water Supplies, 15A NCAC 18C .1500. Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard. The Class WS-II or WS-III classifications may be used to protect portions of Class WS-IV water supplies. For reclassifications of these portions of WS-IV water supplies occurring after the July 1, 1992 statewide reclassification, the more protective classification requested by local governments shall be considered by the Commission when all local governments having jurisdiction in the affected area(s) have adopted a resolution and the appropriate ordinances to protect the watershed or the Commission acts to protect a watershed when one or more local governments has failed to adopt necessary protection measures;

(3) Quality standards applicable to Class WS-IV Waters are as follows:

(a) Sewage, industrial wastes, non-process industrial wastes, or other wastes: none shall be allowed except for those specified in Item (2) of this Rule and Rule .0104 of this Subchapter and none shall be allowed that shall have an adverse effect on human health or that are not effectively treated to the satisfaction of the Commission and in accordance with the requirements of the Division of Environmental Health, North Carolina Department of Environment and Natural Resources. Any discharges or industrial users subject to pretreatment standards may be required by the Commission to disclose all chemical constituents present or potentially present in their wastes and chemicals which could be spilled or be present in runoff from their facility which may have an adverse impact on downstream water supplies. These facilities may be required to have spill and treatment failure control plans as well as perform special monitoring for toxic substances;

(b) Nonpoint Source and Stormwater Pollution: none shall be allowed that would adversely impact the waters for use as water supply or any other designated use.

(i) Nonpoint Source and Stormwater Pollution Control Criteria For Entire Watershed or Protected Area:

(A) Low Density Option: development activities which require a Sedimentation/Erosion Control Plan in accordance with 15A NCAC 4 established by the North Carolina Sedimentation Control Commission or approved local government programs as delegated by the Sedimentation Control Commission shall be limited to no more than either: two dwelling units of single family detached development per acre (or 20,000 square foot lot excluding roadway right-of-way) or 24 percent built-upon on area for all other residential and non-residential development; or three dwelling units per acre or 36 percent built-upon area for projects without curb and gutter street systems in the protected area outside of the critical area; stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: if new development activities which require a Sedimentation/Erosion Control Plan exceed the low density requirements of Sub-Item (3)(b)(i)(A) of this Rule then development shall control the runoff from the first inch of rainfall; new residential and non-residential development shall not exceed 70 percent built-upon area;

(C) Land within the critical and protected area shall be deemed compliant with the density requirements if the following condition is met: the density of all existing development at the time of reclassification does not exceed the density requirement when densities are averaged throughout the entire area;

(D) Cluster development shall be allowed on a project-by-project basis as follows:

(I) overall density of the project meets associated density or stormwater control requirements of this Rule;

(II) buffers meet the minimum statewide water supply watershed protection requirements;

(III) built-upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas;

(IV) areas of concentrated development are located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways;

(V) remainder of tract to remain in vegetated or natural state;

(VI) area in the vegetated or natural state may be conveyed to a property owners association, a local government for preservation as a park or greenway, a conservation organization, or placed in a permanent conservation or farmland preservation easement;

(VII) a maintenance agreement for the vegetated or natural area shall be filed with the Register of Deeds; and

(VIII) cluster development that meets the applicable low density option requirements shall transport stormwater runoff from the development by vegetated conveyances to the maximum extent practicable;

(E) If local governments choose the high density development option which requires engineered stormwater controls, then they shall assume ultimate responsibility for operation and maintenance of the required controls as outlined in Rule .0104 of this Subchapter;

(F) Minimum 100 foot vegetative buffer is required for all new development activities that exceed the low density option requirements as specified in Sub-Item (3)(b)(i)(A) or Sub-Item (3)(b)(ii)(A) of this Rule, otherwise a minimum 30 foot vegetative buffer for development shall be required along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies;

(G) No new development shall be allowed in the buffer; water dependent structures, or other structures, such as flag poles, signs and security lights, which result in only de minimus increases in impervious area and public projects such as road crossings and greenways may be allowed where no practicable alternative exists. These activities shall minimize built-upon surface area, divert runoff away from surface waters and maximize the utilization of BMPs;

(H) For local governments that do not use the high density option, a maximum of 10 percent of each jurisdiction's portion of the watershed outside of the critical area as delineated on July 1, 1995 may be developed with new development projects and expansions to existing development of up to 70 percent built-upon surface area in addition to the new development approved in compliance with the appropriate requirements of Sub-Item (3)(b)(i)(A) of this Rule. For expansions to existing development, the existing built-upon surface area shall not be counted toward the allowed 70 percent built-upon surface area. A local government having jurisdiction within the watershed may transfer, in whole or in part, its right to the 10 percent/70 percent land area to another local government within the watershed upon submittal of a joint resolution for review by the Commission. When the designated water supply watershed area is composed of public land, such as National Forest land, local governments may count the public land acreage within the designated watershed area outside of the critical area in figuring the acreage allowed under this provision. Each project shall, to the maximum extent practicable, minimize built-upon surface area, direct stormwater runoff away from surface waters and incorporate best management practices to minimize water quality impacts;

(ii) Critical Area Nonpoint Source and Stormwater Pollution Control Criteria:

(A) Low Density Option: new development activities which require a Sedimentation/Erosion Control Plan in accordance with 15A NCAC 4 established by the North Carolina Sedimentation Control Commission or approved local government programs as delegated by the Sedimentation Control Commission shall be limited to no more than two dwelling units of single family detached

development per acre (or 20,000 square foot lot excluding roadway right-of-way) or 24 percent built-upon area for all other residential and non-residential development; stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: if new development density exceeds the low density requirements specified in Sub-Item (3)(b)(ii)(A) of this Rule, engineered stormwater controls shall be used to control runoff from the first inch of rainfall; new residential and non-residential development shall not exceed 50 percent built-upon area;

(C) No new permitted sites for land application of residuals or petroleum contaminated soils shall be allowed;

(D) No new landfills shall be allowed;

(c) MBAS (Methylene-Blue Active Substances): not greater than 0.5 mg/l to protect the aesthetic qualities of water supplies and to prevent foaming;

(d) Odor producing substances contained in sewage, industrial wastes, or other wastes: only such amounts, whether alone or in combination with other substances or waste, as will not cause taste and odor difficulties in water supplies which can not be corrected by treatment, impair the palatability of fish, or have a deleterious effect upon any best usage established for waters of this class;

(e) Chlorinated phenolic compounds: not greater than 1.0 ug/l to protect water supplies from taste and odor problems due to chlorinated phenols shall be allowed. Specific phenolic compounds may be given a different limit if it is demonstrated not to cause taste and odor problems and not to be detrimental to other best usage;

(f) Total hardness shall not exceed 100 mg/l as calcium carbonate;

(g) Total dissolved solids shall not exceed 500 mg/l;

(h) Toxic and other deleterious substances:

(i) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for non-carcinogens in Class WS-IV waters:

(A) Barium: 1.0 mg/l;

(B) Chloride: 250 mg/l;

(C) Manganese: 200 ug/l;

(D) Nickel: 25 ug/l;

(E) Nitrate nitrogen: 10.0 mg/l;

(F) 2,4-D: 100 ug/l;

(G) 2,4,5-TP (Silvex): 10 ug/l;

(H) Sulfates: 250 mg/l;

(ii) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for carcinogens in Class WS-IV waters:

(A) Aldrin: 0.05 ng/l;

(B) Arsenic: 10 ug/l;

(C) Benzene: 1.19 ug/l;

(D) Carbon tetrachloride: 0.254 ug/l;

(E) Chlordane: 0.8 ng/l;

(F) Chlorinated benzenes: 488 ug/l;

(G) DDT: 0.2 ng/l;

(H) Dieldrin: 0.05 ng/l;

(I) Dioxin: 0.000005 ng/l;

(J) Heptachlor: 0.08 ng/l;

(K) Hexachlorobutadiene: 0.44 ug/l;

(L) Polynuclear aromatic hydrocarbons (total of all PAHs): 2.8 ng/l;

(M) Tetrachloroethane (1,1,2,2): 0.17 ug/l;

(N) Tetrachloroethylene: 0.7 ug/l;

(O) Trichloroethylene: 2.5 ug/l;
(P) Vinyl Chloride: 0.025 ug/l.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1986;
Amended Eff. May 1, 2007; April 1, 2003; June 1, 1996; October 1, 1995; August 1, 1995; June 1,1994.

15A NCAC 02B .0217 STORMWATER CONTROL CRITERIA TO PROTECT WATER QUALITY STDS

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. November 1, 1986;
Repealed Eff. January 1, 1988.

15A NCAC 02B .0218 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-V WATERS

The following water quality standards apply to surface water supply waters that are classified WS-V. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class WS-V waters.

(1) The best usage of WS-V waters are as follows: waters that are protected as water supplies which are generally upstream and draining to Class WS-IV waters; or waters previously used for drinking water supply purposes; or waters used by industry to supply their employees, but not municipalities or counties, with a raw drinking water supply source, although this type of use is not restricted to WS-V classification; and all Class C uses. The Commission may consider a more protective classification for the water supply if a resolution requesting a more protective classification is submitted from all local governments having land use jurisdiction within the affected watershed;

(2) The conditions related to the best usage are as follows: waters of this class are protected water supplies; the waters, following treatment required by the Division of Environmental Health, shall meet the Maximum Contaminant Level concentrations considered safe for drinking, culinary, or food-processing purposes which are specified in the national drinking water regulations and in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1500; no categorical restrictions on watershed development or wastewater discharges are required, however, the Commission or its designee may apply management requirements for the protection of waters downstream of receiving waters (15A NCAC 02B .0203). Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard;

(3) Quality standards applicable to Class WS-V Waters are as follows:

(a) Sewage, industrial wastes, non-process industrial wastes, or other wastes: none shall be allowed that have an adverse effect on human health or that are not effectively treated to the satisfaction of the Commission and in accordance with the requirements of the Division of Environmental Health, North Carolina Department of Environment and Natural Resources. Any discharges or industrial users subject to pretreatment standards may be required by the Commission to disclose all chemical constituents present or potentially present in their wastes and chemicals which could be spilled or be present in runoff from their facility which may have an adverse impact on downstream water supplies. These facilities may be required to have spill and treatment failure control plans as well as perform special monitoring for toxic substances;

(b) MBAS (Methylene-Blue Active Substances): not greater than 0.5 mg/l to protect the aesthetic qualities of water supplies and to prevent foaming;

(c) Nonpoint Source and Stormwater Pollution: none that would adversely impact the waters for use as water supply or any other designated use;

(d) Odor producing substances contained in sewage, industrial wastes, or other wastes: only such amounts, whether alone or in combination with other substances or waste, as will not cause taste and odor difficulties in water supplies which can not be corrected by treatment, impair the palatability of fish, or have a deleterious effect upon any best usage established for waters of this class;

(e) Chlorinated phenolic compounds: not greater than 1.0 ug/l to protect water supplies from taste and odor problems due to chlorinated phenols; specific phenolic compounds may be given a different limit if it is demonstrated not to cause taste and odor problems and not to be detrimental to other best usage;
(f) Total hardness: not greater than 100 mg/l as calcium carbonate;
(g) Total dissolved solids: not greater than 500 mg/l;
(h) Toxic and other deleterious substances:
(i) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for non-carcinogens in Class WS-V waters:
(A) Barium: 1.0 mg/l;
(B) Chloride: 250 mg/l;
(C) Manganese: 200 ug/l;
(D) Nickel: 25 ug/l;
(E) Nitrate nitrogen: 10.0 mg/l;
(F) 2,4-D: 100 ug/l;
(G) 2,4,5-TP (Silvex): 10 ug/l;
(H) Sulfates: 250 mg/l.
(ii) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for carcinogens in Class WS-V waters:
(A) Aldrin: 0.05 ng/l;
(B) Arsenic: 10 ug/l;
(C) Benzene: 1.19 ug/l;
(D) Carbon tetrachloride: 0.254 ug/l;
(E) Chlordane: 0.8 ng/l;
(F) Chlorinated benzenes: 488 ug/l;
(G) DDT: 0.2 ng/l;
(H) Dieldrin: 0.05 ng/l;
(I) Dioxin: 0.000005 ng/l;
(J) Heptachlor: 0.08 ng/l;
(K) Hexachlorobutadiene: 0.44 ug/l;
(L) Polynuclear aromatic hydrocarbons (total of all PAHs): 2.8 ng/l;
(M) Tetrachloroethane (1,1,2,2): 0.17 ug/l;
(N) Tetrachloroethylene: 0.7 ug/l;
(O) Trichloroethylene: 2.5 ug/l;
(P) Vinyl Chloride: 0.025 ug/l.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. October 1, 1989;
Amended Eff. May 1, 2007; April 1, 2003; October 1, 1995.

15A NCAC 02B .0219 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS B WATERS

The following water quality standards apply to surface waters that are for primary recreation, including frequent or organized swimming and are classified as Class B waters. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class B waters.

(1) Best Usage of Waters. Primary recreation and any other best usage specified by the "C" classification;
(2) Conditions Related to Best Usage. The waters shall meet accepted standards of water quality for outdoor bathing places as specified in Item (3) of this Rule and shall be of sufficient size and depth for primary recreation purposes. Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard;
(3) Quality standards applicable to Class B waters:
(a) Sewage, industrial wastes, or other wastes: none which are not effectively treated to the satisfaction of the Commission; in determining the degree of treatment required for such waste

when discharged into waters to be used for bathing, the Commission shall consider the quality and quantity of the sewage and wastes involved and the proximity of such discharges to waters in this class; discharges in the immediate vicinity of bathing areas may not be allowed if the Director determines that the waste can not be reliably treated to ensure the protection of primary recreation;

(b) Organisms of coliform group: fecal coliforms not to exceed geometric mean of 200/100 ml (MF count) based on at least five consecutive samples examined during any 30-day period and not to exceed 400/100 ml in more than 20 percent of the samples examined during such period.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. January 1, 1990;
Amended Eff. October 1, 1995.

15A NCAC 02B .0220 TIDAL SALT WATER QUALITY STANDARDS FOR CLASS SC WATERS

General. The water quality standards for all tidal salt waters are the basic standards applicable to Class SC waters. Additional and more stringent standards applicable to other specific tidal salt water classifications are specified in Rules .0221 and .0222 of this Section.

(1) Best Usage of Waters: any usage except primary recreation or shellfishing for market purposes; usages include aquatic life propagation and maintenance of biological integrity (including fishing, fish and functioning PNAs), wildlife, and secondary recreation;

(2) Conditions Related to Best Usage: the waters shall be suitable for aquatic life propagation and maintenance of biological integrity, wildlife, and secondary recreation. Any source of water pollution which precludes any of these uses, including their functioning as PNAs, on either a short-term or a long-term basis shall be considered to be violating a water quality standard;

(3) Quality standards applicable to all tidal salt waters:

(a) Chlorophyll a (corrected): not greater than 40 ug/l in sounds, estuaries, and other waters subject to growths of macroscopic or microscopic vegetation. The Commission or its designee may prohibit or limit any discharge of waste into surface waters if, in the opinion of the Director, the surface waters experience or the discharge would result in growths of microscopic or macroscopic vegetation such that the standards established pursuant to this Rule would be violated or the intended best usage of the waters would be impaired;

(b) Dissolved oxygen: not less than 5.0 mg/l, except that swamp waters, poorly flushed tidally influenced streams or embayments, or estuarine bottom waters may have lower values if caused by natural conditions;

(c) Floating solids, settleable solids, or sludge deposits: only such amounts attributable to sewage, industrial wastes or other wastes, as shall not make the waters unsafe or unsuitable for aquatic life and wildlife, or impair the waters for any designated uses;

(d) Gases, total dissolved: not greater than 110 percent of saturation;

(e) Enterococcus, including *Enterococcus faecalis*, *Enterococcus faecium*, *Enterococcus avium* and *Enterococcus gallinarium*: not to exceed a geometric mean of 35 enterococci per 100 ml based upon a minimum of five samples within any consecutive 30 days. In accordance with 33 U.S.C. 1313 (Federal Water Pollution Control Act) for purposes of beach monitoring and notification, "Coastal Recreational Waters Monitoring, Evaluation and Notification" regulations (15A NCAC 18A .3400) are hereby incorporated by reference including any subsequent amendments;

(f) Oils, deleterious substances, colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation or aquatic life and wildlife or adversely affect the palatability of fish, aesthetic quality or impair the waters for any designated uses. For the purpose of implementing this Rule, oils, deleterious substances, colored or other wastes shall include but not be limited to substances that cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines pursuant to 40 CFR 110.3;

(g) pH: shall be normal for the waters in the area, which generally shall range between 6.8 and 8.5 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions;

(h) Phenolic compounds: only such levels as shall not result in fish-flesh tainting or impairment of other best usage;

(i) Radioactive substances:

(i) Combined radium-226 and radium-228: The maximum average annual activity level (based on at least four samples, collected quarterly) for combined radium-226, and radium-228 shall not exceed five picoCuries per liter;

(ii) Alpha Emitters. The average annual gross alpha particle activity (including radium-226, but excluding radon and uranium) shall not exceed 15 picoCuries per liter;

(iii) Beta Emitters. The maximum average annual activity level (based on at least four samples, collected quarterly) for strontium-90 shall not exceed eight picoCuries per liter; nor shall the average annual gross beta particle activity (excluding potassium-40 and other naturally occurring radio-nuclides) exceed 50 picoCuries per liter; nor shall the maximum average annual activity level for tritium exceed 20,000 picoCuries per liter;

(j) Salinity: changes in salinity due to hydrological modifications shall not result in removal of the functions of a PNA. Projects that are determined by the Director to result in modifications of salinity such that functions of a PNA are impaired will be required to employ water management practices to mitigate salinity impacts;

(k) Temperature: shall not be increased above the natural water temperature by more than 0.8 degrees C (1.44 degrees F) during the months of June, July, and August nor more than 2.2 degrees C (3.96 degrees F) during other months and in no cases to exceed 32 degrees C (89.6 degrees F) due to the discharge of heated liquids;

(l) Turbidity: the turbidity in the receiving water shall not exceed 25 NTU; if turbidity exceeds this level due to natural background conditions, the existing turbidity level shall not be increased. Compliance with this turbidity standard can be met when land management activities employ Best Management Practices (BMPs) [as defined by Rule .0202 of this Section] recommended by the Designated Nonpoint Source Agency (as defined by Rule .0202 of this Section). BMPs must be in full compliance with all specifications governing the proper design, installation, operation and maintenance of such BMPs;

(m) Toxic substances: numerical water quality standards (maximum permissible levels) to protect aquatic life applicable to all tidal saltwaters:

(i) Arsenic, total recoverable: 50 ug/l;

(ii) Cadmium: 5.0 ug/l; attainment of these water quality standards in surface waters shall be based on measurement of total recoverable metals concentrations unless appropriate studies have been conducted to translate total recoverable metals to a toxic form. Studies used to determine the toxic form or translators must be designed according to the "Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or "The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion" published by the Environmental Protection Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators;

(iii) Chromium, total: 20 ug/l;

(iv) Cyanide: 1.0 ug/l;

(v) Mercury: 0.025 ug/l;

(vi) Lead, total recoverable: 25 ug/l; collection of data on sources, transport and fate of lead shall be required as part of the toxicity reduction evaluation for dischargers that are out of compliance with whole effluent toxicity testing requirements and the concentration of lead in the effluent is concomitantly determined to exceed an instream level of 3.1 ug/l from the discharge;

(vii) Nickel: 8.3 ug/l; attainment of these water quality standards in surface waters shall be based on measurement of total recoverable metals concentrations unless appropriate studies have been conducted to translate total recoverable metals to a toxic form. Studies used to determine the toxic form or translators must be designed according to the

"Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or "The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion" published by the Environmental Protection Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators;

(viii) Pesticides:
- (A) Aldrin: 0.003 ug/l;
- (B) Chlordane: 0.004 ug/l;
- (C) DDT: 0.001 ug/l;
- (D) Demeton: 0.1 ug/l;
- (E) Dieldrin: 0.002 ug/l;
- (F) Endosulfan: 0.009 ug/l;
- (G) Endrin: 0.002 ug/l;
- (H) Guthion: 0.01 ug/l;
- (I) Heptachlor: 0.004 ug/l;
- (J) Lindane: 0.004 ug/l;
- (K) Methoxychlor: 0.03 ug/l;
- (L) Mirex: 0.001 ug/l;
- (M) Parathion: 0.178 ug/l;
- (N) Toxaphene: 0.0002 ug/l;

(ix) Polychlorinated biphenyls: (total of all PCBs and congeners identified) 0.001 ug/l;

(x) Selenium: 71 ug/l;

(xi) Trialkyltin compounds: 0.007 ug/l expressed as tributyltin.

(4) Action Levels for Toxic Substances:
- (a) Copper: 3 ug/l;
- (b) Silver: 0.1 ug/l;
- (c) Zinc: 86 ug/l;

If the Action Levels for any of the substances listed in this Subparagraph (which are generally not bioaccumulative and have variable toxicity to aquatic life because of chemical form, solubility, stream characteristics or associated waste characteristics) are determined by the waste load allocation to be exceeded in a receiving water by a discharge under the specified low flow criterion for toxic substances (Rule .0206 in this Section), the discharger shall be required to monitor the chemical or biological effects of the discharge; efforts shall be made by all dischargers to reduce or eliminate these substances from their effluents. Those substances for which Action Levels are listed in this Subparagraph may be limited as appropriate in the NPDES permit if sufficient information (to be determined for metals by measurements of that portion of the dissolved instream concentration of the Action Level parameter attributable to a specific NPDES permitted discharge) exists to indicate that any of those substances may be a causative factor resulting in toxicity of the effluent. NPDES permit limits may be based on translation of the toxic form to total recoverable metals. Studies used to determine the toxic form or translators must be designed according to: "Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or "The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion" published by the Environmental Protection Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. October 1, 1995;
Amended Eff. May 1, 2007; August 1, 2000.

15A NCAC 02B .0221 TIDAL SALT WATER QUALITY STANDARDS FOR CLASS SA WATERS

The following water quality standards apply to surface waters that are used for shellfishing for market purposes and are classified SA. Water quality standards applicable to Class SC and SB waters as described in Rule .0220 and Rule .0222 of this Section also apply to Class SA waters.

(1) Best Usage of Waters: shellfishing for market purposes and any other usage specified by the "SB" or "SC" classification;

(2) Conditions Related to Best Usage: waters shall meet the current sanitary and bacteriological standards as adopted by the Commission for Public Health and shall be suitable for shellfish culture. Any source of water pollution which precludes any of these uses, including their functioning as PNAs, on either a short-term or a long-term basis shall be considered to be violating a water quality standard;

(3) Quality Standards applicable to Class SA Waters:

(a) Floating solids, settleable solids, or sludge deposits: none attributable to sewage, industrial wastes or other wastes;

(b) Sewage: none;

(c) Industrial wastes, or other wastes: none shall be allowed that are not effectively treated to the satisfaction of the Commission in accordance with the requirements of the Division of Environmental Health;

(d) Organisms of coliform group: fecal coliform group not to exceed a median MF of 14/100 ml and not more than 10 percent of the samples shall exceed an MF count of 43/100 ml in those areas most probably exposed to fecal contamination during the most unfavorable hydrographic and pollution conditions.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. October 1, 1995;
Amended Eff. May 1, 2007.

15A NCAC 02B .0222 TIDAL SALT WATER QUALITY STANDARDS FOR CLASS SB WATERS

The following water quality standards apply to surface waters that are used for primary recreation, including frequent or organized swimming, and are classified SB. Water quality standards applicable to Class SC waters are described in Rule .0220 of this Section also apply to SB waters.

(1) Best Usage of waters: primary recreation and any other usage specified by the "SC" classification;

(2) Conditions Related to Best Usage: the waters shall meet accepted sanitary standards of water quality for outdoor bathing places as specified in Item (3) of this Rule and will be of sufficient size and depth for primary recreation purposes. Any source of water pollution which precludes any of these uses, including their functioning as PNAs, on either a short-term or a long-term basis shall be considered to be violating a water quality standard;

(3) Quality Standards applicable to Class SB waters:

(a) Floating solids, settleable solids, or sludge deposits: none attributable to sewage, industrial wastes or other wastes;

(b) Sewage, industrial wastes, or other wastes: none shall be allowed that are not effectively treated to the satisfaction of the Commission; in determining the degree of treatment required for such waters discharged into waters which are to be used for bathing, the Commission shall take into consideration quantity and quality of the sewage and other wastes involved and the proximity of such discharges to the waters in this class; discharges in the immediate vicinity of bathing areas may not be allowed if the Director determines that the waste can not be treated to ensure the protection of primary recreation;

(c) Enterococcus, including *Enterococcus faecalis*, *Enterococcus faecium*, *Enterococcus avium* and *Enterococcus gallinarium*: not to exceed a geometric mean of 35 enterococci per 100 ml based upon a minimum of five samples within any consecutive 30 days. In accordance with 33 U.S.C. 1313 (Federal Water Pollution Control Act) for purposes of beach monitoring and notification, "Coastal Recreation Waters Monitoring, Evaluation and Notification" regulations (15A NCAC 18A .3400) are hereby incorporated by reference including any subsequent amendments.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. October 1, 1995;

Amended Eff. May 1, 2007.

15A NCAC 02B .0223 NUTRIENT SENSITIVE WATERS

(a) In addition to existing classifications, the Commission may classify any surface waters of the state as nutrient sensitive waters (NSW) upon a finding that such waters are experiencing or are subject to excessive growths of microscopic or macroscopic vegetation. Excessive growths are growths which the Commission determines impair the use of the water for its best usage as determined by the classification applied to such waters.

(b) NSW may include any or all waters within a particular river basin as the Commission deems necessary to effectively control excessive growths of microscopic or macroscopic vegetation.

(c) For the purpose of this Rule, the term "nutrients" shall mean phosphorous or nitrogen or any other chemical parameter or combination of parameters which the commission determines to be contributing to excessive growths of microscopic or macroscopic vegetation.

(d) Those waters additionally classified as nutrient sensitive shall be identified in the appropriate schedule of classifications as referenced in Section .0300 of this Subchapter.

(e) Nutrient strategies applicable to NSW shall be developed by the Commission to control the magnitude, duration, or frequencies of excessive growths of microscopic or macroscopic vegetation so that the existing and designated uses of the waterbody are protected or restored.

History Note: *Authority G.S. 143-214.1; 143-215.8B;*
Eff. October 1, 1995;
Amended Eff. August 1, 2000.

15A NCAC 02B .0224 HIGH QUALITY WATERS

High Quality Waters (HQW) are a subset of waters with quality higher than the standards and are as described by 15A NCAC 2B .0101(e)(5). The following procedures shall be implemented in order to implement the requirements of Rule .0201(d) of this Section.

(1) New or expanded wastewater discharges in High Quality Waters shall comply with the following:

(a) Discharges from new single family residences shall be prohibited. Those existing subsurface systems for single family residences which fail and must discharge shall install a septic tank, dual or recirculating sand filters, disinfection and step aeration.

(b) All new NPDES wastewater discharges (except single family residences) shall be required to provide the treatment described below:

(i) Oxygen Consuming Wastes: Effluent limitations shall be as follows: BOD_5= 5 mg/l, NH_3-N = 2 mg/l and DO = 6 mg/l. More stringent limitations shall be set, if necessary, to ensure that the cumulative pollutant discharge of oxygen-consuming wastes shall not cause the DO of the receiving water to drop more than 0.5 mg/l below background levels, and in no case below the standard. Where background information is not readily available, evaluations shall assume a percent saturation determined by staff to be generally applicable to that hydroenvironment.

(ii) Total Suspended Solids: Discharges of total suspended solids (TSS) shall be limited to effluent concentrations of 10 mg/l for trout waters and PNA's, and to 20 mg/l for all other High Quality Waters.

(iii) Disinfection: Alternative methods to chlorination shall be required for discharges to trout streams, except that single family residences may use chlorination if other options are not economically feasible. Domestic discharges are prohibited to SA waters.

(iv) Emergency Requirements: Failsafe treatment designs shall be employed, including stand-by power capability for entire treatment works, dual train design for all treatment components, or equivalent failsafe treatment designs.

(v) Volume: The total volume of treated wastewater for all discharges combined shall not exceed 50 percent of the total instream flow under 7Q10 conditions.

(vi) Nutrients: Where nutrient overenrichment is projected to be a concern, appropriate effluent limitations shall be set for phosphorus or nitrogen, or both.

(vii) Toxic substances: In cases where complex wastes (those containing or potentially containing toxicants) may be present in a discharge, a safety factor shall be applied to

any chemical or whole effluent toxicity allocation. The limit for a specific chemical constituent shall be allocated at one-half of the normal standard at design conditions. Whole effluent toxicity shall be allocated to protect for chronic toxicity at an effluent concentration equal to twice that which is acceptable under design conditions. In all instances there may be no acute toxicity in an effluent concentration of 90 percent. Ammonia toxicity shall be evaluated according to EPA guidelines promulgated in "Ambient Water Quality Criteria for Ammonia - 1984"; EPA document number 440/5-85-001; NITS number PB85-227114; July 29, 1985 (50 FR 30784) or "Ambient Water Quality Criteria for Ammonia (Saltwater) - 1989"; EPA document number 440/5-88-004; NTIS number PB89-169825. This material related to ammonia toxicity is hereby incorporated by reference including any subsequent amendments and editions and is available for inspection at the Department of Environment and Natural Resources Library, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161 at a cost of forty-seven dollars ($47.00).

(c) All expanded NPDES wastewater discharges in High Quality Waters shall be required to provide the treatment described in Sub-Item (1)(b) of this Rule, except for those existing discharges which expand with no increase in permitted pollutant loading.

(2) Development activities which require an Erosion and Sedimentation Control Plan in accordance with rules established by the NC Sedimentation Control Commission or local erosion and sedimentation control program approved in accordance with 15A NCAC 4B .0218, and which drain to and are within one mile of High Quality Waters (HQW) shall be required to follow the stormwater management rules as specified in 15A NCAC 2H .1000. Stormwater management requirements specific to HQW are described in 15A NCAC 2H .1006.

(3) Listing of Waters Classified HQW with Specific Actions. Waters classified as HQW with specific actions to protect exceptional water quality are listed as follows: Thorpe Reservoir [Little Tennessee River Basin, Index No. 2-79-23-(1)] including all of its tributaries shall be managed with respect to wastewater discharges through Item (1) of this Rule. Item (2) of this Rule shall not be applied in association with this HQW because of the local government implementation of WS-III stormwater management requirements.

If an applicant objects to the requirements to protect high quality waters and believes degradation is necessary to accommodate important social and economic development, the applicant may contest these requirements according to the provisions of GS. 143-215.1(e) and 150B-23.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. October 1, 1995;
Amended Eff. August 1, 1998; April 1, 1996.

15A NCAC 02B .0225 OUTSTANDING RESOURCE WATERS

(a) General. In addition to the existing classifications, the Commission may classify unique and special surface waters of the state as outstanding resource waters (ORW) upon finding that such waters are of exceptional state or national recreational or ecological significance and that the waters have exceptional water quality while meeting the following conditions:

(1) that the water quality is rated as excellent based on physical, chemical or biological information;

(2) the characteristics which make these waters unique and special may not be protected by the assigned narrative and numerical water quality standards.

(b) Outstanding Resource Values. In order to be classified as ORW, a water body must exhibit one or more of the following values or uses to demonstrate it is of exceptional state or national recreational or ecological significance:

(1) there are outstanding fish (or commercially important aquatic species) habitat and fisheries;

(2) there is an unusually high level of water-based recreation or the potential for such recreation;

(3) the waters have already received some special designation such as a North Carolina or National Wild and Scenic River, Native or Special Native Trout Waters or National Wildlife Refuge, which do not provide any water quality protection;

(4) the waters represent an important component of a state or national park or forest; or

(5) the waters are of special ecological or scientific significance such as habitat for rare or endangered species or as areas for research and education.

(c) Quality Standards for ORW.

(1) Freshwater: Water quality conditions shall be maintained to protect the outstanding resource values of waters classified ORW. Management strategies to protect resource values shall be developed on a site specific basis during the proceedings to classify waters as ORW. No new discharges or expansions of existing discharges shall be permitted, and stormwater controls for all new development activities requiring an Erosion and Sedimentation Control Plan in accordance with rules established by the NC Sedimentation Control Commission or an appropriate local erosion and sedimentation control program shall be required to follow the stormwater provisions as specified in 15A NCAC 02H .1000. Specific stormwater requirements for ORW areas are described in 15A NCAC 02H .1007.

(2) Saltwater: Water quality conditions shall be maintained to protect the outstanding resource values of waters classified ORW. Management strategies to protect resource values shall be developed on a site-specific basis during the proceedings to classify waters as ORW. New development shall comply with the stormwater provisions as specified in 15A NCAC 02H .1000. Specific stormwater management requirements for saltwater ORWs are described in 15A NCAC 02H .1007. New non-discharge permits shall meet reduced loading rates and increased buffer zones, to be determined on a case-by-case basis. No dredge or fill activities shall be allowed if those activities would result in a reduction of the beds of submerged aquatic vegetation or a reduction of shellfish producing habitat as defined in 15A NCAC 03I .0101(b)(20)(A) and (B), except for maintenance dredging, such as that required to maintain access to existing channels and facilities located within the designated areas or maintenance dredging for activities such as agriculture. A public hearing is mandatory for any proposed permits to discharge to waters classified as ORW.

Additional actions to protect resource values shall be considered on a site specific basis during the proceedings to classify waters as ORW and shall be specified in Paragraph (e) of this Rule. These actions may include anything within the powers of the Commission. The Commission shall also consider local actions which have been taken to protect a water body in determining the appropriate state protection options. Descriptions of boundaries of waters classified as ORW are included in Paragraph (e) of this Rule and in the Schedule of Classifications (15A NCAC 02B .0302 through 02B .0317) as specified for the appropriate river basin and shall also be described on maps maintained by the Division of Water Quality.

(d) Petition Process. Any person may petition the Commission to classify a surface water of the state as an ORW. The petition shall identify the exceptional resource value to be protected, address how the water body meets the general criteria in Paragraph (a) of this Rule, and the suggested actions to protect the resource values. The Commission may request additional supporting information from the petitioner. The Commission or its designee shall initiate public proceedings to classify waters as ORW or shall inform the petitioner that the waters do not meet the criteria for ORW with an explanation of the basis for this decision. The petition shall be sent to:

Director
DENR/Division of Water Quality
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

The envelope containing the petition shall clearly bear the notation: RULE-MAKING PETITION FOR ORW CLASSIFICATION.

(e) Listing of Waters Classified ORW with Specific Actions. Waters classified as ORW with specific actions to protect exceptional resource values are listed as follows:

(1) Roosevelt Natural Area [White Oak River Basin, Index Nos. 20-36-9.5-(1) and 20-36-9.5-(2)] including all fresh and saline waters within the property boundaries of the natural area shall have only new development which complies with the low density option in the stormwater rules as specified in 15A NCAC 2H .1005(2)(a) within 575 feet of the Roosevelt Natural Area (if the development site naturally drains to the Roosevelt Natural Area);

(2) Chattooga River ORW Area (Little Tennessee River Basin and Savannah River Drainage Area): the following undesignated waterbodies that are tributary to ORW designated segments shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section. However, expansions of existing discharges to these segments shall be allowed if there is no increase in pollutant loading:

(A) North and South Fowler Creeks;
(B) Green and Norton Mill Creeks;
(C) Cane Creek;
(D) Ammons Branch;
(E) Glade Creek; and
(F) Associated tributaries;

(3) Henry Fork ORW Area (Catawba River Basin): the following undesignated waterbodies that are tributary to ORW designated segments shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section:
(A) Ivy Creek;
(B) Rock Creek; and
(C) Associated tributaries;

(4) South Fork New and New Rivers ORW Area [New River Basin (Index Nos. 10-1-33.5 and 10)]: the following management strategies, in addition to the discharge requirements specified in Subparagraph (c)(1) of this Rule, shall be applied to protect the designated ORW areas:
(A) Stormwater controls described in Subparagraph (c)(1) of this Rule shall apply to land within one mile of and that drains to the designated ORW areas;
(B) New or expanded NPDES permitted wastewater discharges located upstream of the designated ORW (for the North Fork New River ORW are see Subparagraph (14) of this Paragraph) shall be permitted such that the following water quality standards are maintained in the ORW segment:
(i) the total volume of treated wastewater for all upstream discharges combined shall not exceed 50 percent of the total instream flow in the designated ORW under 7Q10 conditions, which are defined in Rule .0206(a)(1) of this Section;
(ii) a safety factor shall be applied to any chemical allocation such that the effluent limitation for a specific chemical constituent shall be the more stringent of either the limitation allocated under design conditions (pursuant to 15A NCAC 02B .0206) for the normal standard at the point of discharge, or the limitation allocated under design conditions for one-half the normal standard at the upstream border of the ORW segment;
(iii) a safety factor shall be applied to any discharge of complex wastewater (those containing or potentially containing toxicants) to protect for chronic toxicity in the ORW segment by setting the whole effluent toxicity limitation at the higher (more stringent) percentage effluent determined under design conditions (pursuant to 15A NCAC 02B .0206) for either the instream effluent concentration at the point of discharge or twice the effluent concentration calculated as if the discharge were at the upstream border of the ORW segment;
(C) New or expanded NPDES permitted wastewater discharges located upstream of the designated ORW (for the North Fork New River ORW area; see Subparagraph (14) of this Paragraph) shall comply with the following:
(i) Oxygen Consuming Wastes: Effluent limitations shall be as follows: BOD = 5 mg/1, and NH3-N = 2 mg/1;
(ii) Total Suspended Solids: Discharges of total suspended solids (TSS) shall be limited to effluent concentrations of 10 mg/1 for trout waters and to 20 mg/1 for all other waters;
(iii) Emergency Requirements: Failsafe treatment designs shall be employed, including stand-by power capability for entire treatment works, dual train design for all treatment components, or equivalent failsafe treatment designs;
(iv) Nutrients: Where nutrient overenrichment is projected to be a concern, effluent limitations shall be set for phosphorus or nitrogen, or both;

(5) Old Field Creek (New River Basin): the undesignated portion of Old Field Creek (from its source to Call Creek) shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section;

(6) In the following designated waterbodies, no additional restrictions shall be placed on new or expanded marinas. The only new or expanded NPDES permitted discharges that shall be allowed shall be non-domestic, non-process industrial discharges. The Alligator River Area (Pasquotank River Basin) extending from the source of the Alligator River to the U.S. Highway 64 bridge including New Lake Fork,

North West Fork Alligator River, Juniper Creek, Southwest Fork Alligator River, Scouts Bay, Gum Neck Creek, Georgia Bay, Winn Bay, Stumpy Creek Bay, Stumpy Creek, Swann Creek (Swann Creek Lake), Whipping Creek (Whipping Creek Lake), Grapevine Bay, Rattlesnake Bay, The Straits, The Frying Pan, Coopers Creek, Babbitt Bay, Goose Creek, Milltail Creek, Boat Bay, Sandy Ridge Gut (Sawyer Lake) and Second Creek, but excluding the Intracoastal Waterway (Pungo River-Alligator River Canal) and all other tributary streams and canals;

(7) In the following designated waterbodies, the only type of new or expanded marina that shall be allowed shall be those marinas located in upland basin areas, or those with less than 10 slips, having no boats over 21 feet in length and no boats with heads. The only new or expanded NPDES permitted discharges that shall be allowed shall be non-domestic, non-process industrial discharges:

(A) The Northeast Swanquarter Bay Area including all waters northeast of a line from a point at Lat. 35E 23N 51O and Long. 76E 21N 02O thence southeast along the Swanquarter National Wildlife Refuge hunting closure boundary (as defined by the 1935 Presidential Proclamation) to Drum Point.

(B) The Neuse-Southeast Pamlico Sound Area (Southeast Pamlico Sound Section of the Southeast Pamlico, Core and Back Sound Area); (Neuse River Basin) including all waters within an area defined by a line extending from the southern shore of Ocracoke Inlet northwest to the Tar-Pamlico River and Neuse River basin boundary, then southwest to Ship Point.

(C) The Core Sound Section of the Southeast Pamlico, Core and Back Sound Area (White Oak River Basin), including all waters of Core Sound and its tributaries, but excluding Nelson Bay, Little Port Branch and Atlantic Harbor at its mouth, and those tributaries of Jarrett Bay that are closed to shellfishing.

(D) The Western Bogue Sound Section of the Western Bogue Sound and Bear Island Area (White Oak River Basin) including all waters within an area defined by a line from Bogue Inlet to the mainland at SR 1117 to a line across Bogue Sound from the southwest side of Gales Creek to Rock Point, including Taylor Bay and the Intracoastal Waterway.

(E) The Stump Sound Area (Cape Fear River Basin) including all waters of Stump Sound and Alligator Bay from marker Number 17 to the western end of Permuda Island, but excluding Rogers Bay, the Kings Creek Restricted Area and Mill Creek.

(F) The Topsail Sound and Middle Sound Area (Cape Fear River Basin) including all estuarine waters from New Topsail Inlet to Mason Inlet, including the Intracoastal Waterway and Howe Creek, but excluding Pages Creek and Futch Creek;

(8) In the following designated waterbodies, no new or expanded NPDES permitted discharges and only new or expanded marinas with less than 10 slips, having no boats over 21 feet in length and no boats with heads shall be allowed:

(A) The Swanquarter Bay and Juniper Bay Area (Tar-Pamlico River Basin) including all waters within a line beginning at Juniper Bay Point and running south and then west below Great Island, then northwest to Shell Point and including Shell Bay, Swanquarter and Juniper Bays and their tributaries, but excluding all waters northeast of a line from a point at Lat. 35E 23N 51O and Long. 76E 21N 02O thence southeast along the Swanquarter National Wildlife Refuge hunting closure boundary (as defined by the 1935 Presidential Proclamation) to Drum Point and also excluding the Blowout Canal, Hydeland Canal, Juniper Canal and Quarter Canal.

(B) The Back Sound Section of the Southeast Pamlico, Core and Back Sound Area (White Oak River Basin) including that area of Back Sound extending from Core Sound west along Shackleford Banks, then north to the western most point of Middle Marshes and along the northwest shore of Middle Marshes (to include all of Middle Marshes), then west to Rush Point on Harker's Island, and along the southern shore of Harker's Island back to Core Sound.

(C) The Bear Island Section of the Western Bogue Sound and Bear Island Area (White Oak River Basin) including all waters within an area defined by a line from the western most point on Bear Island to the northeast mouth of Goose Creek on the mainland, east to the southwest mouth of Queen Creek, then south to green marker No. 49, then northeast to the northern most point on Huggins Island, then southeast along the shoreline of Huggins Island to the southeastern most point of Huggins Island, then south to the northeastern most point on Dudley Island, then southwest along the shoreline of Dudley Island to the eastern tip of Bear Island.

(D) The Masonboro Sound Area (Cape Fear River Basin) including all waters between the Barrier Islands and the mainland from Carolina Beach Inlet to Masonboro Inlet;

(9) Black and South Rivers ORW Area (Cape Fear River Basin) [Index Nos. 18-68-(0.5), 18-68-(3.5), 18-68-(11.5), 18-68-12-(0.5), 18-68-12-(11.5), and 18-68-2]: the following management strategies, in addition to the discharge requirements specified in Subparagraph (c)(1) of this Rule, shall be applied to protect the designated ORW areas:

(A) Stormwater controls described in Subparagraph (c)(1) of this Rule shall apply to land within one mile of and that drains to the designated ORW areas;

(B) New or expanded NPDES permitted wastewater discharges located one mile upstream of the stream segments designated ORW (upstream on the designated mainstem and upstream into direct tributaries to the designated mainstem) shall comply with the following discharge restrictions:

(i) Oxygen Consuming Wastes: Effluent limitations shall be as follows: BOD = 5 mg/l and NH3-N = 2 mg/l;

(ii) Total Suspended Solids: Discharges of total suspended solids (TSS) shall be limited to effluent concentrations of 20 mg/l;

(iii) Emergency Requirements: Failsafe treatment designs shall be employed, including stand-by power capability for entire treatment works, dual train design for all treatment components, or equivalent failsafe treatment designs;

(iv) Nutrients: Where nutrient overenrichment is projected to be a concern, effluent limitations shall be set for phosphorus or nitrogen, or both.

(v) Toxic substances: In cases where complex discharges (those containing or potentially containing toxicants) may be currently present in the discharge, a safety factor shall be applied to any chemical or whole effluent toxicity allocation. The limit for a specific chemical constituent shall be allocated at one-half of the normal standard at design conditions. Whole effluent toxicity shall be allocated to protect for chronic toxicity at an effluent concentration equal to twice that which is acceptable under flow design criteria (pursuant to 15A NCAC 02B .0206);

(10) Lake Waccamaw ORW Area (Lumber River Basin) [Index No. 15-2]: all undesignated waterbodies that are tributary to Lake Waccamaw shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section;

(11) Swift Creek and Sandy Creek ORW Area (Tar-Pamlico River Basin) [portion of Index No. 28-78-(0.5) and Index No. 28-78-1-(19)]: all undesignated waterbodies that drain to the designated waters shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section and to protect outstanding resource values found in the designated waters as well as in the undesignated waters that drain to the designated waters;

(12) Fontana Lake North Shore ORW Area (Little Tennessee River Basin and Savannah River Drainage Area) [Index Nos. 2-96 through 2-164 (excluding all waterbodies that drain to the south shore of Fontana Lake) consists of the entire watersheds of all creeks that drain to the north shore of Fontana Lake between Eagle and Forney Creeks, including Eagle and Forney Creeks. In addition to the requirements specified in Subparagraph (c)(1) of this Rule, any person conducting development activity disturbing greater than or equal to 5,000 square feet of land area in the designated ORW area shall undertake the following actions to protect the outstanding resource values of the designated ORW and downstream waters:

(A) investigate for the presence of and identify the composition of acid-producing rocks by exploratory drilling or other means and characterize the net neutralization potential of the acid-producing rocks prior to commencing the land-disturbing activity;

(B) avoid areas to the maximum extent practical where acid-producing rocks are found with net neutralization potential of –5 or less;

(C) establish background levels of acidity and mineralization prior to commencing land-disturbing activity, and monitor and maintain baseline water quality conditions for the duration of the land-disturbing activity and for any period thereafter not less than two years as determined by the Division as part of a certification issued in accordance with 15A NCAC 02H .0500 or stormwater permit issued pursuant to this Rule;

(D) obtain a National Pollutant Discharge Elimination System permit for construction pursuant to Rule 15A NCAC 02H .0126 prior to initiating land-disturbing activity;

(E) design stormwater control systems to control and treat stormwater runoff generated from all surfaces generated by one inch of rainfall in accordance with 15A NCAC 02H. 1008; and

(F) replicate pre-development runoff characteristics and mimic the natural and unique hydrology of the site, post development;

(13) Horsepasture River ORW Area (Savannah Drainage Area) [Index No. 4-13-(0.5) and Index No. 4-13-(12.5)]: all undesignated waterbodies that are located within the Horsepasture River watershed shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section and to protect outstanding resource values found throughout the watershed. However, new domestic wastewater discharges and expansions of existing wastewater discharges may be allowed provided that:

(A) Oxygen Consuming Wastes: Effluent limitations shall be as follows: BOD = 5 mg/l, and NH3-N = 2 mg/l;

(B) Total Suspended Solids: Discharges of total suspended solids (TSS) shall be limited to effluent concentrations of 10 mg/1 for trout waters and to 20 mg/l for all other waters except for mining operations, which will be held to their respective NPDES TSS permit limits;

(C) Nutrients: Where nutrient overenrichment is projected to be a concern, effluent limitations shall be set for phosphorus or nitrogen, or both; and

(D) Volume: The total volume of treated wastewater for all discharges combined shall not exceed 25 percent of the total instream flow in the designated ORW under 7Q10 conditions, which are defined in Rule .0206(a)(1) of this Section; and

(14) North Fork New River ORW Area (New River Basin) [Index Nos. 10-2-(1), 10-2-(11) and 10-2-(12)]: all non-ORW waterbodies including Little Buffalo Creek and Claybank Creek [Index Nos. 10-2-20-1 and 10-2-20-1-1] that are located within the North Fork New River watershed shall comply with Rule .0224 of this Section in order to protect the ORW designated waters.

History Note: *Authority G.S. 143-214.1; S.L. 2005-97;*
Eff. October 1, 1995;
Amended Eff. August 1, 2003 (see S.L. 2003-433, s.2); August 1, 2000; April 1, 1996; January 1, 1996;
Temporary Amendment Eff. October 7, 2003;
Amended Eff. December 1, 2010; July 1, 2009; January 1, 2007; June 1, 2004.

15A NCAC 02B .0226 EXEMPTIONS FROM SURFACE WATER QUALITY STANDARDS

Variances from applicable standards, revisions to water quality standards or site-specific water quality standards may be granted by the Commission on a case-by-case basis pursuant to G.S. 143-215.3(e), 143-214.3 or 143-214.1. A listing of existing variances shall be maintained and made available to the public by the Division. Exemptions established pursuant to this Rule shall be reviewed as part of the Triennial Review of Water Quality Standards conducted pursuant to 40 CFR 131.10(g).

History Note: *Authority G.S. 143-214.1; 143-214.3; 143-215.3(e);*
Eff. October 1, 1995.

15A NCAC 02B .0227 WATER QUALITY MANAGEMENT PLANS

(a) In implementing the water quality standards to protect the existing uses [as defined by Rule .0202 of this Section] of the waters of the state or the water quality which supports those uses, the Commission shall develop water quality management plans on a priority basis to attain, maintain or enhance water quality throughout the state. Additional specific actions deemed necessary by the Commission to protect the water quality or the existing uses of the waters of the state shall be specified in Paragraph (b) of this Rule. These actions may include anything within the powers of the Commission. The Commission may also consider local actions which have been taken to protect a waterbody in determining the appropriate protection options to be incorporated into the water quality management plan.

(b) All waters determined by the Commission to be protected by a water quality management plan are listed with specific actions as follows:

The Lockwoods Folly River Area (Lumber River Basin), which includes all waters of the lower Lockwoods Folly River in an area extending north from the Intracoastal Waterway to a line extending from Genoes Point to Mullet Creek, shall be protected by the specific actions described in Subparagraphs (1) through (5) of this Paragraph.

(1) New development activities within 575' of the mean high water line which require a Sedimentation Erosion Control Plan or a CAMA major development permit must comply with the low density option of the coastal Stormwater Runoff Disposal Rules [as specified in 15A NCAC 2H .1005(2)(a)].
(2) New or expanded NPDES permits shall be issued only for non-domestic, non-industrial process type discharges (such as non-industrial process cooling or seafood processing discharges). A public hearing is mandatory for any proposed (new or expanded) NPDES permit to this protected area.
(3) New non-discharge permits shall be required to meet reduced loading rates and increased buffer zones, to be determined on a case-by-case basis.
(4) New or expanded marinas must be located in upland basin areas.
(5) No dredge or fill activities shall be allowed where significant shellfish or submerged aquatic vegetation bed resources occur, except for maintenance dredging, such as that required to maintain access to existing channels and facilities located within the protected area or maintenance dredging for activities such as agriculture.

History Note: *Authority G.S. 143-214.1; 143-215.8A;*
Eff. October 1, 1995;
Amended Eff. January 1, 1996.

15A NCAC 02B .0228 EFFLUENT CHANNELS

The standards of water quality contained in this Section shall not apply to waters within effluent channels, as defined in Rule .0202 of this Section, except that said waters shall be maintained at a quality which shall prevent the occurrence of offensive conditions, protect public health, and allow maintenance of the standards applicable to all downstream waters. Effluent channels shall be designated by the Director, such that the channels shall:

(1) be contained entirely on property owned (or otherwise controlled) by the discharger (to be demonstrated by the discharger);
(2) not contain natural waters except when such waters occur in direct response to rainfall events by overland runoff;
(3) be so constructed or modified as to minimize the migration of fish into said channel;
(4) be identified and designated on a case-by-case basis prior to permit issuance.

History Note: *Authority G.S. 143-214.1;*
Eff. October 1, 1995;
Amended Eff. January 1, 1996.

15A NCAC 02B .0229 TAR-PAMLICO RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: NUTRIENT OFFSET PAYMENTS FOR NON-TAR-PAMLICO BASIN ASSOCIATION MEMBERS

(a) All waters of the Tar-Pamlico River Basin have been supplementally classified nutrient sensitive waters (NSW) pursuant to 15A NCAC 2B .0223. The following procedures are to be implemented in accordance with 15A NCAC 2B .0223 in all waters of the Tar-Pamlico River Basin for those wastewater dischargers who are not members of the Tar-Pamlico Basin Association;
(b) Existing wastewater dischargers expanding to greater than 0.5 million gallons per day (MGD), who are not members of the Tar-Pamlico Basin Association, shall be required to offset their additional nutrient loads by funding nonpoint source control programs approved by the Division of Water Quality prior to the issuance of their NPDES permit and at each renewal. Nitrogen and phosphorus loads shall be offset at the rate of 110 percent of the cost to implement BMPs designed to reduce that same load created by expanding the discharge above 0.5 MGD. Equations for calculating the offset costs are:

(1) For an existing facility with permitted flow of less than or equal to 0.5 MGD as of December 8, 1994 expanding to greater than 0.5 MGD who is not a member of the Tar-Pamlico Basin Association:
Payment=((PF_e x (TN+TP) x 1384)-(0.5 x (TN+TP) x 1384)) x (BMP_c x 1.1) where:
Payment = the nutrient offset payment ($);
PF_e = Permitted Flow including expansion (MGD);

TN = 6 mg/l total nitrogen for domestic discharges or BAT for industrial discharges;
TP = 1 mg/l total phosphorus for domestic discharges or BAT for industrial discharges;
1384 = conversion factor;
0.5 = the permitted flow (MGD) above which payment for additional nutrient loading is required;
BMP_c = Best Management Practice cost-effectiveness rate in $/kg as set in 15A NCAC 2B .0237 of this Section;
1.1 = 110 percent of the cost for the nonpoint source controls.

(2) For an expanding facility with a permitted flow of greater than or equal to 0.5 MGD as of December 8, 1994 who is not a member of the Tar-Pamlico Basin Association:
Payment=((PF_e x (TN+TP) x 1384)-(PF x (TN+TP) x 1384)) x (BMP_c x 1.1) where:
Payment = the nutrient offset payment ($);
PF_e = Permitted Flow including expansion (MGD);
PF = Permitted Flow as of December 8, 1994 (MGD);
TN = 6 mg/l total nitrogen for domestic discharges or BAT for industrial discharges;
TP = 1 mg/l total phosphorus for domestic discharges or BAT for industrial discharges;
1384 = conversion factor;
BMP_c = Best Management Practice cost-effectiveness rate in $/kg as set in 15A NCAC 2B .0237 of this Section;
1.1 = 110 percent of the cost for the nonpoint source controls.

(c) New wastewater dischargers with permitted flows greater than or equal to 0.05 MGD, who are not members of the Tar-Pamlico Basin Association, shall be required to offset their nutrient loads by funding nonpoint source control programs approved by the Division of Water Quality prior to the issuance of their NPDES permit and at each renewal. Nitrogen and phosphorus loads shall be offset at the rate of 110 percent of the cost to implement BMPs designed to reduce that same loading created by the new discharge above 0.05 MGD. The equation for calculating the offset costs is:
Payment = PF x (TN+TP) x 1384 x (BMP_c x 1.1) where:
Payment = the nutrient offset payment ($);
PF = Permitted Flow (MGD);
TN = 6 mg/l total nitrogen for domestic discharges or BAT for industrial discharges;
TP = 1 mg/l total phosphorus for domestic discharges or BAT for industrial discharges;
1384 = conversion factor;
BMP_c = Best Management Practice cost-effectiveness rate in $/kg as set in 15A NCAC 2B .0237 of this Section;
1.1 = 110 percent of the cost for the nonpoint source controls.

(d) Existing wastewater dischargers expanding to greater than 0.5 MGD, who are not members of the Tar-Pamlico Basin Association, may petition the Commission or its designee for an exemption from Paragraph (b) of this Rule upon meeting all of the following conditions:

(1) For industrial facilities:
(A) The facility has reduced its annual average TN loading by 30 percent from its annual average 1991 TN loading or nitrogen is not part of the waste stream above background levels;
(B) The facility has reduced its annual average TP loading by 30 percent from its annual average 1991 TP loading or phosphorus is not part of the waste stream above background levels;
(C) The expansion does not result in annual average TN loading greater than 70 percent of the 1991 annual average TN load. Permit limits may be established to insure that the 70 percent load is not exceeded;
(D) The expansion does not result in annual average TP loading greater than 70 percent of the 1991 annual average TP load. Permit limits may be established to insure that the 70 percent load is not exceeded;
(E) To maintain its exemption from Paragraph (b) of this Rule, a facility must continue to meet the requirements of Subparagraph (d)(1) Parts (A) through (D) of this Rule.

(2) For municipal facilities:
(A) The facility has reduced its annual average TN loading by 30 percent from its annual average 1991 TN loading;
(B) The facility has reduced its annual average TP loading by 30 percent from its annual average 1991 TP loading;

(C) The expansion does not result in annual average TN loading greater than 70 percent of the 1991 annual average TN load. Permit limits may be established to insure that the 70 percent load is not exceeded;

(D) The expansion does not result in annual average TP loading greater than 70 percent of the 1991 annual average TP load. Permit limits may be established to insure that the 70 percent load is not exceeded;

(E) To maintain its exemption from Paragraph (b) of this Rule, a facility must continue to meet the requirements of Subparagraph (d)(2) Parts (A) through (D) of this Rule.

History Note: *Authority G.S. 143-214.1;*
Eff. April 1, 1997.

15A NCAC 02B .0230 ACTIVITIES DEEMED TO COMPLY WITH WETLANDS STANDARDS

(a) The following activities for which Section 404 permits are not required pursuant to Section 404(f)(1) of the Clean Water Act and which are not recaptured into the permitting process pursuant to Section 404(f)(2) are deemed to be in compliance with wetland standards in 15A NCAC 2B .0231 provided that they comply with the most current versions of the federal regulations to implement Section 404 (f) (US Environmental Protection Agency and US Army Corps of Engineers including 40 C.F.R. 232.3) and the Sedimentation Pollution Control Act, G.S. 113A, Article 4:

(1) normal, on-going silviculture**,** farming and ranching activities such as plowing, seeding, cultivating, minor drainage and harvesting for the production of food, fiber and forest products, or upland soil and water conservation practices, provided that relevant silvicultural activities must comply with U.S. Environmental Protection Agency and U.S. Army Corps of Engineers Memorandum to the Field entitled "Application of Best Management Practices to Mechanical Silvicultural Site Preparation Activities for the Establishment of Pine Plantations in the Southeast", November 28, 1995 which is hereby incorporated by reference including any subsequent amendments and editions;

(2) maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments or approaches, and transportation structures**,** and other maintenance, repairs or modification to existing structures as required by the NC Dam Safety Program;

(3) construction and maintenance of farm or stock ponds or irrigation ditches. In addition, new pond construction in designated river basins with riparian buffer protection regulations also must comply with relevant portions of those regulations;

(4) maintenance of drainage ditches, provided that spoil is removed to high ground, placed on top of previous spoil, or placed parallel to one side or the other of the ditch within a distance of 20 feet and spoils are placed in a manner that minimizes damages to existing wetlands; and ditch maintenance is no greater than the original depth, length and width of the ditch;

(5) construction of temporary sediment control measures or best management practices as required by the NC Sediment and Erosion Control Program on a construction site, provided that the temporary sediment control measures or best management practices are restored to natural grade and stabilized within two months of completion of the project and native woody vegetation is reestablished during the next appropriate planting season and maintained;

(6) construction or maintenance of farm roads, forest roads, and temporary roads for moving mining equipment where such roads are constructed and maintained in accordance with best management practices, as defined in 40 C.F.R. 232.3 (c)(6)(i-xv), to assure that flow and circulation patterns and chemical and biological characteristics of the navigable waters are not impaired, that the reach of navigable waters is not reduced, and that any adverse effects on the aquatic environment will be otherwise minimized.

(b) Where the Director determines, in consultation with the US Army Corps of Engineers or the US Environmental Protection Agency, and considering existing or projected environmental impact, that an activity is not exempt from permitting under Section 404(f), or where the appropriate Best Management Practices are not implemented and maintained in accordance with Paragraph (a) of this Rule, the Director may require restoration of the wetlands as well as imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties) and G.S. 143-215.6C (injunctive relief).

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215; 143-215.3; 143-215.6A; 143-215.6B; 143-215.6C; Temporary Adoption Eff. November 24, 1999; Eff. April 1, 2001.*

15A NCAC 02B .0231 WETLAND STANDARDS

(a) General. The water quality standards for all wetlands are designed to protect, preserve, restore and enhance the quality and uses of wetlands and other waters of the state influenced by wetlands. The following are wetland uses:

(1) Storm and flood water storage and retention and the moderation of extreme water level fluctuations;
(2) Hydrologic functions including groundwater discharge that contributes to maintain dry weather streamflow and, at other locations or times, groundwater recharge that replenishes the groundwater system;
(3) Filtration or storage of sediments, nutrients, toxic substances, or other pollutants that would otherwise adversely impact the quality of other waters of the state;
(4) Shoreline protection against erosion through the dissipation of wave energy and water velocity and stabilization of sediments;
(5) Habitat for the propagation of resident wetland-dependent aquatic organisms including, but not limited to fish, crustaceans, mollusks, insects, annelids, planktonic organisms and the plants and animals upon which these aquatic organisms feed and depend upon for their needs in all life stages; and
(6) Habitat for the propagation of resident wetland-dependent wildlife species, including mammals, birds, reptiles and amphibians for breeding, nesting, cover, travel corridors and food.

(b) The following standards shall be used to assure the maintenance or enhancement of the existing uses of wetlands identified in Paragraph (a) of this Rule:

(1) Liquids, fill or other solids or dissolved gases may not be present in amounts which may cause adverse impacts on existing wetland uses;
(2) Floating or submerged debris, oil, deleterious substances, or other material may not be present in amounts which may cause adverse impacts on existing wetland uses;
(3) Materials producing color, odor, taste or unsightliness may not be present in amounts which may cause adverse impacts on existing wetland uses;
(4) Concentrations or combinations of substances which are toxic or harmful to human, animal or plant life may not be present in amounts which individually or cumulatively may cause adverse impacts on existing wetland uses;
(5) Hydrological conditions necessary to support the biological and physical characteristics naturally present in wetlands shall be protected to prevent adverse impacts on:
    (A) Water currents, erosion or sedimentation patterns;
    (B) Natural water temperature variations;
    (C) The chemical, nutrient and dissolved oxygen regime of the wetland;
    (D) The movement of aquatic fauna;
    (E) The pH of the wetland; and
    (F) Water levels or elevations.
(6) The populations of wetland flora and fauna shall be maintained to protect biological integrity as defined at 15A NCAC 2B .0202.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1); RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity; Eff. October 1, 1996.*

15A NCAC 02B .0232 NEUSE RIVER BASIN- NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: BASIN NUTRIENT REDUCTION GOAL

(a) Pursuant to 1995 (Reg. Sess., 1996) N.C. Session Laws, c. 572, the Environmental Management Commission hereby establishes the goal of reducing the average annual load of nitrogen delivered to the Neuse River Estuary from point and nonpoint sources by a minimum of 30 percent of the average annual load for the period 1991 through 1995 by the year 2001. All waters of the Neuse River Basin have been supplementally classified as Nutrient Sensitive Waters (NSW) pursuant to 15A NCAC 2B .0223. The following rules shall be implemented in accordance with 15A NCAC 2B .0223 in all waters of the Neuse River Basin:

(1) Rule .0233 for protection and maintenance of riparian areas,

(2) Rule .0234 for wastewater discharges,
(3) Rule .0235 for urban stormwater management,
(4) Rules .0236 and .0238 for agricultural nitrogen reduction,
(5) Rule .0239 for nutrient management, and
(6) Rule .0240 for nitrogen offset fees.

(b) Failure to meet requirements of Rules .0233, .0234, .0235, .0236, .0238, .0239, and .0240 of this Section may result in imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C;*
Eff. August 1, 1998.

15A NCAC 02B .0233 NEUSE RIVER BASIN: NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

The following is the management strategy for maintaining and protecting existing riparian buffers in the Neuse River Basin.

(1) PURPOSE. The purpose of this Rule shall be to protect and preserve existing riparian buffers in the Neuse River Basin to maintain their nutrient removal functions.

(2) DEFINITIONS. For the purpose of this Rule, these terms shall be defined as follows:

(a) 'Channel' means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water. (current definition in Forest Practice Guidelines Related to Water Quality, 15A NCAC 01I .0102)

(b) 'DBH' means Diameter at Breast Height of a tree, which is measured at 4.5 feet above ground surface level.

(c) 'Ditch or canal' means a man-made channel other than a modified natural stream constructed for drainage purposes that is typically dug through inter-stream divide areas. A ditch or canal may have flows that are perennial, intermittent, or ephemeral and may exhibit hydrological and biological characteristics similar to perennial or intermittent streams.

(d) 'Ephemeral (stormwater) stream' means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.

(e) 'Forest plantation' means an area of planted trees that may be conifers (pines) or hardwoods. On a plantation, the intended crop trees are planted rather than naturally regenerated from seed on the site, coppice (sprouting), or seed that is blown or carried into the site.

(f) 'High Value Tree' means a tree that meets or exceeds the following standards: for pine species, 14-inch DBH or greater or 18-inch or greater stump diameter; and, for hardwoods and wetland species, 16-inch DBH or greater or 24-inch or greater stump diameter.

(g) 'Intermittent stream' means a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the conveyance of water.

(h) 'Modified natural stream' means an on-site channelization or relocation of a stream channel and subsequent relocation of the intermittent or perennial flow as evidenced by topographic alterations in the immediate watershed. A modified natural stream must have the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(i) 'Perennial stream' means a well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(j) 'Perennial waterbody' means a natural or man-made basin that stores surface water permanently at depths sufficient to preclude growth of rooted plants, including lakes, ponds, sounds, non-stream estuaries and ocean. For the purpose of the State=s riparian buffer protection program, the waterbody must be part of a natural drainageway (i.e., connected by surface flow to a stream).

(k) 'Stream' means a body of concentrated flowing water in a natural low area or natural channel on the land surface.

(l) 'Surface water' means all waters of the state as defined in G.S. 143-212 except underground waters.

(m) 'Tree' means a woody plant with a DBH equal to or exceeding five inches.

(3) APPLICABILITY. This Rule shall apply to 50-foot wide riparian buffers directly adjacent to surface waters in the Neuse River Basin (intermittent streams, perennial streams, lakes, ponds, and estuaries), excluding wetlands. Except as described in Sub-Item (4)(a)(iii) of this Rule, wetlands adjacent to surface waters or within 50 feet of surface waters shall be considered as part of the riparian buffer but are regulated pursuant to 15A NCAC 02H .0506. The riparian buffers protected by this Rule shall be measured pursuant to Item (4) of this Rule. For the purpose of this Rule, a surface water shall be present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). Riparian buffers adjacent to surface waters that do not appear on either of the maps shall not be subject to this Rule. Riparian buffers adjacent to surface waters that appear on the maps shall be subject to this Rule unless one of the following applies.

(a) EXEMPTION WHEN AN ON-SITE DETERMINATION SHOWS THAT SURFACE WATERS ARE NOT PRESENT. When a landowner or other affected party believes that the maps have inaccurately depicted surface waters, he or she shall consult the Division or the appropriate delegated local authority. Upon request, the Division or delegated local authority shall make on-site determinations. Any disputes over on-site determinations shall be referred to the Director in writing. A determination of the Director as to the accuracy or application of the maps is subject to review as provided in Articles 3 and 4 of G.S. 150B. Surface waters that appear on the maps shall not be subject to this Rule if an on-site determination shows that they fall into one of the following categories.

(i) Ditches and manmade conveyances other than modified natural streams unless constructed for navigation or boat access.

(ii) Manmade ponds and lakes that are located outside natural drainage ways.

(iii) Ephemeral (stormwater) streams.

(b) EXEMPTION WHEN EXISTING USES ARE PRESENT AND ONGOING. This Rule shall not apply to portions of the riparian buffer where a use is existing and ongoing according to the following:

(i) A use shall be considered existing if it was present within the riparian buffer as of July 22, 1997. Existing uses shall include, but not be limited to, agriculture, buildings, industrial facilities, commercial areas, transportation facilities, maintained lawns, utility lines and on-site sanitary sewage systems. Only the portion of the riparian buffer that contains the footprint of the existing use is exempt from this Rule. Activities necessary to maintain uses are allowed provided that no additional vegetation is removed from Zone 1 except that grazed or trampled by livestock and existing diffuse flow is maintained. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised, the ground is stabilized and existing diffuse flow is maintained.

(ii) At the time an existing use is proposed to be converted to another use, this Rule shall apply. An existing use shall be considered to be converted to another use if any of the following applies:

(A) Impervious surface is added to the riparian buffer in locations where it did not exist previously.

(B) An agricultural operation within the riparian buffer is converted to a non-agricultural use.

(C) A lawn within the riparian buffer ceases to be maintained.

(4) ZONES OF THE RIPARIAN BUFFER. The protected riparian buffer shall have two zones as follows:

(a) Zone 1 shall consist of a vegetated area that is undisturbed except for uses provided for in Item (6) of this Rule. The location of Zone 1 shall be as follows:

(i) For intermittent and perennial streams, Zone 1 shall begin at the most landward limit of the top of bank or the rooted herbaceous vegetation and extend landward a distance of 30 feet on all sides of the surface water, measured horizontally on a line perpendicular to the surface water.

(ii) For ponds, lakes and reservoirs located within a natural drainage way, Zone 1 shall begin at the most landward limit of the normal water level or the rooted herbaceous vegetation and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to the surface water.

(iii) For surface waters within the 20 Coastal Counties (defined in 15A NCAC 02B .0202) within the jurisdiction of the Division of Coastal Management, Zone 1 shall begin at the most landward limit of:

(A) the normal high water level;

(B) the normal water level; or

(C) the landward limit of coastal wetlands as defined by the Division of Coastal Management;

and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to the surface water, whichever is more restrictive.

(b) Zone 2 shall consist of a stable, vegetated area that is undisturbed except for activities and uses provided for in Item (6) of this Rule. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised. Zone 2 shall begin at the outer edge of Zone 1 and extend landward 20 feet as measured horizontally on a line perpendicular to the surface water. The combined width of Zones 1 and 2 shall be 50 feet on all sides of the surface water.

(5) DIFFUSE FLOW REQUIREMENT. Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation.

(a) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow before the runoff enters the Zone 2 of the riparian buffer.

(b) Periodic corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies.

(6) TABLE OF USES. The following chart sets out the uses and their designation under this Rule as exempt, allowable, allowable with mitigation, or prohibited. The requirements for each category are given in Item (7) of this Rule.

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Airport facilities: • Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer		X	X	
Archaeological activities	X			
Bridges		X		
Dam maintenance activities	X			
Drainage ditches, roadside ditches and stormwater outfalls through riparian buffers: • Existing drainage ditches, roadside ditches, and stormwater outfalls provided that they are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies • New drainage ditches, roadside ditches and stormwater	X	X		

outfalls provided that a stormwater management facility is installed to control nitrogen and attenuate flow before the conveyance discharges through the riparian buffer • New drainage ditches, roadside ditches and stormwater outfalls that do not provide control for nitrogen 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
Drainage of a pond in a natural drainage way provided that a new riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the new channel	X			
Driveway crossings of streams and other surface waters subject to this Rule: • Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet or 2, 500 square feet of riparian buffer • Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer • In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer • In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer	 X	 X X	 X	
Fences provided that disturbance is minimized and installation does not result in removal of forest vegetation	X			
Forest harvesting - see Item (11) of this Rule				
Fertilizer application: • One-time fertilizer application to establish replanted vegetation • Ongoing fertilizer application	 X			 X
Grading and revegetation in Zone 2 only provided that diffuse flow and the health of existing vegetation in Zone 1 is not compromised and disturbed areas are stabilized	X			
Greenway/hiking trails		X		
Historic preservation	X			
Landfills as defined by GS. 130A-290				X
Mining activities: • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Items (4) and (5) 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 requirements or Items (4) and (5) 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: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1[3]		X	X	
Non-electric utility line perpendicular crossing of streams and other surface waters subject to this Rule[3]: • 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 greater 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	X	X X	X X	
On-site sanitary sewage systems - new ones that use ground absorption				X
Overhead electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1 [1,2,3]	X X			
Overhead electric utility line perpendicular crossings of streams and other surface waters subject to this Rule[3] • Perpendicular crossings that disturb equal to or less than 150 linear feet of riparian buffer [1] • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer [1, 2]	X	X		
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		X		

[1] Provided that, in Zone 1, 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.

- 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 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.

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Playground equipment: • 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: • New ponds provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the pond • New ponds where a riparian buffer that meets the requirements of Items (4) and (5) 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: • 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 or one-third of an acre of riparian buffer • Railroad crossings that impact greater than 150 linear feet or one-third of an acre 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: • Road crossings that impact equal to or less than 40 linear feet of riparian buffer • Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X	
Scientific studies and stream gauging	X			
Stormwater management ponds excluding dry ponds: • New stormwater management ponds provided that a		X		

riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the pond • New stormwater management ponds where a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the pond			X	
Stream restoration	X			
Streambank stabilization		X		
Temporary roads: • 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 • Temporary roads used for bridge construction or replacement provided that restoration activities, such as soil stabilization and revegetation, are conducted immediately after construction	X	 X X		
Temporary sediment and erosion control devices: • In Zone 2 only provided that the vegetation in Zone 1 is not compromised and that discharge is released as diffuse flow in accordance with Item (5) of this Rule • In Zones 1 and 2 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	 X		
Underground electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1[3,4]	X X			
Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule:[3] • 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		

[4] Provided that, in Zone 1, 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.

- 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.

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Vegetation management: • Emergency fire control measures provided that topography is restored • Periodic mowing and harvesting of plant products in Zone 2 only • 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, Cherri 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 X			
Water dependent structures as defined in 15A NCAC 02B .0202		X		
Water supply reservoirs: • New reservoirs provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the reservoir • New reservoirs where a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the reservoir		X	X	
Water wells	X			
Wetland restoration	X			

(7) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated as exempt, allowable, allowable with mitigation and prohibited in Item (6) of this Rule shall have the following requirements:

(a) 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 Item (6) of this Rule for the specific use.

(b) ALLOWABLE. Uses designated as allowable may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule. These uses require written authorization from the Division or the delegated local authority.

(c) ALLOWABLE WITH MITIGATION. Uses designated as allowable with mitigation may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule and an appropriate mitigation strategy has been approved pursuant to Item (10) of this Rule. These uses require written authorization from the Division or the delegated local authority.

(d) PROHIBITED. Uses designated as prohibited may not proceed within the riparian buffer unless a variance is granted pursuant to Item (9) of this Rule. Mitigation may be required as one condition of a variance approval.

(8) DETERMINATION OF "NO PRACTICAL ALTERNATIVES." Persons who wish to undertake uses designated as allowable or allowable with mitigation shall submit a request for a "no practical alternatives" determination to the Division or to the delegated local authority. The applicant shall certify that the criteria identified in Sub-Item (8)(a) of this Rule are met. The Division or the delegated local authority shall grant an Authorization Certificate upon a "no practical alternatives" determination. The procedure for making an Authorization Certificate shall be as follows:

(a) For any request for an Authorization Certificate, the Division or the delegated local authority 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:

(i) 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.

(ii) 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.

(iii) Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(b) Requests for an Authorization Certificate shall be reviewed and either approved or denied within 60 days of receipt of a complete submission based on the criteria in Sub-Item (8)(a) of this Rule by either the Division or the delegated local authority. Failure to issue an approval or denial within 60 days shall constitute that the applicant has demonstrated "no practical alternatives." The Division or the delegated local authority 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:

(i) The name, address and phone number of the applicant;

(ii) The nature of the activity to be conducted by the applicant;

(iii) The location of the activity, including the jurisdiction;

(iv) 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;

(v) 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

(vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity.

(c) 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.

(9) VARIANCES. Persons who wish to undertake uses designated as prohibited may pursue a variance. The Division or the appropriate delegated local authority may grant minor variances. The variance request procedure shall be as follows:

(a) For any variance request, the Division or the delegated local authority shall make a finding of fact as to whether the following requirements have been met:

(i) 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:

(A) If the applicant complies with the provisions of this Rule, 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 shall not be considered adequate justification for a variance. Moreover, the Division or delegated local authority shall consider whether the variance is the minimum possible deviation from the terms of this Rule that shall make reasonable use of the property possible.

(B) The hardship results from application of this Rule to the property rather than from other factors such as deed restrictions or other hardship.

(C) The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, which is different from that of neighboring property.

(D) The applicant did not cause the hardship by knowingly or unknowingly violating this Rule.

(E) The applicant did not purchase the property after the effective date of this Rule, and then requesting an appeal.

(F) The hardship is unique to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice;

(ii) The variance is in harmony with the general purpose and intent of the State's riparian buffer protection requirements and preserves its spirit; and

(iii) In granting the variance, the public safety and welfare have been assured water quality has been protected, and substantial justice has been done.

(b) MINOR VARIANCES. A minor variance request pertains to activities that are proposed only to impact any portion of Zone 2 of the riparian buffer. Minor variance requests shall be reviewed and approved based on the criteria in Sub-Item (9)(a) of this Rule by the either the Division or the delegated local authority pursuant to G.S. 153A Article 18, or G.S. 160A-Article 19. The Division or the delegated local authority may attach conditions to the variance approval that support the purpose, spirit and intent of the riparian buffer protection program. Requests for appeals of decisions made by the Division shall be made to the Office of Administrative Hearings. Request for appeals made by the delegated local authority shall be made to the appropriate Board of Adjustment under G.S. 160A-388 or G.S. 153A-345.

(c) MAJOR VARIANCES. A major variance request pertains to activities that are proposed to impact any portion of Zone 1 or any portion of both Zones 1 and 2 of the riparian buffer. If the Division or the delegated local authority has determined that a major variance request meets the requirements in Sub-Item (9)(a) of this Rule, then it shall prepare a preliminary finding and submit it to the Commission. Preliminary findings on major 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 Sub-Item (9)(a) of this Rule have not been met shall be made to the Office of Administrative Hearings for determinations made by the Division 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 Sub-Item (9)(a) 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:

(i) Upon the Commission's approval, the Division or the delegated local authority shall issue a final decision granting the major variance.

(ii) Upon the Commission's approval with conditions or stipulations, the Division or the delegated local authority shall issue a final decision, which includes these conditions or stipulations.

(iii) Upon the Commission's denial, the Division or the delegated local authority shall issue a final decision denying the major variance.

(10) MITIGATION. Persons who wish to undertake uses designated as allowable with mitigation shall meet the following requirements in order to proceed with their proposed use.

(a) Obtain a determination of "no practical alternatives" to the proposed use pursuant to Item (8) of this Rule.

(b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 02B .0242.

(11) REQUIREMENTS SPECIFIC TO FOREST HARVESTING. The following requirements shall apply for forest harvesting operations and practices.

(a) The following measures shall apply in the entire riparian buffer:

(i) Logging decks and sawmill sites shall not be placed in the riparian buffer.

(ii) Access roads and skid trails shall be 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.

(iii) Timber felling shall be directed away from the stream or water body.

(iv) 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.

(v) Individual trees may be treated to maintain or improve their health, form or vigor.

(vi) Harvesting of dead or infected trees or application of pesticides necessary to prevent or control extensive tree pest and disease infestation shall be allowed. These practices must be approved by the Division of Forest Resources for a specific site. The Division of Forest Resources must notify the Division of all approvals.

(vii) Removal of individual trees that are in danger of causing damage to structures or human life shall be allowed.

(viii) Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the riparian buffer shall be allowed provided that soil disturbance is minimized. Plantings shall consist primarily of native species.

(ix) High intensity prescribed burns shall not be allowed.

(x) Application of fertilizer shall not be 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 Zone 1, 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:

(i) Tracked or wheeled vehicles are not permitted except at stream crossings designed, constructed and maintained in accordance with 15A NCAC 01I .0203.

(ii) Soil disturbing site preparation activities are not allowed.

(iii) Trees shall be removed with the minimum disturbance to the soil and residual vegetation.

(iv) The following provisions for selective harvesting shall be met:

(A) The first 10 feet of Zone 1 directly adjacent to the stream or waterbody shall be undisturbed except for the removal of individual high value trees as defined provided that no trees with exposed primary roots visible in the streambank be cut.

(B) In the outer 20 feet of Zone 1, a maximum of 50 percent of the trees greater than five inches dbh may be cut and removed. The reentry time for harvest shall be no more frequent than every 15 years, except on forest plantations 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.

(C) In Zone 2, harvesting and regeneration of the forest stand shall be allowed provided that sufficient ground cover is maintained to provide for diffusion and infiltration of surface runoff.

(12) REQUIREMENTS SPECIFIC TO LOCAL GOVERNMENTS WITH STORMWATER PROGRAMS FOR NITROGEN CONTROL. Local governments that are required to have local stormwater programs pursuant to 15A NCAC 02B .0235 shall have two options for ensuring protection of riparian buffers on new developments within their jurisdictions as follows.

(a) Obtain authority to implement a local riparian buffer protection program pursuant to 15A NCAC 02B .0241.

(b) Refrain from issuing local approvals for new development projects unless either:

(i) The person requesting the approval does not propose to impact the riparian buffer of a surface water that appears on either the most recent versions of the soil survey maps prepared by the Natural Resources Conservation Service of the United States

Department of Agriculture or the most recent versions of the 1:24,000 scale (7.5 minute quadrangle) topographic maps prepared by the United States Geologic Survey (USGS).

(ii) The person requesting the approval proposes to impact the riparian buffer of a surface water that appears on the maps described in Sub-Item (12)(b)(i) of this Rule and either:

(A) Has received an on-site determination from the Division pursuant to Sub-Item (3)(a) of this Rule that surface waters are not present;

(B) Has received an Authorization Certificate from the Division pursuant to Item (8) of this Rule for uses designated as Allowable under this Rule;

(C) Has received an Authorization Certificate from the Division pursuant to Item (8) of this Rule and obtained the Division's approval on a mitigation plan pursuant to Item (10) of this Rule for uses designated as Allowable with Mitigation under this Rule; or

(D) Has received a variance from the Commission pursuant to Item (9) of this Rule.

(13) OTHER LAWS, REGULATIONS AND PERMITS. In all cases, compliance with this Rule does not preclude the requirement to comply with all federal, state and local regulations and laws.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1995, c. 572;*
Temporary Adoption Eff. July 22, 1997;
Temporary Adoption Eff. June 22, 1999; April 22, 1998; January 22, 1998;
Eff. August 1, 2000.

15A NCAC 02B .0234 NEUSE RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: WASTEWATER DISCHARGE REQUIREMENTS

The following is the National Pollutant Discharge Elimination System (NPDES) wastewater discharge management strategy for the Neuse River Basin:

(1) Purpose. The purpose of this Rule is to establish minimum nutrient control requirements for point source discharges in the Neuse River Basin in order to maintain or restore the water quality in the Neuse River Estuary and protect its designated uses.

(2) Applicability. This Rule applies to all wastewater treatment facilities in the Neuse River Basin that receive nitrogen-bearing wastewater and are required to obtain individual NPDES permits.

(3) Definitions. For the purposes of this Rule, the following definitions apply:

(a) In regard to point source dischargers, treatment facilities, wastewater flows or discharges, or like matters:

(i) "Existing" means that which obtained a NPDES permit on or before December 31, 1995.

(ii) "Expanding" means that which increases beyond its permitted flow as defined in this Rule.

(iii) "New" means that which had not obtained a NPDES permit on or before December 31, 1995.

(b) "MGD" means million gallons per day.

(c) "Nitrogen wasteload allocation" is that portion of the Neuse River nitrogen TMDL assigned to individually permitted wastewater facilities in the basin and represents the maximum allowable load of total nitrogen to the estuary from these point source dischargers.

(d) "Nitrogen estuary allocation" or "estuary allocation" means the mass loading of total nitrogen at the estuary that is reserved for a discharger or group of dischargers. A discharger's or group's estuary allocation is equivalent to its discharge allocation multiplied by its assigned transport factor.

(e) "Nitrogen discharge allocation" or "discharge allocation" means the mass loading of total nitrogen at the point(s) of discharge that is reserved for a discharger or group of dischargers. A discharger's or group's discharge allocation is equivalent to its estuary allocation divided by its assigned transport factor.

(f) "Nitrogen TMDL," or "TMDL," means the total nitrogen load to the Neuse River estuary that is predicted to maintain adequate water quality to support all designated uses in the estuary and is approved by the United States Environmental Protection Agency in accordance with the federal Clean Water Act.

(g) "Nonpoint source load allocation" is that portion of the Neuse River nitrogen TMDL assigned to all other nitrogen sources in the basin other than individually permitted wastewater facilities and represents the maximum allowable load of total nitrogen to the estuary from these nonpoint sources.

(h) "Permitted flow" means the maximum monthly average flow authorized in a facility's NPDES permit as of December 31, 1995, with the following exceptions:

Facility Name	NPDES No.	Permitted Flow (MGD)
Benson	NC0020389	3.00
Goldsboro	NC0023949	16.80
Kenly	NC0064891	0.63
Snow Hill	NC0020842	0.50
Wilson	NC0023906	14.00

(i) "Total nitrogen" means the sum of the organic, nitrate, nitrite, and ammonia forms of nitrogen.

(j) "Transport factor" is the fraction of the total nitrogen in a discharge that is predicted to reach the estuary.

(4) This Item specifies the nitrogen wasteload allocation for point sources.

(a) Beginning with the calendar year 2003, the nitrogen wasteload allocation for point sources shall not exceed 1.64 million pounds per calendar year plus any portion of the nonpoint source load allocation purchased in accordance with the provisions in Items (7) and (8) of this Rule and 15A NCAC 02B .0240.

(b) The Commission shall order future revisions in the nitrogen wasteload allocation whenever necessary to ensure that water quality in the estuary meets all standards in 15A NCAC 02B.0200 or to conform with applicable state or federal requirements.

(5) This Item specifies nitrogen discharge allocations for point sources.

(a) Upon adoption of this Rule and until revised as provided elsewhere in this Rule, the following group and individual discharge allocations for total nitrogen shall apply in order to comply with the nitrogen wasteload allocation for point sources in Item (4) of this Rule:

(i) Dischargers with permitted flows less than 0.5 MGD shall be assigned collectively an annual discharge allocation of 138,000 pounds of total nitrogen.

(ii) Dischargers upstream of Falls Lake Dam and with permitted flows greater than or equal to 0.5 MGD shall be assigned collectively an annual discharge allocation of 443,700 pounds of total nitrogen.

(iii) Municipal dischargers downstream of Falls Lake Dam and with permitted flows greater than or equal to 0.5 MGD shall be assigned collectively an annual discharge allocation of 2,021,400 pounds of total nitrogen.

(iv) Industrial dischargers downstream of Falls Lake Dam and with permitted flows greater than or equal to 0.5 MGD shall be assigned collectively an annual discharge allocation of 396,900 pounds of total nitrogen.

(v) Within each group in Sub-Items (i) - (iv) of this Item, each individual discharger shall be assigned an individual discharge allocation and the equivalent estuary allocation. Each discharger's discharge allocation shall be calculated as its permitted flow divided by the total permitted flow of the group, multiplied by the group discharge allocation.

(b) In the event that the nitrogen wasteload allocation for point sources is revised, as provided in Item (4) of this Rule, the Commission shall apportion the revised load among the existing facilities and shall revise discharge allocations as needed. The Commission may consider such factors as:

(i) fate and transport of nitrogen in the river basin;

(ii) technical feasibility and economic reasonableness of source reduction and treatment methods;

(iii) economies of scale;

(iv) nitrogen control measures already implemented;

(v) probable need for growth and expansion;

(vi) incentives for responsible planning, utilities management, resource protection, and cooperative efforts among dischargers; and

(vii) other factors the Commission deems relevant.

(6) This Item specifies nutrient controls for existing facilities.

(a) Beginning with calendar year 2003, each discharger with a permitted flow equal to or greater than 0.5 MGD shall be subject to a total nitrogen permit limit equal to its individual discharge allocation, pursuant to Item (5) of this Rule.

(b) Effective January 1, 2003, dischargers shall be subject to the following limits for total phosphorus:

(i) All existing facilities above Falls Lake Dam with permitted flows greater than or equal to 0.05 MGD shall meet a quarterly average total phosphorus limit of 2 mg/L.

(ii) All existing facilities below Falls Lake Dam with permitted flows greater than or equal to 0.5 MGD shall meet a quarterly average total phosphorus limit of 2 mg/L.

(c) The director shall establish more stringent limits for nitrogen or phosphorus upon finding that such limits are necessary to protect water quality standards in localized areas.

(7) This Item specifies nutrient controls for new facilities.

(a) New facilities proposing to discharge wastewater shall evaluate all practical alternatives to surface water discharge, pursuant to 15A NCAC 02H .0105(c)(2), prior to submitting an application to discharge.

(b) New facilities submitting an application shall make every reasonable effort to obtain estuary allocation for the proposed wastewater discharge from existing dischargers. If estuary allocation cannot be obtained from the existing facilities, new facilities may purchase a portion of the nonpoint source load allocation for a period of 30 years at a rate of 200 percent of the cost as set in 15A NCAC 02B .0240 to implement practices designed to offset the loading created by the new facility. Payment for each 30-year portion of the nonpoint source load allocation shall be made prior to the ensuing permit issuance.

(c) No application for a new discharge shall be made or accepted without written documentation demonstrating that the requirements of Sub-Items (a) and (b) of this Item have been met.

(d) The nitrogen discharge allocation for a new facility treating municipal or domestic wastewaters shall not exceed the mass equivalent to a concentration of 3.5 mg/L at the maximum monthly average flow limit in the facility's NPDES permit.

(e) The nitrogen discharge allocation for a new facility treating industrial wastewaters shall not exceed the mass equivalent of either the best available technology economically achievable or a discharge concentration of 3.2 mg/L at the maximum monthly average flow limit in the facility's NPDES permit, whichever is less.

(f) New dischargers must meet a monthly average total phosphorous limit of 1 mg/L.

(g) The director shall establish more stringent limits for nitrogen or phosphorus upon finding that such limits are necessary to protect water quality standards in localized areas.

(8) This Item specifies nutrient controls for expanding facilities.

(a) Expanding facilities shall evaluate all practical alternatives to surface water discharge, pursuant to 15A NCAC 02H .0105(c)(2), prior to submitting an application to discharge.

(b) Facilities submitting an application for increased discharge shall make every reasonable effort to minimize increases in their nitrogen discharges, such as reducing sources of nitrogen to the facility or increasing the nitrogen treatment capacity of the facility; or to obtain estuary allocation from existing dischargers.

(c) No application for an expanding facility shall be made or accepted without written documentation demonstrating that the requirements of Sub-Items (a) and (b) of this Item have been met.

(d) If these measures do not produce adequate estuary allocation for the expanded flows, facilities may purchase a portion of the nonpoint source load allocation for a period of 30 years at a rate of 200 percent of the cost as set in 15A NCAC 02B .0240 to implement practices designed to offset the loading created by the new facility. Payment for each 30-year portion of the nonpoint source load allocation shall be made prior to the ensuing permit issuance.

(e) The nitrogen discharge allocation for an expanded facility treating municipal or domestic wastewaters shall not exceed the mass equivalent to a concentration of 3.5 mg/L at the maximum monthly average flow limit in the NPDES permit, or its existing allocation, whichever is greater.

(f) The nitrogen discharge allocation for expanding facilities of an industrial nature shall not exceed the mass equivalent to the best available technology economically achievable or a concentration of 3.2 mg/L at the maximum monthly average flow limit in the facility's modified NPDES permit, whichever is less. If the resulting mass is less than the facility's existing discharge allocation, the existing discharge allocation shall not be reduced.

(g) Expanding facilities must meet a monthly average total phosphorous limit of 1 mg/L unless they are a member in good standing of a group compliance association described in Item (9) of this Rule, in which case they must meet a quarterly average total phosphorus limit of 2 mg/L.

(h) The director shall establish more stringent limits for nitrogen or phosphorus upon finding that such limits are necessary to protect water quality standards in localized areas.

(9) This Item describes the option for dischargers to join a group compliance association to collectively meet nutrient load allocations.

(a) Any or all facilities within the basin may form a group compliance association to meet nitrogen estuary allocations collectively. Any such association must apply for and shall be subject to an NPDES permit that establishes the effective total nitrogen allocations for the association and for its members. More than one group compliance association may be established. No facility may belong to more than one association at a time.

(b) No later than 180 days prior to expiration of the association NPDES permit, the association and its members shall submit an application for a NPDES permit for the discharge of total nitrogen to the surface waters of the Neuse River Basin. The NPDES permit shall be issued to the association and its members as co-permittees ("association NPDES permit"). It shall contain the association's estuary allocation and individual estuary allocations for each of the members.

(c) An association's estuary allocation of total nitrogen shall be the sum of its members' individual estuary allocations plus any other estuary allocation obtained by the association or its members.

(d) An association may reapportion the individual estuary allocations of its members on an annual basis. The association NPDES permit shall be modified to reflect the revised individual estuary allocations.

(e) Beginning in calendar year 2003, if an association does not meet its estuary allocation, it shall make offset payments for nonpoint source controls no later than May 1 of the following year at the rate set in 15A NCAC 02B .0240.

(f) Association members shall be exempted from the permit limits for total nitrogen contained in their individually issued NPDES permits so long as they remain members in an association. Association members shall be exempted from their individual estuary allocations in the association NPDES permit as long as the association is in compliance with its estuary allocation. If the association fails to meet its estuary allocation, the association and the members that have failed to meet their individual estuary allocations in the association NPDES permit will be out of compliance with the association NPDES permit.

(10) Regional Facilities. In the event that an existing discharger or group of dischargers accepts wastewater from another NPDES-permitted treatment facility in the Neuse River Basin and that acceptance results in the elimination of the discharge from the treatment facility, the eliminated facility's total nitrogen estuary allocation shall be transferred and added to the accepting discharger's estuary allocation.

History Note: *Authority G.S. 143-214.1; 143-215; 143-215.1; 143-215.3(a) (1); S.L. 1995, c. 572;*
Temporary Adoption Eff. January 22, 1998;
Eff. August 1, 1998;
Temporary Amendment Eff. March 15, 2000;
Temporary Amendment Expired on December 10, 2000;
Amended Eff. April 1, 2003.

15A NCAC 02B .0235 NEUSE RIVER BASIN-NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: BASINWIDE STORMWATER REQUIREMENTS

The following is the urban stormwater management strategy for the Neuse River Basin:

(1) The following local governments are designated, based on population and other factors, as parties responsible for implementing stormwater management requirements as part of the Neuse River Nutrient Sensitive Waters stormwater management strategy:
   (a) Cary,
   (b) Durham,
   (c) Garner,
   (d) Goldsboro,
   (e) Havelock,
   (f) Kinston,
   (g) New Bern,
   (h) Raleigh,
   (i) Smithfield,
   (j) Wilson,
   (k) Durham County,
   (l) Johnston County,
   (m) Orange County,
   (n) Wake County, and
   (o) Wayne County.

(2) Other incorporated areas and other counties, not listed under Item (1) of this Rule, may seek to implement their own local stormwater management plan by complying with the requirements specified in Items (5) and (6) of this Rule.

(3) The Environmental Management Commission may designate additional local governments by amending this Rule based on their potential to contribute significant nutrient loads to the Neuse River. At a minimum, the Commission shall review the need for additional designations to the stormwater management program as part of the basinwide planning process for the Neuse River Basin. Any local governments that are designated at a later date under the Neuse Nutrient Sensitive Waters Stormwater Program shall meet the requirements under Items (5) and (6) of this Rule.

(4) Local stormwater programs shall address nitrogen reductions for both existing and new development and include the following elements:
   (a) Review and approval of stormwater management plans for new developments to ensure that:
      (i) the nitrogen load contributed by new development activities is held at 70 percent of the average nitrogen load contributed by the 1995 land uses of the non-urban areas of the Neuse River Basin. The local governments shall use a nitrogen export standard of 3.6 pounds/acre/year, determined by the Environmental Management Commission as 70 percent of the average collective nitrogen load for the 1995 non-urban land uses in the basin above New Bern. The EMC may periodically update the design standard based on the availability of new scientific information. Developers shall have the option of offsetting part of their nitrogen load by funding offsite management measures by making payment to the NC Ecosystem Enhancement Program or to another seller of offset credits approved by the Division or may implement other offset measures contingent upon approval by the Division. Offset payments shall meet the requirements of Rule .0240 of this Section, which establishes procedural requirements for nutrient offset payments. However, before using offset payments, the development must attain, at a minimum, a nitrogen export that does not exceed 6 pounds/acre/year for residential development and 10 pounds/acre/year for commercial or industrial development;
      (ii) For the following local governments and any additional local governments identified in rule by the Commission, the post-construction requirements of 15 NCAC 02B .0277 shall supersede the requirements in this Sub-item for areas within their jurisdiction within the watershed of the Falls of the Neuse Reservoir: Durham, Raleigh, Durham County, Orange County, and Wake County; and
      (iii) there is no net increase in peak flow leaving the site from the predevelopment conditions for the 1-year, 24-hour storm.
   (b) Review of new development plans for compliance with requirements for protecting and maintaining existing riparian areas as specified in 15A NCAC 02B .0233;

(c) Implementation of public education programs;
(d) Identification and removal of illegal discharges;
(e) Identification of suitable locations for potential stormwater retrofits (such as riparian areas) that could be funded by various sources; and
(f) Submittal of an annual report on October 30 to the Division documenting progress on and net changes to nitrogen load from the local government's planning jurisdiction.

(5) Local governments shall implement stormwater management programs according to their plans approved by the Commission as of March 2001. Local governments administering a stormwater management program shall submit annual reports to the Division documenting their progress and net changes to nitrogen load by October 30 of each year.

(6) If a local government fails to properly implement an approved plan, then stormwater management requirements for existing and new urban areas within its jurisdiction shall be administered through the NPDES municipal stormwater permitting program per 15A NCAC 02H .0126:
(a) Subject local governments shall develop and implement comprehensive stormwater management programs, tailored toward nitrogen reduction, for both existing and new development.
(b) These stormwater management programs shall provide all components that are required of local government stormwater programs in Sub-items (4)(a) through (f) of this Rule.
(c) Local governments that are subject to an NPDES permit shall be covered by the permit for at least one permitting cycle (five years) before they are eligible to submit a local stormwater management program for consideration and approval by the EMC.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 1995, c. 572;*
Eff. August 1, 1998;
Amended Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).

15A NCAC 02B .0236 NEUSE RIVER BASIN-NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: AGRICULTURAL NITROGEN LOADING REDUCTION

All persons engaging in agricultural operations in the Neuse River Basin, including those related to crops, livestock, and poultry, shall collectively achieve and maintain a 30 percent net total nitrogen loading reduction from the cumulative average 1991-1995 nitrogen loadings. In addition to requirements set forth in general permits for animal operations issued pursuant to G.S. 143-215.10C, these Rules apply to all livestock and poultry operations, regardless of size, in the Neuse River Basin. A management strategy to achieve this reduction is specified in Rule .0238 of this Rule.

History Note: *Authority G.S. 143.214.1; 143.214.7; 143.215.3(a)(1).*
Eff. August 1, 1998.

15A NCAC 02B .0237 BEST MANAGEMENT PRACTICE COST-EFFECTIVENESS RATE

The Best Management Practice cost-effectiveness rate (BMPc) represents the cost to achieve a reduction of one kilogram of total nitrogen through the use of BMPs. This rate shall be used for determining cost of nutrient controls and shall be twenty-nine dollars per kilogram ($29/kg).

History Note: *Authority G.S. 143-214.1;*
Eff. April 1, 1997.

15A NCAC 02B .0238 NEUSE RIVER BASIN-NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: AGRICULTURAL NITROGEN REDUCTION STRATEGY

The following requirements apply to all persons in the Neuse River Basin who engage in agricultural operations. Agricultural operations are activities which relate to the production of crops, livestock, and poultry.

(1) All persons engaging in agricultural operations in the Neuse River Basin shall collectively achieve and maintain a 30 percent net total nitrogen loading reduction from the cumulative average 1991-1995 nitrogen loadings within five years from the effective date of this Rule. Persons subject to this Rule are provided with two options for meeting the requirements of this Rule. The first option is to sign-up for and participate in implementing a collective local strategy for agricultural nitrogen reduction as described in Item (7) of this Rule. This option allows site-specific plans to be developed for those operations where further nitrogen reduction practices are necessary to achieve the collective reduction goal. The second option requires the implementation of standard Best Management Practices as specified in Item (8) of this Rule. Failure to meet requirements of this Rule may result in imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

(2) Formation and membership of the Basin Oversight Committee. The Environmental Management Commission shall delegate to the Secretary of the Department of Environment and Natural Resources the responsibility of forming a Basin Oversight Committee.

(a) The Secretary shall solicit one nomination for membership on this Committee from each of the following agencies:

(i) Division of Soil and Water Conservation,

(ii) United States Department of Agriculture- Natural Resources Conservation Service,

(iii) North Carolina Department of Agriculture,

(iv) North Carolina Cooperative Extension Service, and

(v) Division of Water Quality.

(b) The Secretary shall also solicit one nomination that represents environmental interests, one nomination that represents agricultural interests, and one from the scientific community with experience related to water quality problems in the Neuse River Basin.

(c) The Secretary, Department of Environment and Natural Resources, shall appoint members of the Basin Oversight Committee from the nominees provided in Sub-Items (2)(a) and (2)(b) of this Rule. Members shall be appointed for a term not to exceed five years and shall serve at the pleasure of the Secretary. The United States Department of Agriculture-Natural Resources Conservation Service member shall serve in an "ex-officio" non-voting capacity and shall function as a technical program advisor to the Committee.

(3) Role of the Basin Oversight Committee. The Environmental Management Commission shall delegate the following responsibilities to the Basin Oversight Committee.

(a) Develop a tracking and accounting methodology, as described below, for evaluating total nitrogen loading from agricultural operations and progress toward reaching the total nitrogen net loading reduction from the implementation BMPs within the Neuse River Basin. The accountability methodology must demonstrate how the nitrogen loading reduction can be met collectively by implementing best management practices approved by the Soil and Water Conservation Commission that include, but are not limited to, water control structures, riparian area establishment, and nutrient management.

(b) Submit a draft accountability process in accordance with the requirements in Sub-Items (3)(a) and (3)(c) of this Rule to the Environmental Management Commission for review within six months after the effective date of the rule and the final accountability process to the Environmental Management Commission for approval within one year after the effective date of the rule. The Environmental Management Commission shall approve the accountability process if it meets requirements in Sub-Items (3)(a) and (3)(c) of this Rule. If the Basin Oversight Committee fails to submit an approvable accountability process to the Environmental Management Commission, then the Environmental Management Commission may accept alternative accountability process proposals within 15 months of the effective date of this Rule. If the Environmental Management Commission fails to receive an approvable accountability process, then the Environmental Management Commission may require all agricultural operations to follow the standard Best Management Practices option as specified in Item (8) of this Rule.

(c) Include in the accountability process a method to accurately track implementation of BMPs, including location and type of BMPs; to estimate nitrogen reductions from BMP implementation; to quantify increases or decreases in nitrogen loading due to changes in land use, modified agricultural activity, or atmospheric nitrogen loading, based on the best available scientific

information; to ensure operation and maintenance of BMPs, including year round management for water control structures; to address life expectancy of BMPs; and a method to ensure maintenance of the nitrogen net loading reduction after the initial five years of this Rule, including substitute BMPs to replace expired practices and additional BMPs to offset new sources of nitrogen.

(d) Calculate a separate total nitrogen loading for agricultural lands in the Neuse River Basin above and below New Bern based on the average of 1991-1995 conditions. Based on this loading, calculate a separate 30 percent net reduction. Loading calculations must include atmospheric emissions and deposition of nitrogen from agricultural lands based on the best available scientific information. Allocate to counties or watersheds, as allowed in Sub-Item (4)(a) of this Rule, within the Neuse River Basin their portion of the calculated nitrogen loading reduction from agricultural operations, including any division of the reduction between specific categories of agricultural operations. Each county or watershed may not have to reduce individually its nitrogen loading by 30 percent; however, the nitrogen loading reduction from all counties or watershed above New Bern shall collectively meet their total nitrogen reduction and all counties or watersheds below New Bern shall collectively meet their total nitrogen reduction. If the Basin Oversight Committee fails to allocate the nitrogen loading reductions from agricultural operations to counties or watersheds within the Neuse River Basin, the Environmental Management Commission may assign the agricultural nitrogen reductions based on the approved accountability process as described in Sub-Items (3)(a) and (3)(c) of this Rule.

(e) Review, approve and summarize county nitrogen reduction strategies and present these strategies to the Environmental Management Commission for approval within two years from the effective date of this Rule.

(f) Review, approve and summarize local nitrogen reduction annual reports and present these reports to the Environmental Management Commission each October. Information to be included in the Annual Report is described in Item (5)(d) of this Rule.

(4) Formation and membership of the Local Advisory Committees. The Environmental Management Commission shall delegate to the Directors of the Division of Water Quality and Division of Soil and Water Conservation the responsibility of forming Local Advisory Committees.

(a) The Directors shall form Local Advisory Committees in each county (or watershed specified by the Basin Oversight Committee) within the Neuse River Basin. The Directors shall solicit nominations for membership on the Local Advisory Committee from each of the following local agencies:

(i) Soil and Water Conservation District,

(ii) United States Department of Agriculture- Natural Resources Conservation Service,

(iii) North Carolina Department of Agriculture,

(iv) North Carolina Cooperative Extension Service,

(v) North Carolina Division of Soil and Water Conservation, and

(vi) The Directors shall also solicit at least two nominations that represents a local farmer in the county watershed.

The Soil and Water Conservation District may be designated by the Basin Oversight Committee as the lead agency on the Local Advisory Committee.

(b) The Environmental Management Commission and Soil and Water Conservation Commission shall appoint members of Local Advisory Committee from the nominees provided in Sub-Item (4)(a) of this Rule and shall be appointed for a term not to exceed five years and shall serve at the pleasure of the Commissions.

(5) Role of the Local Advisory Committees. The Environmental Management Commission shall delegate the following responsibilities to employees of the Department who are members of the Local Advisory Committees and employees of the Division of Soil and Water Conservation or its designee. These employees shall act with advice from the Local Advisory Committees.

(a) Conduct a sign-up process for persons wishing to voluntarily implement the local nitrogen reduction strategy as specified in Item (7) of this Rule. This sign-up process shall be completed within one year following the effective date of this Rule.

(b) Develop local nitrogen reduction strategies that meet the nitrogen loading reduction goal for agricultural operations assigned by the Basin Oversight Committee. The local strategies shall be

designed to achieve the required nitrogen loading reduction within five years from the effective date of this Rule. A matrix of best management practice options, which account for stream order, floodplain width, and regional variations in soil types and topography, may be used in developing the local nitrogen reduction strategies. Local nitrogen reduction strategies must specify the name and location of participant agricultural farming operations, BMPs which will be required as part of the plan, estimated nitrogen reduction, schedule for BMP implementation, and operation and maintenance requirements. If the Local Advisory Committee fails to develop the local nitrogen reduction strategy, the Environmental Management Commission may develop the strategy based on the tracking and accounting method approved by the Environmental Management Commission.

(c) Submit an annual report to the Basin Oversight Committee each May on net total nitrogen loading reductions from agricultural operations, the implementation of BMPs for nitrogen control, and progress towards the total nitrogen loading reduction requirements in the Neuse River Basin above and below New Bern.

(d) Include in the annual report, at a minimum, documentation on the BMPs implemented (including type and location), their costs, documentation of any expired contracts for BMPs, estimated nitrogen net loading reductions achieved as a result of those BMPs, any increases or decreases in nitrogen loading resulting from changes in land use or modified agricultural-related activity, discussion of operation and maintenance of BMPs, and a summary of the estimated load from agricultural operations for the previous year, and any modifications to the accounting methodology. Information shall be provided in the annual report on the status of BMP implementation and estimated total nitrogen reduction by all agricultural operations within the Neuse River Basin in each county or watershed. The annual report shall also be summarized separately for cropland, livestock and poultry activities.

(6) Options for meeting the collective total nitrogen net loading reduction requirement. Each agricultural operation in the Neuse River Basin shall have two options for meeting the requirements of this Rule. The options are to either implement a local nitrogen reduction strategy, specified by Item (7) of this Rule, or implement standard Best Management Practices specified by Item (8) of this Rule.

(7) Local nitrogen reduction strategy option. All persons subject to this Rule that choose to implement the county nitrogen reduction plan must complete the sign-up process that will be conducted per the requirements of Item (5)(a) of this Rule. This sign-up process will be completed within one year from the effective date of this Rule. If a person subject to this Rule does not complete the sign-up process, he shall be subject to implementation of Best Management Practices as specified in Item (8) of this Rule. Persons who choose to participate in the local nitrogen reduction strategy must commit and implement their portion of the plan within five years of the effective date of this Rule. A person may withdraw from the local nutrient reduction strategy up until the time that the local strategy is finalized by the Local Advisory Committee and the person signs the specific plan for his property, which represents his commitment to implement the plan within five years of the effective date of the rules. After a person has made the commitment to implement the local strategy by signing the plan for his property, then such persons may not withdraw from the local nitrogen reduction strategy during the initial five-year period. The local nitrogen reduction strategy is not required to be more stringent than the standard best management practice option provided that the net nitrogen reduction goals are met collectively; however, the Local Advisory Committees may develop strategies that achieve reductions of greater than 30 percent.

(8) Standard best management practice option. If a person subject to this Rule does not complete the sign-up process for implementation of the local nitrogen reduction strategy, then he shall implement the following best management practices within four years following the effective date of this Rule.

(a) A forested riparian area, as described in Sub-Item (8)(a)(i)-(ii) of this Rule, is required on all sides of surface waters in the Neuse River Basin (intermittent streams, perennial streams, lakes, ponds and estuaries) as indicated on the most recent versions of U.S.G.S. 1:24,000 scale (7.5 minute quadrangle) topographic maps or other site-specific evidence. Design and installation of the forested riparian area shall be such that, to the maximum extent possible, sheet flow of surface water is achieved. Any activities that would result in water quality standard violations or disrupt the structural or functional integrity of the forested riparian area are prohibited. The protected riparian area shall have two zones as follows:

(i) Zone 1 shall be undisturbed forest. Zone 1 begins at the top of bank for intermittent streams and perennial streams without tributaries and extends landward a distance of 30 feet on each side of the waterbody, measured horizontally on a line perpendicular to the waterbody. For all other waterbodies, Zone 1 begins at the top of bank or the mean high water line and extends landward a distance of 30 feet, measured horizontally on a line perpendicular to the waterbody. Forest vegetation of any width that exists in Zone 1 as of July 22, 1997 must be preserved and maintained in accordance with Sub-Items (8)(a)(i)(A)-(E) of this Rule. The application of fertilizer in Zone 1 is prohibited. The following practices and activities are allowed in Zone 1:

(A) Natural regeneration of forest vegetation and planting vegetation to enhance the riparian area if disturbance is minimized, provided that any plantings shall primarily consist of locally native trees and shrubs;

(B) Selective cutting of individual trees of high value in the outer 20 feet of Zone 1, provided that the basal area of this outer 20-foot wide area remains at or above 75 square feet per acre and is computed according to the following method. Basal area of this outer 20-foot wide area shall be computed every 100 feet along the stream to ensure even distribution of forest vegetation and shall be based on all trees measured at 4.5 feet from ground level. No tracked or wheeled equipment is allowed in Zone 1 except at stream crossings which are designed, constructed and maintained in accordance with Forest Practice Guidelines Related to Water Quality (15A NCAC 1J .0201 - .0209);

(C) Horticulture or silvicultural practices to maintain the health of individual trees;

(D) Removal of individual trees which are in danger of causing damage to dwellings, other structures, or the stream channel; and

(E) Removal of dead trees and other timber cutting techniques necessary to prevent extensive pest or disease infestation if recommended by the Director, Division of Forest Resources and approved by the Director, Division of Water Quality.

(ii) Zone 2: begins at the outer edge of Zone 1 and extends landward a minimum of 20 feet as measured horizontally on a line perpendicular to the waterbody. The combined minimum width of Zones 1 and 2 shall be 50 feet on all sides of the waterbody. Vegetation in Zone 2 shall consist of a dense ground cover composed of herbaceous or woody species which provides for diffusion and infiltration of runoff and filtering of pollutants. The following practices and activities are allowed in Zone 2 in addition to those allowed in Zone 1: Periodic mowing and removal of plant products such as timber, nuts, and fruit is allowed on a periodic basis provided the intended purpose of the riparian area is not compromised by harvesting, disturbance, or loss of forest or herbaceous ground cover. Forest vegetation in Zone 2 may be managed to minimize shading on adjacent land outside the riparian area if the water quality function of the riparian area is not compromised.

(iii) The following practices and activities are not allowed in Zone 1 and Zone 2:

(A) Land disturbing activities and placement of fill and other materials, other than those allowed in Items (8)(a)(i) and (8)(b) of this Rule;

(B) New development;

(C) New on-site sanitary sewage systems which use ground absorptions;

(D) Any activity that threatens the health and function of the vegetation including, but not limited to, application of fertilizer or chemicals in amounts exceeding the manufacturer's recommended rate, uncontrolled sediment sources on adjacent lands, and the creation of any areas with bare soil.

(iv) Timber removal and skidding of trees in the riparian area shall be directed away from the water course or water body. Skidding shall be done in a manner to prevent creation of ephemeral channels perpendicular to the water body. Any tree removal must be performed in a manner that does not compromise the intended purpose of the riparian

area and is in accordance with the Forest Practices Guidelines Related to Water Quality (15A NCAC 1J .0201-.0209).

(b) The following waterbodies and land uses are exempt from the riparian area requirement:

(i) Ditches and manmade conveyances, other than modified natural streams, which under normal conditions do not receive drainage waters from any tributary ditches, canals, or streams, unless the ditch or manmade conveyance delivers runoff directly to waters classified in accordance with 15A NCAC 2B .0100;

(ii) Ditches and manmade conveyances other than modified natural streams which are used exclusively for drainage of silvicultural land or naturally forested areas. All forest harvesting operations shall be in compliance with North Carolina's Forest Practices Guidelines Related to Water Quality;

(iii) Areas mapped as perennial streams, intermittent streams, lakes, ponds or estuaries on the most recent versions of United States Geological Survey 1:24,000 scale (7.5 minute quadrangle) topographic maps where no perennial, intermittent waterbody, or lakes, ponds or estuaries exists on the ground;

(iv) Ponds and lakes created for animal watering, irrigation, or other agricultural uses that are not part of a natural drainage way that is classified in accordance with 15A NCAC 2B .0100;

(v) Water dependent structures as defined in 15A NCAC 2B .0202 provided that they are located, designed, constructed and maintained to provide maximum nutrient removal, to have the least adverse effects on aquatic life habitat and to protect water quality;

(vi) The following uses may be allowed where no practical alternative exists. A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration or density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters. Also, these structures shall be located, designed, constructed, and maintained to have minimal disturbance, to provide maximum nutrient removal and erosion protection, to have the least adverse effects on aquatic life and habitat, and to protect water quality to the maximum extent practical through the use of best management practices:

(A) Road crossings, railroad crossings, bridges, airport facilities, and utility crossings may be allowed if conditions specified in Sub-Item (8)(b)(vi) of this Rule are met;

(B) Stormwater management facilities and ponds, and utility construction and maintenance corridors for utilities such as water, sewer or gas, may be allowed in Zone 2 of the riparian area as long as the conditions specified in Sub-Item (8)(b)(vi) of this Rule are met and they are located at least 30 feet from the top of bank or mean high water line. Additional requirements for utility construction and maintenance corridors are listed in Sub-Item (8)(b)(vi) of this Rule.

(vii) A corridor for the construction and maintenance of utility lines, such as water, sewer or gas, (including access roads and stockpiling of materials) may run parallel to the stream and may be located within Zone 2 of the riparian area, as long as no practical alternative exists and they are located at least 30 feet from the top of bank or mean high water line and best management practices are installed to minimize runoff and maximize water quality protection to the maximum extent practicable. Permanent, maintained access corridors shall be restricted to the minimum width practicable and shall not exceed 10 feet in width except at manhole locations. A 10 feet by 10 feet perpendicular vehicle turnaround is allowed provided they are spaced at least 500 feet apart along the riparian area;

(viii) Stream restoration projects, scientific studies, stream gauging, water wells, passive recreation facilities such as boardwalks, trails, pathways, historic preservation and archaeological activities are allowed; provided that they are located in Zone 2 and are at least 30 feet from the top of bank or mean high water line and are designed, constructed and maintained to provide the maximum nutrient removal and erosion protection, to have

the least adverse effects on aquatic life and habitat, and to protect water quality to maximum extent practical through the use of best management practices. Activities that must cross the stream or be located within Zone 1 are allowed as long as all other requirements of this Item are met;

(ix) Stream crossings associated with timber harvesting are allowed if performed in accordance with the Forest Practices Guidelines Related to Water Quality (15A NCAC 1J.0201-.0209); and

(x) In addition to exceptions included in Sub-Item (8)(b)(i)-(ix), canals, ditches, and other drainage conveyances are exempt from the riparian area requirement if both water control structures with a water control structure management plan and a nutrient management plan, are implemented on the adjacent agricultural land according to the standards and specifications of the USDA - Natural Resources Conservation Service or the standards and specifications adopted by the NC Soil and Water Conservation Commission. The water control structures and nutrient management practices must provide equivalent protection and directly affect the land and waterbodies draining into the waterbody exempted from the riparian area requirement. To the maximum extent practical, water control structures shall be managed to maximize nitrogen removal throughout the year. A technical specialist designated pursuant to rules adopted by the Soil and Water Conservation Commission must provide written approval that the nutrient management and water management plans meet the standards and specifications of the USDA - Natural Resources Conservation Service or the standards and specifications adopted by the NC Soil and Water Conservation Commission. If the nutrient management plans and water management plans are not implemented, then a riparian area pursuant to this Section is required.

(c) The following are modifications to the riparian area requirements.

(i) On agricultural land where either water control structures with a water control structure management plan, or a nutrient management plan is implemented according to the standards and specifications of the USDA - Natural Resources Conservation Service or the standards and specifications adopted by the NC Soil and Water Conservation Commission, then a 20-ft forested or a 30-ft vegetated buffer is required. The water control structures or nutrient management practices must provide equivalent protection and directly affect the land and waterbodies draining into the waterbody with a modified buffer requirement. To the maximum extent practical, water control structures shall be managed to maximize nitrogen removal throughout the year. A technical specialist designated pursuant to rules adopted by the Soil and Water Conservation Commission must provide written approval that the nutrient management plan meets the standards and specifications of the USDA - Natural Resources Conservation Service or the standards and specifications adopted by the NC Soil and Water Conservation Commission.

(ii) A vegetated riparian area may be substituted for an equivalent width of forested riparian area within 100 feet of tile drainage.

(iii) Where the riparian area requirements would result in an unavoidable loss of tobacco allotments [(7 CFR 723.220(c)] and the BMPs of controlled drainage or nutrient management are not in place, forest cover is required only in the first 20 feet of the riparian area.

(d) Maintenance of Zones 1 and 2 is required in accordance with this Rule.

(i) Sheet flow must be maintained to the maximum extent practical through dispersing concentrated flow and re-establishment of vegetation to maintain the effectiveness of the riparian area.

(ii) Concentrated runoff from new ditches or manmade conveyances must be dispersed into sheetflow before the runoff enters Zone 2 of the riparian area. Existing ditches and manmade conveyances, as specified in Sub-Item (8)(b)(ii) of this Rule, are exempt from this requirement; however, care shall be taken to minimize pollutant loading through these existing ditches and manmade conveyances from fertilizer application or erosion.

(iii) Periodic corrective action to restore sheet flow shall be taken by the landowner if necessary to impede the formation of erosion gullies which allow concentrated flow to bypass treatment in the riparian area.

(e) Periodic maintenance of modified natural streams such as canals is allowed provided that disturbance is minimized and the structure and function of the riparian area is not compromised. A grassed travelway is allowed on one side of the waterbody when alternative forms of maintenance access are not practical. The width and specifications of the travelway shall be only that needed for equipment access and operation. The travelway shall be located to maximize stream shading.

(f) Where the standards and management requirements for riparian areas are in conflict with other laws, regulations, and permits regarding streams, steep slopes, erodible soils, wetlands, floodplains, forest harvesting, surface mining, land disturbance activities, development in Coastal Area Management Act Areas of Environmental Concern, or other environmental protection areas, the more protective shall apply.

(g) The Environmental Management Commission acknowledges that best management practices under the standard management practice option of this Rule do not fully address nitrogen loading, including atmospheric emissions and deposition, from animal operations. As information becomes available on nitrogen loadings from animal operations and best management practices to control these loadings, other best management practices from animal operations may be required by the Commission as necessary to achieve equivalent reduction in nitrogen loadings therefrom. These additional best management practices shall be required if deemed necessary to achieve a net total nitrogen loading reduction from the animal operations based on average 1991-1995 conditions.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1);*
Eff. August 1, 1998.

15A NCAC 02B .0239 NEUSE RIVER BASIN: NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: NUTRIENT MANAGEMENT

The following is the management strategy for nutrient management in the Neuse River Basin:

(1) The following persons shall obtain a certificate, issued within five years of the effective date of this Rule by the Cooperative Extension Service or the Division of Water Quality, verifying completion of training and continuing education in nutrient management. Within one year from the effective date of this Rule, the Division of Water Quality, in cooperation with the Cooperative Extension Service, shall conduct a sign-up process for persons wishing to take the nutrient management training. If these persons fail to obtain the nutrient management certificate, they are required to develop and properly implement nutrient management plans for the lands where they apply fertilizer within five years of the effective date of this Rule:

(a) Applicators who in a calendar year apply fertilizer to cropland areas, including row and vegetable crops, floriculture areas, ornamental areas and greenhouse production areas, that together comprise at least 50 acres and persons responsible for managing cropland areas, as described in Sub-Item (1)(a) of this Rule, that together comprise at least 50 acres;

(b) Applicators who in a calendar year apply fertilizer to a golf course, recreational land areas, right-of-way, or other turfgrass areas that together comprise at least 50 acres, and persons responsible for managing the turfgrass aspects of lands, as described in Sub-Item (1)(b) of this Rule, that together comprise at least 50 acres; and

(c) Commercial applicators who apply fertilizer to at least 50 total acres per year of lawn and garden areas in residential, commercial, or industrial developments, and persons responsible for managing the lawn and garden aspects of lands, as described in Sub-Item (1)(c) of this Rule, that together comprise at least 50 acres.

(2) If the persons listed in Sub-Items (1)(a)-(c) of this Rule do not attend and complete within five years of the effective date of this Rule a nutrient management training program administered by the Cooperative Extension Service, their nutrient management plans shall meet the following requirements:

(a) Nutrient management plans for cropland shall meet the standards and specifications of the USDA - Natural Resources Conservation Service or the standards and specifications adopted by the NC Soil and Water Conservation Commission. Written approval from a technical specialist designated pursuant to rules adopted by the Soil and Water Conservation Commission must be obtained by

the applicator certifying that a nutrient management plan meeting these standards has been developed for the lands where they apply fertilizer.

(b) Nutrient management plans for turfgrass, floriculture, ornamental and greenhouse production application of nutrients shall meet recommended guidelines in the following documents or other recommended guidelines from land-grant universities to minimize nutrient loss to waters in the Neuse River Basin. Nutrient management plans for turfgrass shall follow the North Carolina Cooperative Extension Service (NCCES) guidelines in "Water Quality And Professional Lawn Care"; NCCES publication number WQMM-155 or "Water Quality And Home Lawn Care"; NCCES publication number WQMM-151. Copies may be obtained from the Division of Water Quality, 512 North Salisbury Street, Raleigh, North Carolina 27626 at no cost. Nutrient management plans for nursery crops and greenhouse production shall follow the Southern Nurserymen=s Association guidelines promulgated in "Best Management Practices Guide For Producing Container-Grown Plants". Copies may be obtained from the Southern Nurserymen=s Association, 1000 Johnson Ferry Road, Suite E-130, Marietta, GA 30068-2100 at a cost of thirty-five dollars ($35.00). There materials related to nutrient management plans for turfgrass, nursery crops and greenhouse production are hereby incorporated by reference including any subsequent amendments and editions and are available for inspection at the Department of Environment and Natural Resources Library, 512 North Salisbury Street, Raleigh, North Carolina. The Division of Water Quality shall develop model plans in consultation with the Cooperative Extension Service, the Natural Resources Conservation Service, the Division of Soil and Water Conservation, and the North Carolina Department of Agriculture and approved by the Director of the Division of Water Quality within one year of the effective date of this Rule. The model plans shall provide a description of the type of information to be included in the plans for source of nutrients, the amount of nutrient applied, the placement of nutrients, and the timing of nutrient applications. Written approval from a technical specialist designated pursuant to rules adopted by the Environmental Management Commission must be obtained by the applicator certifying that a nutrient management plan meeting these standards has been developed for the lands where they apply fertilizer.

(c) For nutrient management plans developed under Sub-Items (2)(a) and (2)(b) of this Rule using dry poultry litter from animal waste management systems involving 30,000 or more birds, dry poultry litter shall be applied at agronomic rates for nitrogen based on realistic yield expectations derived from waste nutrient content, crop and soil type, or yield records.

(d) Nutrient management plans and supporting documents must be kept on-site or be producible within 24 hours of a request by the Division of Water Quality.

(e) Nutrient management plans may be written by the applicator or a consultant to the applicator.

(3) Applicators and commercial applicators subject to Item (2) of this Rule who do not develop a nutrient management plan or do not apply nutrients in accordance with a nutrient management plan meeting the specifications in Item (2) are in violation of this Rule and are subject to enforcement measures authorized in G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

(4) Residential landowners and other individuals applying fertilizer to less than 50 acres per year shall to the maximum extent practical apply fertilizer to residential, commercial, industrial, turfgrass, and cropland areas at rates recommended by the Cooperative Extension Service.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1);*
Eff. August 1, 1998.

15A NCAC 02B .0240 NUTRIENT OFFSET PAYMENTS

(a) The purpose of this Rule is to establish procedures for the optional payment of nutrient offset fees to the NC Ecosystem Enhancement Program, subsequently referred to as the Program, or to other public or private parties where the Program or such parties implement projects for nutrient offset purposes and accept payments for those purposes, and where either of the following applies:

(1) The following rules of this Section allow offsite options or nutrient offset payments toward fulfillment or maintenance of nutrient reduction requirements:

(A) .0234 and .0235 of the Neuse nutrient strategy,
(B) .0258 of the Tar-Pamlico nutrient strategy, and
(C) applicable rules of the Jordan nutrient strategy, which is described in Rule .0262; and

(2) Other rules adopted by the Commission allow this option toward fulfillment of nutrient load reduction requirements.

(b) Offset fees paid pursuant to this Rule shall be used to achieve nutrient load reductions subject to the following geographic restrictions:

(1) Load reductions shall be located within the same 8-digit cataloguing unit, as designated by the US Geological Survey, as the loading activity that is being offset;

(2) The Division shall track impacts by 10-digit watershed, as designated by the US Geological Survey and providers shall locate projects proportional to the location of impacts to the extent that the projects would meet the least cost alternative criterion per S.L. 2007-438. The location of load reduction projects shall be reviewed during the approval process described in Paragraph (c) of this Rule;

(3) Impacts that occur in the watershed of Falls Lake in the upper Neuse River Basin may be offset only by load reductions in the same watershed; Impacts in the Neuse 01 8-digit cataloguing unit below the Falls watershed, as designated by the US Geological Survey, may be offset only by load reductions in that same lower watershed;

(4) Restrictions established in the Jordan nutrient strategy, which is described in Rule 15A NCAC 02B .0262; and

(5) Any further restrictions established by the Commission through rulemaking.

(c) The Program and other parties shall obtain Division approval of proposed nutrient offset projects prior to construction. Other parties shall sell credits in compliance with approved credit release schedules and with the requirements of this Rule. Project approval shall be based on the following standards:

(1) Load reductions eligible for credit shall not include reductions used to satisfy other requirements under the same nutrient strategy;

(2) The Program and other parties shall agree to provide adequate financial assurance to protect and maintain load reductions for the stated duration, including for maintenance, repair and renovation of the proposed measure;

(3) The Program and other parties shall agree that once credits are established for a measure and until they are exhausted, they shall provide a credit/debit ledger to the Division at regular intervals;

(4) The Program and other parties shall agree that the party responsible for a measure shall allow the Division access to it throughout its lifetime for compliance inspection purposes;

(5) The Program or other party seeking approval shall obtain a site review from Division staff prior to Division approval to verify site conditions suitable to achieve the proposed load reductions through the proposed measure; and

(6) The Program shall submit a proposal, and other parties shall submit a proposal or a draft banking instrument, addressing the following items regarding a proposed load-reducing measure:

(A) Identify the location and site boundaries of the proposed measure, the geographic area to be served by credits in compliance with the requirements of Paragraph (b) of this Rule, existing conditions in the contributing drainage area and location of the measure, and the nature of the proposed measure with sufficient detail to support estimates of load reduction required in this Paragraph;

(B) Provide calculations of the annual magnitudes of load reductions and identify final credit values incorporating any delivery factors or other adjustments required under rules identified in Paragraph (a) of this Rule;

(C) Define the duration of load reductions, and provide a conservation easement or similar legal mechanism to be recorded with the County Register of Deeds and that is sufficient to ensure protection and maintenance of load reductions for the stated duration;

(D) Identify the property owner and parties responsible for obtaining all permits and other authorizations needed to establish the proposed measure, for constructing and ensuring initial performance of the proposed measure, for reporting on and successfully completing the measure, for holding and enforcing the conservation easement, and for ensuring protection and maintenance of functions for its stated duration;

(E) Provide a plan for implementing the proposed measure, including a timeline, a commitment to provide an as-built plan and report upon establishment of the measure, elements to be included in the as-built plan and report, a commitment to provide a bond or other financial assurance sufficient to cover all aspects of establishment and initial performance prior to the release of any credits, and criteria for successful completion; and

(F) Provide a monitoring and maintenance plan designed to achieve successful completion, that commits to annual reporting to the Division until success is achieved, that recognizes the Division's authority to require extension or re-initiation of monitoring depending on progress toward success, and that commits to a final report upon completion. The final report shall reaffirm the party that shall hold and enforce the conservation easement or other legal instrument.

(d) The Program shall establish and revise nutrient offset rates as set out in Rule .0274 of this Section. Offset payments accepted by the Program shall be placed into the Riparian Buffer Restoration Fund administered by the Department pursuant to G.S. 143-214.21

(e) Persons who seek to pay nutrient offset fees under rules of this Section shall do so in compliance with such rules, the requirements of Paragraph (b) of this Rule, and the following:

(1) A non-governmental entity shall purchase nutrient offset credit from a party other than the Program if such credit is available in compliance with the criteria of this Rule at the time credit is sought, and shall otherwise demonstrate to the permitting authority that such credit is not available before seeking to make payment to the Program;

(2) Offset payments made to the Program shall be contingent upon acceptance of the payment by the Program. The financial, temporal and technical ability of the Program to satisfy the mitigation request will be considered to determine whether the Program will accept or deny the request;

(3) Where persons seek to offset more than one nutrient type, they shall make payment to address each type;

(4) The offset payment shall be an amount sufficient to fund 30 years of nutrient reduction.

(5) Persons who seek offsets to meet new development stormwater permitting requirements shall provide proof of offset credit purchase to the permitting authority prior to approval of the development plan; and

(6) A wastewater discharger that elects to purchase offset credits for the purpose of fulfilling or maintaining nutrient reduction requirements shall submit proof of offset credit acquisition or a letter of commitment from the Program or third party provider with its request for permit modification. Issuance of a permit that applies credits to nutrient limits shall be contingent on receipt of proof of offset credit acquisition. A discharger may propose to make incremental payments for additional nutrient allocations, contingent upon receiving a letter of commitment from the Program or third party provider to provide the offset credit needed for permit issuance. In that event the Division may issue or modify that permit accordingly, and shall condition any flow increase associated with that incremental purchase on payment in full for the additional allocation. Offset responsibility for nutrient increases covered under this Paragraph shall be transferred to the Program or third party provider when it has received the entire payment.

(f) Credits associated with load reducing activities funded under this Rule shall be awarded exclusively to the person, municipality, discharger, or group of dischargers who paid the offset fee.

History Note: *Authority G.S. 143-214.1; 143-214.20; 143-214.21; S.L. 1995, c. 572; S.L. 2007, c. 438; S.L. 2009, c. 337; S.L. 2009, c. 484; S.L. 2009, c. 486;*
Eff. August 1, 1998;
Amended Eff. August 1, 2006;
Amended Eff. September 1, 2010.

15A NCAC 02B .0241 NEUSE RIVER BASIN: NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: DELEGATION OF AUTHORITY FOR THE PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

(a) PURPOSE. This Rule sets out the requirements for delegation of the responsibility for implementing and enforcing the Neuse Basin existing riparian buffer protection program, as described in Rule 15A NCAC 2B .0233, to local governments.

(b) PROCEDURES FOR GRANTING AND RESCINDING DELEGATION. The Commission shall grant and rescind local government delegation of the Neuse River Basin Riparian Buffer Protection requirements according to the following procedures.

(1) Local governments within the Neuse River Basin 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 appropriate remedies and actions including, but not limited to, civil or criminal remedies that shall restore buffer nutrient removal 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 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 Neuse Basin riparian buffer protection requirements in keeping with a request approved under Sub-item (b)(2) of this Rule, 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.

(4) The Commission may delegate its duties and powers for granting and rescinding local government delegation of the State's riparian buffer protection requirements, in whole or in part, to the Director.

(c) 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 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.

(d) PROCEDURES FOR USES WITHIN RIPARIAN BUFFERS THAT ARE ALLOWABLE AND ALLOWABLE WITH MITIGATION. Upon receiving delegation, local authorities shall review proposed uses within the riparian buffer and issue approvals if the uses meet the State's riparian buffer protection requirements. Delegated local authorities shall issue an Authorization Certificate for uses if the proposed use meets the State's riparian buffer protection requirements, or provides for appropriate mitigated provisions to the State's riparian buffer protection requirements. The Division 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 does not challenge an Authorization Certificate within 30 days of issuance, then the delegated local authority's decision shall stand.

(e) VARIANCES. After receiving delegation, local governments shall review variance requests, provide approvals for minor variance requests and make recommendations to the Commission for major variance requests pursuant to the State's riparian buffer protection program.

(f) LIMITS OF DELEGATED LOCAL AUTHORITY. The Commission shall have jurisdiction to the exclusion of local governments to implement the State's riparian buffer protection requirements for the following types of activities:

(1) Activities conducted under the authority of the State;

(2) Activities conducted under the authority of the United States;

(3) Activities conducted under the authority of multiple jurisdictions; and

(4) Activities conducted under the authority of local units of government.

(g) 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 shall inspect local riparian buffer protection programs to ensure that the programs are being implemented and enforced in keeping with a request approved under Sub-item (b)(2) of this Rule. 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.

History Note: *Authority 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1998 c. 221; Eff. August 1, 2000.*

15A NCAC 02B .0242 NEUSE RIVER BASIN: NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: MITIGATION PROGRAM FOR PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

The following are the requirements for the Riparian Buffer Mitigation Program for the Neuse Basin.

(1) PURPOSE. The purpose of this Rule is to set forth the mitigation requirements that apply to the Neuse Basin existing riparian buffer protection program, as described in Rule 15A NCAC 2B .0233.
(2) APPLICABILITY. This Rule applies to persons who wish to impact a riparian buffer in the Neuse Basin when one of the following applies:
    (a) A person has received an Authorization Certificate pursuant to 15A NCAC 2B .0233 for a proposed use that is designated as "allowable with mitigation."
    (b) A person has received a variance pursuant to 15A NCAC 2B .0233 and is required to perform mitigation as a condition of a variance approval.
(3) THE AREA OF MITIGATION. The required area of mitigation shall be determined by either the Division or the delegated local authority according to the following:
    (a) The impacts in square feet to each zone of the riparian buffer shall be determined by the Division or the delegated local authority by adding the following:
        (i) The area of the footprint of the use causing the impact to the riparian buffer.
        (ii) The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use.
        (iii) The area of any ongoing maintenance corridors within the riparian buffer associated with the use.
    (b) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Sub-item (3)(a) of this Rule to each zone of the riparian buffer:
        (i) Impacts to Zone 1 of the riparian buffer shall be multiplied by 3.
        (ii) Impacts to Zone 2 of the riparian buffer shall be multiplied by 1.5.
        (iii) Impacts to wetlands within Zones 1 and 2 of the riparian buffer that are subject to mitigation under 15A NCAC 2H .0506 shall comply with the mitigation ratios in 15A NCAC 2H .0506.
(4) THE LOCATION OF MITIGATION. The mitigation effort shall be the same distance from the Neuse River estuary as the proposed impact, or closer to the estuary than the impact, and as close to the location of the impact as feasible.
(5) ISSUANCE OF THE MITIGATION DETERMINATION. The Division or the delegated local authority shall issue a mitigation determination that specifies the required area and location of mitigation pursuant to Items (3) and (4) of this Rule.
(6) OPTIONS FOR MEETING THE MITIGATION DETERMINATION. The mitigation determination made pursuant to Item (5) of this Rule may be met through one of the following options:
    (a) Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Item (7) of this Rule.
    (b) Donation of real property or of an interest in real property pursuant to Item (8) of this Rule.
    (c) 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 Item (9) of this Rule.
(7) 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:
    (a) 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 Item (5) of this Rule by ninety-six cents per square foot or forty-one thousand, six hundred and twenty-five dollars per acre.

(b) The required fee shall be submitted to the Division of Water Quality, Wetlands Restoration Program, MAIL SERVICE CENTER 1619, RALEIGH, NC 27699-1619 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.

(c) The payment of a compensatory mitigation fee may be fully or partially satisfied by donation of real property interests pursuant to Item (8) of this Rule.

(d) The Division shall review the fee outlined in Sub-item (7)(a) 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 shall recommend revisions to Sub-item (7)(a) of this Rule when adjustments to this Schedule of Fees are deemed necessary.

(8) 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:

(a) 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 Item (7) of this Rule. The value of the property interest shall be determined by an appraisal performed in accordance with Sub-item (8)(d)(iv) 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 Sub-item (7)(a) of this Rule, the applicant shall pay the remaining balance due.

(b) The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity.

(c) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:

(i) 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.

(ii) The property shall contain riparian buffers not currently protected by the State's riparian buffer protection program that are in need of restoration.

(iii) The restorable riparian buffer on the property shall have a minimum length of 1000 linear feet along a surface water and a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water.

(iv) 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 Item (3) of this Rule.

(v) 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;

(vi) The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation;

(vii) The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and land acquisition costs.

(ix) 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.

(x) The property shall not contain any hazardous substance or solid waste.

(xi) 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.

(xii) The property and adjacent properties shall not have prior, current, and known future land use that would inhibit the function of the restoration effort.

(xiii) The property shall not have any encumbrances or conditions on the transfer of the property interests.

(d) At the expense of the applicant or donor, the following information shall be submitted to the Division with any proposal for donations or dedications of interest in real property:

(i) Documentation that the property meets the requirements laid out in Sub-Item (8)(c) of this Rule.

(ii) 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.

(iii) 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.

(iv) 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.

(v) A title certificate.

(9) RIPARIAN BUFFER RESTORATION OR ENHANCEMENT. Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:

(a) The applicant may restore or enhance a non-forested riparian buffer if either of the following applies:

(i) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Item (3) of this Rule.

(ii) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Item (3) of this Rule.

(b) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Item (4) of this Rule.

(c) 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.

(d) The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of 15A NCAC 2B .0233. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the Division. The restoration or enhancement plan shall contain the following.

(i) A map of the proposed restoration or enhancement site.

(ii) A vegetation plan. The vegetation plan shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity.

(iii) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer.

(iv) A fertilization plan.

(v) A schedule for implementation.

(e) Within one year after the Division has approved the restoration or enhancement plan, the applicant shall present proof to the Division 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.

(f) The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal functions.

(g) 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 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1998, c. 221;*
Temporary Adoption Eff. June 22, 1999;
Eff. August 1, 2000.

15A NCAC 02B .0243 CATAWBA RIVER BASIN: PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

The following is the management strategy for maintaining and protecting existing riparian buffers along the Catawba River mainstem below Lake James and along mainstem lakes from and including Lake James to the North Carolina and South Carolina border in the Catawba River Basin.

(1) PURPOSE. The purpose of this Rule shall be to protect and preserve existing riparian buffers along the Catawba River mainstem below Lake James and along mainstem lakes from and including Lake James to the North Carolina and South Carolina border in the Catawba River Basin in order to maintain their pollutant removal functions as an aid in protecting the water quality of the lakes and connecting river segments.

(2) DEFINITIONS. For the purpose of Rules 15A NCAC 02B .0243 and 15A NCAC 02B .0244, these terms shall be defined as follows:

(a) "Access Trails" means pedestrian trails constructed of pervious or impervious surfaces, and related structures to access a surface water including boardwalks, steps, rails, signage, etc.

(b) "Archaeological Activities" means activities conducted by a Registered Professional Archaeologist (RPA).

(c) "Airport Facilities" means all properties, facilities, buildings, structures, and activities that satisfy or otherwise fall within the scope of one or more of the definitions or uses of the words or phrases "air navigation facility," "airport," or "airport protection privileges" under G.S. 63-1; the definition of "aeronautical facilities" in G.S. 63-79(1); the phrase "airport facilities" as used in G.S. 159-48(b)(1); the phrase "aeronautical facilities" as defined in G.S. 159-81 and G.S. 159-97; and the phrase "airport facilities and improvements" as used in Article V, Section 13, of the North Carolina Constitution, which shall include, without limitation, any and all of the following: airports, airport maintenance facilities, clear zones, drainage ditches, fields, hangars, landing lighting, airport and airport-related offices, parking facilities, related navigational and signal systems, runways, stormwater outfalls, terminals, terminal shops, and all appurtenant areas used or suitable for airport buildings or other airport facilities, and all appurtenant rights-of-way; restricted landing areas; any structures, mechanisms, lights, beacons, marks, communicating systems, or other instrumentalities or devices used or useful as an aid, or constituting an advantage or convenience to the safe taking off, navigation, and landing of aircraft, or the safe and efficient operation or maintenance of an airport or restricted landing area; easements through, or other interests in, air space over land or water, interests in airport hazards outside the boundaries of airports or restricted landing areas, and other protection privileges, the acquisition or control of which is necessary to ensure safe approaches to the landing areas of airports and restricted landing areas, and the safe and efficient operation thereof; and any combination of any or all of such facilities. Notwithstanding the foregoing, the following shall not be included in the definition of "Airport Facilities":

(i) satellite parking facilities;

(ii) retail and commercial development outside of the terminal area, such as rental car facilities; and

(iii) other secondary development, such as hotels, industrial facilities, free-standing offices and other similar buildings, so long as these facilities are not directly associated with the operation of the airport, and are not operated by a unit of government or special governmental entity such as an airport authority.

(d) "Approved local government" means any government with a riparian buffer ordinance approved by the Division pursuant to Subparagraph (3)(b) of this Rule.

(e) "Channel" means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water.

(f) "DBH" means diameter at breast height of a tree measured at 4.5 feet above ground surface level.

(g) "Forest plantation" means an area of planted trees that may be conifers (pines) or hardwoods. On a plantation, the intended crop trees are planted rather than naturally regenerated from seed on the site, coppice (sprouting), or seed that is blown or carried into the site.

(h) "Full Pond Level" is a term used by Duke Energy Inc. that refers to the project water level, referenced to mean sea level, for each of the seven mainstem lakes along the Catawba River. The landward edge of the lakes at full pond level represents the project boundary for each lake.

(i) "Greenway / Hiking Trails" means pedestrian trails constructed of pervious and impervious surfaces and related structures including but not limited to boardwalks, steps, rails, signage, etc.

(j) "High Value Tree" means a tree whose stump diameter is equal to or exceeding 18-inches.

(k) "Mainstem lakes" means the following impoundments created along the mainstem of the Catawba River: Lake James, Lake Rhodhiss, Lake Hickory, Lookout Shoals Lake, Lake Norman, Mountain Island Lake and Lake Wylie (North Carolina portion).

(l) "Riparian buffer enhancement" is defined as the process of converting a non-forested riparian area, where woody vegetation is sparse (greater than or equal to 100 trees per acre but less than 200 trees per acre) to a forested riparian buffer area. The enhanced, forested riparian buffer area shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acres at maturity, and diffuse flow through the riparian buffer shall be maintained.

(m) "Riparian buffer restoration" is defined as the process of converting a non-forested riparian area, where woody vegetation is absent (less than 100 trees per acre) to a forested riparian buffer area. The restored, forested riparian buffer area shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acres at maturity, and diffuse flow through the riparian buffer shall be maintained.

(n) "Shoreline stabilization" is the in-place stabilization of an eroding shoreline. Stabilization techniques which include "soft" methods or natural materials (such as root wads, or rock vanes) may be considered as part of a restoration design. However, stabilization techniques that consist primarily of "hard" engineering, such as concrete lined channels, rip rap, or gabions, while providing bank stabilization, shall not be considered stream restoration.

(o) "Stream restoration" is defined as the process of converting an unstable, altered or degraded stream corridor, including adjacent riparian zone and flood-prone areas to its natural or referenced, stable conditions considering recent and future watershed conditions. This process also includes restoring the geomorphic dimension, pattern, and profile as well as biological and chemical integrity, including transport of water and sediment produced by the stream's watershed in order to achieve dynamic equilibrium. "Referenced" or "referenced reach" means a stable stream that is in dynamic equilibrium with its valley and contributing watershed. A reference reach can be used to develop natural channel design criteria for stream restoration projects.

(p) "Stump diameter" means diameter of a tree measured at six inches above ground surface level.

(q) "Surface water" means all waters of the state as defined in G.S. 143-212 except underground waters.

(r) "Temporary road" means a road constructed temporarily for equipment access to build or replace hydraulic conveyance structures or water dependent structures, or to maintain public traffic during construction.

(s) "Tree" means a woody plant with a DBH equal to or exceeding five inches or a stump diameter equal to or exceeding six inches.

(3) APPLICABILITY. This Rule shall apply to a 50-foot wide riparian buffer along the Catawba River mainstem below Lake James and along the mainstem lakes in the Catawba River Basin, excluding wetlands. Wetlands within 50 feet of surface waters shall be considered as part of the riparian buffer but are regulated pursuant to 15A NCAC 02H .0506. The riparian buffers protected by this Rule shall be measured pursuant to Item (4) of this Rule. Riparian buffers along the Catawba River mainstem below Lake James and along mainstem lakes shall be subject to this Rule unless one of the following applies.

(a) EXEMPTION WHEN EXISTING USES ARE PRESENT AND ONGOING. This Rule shall 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 from this Rule. The determination of whether a use is existing and ongoing will be made either by the Division or

approved local government; whichever is appropriate according to the administration of the buffer program. 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:

(i) A use that was present within the riparian buffer as of June 30, 2001 and has continued to exist 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 50 feet of the surface water where it did not previously exist as of the effective date of the Rule, and existing diffuse flow is maintained. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised, the ground is stabilized and existing diffuse flow is maintained.

(ii) A use that can be documented to the Division or the appropriate approved local government that meets at least one of the following criteria:

(A) Project requires a 401 Certification/404 Permit, these were issued prior to June 30, 2001 and are still valid;

(B) Projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities, have begun construction or are under contract to begin construction and had received all required state permits prior to June 30, 2001;

(C) Projects that are being reviewed through the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (published by the US Army Corps of Engineers and Federal Highway Administration, 2003) or its immediate successor and that have reached agreement with DENR on avoidance and minimization by June 30, 2003; and

(D) Projects that are not required to be reviewed by the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (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 DWQ prior to June 30, 2001.

(iii) A project that can be documented to the Division or the appropriate approved local government that has vested rights that were established or recognized for that project under the common law or by G.S. 153A-344(b), 153A-344.1, 160A-385(b), or 160A-385.1 prior to July 1, 2001. This Rule does not confer or restrict a vested right established or recognized under common law or G.S. 153A-344(b), 153A-344.1, 160A-385(b), or 160A-385.1.

(iv) This Rule shall apply at the time an existing use is changed to another use. Change of use shall include the following:

(A) Impervious surface is added to the riparian buffer in locations where it did not exist previously either on the ground or in proposed site plans showing the locations of proposed impervious surfaces for uses defined as existing and ongoing in Subitem (3)(a)(ii) or Subitem (3)(a)(iii) of this Rule; or

(B) An agricultural operation within the riparian buffer is converted to a non-agricultural use.

(b) LOCAL GOVERNMENTS THAT HAVE APPROVED RIPARIAN BUFFER ORDINANCES. All local governments that have land use authority along the Catawba River mainstem below Lake James and along mainstem lakes in the Catawba River Basin may adopt local riparian buffer ordinances to protect water quality. The Division shall approve the local riparian buffer ordinance within 30 days after receiving the request from local governments, if the Division determines that the local riparian buffer ordinance provides equal to or greater water quality protection than this Rule. This Rule shall not apply in any area where a local government has obtained the Division's

approval of the local riparian buffer ordinance, provided that the local government is implementing and enforcing the approved local riparian buffer ordinance. The Division, upon determination that the local government is failing to implement or enforce the approved local buffer ordinance, shall notify the local government in writing of the local program inadequacies. If the local government has not corrected the deficiencies within 90 days of receipt of written notification, then the Division shall implement and enforce the provisions of this Rule.

(c) RIPARIAN AREAS AND ACTIVITIES NOT REGULATED UNDER AN APPROVED LOCAL GOVERNMENT ORDINANCE. The Division shall be responsible for the implementation of this rule for all riparian areas and activities not regulated under a Division-approved local government ordinance.

(4) ZONES OF THE RIPARIAN BUFFER. The protected riparian buffer shall have two zones as follows:

(a) Zone 1 shall consist of a forested area that is undisturbed except for uses provided for in Item (6) of this Rule. The location of Zone 1 shall be as follows:

(i) For the Catawba River mainstem below Lake James, Zone 1 shall begin at the most landward limit of the top of the bank and extend landward a distance of 30 feet on all sides of the surface water, measured horizontally on a line perpendicular to a vertical line marking the edge of the top of the bank.

(ii) For the mainstem lakes located on the Catawba River mainstem, Zone 1 shall begin at the most landward limit of the full pond level and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the full pond level.

(b) Zone 2 shall consist of a stable, vegetated area that is undisturbed except for uses provided for in Item (6) of this Rule. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised. Zone 2 shall begin at the outer edge of Zone 1 and extend landward 20 feet as measured horizontally on a line perpendicular to a vertical line marking the outer edge of Zone 1. The combined width of Zones 1 and 2 shall be 50 feet on all sides of the surface water along the Catawba River mainstem below Lake James and along mainstem lakes in the Catawba River Basin.

(5) DIFFUSE FLOW REQUIREMENT. Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation.

(a) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow at non-erosive velocities before the runoff enters Zone 2 of the riparian buffer.

(b) Periodic corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies.

(c) No new stormwater conveyances are allowed through the buffers except for stormwater management ponds provided for in Item (6) of this Rule.

(6) TABLE OF USES. The following chart sets out the uses and their category designation under this Rule as exempt, allowable, or allowable with mitigation. Any uses, which are not listed in the table, are prohibited. The requirements for each category listed in the table as well as prohibited uses not set out in the table are given in Item (7) of this Rule.

Use	Exempt	Allowable	Allowable with Mitigation
Access trails: Pedestrian access trails leading to the surface water, docks, fishing piers, boat ramps and other water dependent activities: • Pedestrian access trails that are restricted to the minimum width practicable and do not exceed 4 feet in width of buffer disturbance, and provided that installation and use does not result in removal of trees as defined in this Rule and no impervious surface is added to the riparian buffer • Pedestrian access trails that exceed 4 feet in width of buffer	X		

disturbance, the installation or use results in removal of trees as defined in this Rule or impervious surface is added to the riparian buffer		X	
Airport facilities: • Airport or airstrip facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Airport or airstrip facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer		X	X
Archaeological activities	X		
Bridges		X	
Canoe Access provided that installation and use does not result in removal of trees as defined in this Rule and no impervious surface is added to the buffer	X		
Dam maintenance activities: • Dam maintenance activities that do not cause additional buffer disturbance beyond the footprint of the existing dam or those covered under the U.S. Army Corps of Engineers Nationwide Permit No. 3 • Dam maintenance activities that do cause additional buffer disturbance beyond the footprint of the existing dam or those not covered under the U.S. Army Corps of Engineers Nationwide Permit No. 3	X	X	
Drainage ditches, roadside ditches and stormwater outfalls through riparian buffers: • Existing drainage ditches, roadside ditches, and stormwater outfalls provided that they are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies • New drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to control pollutants and attenuate flow before the conveyance discharges through the riparian buffer • New stormwater discharges to existing man-made conveyances (including, but not limited to, drainage ditches, roadside ditches, and stormwater outfalls) provided that the new stormwater discharge does not result in the need to alter the existing man-made conveyances	X	X X	
Driveway crossings of surface waters subject to this Rule: • Driveway crossings on single family residential lots subdivided or recorded prior to the effective date of this Rule that disturb equal to or less than 25 linear feet or 2,500 square feet of riparian buffer • Driveway crossings on single family residential lots subdivided or recorded prior to the effective date of this Rule that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer • In a subdivision that cumulatively disturbs equal to or less than 150 linear feet or one-third of an acre of riparian buffer • In a subdivision that cumulatively disturbs greater than 150 linear feet or one-third of an acre of riparian buffer	X	X X	X
Fences:			

• Fences provided that disturbance is minimized and installation does not result in removal of trees as defined in this Rule • Fences provided that disturbance is minimized and installation results in removal of trees as defined in this Rule	X	X	
Forest harvesting - see Item (11) of this Rule			
Grading and revegetation in Zone 2 only provided that diffuse flow and the health of existing vegetation in Zone 1 is not compromised and disturbed areas are stabilized	X		
Greenway / hiking trails		X	
Historic preservation	X		
Mining activities: • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Items (4) and (5) 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 requirements of Items (4) and (5) of this Rule are not established adjacent to the relocated channels		X	X
Non-electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only [1] • Impacts other than perpendicular crossings in Zone 1 [1]		X	X
Non-electric utility line perpendicular crossings of surface waters subject to this Rule [1]: • 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 regardless of the width of the maintenance corridor	X	X X	X X
Overhead electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only [1] • Impacts other than perpendicular crossings in Zone 1 [1,2,3]	X X		
Overhead electric utility line perpendicular crossings of surface waters subject to this Rule [1]: • Perpendicular crossings that disturb equal to or less than 150 linear feet of riparian buffer [2] • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer [2,3]	X	X	

[1] Perpendicular crossings are those that intersect the surface water at an angle between 75° and 105°. New water intakes and new outfall lines which may be required to extend to or cross part of waterbodies will be implemented and enforced under this category.

[2] Provided that, in Zone 1, 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 alternative evaluation by the Division.

- 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.
- 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.

[3] Provided that poles or towers shall not be installed within 10 feet of a water body unless the Division completes a no practical alternative evaluation.

Use	Exempt	Allowable	Allowable with Mitigation
Playground equipment: • Playground equipment provided that installation and use does not result in removal of trees as defined in this Rule • Playground equipment where installation and use requires removal of trees as defined in this Rule	X	X	
Properties that have been subdivided by a preliminary subdivision plat [4] approved by local governments within the Catawba River Basin within 2 years prior to June 30, 2001 for conventional subdivisions and within 5 years prior to June 30, 2001 for phased subdivisions: • Uses in Zone 2 provided that the ground is stabilized and diffuse flow is maintained • Uses in Zone 1 provided that the ground is stabilized and diffuse flow is maintained. On-site waste systems, septic tanks and drainfields are not allowed in Zone 1	X	X	
Properties that are included on a recorded subdivision plan prior to June 30, 2001: • Uses in Zone 2 provided that the ground is stabilized and diffuse flow is maintained • Uses in Zone 1 provided that the ground is stabilized and diffuse flow is maintained. On-site waste systems, septic tanks and drainfields are not allowed in Zone 1	X	X	
Protection of existing structures, facilities and shoreline when this requires additional disturbance of the riparian buffer or the channel		X	
Pumps for agricultural irrigation in Zone 1 provided that installation and use does not result in removal of trees as defined in this Rule	X		

[4] The submitted preliminary subdivision plat shall include all the following information:

- Total acreage of land proposed for platting.
- The boundaries of the tract or portion thereof to be subdivided, with all bearings and distances accurately shown, including dimensions of all lot lines.
- Location and use of all existing and proposed easements. This includes easements for drainage and utilities.
- Location, width of rights-of-way and all proposed streets.
- Location of all utilities installations.
- Distance to nearest public water supply and sanitary sewerage systems.
- Significant natural features including existing riparian buffer areas, existing wetlands, lakes or rivers, or other natural features affecting the site.
- Existing physical features including buildings, streets, railroads, power lines, drainage ways, sewer and water or spring heads, and town limit lines both to or adjacent to the land to be subdivided.

Use	Exempt	Allowable	Allowable with Mitigation
Railroad impacts other than crossings of surface waters subject to this Rule			X
Recreational and accessory structures: • Recreational and accessory structures such as decks, gazebos and sheds provided the total cumulative footprint of all structures within the buffer does not exceed 150 square feet, that the structures are elevated above pervious ground, that installation does not result in removal of trees as defined in this Rule, and that they are not otherwise prohibited under the local water supply watershed ordinance • Recreational and accessory structures such as decks, gazebos, and sheds with a cumulative footprint of more than 150 square feet provided that the structures are elevated above pervious ground, that installation does not result in removal of trees as defined in this Rule, and that they are not otherwise prohibited under the local water supply watershed ordinance	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 surface waters subject to this Rule			X
Road crossings of surface waters subject to this Rule: • Road crossings that impact equal to or less than 40 linear feet of riparian buffer • Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X
Scientific studies and gauging station	X		
Stormwater management ponds excluding dry ponds: • New stormwater management ponds provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the pond • New stormwater management ponds where a riparian buffer		X	

that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the pond • Stormwater constructed wetland and bio-retention area		 X	X
Shoreline stabilization		X	
Temporary roads: • 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 • Temporary roads used for culvert installation, bridge construction or replacement provided that restoration activities, such as soil stabilization and revegetation, are conducted immediately after construction	 X	 X X	
Temporary sediment and erosion control devices: • In Zone 2 only provided that the vegetation in Zone 1 is not compromised and that discharge is released as diffuse flow in accordance with Item (5) of this Rule • In Zones 1 and 2 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	 X	
Underground electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only [1] • Impacts other than perpendicular crossings in Zone 1 [1,5]	 X X		
Underground electric utility line perpendicular crossings of surface waters subject to this Rule: [1] • Perpendicular crossings that disturb less than or equal to 40 linear feet of riparian buffer [5] • Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer [5]	 X	 X	
Vehicle access roads and boat ramps leading to the surface water, docks, fishing piers, and other water dependent activities: • Vehicular access roads and boat ramps to the surface water but not crossing the surface water that are restricted to the minimum width practicable not to exceed 10 feet in width • Vehicular access roads and boat ramps to the surface water but not crossing the surface water that are restricted to the minimum width practicable and exceed 10 feet in width		 X	 X
View corridors: • Thinning of underbrush, shrubs, and limbs up to 50% of individual tree height to enhance a lake view provided soils are undisturbed, diffuse flow is maintained and no stems of woody vegetation larger than 3" DBH are removed • Thinning of underbrush, shrubs, and limbs above 50% of individual tree height to enhance a lake view provided soils are undisturbed, diffuse flow is maintained and no stems of woody vegetation larger than 3" DBH are removed	 X	 X	

[5] Provided that, in Zone 1, 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 alternative evaluation by the Division.

- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Except as specified within this footnote, 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.

Use	Exempt	Allowable	Allowable with Mitigation
Vegetation management:			
• Emergency fire control measures provided that topography is restored	X		
• Periodic mowing and harvesting of plant products in Zone 2 only	X		
• Planting vegetation to improve water quality protection function of the riparian buffer	X		
• Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised	X		
• Removal of individual trees which are in danger of causing damage to dwellings, other structures or human life	X		
• Removal of individual trees which are dead, diseased or damaged	X		
• Removal of poison ivy			
• 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	X X		
Water dependent structures:			
• Water dependent structures as defined in 15A NCAC 02B .0202 where installation and use do not result in disturbance to riparian buffers	X		
• Water dependent structures as defined in 15A NCAC 02B .0202 where installation and use result in disturbance to riparian buffers		X	
Water wells:			
• Single family residential water wells	X		
• All other water wells		X	
Wetland, stream and buffer restoration that results in impacts to the riparian buffers:			
• Wetland, stream and buffer restoration that requires DWQ approval for the use of a 401 Water Quality Certification	X		
• Wetland, stream and buffer restoration that does not require DWQ approval for the use of a 401 Water Quality Certification		X	

(7) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated as exempt, allowable, and allowable with mitigation in Item (6) of this Rule and prohibited in this Rule shall have the following requirements:

(a) 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 Item (6) of this Rule for the specific use.

(b) ALLOWABLE. Uses designated as allowable may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule and that disturbance to the buffer is minimized. These uses require prior written authorization from the Division or from a local government with an approved riparian buffer ordinance pursuant to Sub-Item (3)(b) of this Rule.

(c) ALLOWABLE WITH MITIGATION. Uses designated as allowable with mitigation may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule and an appropriate mitigation strategy has been approved pursuant to Item (10) of this Rule. These uses require written authorization from the Division or the approved local government.

(d) PROHIBITED. All uses not designated as exempt, allowable or allowable with mitigation are considered prohibited and may not proceed within the riparian buffer unless a variance is granted pursuant to Item (9) of this Rule. Mitigation may be required as one condition of a variance approval.

(8) DETERMINATION OF "NO PRACTICAL ALTERNATIVES." Persons who wish to undertake uses designated as allowable or allowable with mitigation shall submit a request for a "no practical alternatives" determination to the Division or to the approved local government. The applicant shall certify that the criteria identified in Sub-Item (8)(a) of this Rule are met. The Division or the approved local government shall grant an Authorization Certificate upon a "no practical alternatives" determination. The procedure for making an Authorization Certificate shall be as follows:

(a) For any request for an Authorization Certificate, the Division or the approved local government 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:

(i) 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.

(ii) 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.

(iii) Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(b) Requests for an Authorization Certificate shall be reviewed and either approved or denied within 60 days of receipt of a complete submission based on the criteria in Sub-Item (8)(a) of this Rule by either the Division or the approved local government. Failure to issue an approval or denial within 60 days shall constitute that the applicant has demonstrated "no practical alternatives." An Authorization Certificate shall be issued to the applicant, unless:

(i) The applicant agrees, in writing, to a longer period;

(ii) Applicant fails to furnish requested information necessary to the Division's or approved local government's decision; or

(iii) Information necessary to the Division's or approved local government's decision.

The Division or the approved local government may attach conditions to the Authorization Certificate that support the purpose, spirit and intent of the riparian buffer protection program. Complete submissions to the Division shall use the appropriate Pre-Construction Notification (PCN) Application Form and shall submit the completed form to the Division. Complete submissions to the delegated local government shall include the following unless otherwise identified within an approved local government ordinance:

(i) The name, address and phone number of the applicant;

(ii) The nature of the activity to be conducted by the applicant;

(iii) The location of the activity, including the jurisdiction;

(iv) 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;

(v) 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

(vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity.

(c) 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 G.S. 150B Articles 3 and 4.

(9) VARIANCES. Persons who wish to undertake uses designated as prohibited may pursue a variance. The Division or the appropriate approved local government shall make all of the following findings of fact and may grant variances. The variance request procedure shall be as follows:

(a) For any variance request, the Division or the approved local government shall make a finding of fact to insure that the following requirements have been met:

(i) There are practical difficulties or hardships that prevent compliance with the riparian buffer protection requirements. Practical difficulties or unnecessary hardships shall be evaluated in accordance with the following:

(A) If the applicant complies with the provisions of this Rule, he or she can secure no reasonable return from, nor make reasonable use of, his or her property. Merely proving that the variance would permit a greater profit from the property shall not be considered adequate justification for a variance. Moreover, the Division or the approved local government shall consider whether the variance is the minimum possible deviation from the terms of this Rule that shall make reasonable use of the property possible.

(B) The hardship results from application of this Rule to the property rather than from other factors such as deed restrictions or other hardship.

(C) The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, which is different from that of neighboring property.

(D) The applicant did not cause the hardship by knowingly or unknowingly violating this Rule.

(E) The hardship is unique to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice.

(ii) The variance is in harmony with the general purpose and intent of the Catawba River Basin's riparian buffer protection requirements and preserves its spirit; and

(iii) In granting the variance, the public safety and welfare have been assured, water quality has been protected, and justice has been done.

(b) Variance requests shall be reviewed and approved based on the criteria in Sub-Item (9)(a) of this Rule by either the Division or the approved local government pursuant to G.S. 153A, Article 18, or G.S. 160A, Article 19. The Division or the approved local government may attach conditions to the variance approval that support the purpose, spirit and intent of the riparian buffer protection program. Requests for appeals of decisions made by the Division shall be made to the Office of Administrative Hearings. Request for appeals of decisions made by the approved local government shall be made to the appropriate Board of Adjustment under G.S. 160A-388 or G.S. 153A-345 for determinations made by the approved local government.

(10) MITIGATION. Persons who wish to undertake uses designated as allowable with mitigation shall meet the following requirements in order to proceed with their proposed use.

(a) Obtain a determination of "no practical alternatives" to the proposed use pursuant to Item (8) of this Rule.

(b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 02B .0244.

(11) REQUIREMENTS SPECIFIC TO FOREST HARVESTING. The following requirements shall apply for forest harvesting operations and practices.

(a) The following measures shall apply in Zone 1 of the riparian buffer:

(i) Logging decks and sawmill sites shall not be placed in the riparian buffer.

(ii) Timber felling shall be directed away from the water body.

(iii) Skidding shall be directed away from the water body and shall be done in a manner that minimizes soil disturbance and prevents the creation of channels or ruts in accordance with 15A NCAC 01I .0203 as enforced by the Division of Forest Resources.

(iv) Individual trees may be treated to maintain or improve their health, form or vigor.

(v) Harvesting of dead or infected trees or application of pesticides necessary to prevent or control tree pest and disease infestation shall be allowed. These practices must be approved by the Division of Forest Resources for a specific site pursuant to this Rule. The Division of Forest Resources must notify the Division of all approvals.

(vi) Removal of individual trees that are in danger of causing damage to structures or human life shall be allowed.

(vii) Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the riparian buffer shall be allowed provided that soil disturbance is minimized. Plantings shall consist primarily of native species.

(viii) Prescribed burns shall not be allowed.

(ix) Application of fertilizer shall not be 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 Zone 1, 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:

(i) Tracked or wheeled vehicles are not permitted except at stream crossings designed, constructed and maintained in accordance with 15A NCAC 01I .0203 as enforced by the Division of Forest Resources.

(ii) Soil disturbing site preparation activities are not allowed.

(iii) Trees shall be removed with the minimum disturbance to the soil and residual vegetation.

(iv) The following provisions for selective harvesting shall be met:

(A) The first 10 feet of Zone 1 directly adjacent to the stream or waterbody shall be undisturbed except for the removal of individual high value trees as defined.

(B) In the outer 20 feet of Zone 1, trees greater than 12-inch diameter stump may be cut and removed. The reentry time for harvest shall be no more frequent than every 15 years, except on forest plantations 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.

(c) In Zone 2, harvesting and regeneration of the forest stand shall be allowed in accordance with 15A NCAC 01I .0100 – .0200 as enforced by the Division of Forest Resources.

(12) OTHER LAWS, REGULATIONS AND PERMITS. In all cases, compliance with this Rule does not preclude the requirement to comply with all federal, state and local regulations and laws. Whichever regulation is more restrictive shall apply.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1999, c. 329, s. 7.1; S.B 824-2003; Temporary Adoption Eff. June 30, 2001; (exempt from 270 day requirement - S.L. 2001-418 & S.L. 2003-340).*
Eff. August 1, 2004.

15A NCAC 02B .0244 CATAWBA RIVER BASIN: MITIGATION PROGRAM FOR PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS IN THE CATAWBA RIVER BASIN

The following are the requirements for the Riparian Buffer Mitigation Program for the Catawba River Basin.

(1) PURPOSE. The purpose of this Rule is to set forth the mitigation requirements that apply to maintain and protect existing riparian buffers on the Catawba River mainstem below Lake James and mainstem lakes from and including Lake James to the North Carolina/South Carolina border in the Catawba River Basin, as described in Rule 15A NCAC 02B .0243.

(2) APPLICABILITY. This Rule applies to persons who wish to impact a riparian buffer in the Catawba Basin when one of the following applies:

(a) A person has received an Authorization Certificate pursuant to 15A NCAC 02B .0243 for a proposed use that is designated as "allowable with mitigation."

(b) A person has received a variance pursuant to 15A NCAC 02B .0243 and is required to perform mitigation as a condition of a variance approval.

(3) THE AREA OF MITIGATION. The required area of mitigation shall be determined by either the Division or a local government with an approved riparian buffer ordinance according to the following:

(a) The impacts in square feet to each zone of the riparian buffer shall be determined by adding the following:

(i) The area of the footprint of the use causing the impact to the riparian buffer.

(ii) The area of any clearing and grading activities within the riparian buffer necessary to accommodate the use.

(iii) The area of any ongoing maintenance corridors within the riparian buffer associated with the use.

(b) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Sub-item (3)(a) of this Rule:

(i) Impacts to Zone 1 of the riparian buffer shall be multiplied by 2.

(ii) Impacts to Zone 2 of the riparian buffer shall be multiplied by 1.5.

(4) THE LOCATION OF MITIGATION. The mitigation effort shall be the same distance from the Catawba River as the proposed impact and as close to the location of the impact as feasible.

(5) ISSUANCE OF THE MITIGATION DETERMINATION. The Division or a local government with an approved buffer program shall issue a mitigation determination that specifies the required area and location of mitigation pursuant to Items (3) and (4) of this Rule.

(6) OPTIONS FOR MEETING THE MITIGATION DETERMINATION. The mitigation determination made pursuant to Item (5) of this Rule may be met through one of the following options:

(a) Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Item (7) of this Rule.

(b) Donation of real property or of an interest in real property pursuant to Item (8) of this Rule.

(c) Restoration or enhancement of a non-forested riparian buffer as defined in the Rule 15A NCAC 02B .0243. This shall be accomplished by the applicant after submittal and approval of a restoration plan pursuant to Item (9) of this Rule.

(7) 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:

(a) SCHEDULE OF FEES: The amount of payment into the Fund shall be determined by square feet of mitigation determination made pursuant to Item (5) of this Rule by ninety-six cents per square foot.

(b) The required fee shall be submitted to the Division of Water Quality, Wetlands Restoration Program, Mail Service Center 1619, Raleigh, NC 27699-1619 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.

(c) The payment of a compensatory mitigation fee may be fully or partially satisfied by donation of real property interests pursuant to Item (8) of this Rule.

(d) The Division shall review the fee outlined in Sub-item (7)(a) 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 shall recommend revisions to Sub-item (7)(a) of this Rule when adjustments to this Schedule of Fees are deemed necessary.

(8) 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:

(a) 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 Item (7) of this Rule. The value of the property interest shall be determined by an appraisal performed in accordance with Sub-item (8)(d)(iv) 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 Sub-item (7)(a) of this Rule, the applicant shall pay the remaining balance due.

(b) The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity.

(c) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:

(i) The property shall be located within an area that is identified as a priority for restoration in the Basinwide Wetlands and Riparian Restoration Plan for the Catawba River Basin 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 Basinwide Wetlands and Riparian Restoration Plan for the Catawba River Basin.

(ii) The property shall contain riparian buffers not currently protected by the State's riparian buffer protection program that are in need of restoration.

(iii) The restorable riparian buffer on the property shall have a minimum length of 1000 linear feet along a surface water and a minimum width of 50 feet. For the Catawba River mainstem below Lake James, the width of the riparian buffer shall begin at the most landward limit of the top of the bank and extend landward a distance of 50 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the top of the bank. For the mainstem lakes located on the Catawba River mainstem, the width of the riparian buffer shall begin at the most landward limit of the full pond level and extend landward a distance of 50 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the full pond level.

(iv) 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 Item (3) of this Rule.

(v) 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 offsetting the adverse impacts of the requested use.

(vi) The property shall be suitable to be restored, based on existing hydrology, soils, and vegetation.

(vii) The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and land acquisition costs.

(ix) 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.

(x) The property shall not contain any hazardous substance or solid waste.

(xi) 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.

(xii) The property and adjacent properties shall not have prior, current, or known future land use that would inhibit the function of the restoration effort.

(xiii) The property shall not have any encumbrances or conditions on the transfer of the property interests.

(d) At the expense of the applicant or donor, the following information shall be submitted to the Division with any proposal for donations or dedications of interest in real property:

(i) Documentation that the property meets the requirements laid out in Sub-Item (8)(c) of this Rule.

(ii) 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.

(iii) 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.

(iv) 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.

(v) A title certificate.

(9) RIPARIAN BUFFER RESTORATION OR RIPARIAN BUFFER ENHANCEMENT. Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:

(a) The applicant may restore or enhance a non-forested riparian buffer if either of the following applies:

(i) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Sub-Item (3)(b) of this Rule.

(ii) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Sub-Item (3)(b) of this Rule.

(b) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Item (4) of this Rule.

(c) The riparian buffer restoration or riparian buffer enhancement site shall have a minimum width of 50 feet. For the Catawba River mainstem below Lake James, the width of the riparian buffer shall begin at the most landward limit of the top of the bank and extend landward a distance of 50 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the top of the bank. For the mainstem lakes located on the Catawba River mainstem, the width of the riparian buffer shall begin at the most landward limit of the full pond level and extend landward a distance of 50 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the full pond level.

(d) The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of 15A NCAC 02B .0243. After receiving this determination, the applicant shall submit a riparian buffer restoration or riparian buffer enhancement plan for approval by the Division. The riparian buffer restoration or riparian buffer enhancement plan shall contain the following.

(i) A map of the proposed riparian buffer restoration or riparian buffer enhancement site.

(ii) A vegetation plan. The vegetation plan shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity.

(iii) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer.

(iv) A fertilization plan.

(v) A schedule for implementation.

(e) Within one year after the Division has approved the riparian buffer restoration or riparian buffer enhancement plan, the applicant shall present proof to the Division 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 both the State and a local riparian buffer ordinance.

(f) The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal functions.

(g) The applicant shall submit annual reports for a period of five years after the riparian buffer restoration or riparian buffer 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; 143-214.7; 143-215.3(a)(1); S.L. 1999, c. 329, s. 7.1; S.B. 824-2003; Temporary Adoption Eff. June 30, 2001 (exempt from 270 day requirement - S.L. 2001-418 & S.L.2003-340);*
Eff. August 1, 2004.

15A NCAC 02B .0245 RESERVED FOR FUTURE CODIFICATION
15A NCAC 02B .0246 RESERVED FOR FUTURE CODIFICATION
15A NCAC 02B .0247 RESERVED FOR FUTURE CODIFICATION

15A NCAC 02B .0248 RANDLEMAN LAKE WATER SUPPLY WATERSHED: NUTRIENT MANAGEMENT STRATEGY

(a) All waters of the Randleman Lake (Deep River) water supply watershed are classified for water supply uses and designated by the Environmental Management Commission as a Critical Water Supply Watershed pursuant to G.S. 143-214.5(b). The following rules shall be implemented for the entire drainage area upstream of the Randleman Lake Dam:

(1) Rule .0249 of this Section for Wastewater Discharges,

(2) Rule .0250 of this Section for Protection and Maintenance of Riparian Areas, and

(3) Rule .0251 of this Section for Urban Stormwater Management.

(b) Failure to meet the requirements of the Rules in this Section may result in the imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C;*
Eff. April 1, 1999;
Amended Eff. May 1, 2010.

15A NCAC 02B .0249 RANDLEMAN LAKE WATER SUPPLY WATERSHED: WASTEWATER DISCHARGE REQUIREMENTS

The following is the National Pollutant Discharge Elimination System (NPDES) wastewater discharge management strategy for the Randleman Lake watershed. For purposes of this Rule, permitted wastewater discharges means those facilities permitted to discharge domestic wastewater or wastewaters containing phosphorus:

(1) The City of High Point=s Eastside facility shall meet a total phosphorus concentration predicted to provide a level of water quality in the Randleman Lake which meets all designated uses of those waters.

(2) There shall be no new or expanding permitted wastewater discharges in the watershed with the exception that the City of High Point Eastside wastewater treatment plant may be allowed to expand provided that any new permit contains concentration and mass limits predicted to provide a level of water quality in the Randleman Lake which meets all designated uses of those waters.

History Note: *Authority G. S. 143-214.1; 143-214.5; 143-215.3(a)(1);*
Eff. April 1, 1999.

15A NCAC 02B .0250 RANDLEMAN LAKE WATER SUPPLY WATERSHED: PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

Protection of the pollutant removal and other water quality services provided by riparian buffers throughout the watershed is an important element of the overall Randleman water supply pollutant strategy. The following is the management strategy for maintaining and protecting riparian areas in the Randleman Lake watershed:

(1) PURPOSE. The purposes of this Rule shall be for the local governments listed in this Rule, and in certain cases stated in this Rule the Division, to protect and preserve existing riparian buffers throughout the Randleman Lake watershed as generally described in this Rule, in order to maintain their nutrient removal and stream protection functions. Additionally this Rule will help protect the water supply uses of Randleman Lake and of designated water supplies throughout the Randleman Lake water supply watershed. Local governments with jurisdictions in Randleman Lake watershed shall establish programs to meet or exceed the minimum requirements of this Rule. However, the Division shall assume responsibility for applying the requirements of this Rule to activities listed in Item (3) of this Rule. The requirements of this Rule shall supersede all buffer requirements stated in Rules 15A NCAC 02B .0214 through .0216 as applied to WS-II, WS-III, and WS-IV waters in the Randleman Lake watershed. Parties subject to this Rule may choose to implement more stringent rules, including the one-hundred foot buffer requirement set out in Sub-item (3)(b)(i) of Rules 15A NCAC 02B .0214 through .0216 for high-density developments.

(2) DEFINITIONS. For the purpose of this Rule, these terms shall be defined as follows:

(a) 'Access Trails' means pedestrian trails constructed of pervious or impervious surfaces, and related structures to access a surface water including (but not limited to) boardwalks, steps, rails, signage;

(b) 'Archaeological Activities' means activities conducted by a Registered Professional Archaeologist (RPA);

(c) 'Airport Facilities' means all properties, facilities, buildings, structures, and activities that satisfy or otherwise fall within the scope of one or more of the definition or uses of the words or phrases 'air navigation facility', 'airport', or 'airport protection privileges' under G.S. 63-1; the definition of 'aeronautical facilities' in G.S. 63-79(1); the phrase 'airport facilities' as used in G.S. 159-48(b)(1); the phrase 'aeronautical facilities' as defined in G.S. 159-81 and G.S. 159-97; and the phrase 'airport facilities and improvements' as used in Article V, Section 13, of the North Carolina Constitution. Airport facilities shall include without limitation, any and all of the following: airports, airport maintenance facilities, clear zones, drainage ditches, fields, hangars, landing lighting, airport and airport-related offices, parking facilities, related navigational and signal systems, runways, stormwater outfalls, terminals, terminal shops, and all appurtenant areas used or suitable for airport buildings or other airport facilities, and all appurtenant rights-of-way; restricted landing areas; any structures, mechanisms, lights, beacons, marks, communicating systems, or other instrumentalities or devices used or useful as an aid, or constituting an advantage or convenience to the safe taking off, navigation, and landing of aircraft, or the safe and efficient operation or maintenance of an airport or restricted landing area; easements through, or interests in, air space over land or water, interests in airport hazards outside the boundaries of airports or restricted landing areas, and other protection privileges, the acquisition or control of which is necessary to ensure safe approaches to the landing areas of airports and restricted landing areas, and the safe and efficient operation thereof and any combination of any or all of such facilities. Notwithstanding the foregoing, the following shall not be included in the definition of 'airport facilities':

(i) Satellite parking facilities;

(ii) Retail and commercial development outside of the terminal area, such as rental car facilities; and

(iii) Other secondary development, such as hotels, industrial facilities, free-standing offices and other similar buildings, so long as these facilities are not directly associated with the operation of the airport, and are not operated by a unit of government or special governmental entity such as an airport authority;

(d) 'Channel' means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water;

(e) 'DBH' means diameter at breast height of a tree measured at 4.5 feet above ground surface level;

(f) Ditch means a man-made, open drainage way in or into which excess surface water or groundwater from land, stormwater runoff, or floodwaters flow either continuously or intermittently;

(g) 'Ephemeral stream' means a feature that carries stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the

biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water;

(h) 'Forest plantation' means an area of planted trees that may be conifers (pines) or hardwoods. On a plantation, the intended crop trees are planted rather than naturally regenerated from seed on the site, coppice (sprouting), or seed that is blown or carried into the site;

(i) 'Greenway / Hiking Trails' means pedestrian trails constructed of pervious and impervious surfaces and related structures including but not limited to boardwalks, steps, rails, and signage, and that generally run parallel to the surface water;

(j) 'High Value Tree' means a tree that meets or exceeds the following standards: for pine species, 14 inch DBH or greater or 18 inch or greater stump diameter; and, for hardwoods and wetland species, 16 inch DBH or greater or 24 inch or greater stump diameter;

(k) 'Intermittent stream' means a well-defined channel that contains a continuous flow of water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the continuous conveyance of water;

(l) 'Modified natural stream' means an on-site channelization or relocation of a stream channel and subsequent relocation of the intermittent or perennial flow as evidenced by topographic alterations in the immediate watershed. A modified natural stream must have the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water;

(m) 'Perennial stream' means a well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water;

(n) 'Perennial waterbody' means a natural or man-made watershed that stores surface water permanently at depths sufficient to preclude growth of rooted plants, including lakes, ponds, sounds, non-stream estuaries and ocean. For the purpose of the State's riparian buffer protection program, the waterbody must be part of a natural drainage way (i.e., connected by surface flow to a stream);

(o) 'Shoreline stabilization' is the in-place stabilization of an eroding shoreline. Stabilization techniques which include "soft" methods or natural materials (such as root wads, or rock vanes) may be considered as part of a restoration design. However, stabilization techniques that consist primarily of "hard" engineering, such as concrete lined channels, rip rap, or gabions, while providing bank stabilization, shall not be considered stream restoration;

(p) 'Stream restoration' is defined as the process of converting an unstable, altered or degraded stream corridor, including adjacent riparian zone and flood-prone areas to its natural or referenced, stable conditions considering recent and future watershed conditions. This process also includes restoring the geomorphic dimension, pattern, and profile as well as biological and chemical integrity, including transport of water and sediment produced by the stream's watershed in order to achieve dynamic equilibrium. 'Referenced' or 'referenced reach' means a stable stream that is in dynamic equilibrium with its valley and contributing watershed. A reference reach can be used to develop natural channel design criteria for stream restoration projects. 'Stream' means a body of concentrated flowing water in a natural low area or natural channel on the land surface;

(q) 'Stump diameter' means the diameter of a tree measured at six inches above the ground surface level;

(r) 'Surface waters' means all waters of the state as defined in G.S. 143-212 except underground waters and wetlands;

(s) 'Temporary road' means a road constructed temporarily for equipment access to build or replace hydraulic conveyance structures such as bridges, culverts or pipes or water dependent structures, or to maintain public traffic during construction; and

(t) 'Tree' means a woody plant with a DBH equal to or exceeding five inches or a stump diameter exceeding six inches.

(3) APPLICABILITY. This Rule shall apply to all local governments with jurisdictions in the Randleman Lake watershed. Local governments shall develop riparian buffer protection programs for approval by the Division incorporating the minimum standards set out throughout this Rule and shall apply the requirements of this Rule throughout their jurisdictions within the Randleman watershed except where the Division shall exercise jurisdiction. For the following types of buffer activities in the Randleman watershed, wherever local governments are referenced in this Rule, the Division shall implement applicable requirements to the exclusion of local governments:

(a) Activities conducted under authority of the State;
(b) Activities conducted under the authority of the United States;
(c) Activities conducted under the authority of multiple jurisdictions;
(d) Activities conducted under the authority of local units of government;
(e) Forest harvesting activities described in Item 16 of this Rule; and
(f) Agricultural activities.

(4) REQUIREMENTS. The following minimum criteria shall be used for identifying regulated buffers. All local governments subject to this Rule shall develop riparian buffer protection programs and ordinances for approval by the Commission, incorporating the minimum standards contained in Rule. This Rule shall apply to 50 foot wide riparian buffers directly adjacent to surface waters in the Randleman watershed (intermittent and perennial streams, lakes, reservoirs, and ponds) excluding wetlands. Wetlands adjacent to surface waters or within 50 feet of surface waters, shall be considered as part of the riparian buffer but are regulated pursuant to 15A NCAC 02H. 0506.

(a) Surface waters shall be subject to this Rule if the feature is approximately shown on any of the following references, or if there is other site specific evidence that indicates to the Division or local government the presence of waters not shown on any of these maps:
  (i) The most recent version of the United States Geological Survey 1:24,000 scale (7.5 minute quadrangle) topographic maps;
  (ii) The most recent version of the hardcopy soil survey maps developed by USDA-Natural Resource Conservation Service; or
  (iii) A map approved by the Geographic Information Coordinating Council and by the Commission. Prior to approving a map under this sub-division the Commission shall provide a 30-day public notice and opportunity for comment;

(b) Where the specific origination point of an intermittent or perennial stream is in question, parties subject to this Rule shall use the Division publication, *Identification Methods for the Origins of Intermittent and Perennial Streams, v 3.1 February 28, 2005* available at: http://portal.ncdenr.org/web/wq/swp/ws/401/waterresources/streamdeterminations to establish that point;

(c) Local governments may develop stream network maps for the watershed based on maps referenced in Sub-Item (4)(a) of this Rule or criteria identified in Sub-Item (4)(b) and of this Rule. These maps shall be submitted to the Director for review to establish that proper methods were used by any local government wishing to use such maps for implementation of riparian area protection. The local map must be at least as accurate as the map identified in Sub-Items (4)(a)(i) and (4)(a)(ii) and must use the stream identification manual as referenced in Item (4)(b) of this Rule. Riparian areas shall be protected and maintained in accordance with this Rule on all sides of surface waters in the Randleman Lake watershed as delineated on these approved stream network maps;

(d) Personnel from delegated local governments that are assigned to perform stream determinations, shall successfully complete the Division's Surface Water Identification Training and Certification Class within three years of the effective revision date of this Rule. A delegated local government shall retain personnel on staff who have successfully completed the Division's class at all times with the exception of staff vacancies and class scheduling problems. At any time that a local government does not have a certified individual retained on staff they shall notify the Division and indicate a proposed schedule to secure a certified staff member;

(e) All local governments that have land use authority within the Randleman Lake water supply watershed shall adopt and enforce this Rule through local water supply and other local ordinances. Ordinances shall require that all riparian protection areas are recorded on new or

modified plats. No new clearing, grading, or development shall take place and no new building permits shall be issued in violation of this Rule; and

(f) Parties subject to this Rule shall abide by all State rules and laws regarding waters of the state including Rules 15A NCAC 02H .0500, 15A NCAC 02H .1300, and Sections 401 and 404 of the Federal Clean Water Act.

(5) EXEMPTION REQUIREMENTS TO WHEN AN ON-SITE DETERMINATION SHOWS THAT SURFACE WATERS ARE NOT PRESENT. When a landowner or other affected party believes that the maps have inaccurately depicted surface waters, he or she shall consult the delegated local authority. Upon request, the delegated local authority shall make onsite determinations. Local governments may also accept the results of site assessments made by other parties who have successfully completed the Division's Surface Water Identification Training Certification course and are sanctioned by the Division to make such determinations. Any disputes over on-site determinations shall be referred to the local Board of Adjustment or other local appeals process in writing. For projects proposed for state and federal lands, any disputes shall be referred to the Director in writing. A determination of the Director as to the accuracy or application of the maps is subject to review as provided in Articles 3 and 4 of G.S. 150B. Surface waters that appear on the maps shall not be subject to this Rule if an on-site determination shows that they fall into one of the following categories:

(a) Ditches and manmade conveyances, to include manmade stormwater conveyances, other than modified natural streams, unless the ditch or manmade conveyance delivers untreated stormwater runoff from an adjacent source directly to an intermittent or perennial stream;

(b) Areas mapped as intermittent streams, perennial streams, lakes, ponds, or estuaries on the most recent versions of United States Geological Survey 1:24,000 scale (7.5 minute quadrangle) topographic maps, hard-copy soil survey maps or other EMC approved stream maps where no perennial waterbody, intermittent waterbody, lake, pond or estuary actually exists on the ground;

(c) Ephemeral streams; and

(d) Ponds and lakes created for animal watering, irrigation, or other agricultural uses that are not part of a natural drainage way that is classified in accordance with 15A NCAC 02B .0100. Ponds are part of a natural drainage way when they are hydrologically connected (i.e. the pond is fed by an intermittent or perennial stream) or when they have a direct discharge point to an intermittent or perennial stream.

(6) EXEMPTION TO REQUIREMENTS WHEN EXISTING USES ARE PRESENT AND ONGOING. This Rule shall not apply to portions of the riparian buffer where a use is existing and ongoing according to the following:

(a) A use shall be considered existing and ongoing if it was present within the riparian buffer as of the effective date of the local ordinance or local ordinances enforcing this Rule and has continued to exist since that time. For state and federal entities, a use shall be considered existing and ongoing if it was present within the riparian buffer as of the effective date of this Rule and has continued to exist since that time. Existing uses shall include, but not limited to, agriculture, buildings, industrial facilities, commercial areas, transportation facilities, maintained lawns, utility lines and on-site sanitary sewage systems any of which involve either specific, periodic management of vegetation or displacement of vegetation by structures or regular activity. Only the portion of the riparian buffer that contains the footprint of the existing use is exempt from this Rule. 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 50 feet of the surface water where it did not previously exist as of the effective date of the local ordinance or local ordinances enforcing this Rule, and existing diffuse flow is maintained. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised, the ground is stabilized and existing diffuse flow is maintained;

(b) A use shall be considered existing if projects or proposed development are determined by the local government, or the Director for the cases involving state or federal entities, to meet at least one of the following criteria:

(i) Project requires a 401 Certification/404 permit and these were issued prior to the effective date of the local program enforcing this Rule, and prior to the effective date of this Rule for Division-administered activities listed in Item (3) of this Rule;

(ii) Projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities, have begun construction or are under contract to begin construction and had received all required state permits and certifications prior to the effective date of the local program implementing this Rule, and prior to the effective date of this Rule for Division-administered activities listed in Item (3) of this Rule;

(iii) Projects that are being reviewed through the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (published by the US Army Corps of Engineers and Federal Highway Administration, 2003) or its immediate successor and that have reached agreement with DENR on avoidance and minimization by the effective date of the local program enforcing this Rule, and prior to the effective date of this Rule for state and federal entities; or

(iv) Projects that are not required to be reviewed by the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (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 local government prior to the effective date of the local program enforcing this Rule, or the written approval of the Division prior to the effective date of this Rule for state and federal entities: and

(c) This Rule shall apply at the time an existing use is changed to another use. Change of use shall include, but not limited to the initiation of any activity not defined as existing and ongoing in either Sub-Item (6)(a) or (6)(b) of this Rule.

(7) ZONES OF THE RIPARIAN BUFFER. The protected riparian buffer shall have two zones as follows:

(a) Zone 1 shall consist of a vegetated area that is undisturbed except for uses provided for in Item (9) of this Rule. The location of Zone 1 shall be as follows:

(i) For intermittent and perennial streams, Zone 1 shall begin at the most landward limit of the top of the bank or the rooted herbaceous vegetation and extend landward a distance of 30 feet on all sides of the surface water, measured horizontally on a line perpendicular to a vertical line marking the edge of the top of the bank; and

(ii) For ponds, lakes and reservoirs located within a natural drainage way, Zone 1 shall begin at the most landward limit of the normal water level or the rooted herbaceous vegetation and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the surface water or rooted herbaceous vegetation: and

(b) Zone 2 shall consist of a stable, vegetated area that is undisturbed except for uses provided for in Item (9) of this Rule. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised. Zone 2 shall begin at the outer edge of Zone 1 and extend landward 20 feet as measured horizontally on a line perpendicular to the surface water. The combined width of Zones 1 and 2 shall be 50 feet on all sides of the surface water.

(8) DIFFUSE FLOW REQUIREMENT. Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation.

(a) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow at non-erosive velocities before the runoff enters Zone 2 of the riparian buffer;

(b) Periodic corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies; and

(c) No new stormwater conveyances are allowed through the buffers except for those specified in Item (9) of this Rule addressing stormwater management ponds drainage ditches, roadside ditches, and stormwater conveyances.

(9) TABLE OF USES. The following chart sets out the uses and their designation under this Rule as exempt, potentially allowable, or potentially allowable with mitigation. All uses not designated as exempt, potentially allowable, or potentially allowable with mitigation are considered prohibited and may not proceed within the riparian buffer unless a variance is granted pursuant to Item (12) of this Rule. The requirements for each category are given in Item (10) of this Rule.

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
Access trails: Pedestrian access trails leading to the surface water, docks, fishing piers, boat ramps and other water dependent activities: • Pedestrian access trails that are restricted to the minimum width practicable and do not exceed 4 feet in width of buffer disturbance, and provided that installation and use does not result in removal of trees as defined in this Rule and no impervious surface is added to the riparian buffer • Pedestrian access trails that exceed 4 feet in width of buffer disturbance, the installation or use results in removal of trees as defined in this Rule or impervious surface is added to the riparian buffer	X	X	
Airport facilities: • Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer • Activities necessary to comply with FAA requirements (e.g. radar uses or landing strips)[1]		X X	 X
Archaeological activities: • In Zones 1 and 2 and are designed, constructed and maintained to provide the maximum sediment removal and erosion protection, to have the least adverse effects on aquatic life and habitat, and to protect water quality to the maximum extent practical.	X		
Bridges		X	
Canoe access provided that installation and use does not result in removal of trees as defined in the Rule and no impervious surface is added to the buffer.	X		
Dam maintenance activities: • Dam maintenance activities that do not cause additional buffer disturbance beyond the footprint of the existing dam or those covered under a U.S. Army Corps of Engineers Nationwide Permit • Dam maintenance activities that do cause additional buffer disturbance beyond the footprint of the existing dam or those not covered under a U.S. Army Corps of Engineers Nationwide Permit	X	X	
Drainage ditches, roadside ditches and stormwater conveyances through riparian buffers: • New stormwater flows to existing drainage ditches, roadside ditches, and stormwater conveyances provided flows do not alter or result in the need to alter the conveyance and are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies • Realignment of existing roadside drainage ditches retaining the design dimensions, provided that no	X	X	

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
additional travel lanes are added and the minimum required roadway typical section is used based on traffic and safety considerations • New or altered drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to control nitrogen and attenuate flow before the conveyance discharges through the riparian buffer • New drainage ditches, roadside ditches and stormwater conveyances applicable to linear projects that do not provide a stormwater management facility due to topography constraints provided that other practicable BMPs are employed		X	 X
Drainage of a pond in a natural drainage way provided that a new riparian buffer that meets the requirements of Items (7) and (8) of this Rule is established adjacent to the new channel.	X		
Driveway crossings of streams and other surface waters subject to this Rule: • Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet or 2,500 square feet of riparian buffer • Driveway crossings on single family residential lots that disturb greater than 25linear feet or 2,500 square feet of riparian buffer • In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer • In a subdivision that cumulatively disturb greaterthan 150 linear feet or one-third of an acre of riparian buffer	 X	 X X	 X
Driveway impacts other than crossing of a streamorother surface waters subject to this Rule			X
Fences: • Fences provided that disturbance is minimized and installation does not result in removal of trees as defined in this Rule • Fences provided that disturbance is minimized and installation results in removal of trees as defined in this Rule	X	 X	
Forest harvesting - see Item (16) of this Rule			
Fertilizer Application: One-time fertilizer application to establish vegetation	 X		
Grading and revegetation in Zone 2 provided that diffuse flow and the health of existing vegetation in Zone 1 is not compromised and disturbed areas are revegetated with native vegetation	X		
Greenway / hiking trails: Designed, constructed and maintained to provide the maximum nutrient removal and erosion protection, to have			

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
the least adverse effects on aquatic life and habitat, and to protect water quality to the maximum extent practical.		X	
Historic preservation: Designed, constructed and maintained to provide the maximum nutrient removal and erosion protection, to have the least adverse effects on aquatic life and habitat, and to protect water quality to the maximum extent practical	X		
Maintenance access of modified natural streams: a grassed travel way on one side of the water body when less impacting alternatives are not practical. The width and specifications of the travel way shall be only that needed for equipment access and operation. The travel way shall be located to maximize stream shading.		X	
Mining activities: • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Items (7) and (8) 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 requirements or Items (7) and (8) of this Rule are not established adjacent to the relocated channels • Wastewater or mining dewatering wells with approved NPDES permit	X	X	X
Playground equipment: • 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: • New ponds provided that a riparian buffer that meets the requirements of Items (7) & (8) of this Rule is established adjacent to the pond • New ponds where a riparian buffer that meets the requirements of Items (7) & (8) of this Rule is NOT established adjacent to the pond		X	X
Protection of existing structures, facilities and stream banks 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: • 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 or one-third	X	X	

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
of an acre of riparian buffer • Railroad crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer			X
Recreational and accessory structures: • Total footprint of gazebos and sheds in Zone 2, provided they are not prohibited under local water supply ordinance less than or equal to 150 square feet per lot • Total footprint gazebos and sheds in Zone 2, provided they are not prohibited under local water supply ordinance of more than 150 square feet per lot • Wooden-slatted decks (and associated steps) that are at least 8 feet in height and vegetation is not removed from Zone 1 for the installation and that it meets the requirements of Items (7) and (8) of this Rule • Wooden-slatted decks (and associated steps) that are not at least 8 feet in height or vegetation is removed from Zone 1 for the installation and that it meets the requirements of Items (7) and (8) of this Rule		X X	X X
Removal of previous fill or debris provided that diffuse flow is maintained and vegetation is restored	X		
Road crossings of streams and other surface waters subject to this Rule: • Road crossings that impact equal to or less than 40 linear feet of riparian buffer • Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X
Road impacts other than crossings of streams and other surface waters subject to this Rule			X
Road relocation of existing private access roads associated with public road projects where necessary for public safety: • Less than or equal to 2,500 square feet of buffer impact • Greater than 2,500 square feet of buffer impact		X	X
Stormwater BMPs: • Wet detention, bioretention, and constructed wetlands in Zone 2 if diffuse flow of discharge is provided into Zone 1 • Wet detention, bioretention, and constructed wetlands in Zone 1		X	X
Scientific studies and stream gauging: • In Zones 1 and 2 if they are designed, constructed and maintained to protect water quality to the maximum extent practical.	X		
Streambank or shoreline stabilization		X	

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
Temporary roads provided that the disturbed area is restored to pre-construction topographic and hydrologic conditions immediately after construction is complete and replanted immediately with comparable vegetation, except that the tree planting may occur during the dormant season. A one time application of fertilizer may be utilized to establish vegetation. At the end of five years the restored buffer shall comply with the restoration criteria in Item (9) of Rule 15A NCAC 02B .0252: • Less than or equal to 2,500 square feet of buffer disturbance • Greater than 2,500 square feet of buffer disturbance • Associated with culvert installation, bridge construction or replacement	X	X X	
Temporary sediment and erosion control devices provided that the disturbed area is restored to pre-construction topographic and hydrologic conditions immediately after construction is complete and replanted immediately with comparable vegetation, except that tree planting may occur during the dormant season. A one-time application of fertilizer may be used to establish vegetation. At the end of five years the restored buffer shall comply with the restoration criteria in Item (9) of Rule 15A NCAC 02B .0252: • In Zone 2 only provided ground cover is established within the timeframes required by the Sedimentation and Erosion Control Act and that the vegetation in Zone 1 is not compromised and that discharge is released as diffuse flow in accordance with Item (8) of this Rule • In Zones 1 and 2 to control impacts associated with uses approved by the local government 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 that is authorized under Section 401 and 404 of the Federal Water Pollution Control Act • In-stream temporary erosion and sediment control measures for authorized work within a stream channel	X X	X X	
Utility- Non-electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[4, 5] • Impacts other than perpendicular crossings in Zone 1 only[4, 5]		X	X
Utility-Non-electric utility line perpendicular crossings of			

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
streams and other surface waters subject to this Rule[4, 5]:			
• 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	X		
• 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		X	
• 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		X	X
• 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			X
• Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer			
Utility-Overhead electric utility lines:			
• Impacts other than perpendicular crossings in Zone 2 only[4, 5]		X	
• Impacts other than perpendicular crossings in Zone 1[2,3,4, 5]			X
Utility-Overhead electric utility line perpendicular crossings of streams and other surface waters subject to this Rule [2, 3,4, 5]:			
• Perpendicular crossings that disturb equal to or less than 150 linear feet of riparian buffer	X	X	
• Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer			
Utility-Underground electric utility lines:			
• Impacts other than perpendicular crossings in Zone 2 only[2]	X		
• Impacts other than perpendicular crossings in Zone 1[1,4]	X		
Utility-Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule:			
• Perpendicular crossings that disturb less than or equal to 40 linear feet of riparian buffer[3, 4, 5]	X		
• Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer[3, 4, 5]		X	
Vegetation management:			
• Emergency fire control measures provided that topography is restored	X		
• Periodic mowing and harvesting of plant products in Zone 2 only	X		
• Planting vegetation to enhance the riparian buffer	X		
• Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised	X		
• Removal of individual trees which are in danger of	X		

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
causing damage to dwellings, other structures or human life • Removal of individual trees that are dead, diseased or damaged. • Removal of poison ivy • Removal of understory nuisance vegetation as defined in: Smith, Cherri L. 1998. Exotic Plant Guidelines. Dept. of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. Guideline #30	X X X		
Vehicle access to water dependent structures • Vehicular access roads leading to water dependent structures as defined in 15A NCAC 02B .0202, provided they do not cross the surface water and have a minimum practicable width not exceeding ten feet		X	
Water dependent structures as defined in 15A NCAC02B .0202		X	
Water supply reservoirs: • New reservoirs provided that a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is established adjacent to the reservoir • New reservoirs where a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is not established adjacent to the reservoir		X	X
Water wells • Single family water wells • All water wells other than single family water wells	X	X	
Wetland stream and buffer restoration • Wetland, stream and buffer restoration that requires DWQ approval for the use of a 401 Water Quality Certification • Wetland, stream and buffer restoration that does NOT require DWQ approval for the use of a 401 Water Quality Certification	X	X	
Wildlife passage structures		X	

[1] Provided that:

- Heavy equipment is not used in Zone 1
- Vegetation is not compromised in the portions of Zone 1 and Zone 2 that are not impacted
- Trees that are cut down are removed by chain
- No permanent felling of trees occurs in the protected buffers or in the streams
- Stump removal is performed only by grinding
- At the completion of the project the disturbed area is stabilized with native vegetation
- Zones 1 & 2 meet the requirements of (7) and (8) of this Rule.

[2] Provided that, in Zone 1, 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 alternative evaluation by the local government, or the Director for the cases involving activities listed in Item (3) of this Rule.

- 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.
- Riprap 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.

[3] Provided that poles or towers shall not be installed within 10 feet of a water body unless the local government or the Director for the cases involving activities listed in Item (3) of this Rule completes a no practical alternative evaluation as defined in Item (11) of this Rule.

[4] Provided that, in Zone 1, 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 alternative evaluation by the local government or the Director for the cases involving activities listed in Item (3) of this Rule, as defined in Item (11) of this Rule.

- 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.

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

(10) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated as exempt, potentially allowable, and potentially allowable with mitigation in Item (9) of this Rule shall have the following requirements:

(a) 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, including construction, monitoring, and maintenance activities. In addition, exempt uses shall meet requirements listed in Item (9) of this Rule for the specific use;

(b) POTENTIALLY ALLOWABLE. Uses designated as potentially allowable require a written buffer authorization from the local government, or the Director for the cases involving activities listed in Item (3) of this Rule for impacts within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (11) of this Rule;

(c) POTENTIALLY ALLOWABLE WITH MITIGATION. Uses designated as potentially allowable with mitigation require written authorization from the local government, or the Director for the cases involving activities listed in Item (3) of this Rule for impacts within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (11) of this Rule and an appropriate mitigation strategy has been approved pursuant to Item (15) of this Rule; and

(d) PROHIBITED. Uses that are not designated in Item (9) of this Rule are considered prohibited in the riparian buffers.

(11) DETERMINATION OF "NO PRACTICAL ALTERNATIVES." Persons who wish to undertake uses designated as allowable or allowable with mitigation shall submit a request for a "no practical alternatives" determination to the local government or the Director for the cases involving activities listed in Item (3) of this Rule. The applicant shall certify that the criteria identified in Sub-Item (a) of this Item are met. The local

government, or the Director for the cases involving activities listed in Item (3) of this Rule, shall grant an Authorization Certificate upon a "no practical alternatives" determination. The procedure for making an Authorization Certificate shall be as follows:

(a) For any request for an Authorization Certificate, the local government, or the Director for the cases involving activities listed in Item (3) of this Rule, 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:
  (i) 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;
  (ii) 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; and
  (iii) Best management practices shall be used if required to minimize disturbance, preserve aquatic life and habitat, and protect water quality;

(b) Requests for an Authorization Certificate shall be reviewed and either approved or denied within 60 days of receipt of a complete submission based on the criteria in Sub-Item (a) of this Item and the local ordinance or ordinances enforcing this Rule by the local government, or the Director for the cases involving activities listed in Item (3) of this Rule. Failure to issue an approval or denial within 60 days shall constitute that the applicant has demonstrated "no practical alternatives." An Authorization Certificate shall be issued to the applicant, unless:
  (i) The applicant agrees, in writing, to a longer period; and
  (ii) Applicant fails to furnish requested information necessary to the local government's decision or the Director's decision for the cases involving activities listed in Item (3) of this Rule;

(c) The local government, or the Director for the cases involving activities listed in Item (3) of this Rule, 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:
  (i) The name, address and phone number of the applicant;
  (ii) The nature of the activity to be conducted by the applicant;
  (iii) The location of the activity, including the jurisdiction;
  (iv) 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;
  (v) 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
  (vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity: and

(d) Any disputes over determinations regarding Authorization Certificates shall be referred to the local government's appeals process for a decision, or to the Director for determinations involving lands of activities listed in Item (3) of this Rule. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

(12) VARIANCES. Persons who wish to undertake prohibited uses may pursue a variance. The local government may grant only minor variances. For major variances, local governments shall prepare preliminary findings and submit them to the Commission for approval. The variance request procedure shall be as follows:

(a) There are practical difficulties or unnecessary hardships that prevent compliance with the riparian buffer protection requirements. Practical difficulties or unnecessary hardships shall be evaluated in accordance with all of the following:
  (i) If the applicant complies with the provisions of this Rule, he or she can secure no reasonable return from, nor make reasonable use of, his or her property. Merely proving that the variance would permit a greater profit from the property shall not be considered adequate justification for a variance. Moreover, the local government, or the Director for the cases involving activities listed in Item (3) of this Rule, shall consider whether the

variance is the minimum possible deviation from the terms of this Rule that shall make reasonable use of the property possible;

(ii) The hardship results from application of this Rule to the property rather than fromother factors such as deed restrictions or other hardship;

(iii) The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, and is unique to the applicant's property rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice; and

(iv) The applicant did not cause the hardship by knowingly or unknowingly violating this Rule.

(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.

(13) MINOR VARIANCES. A minor variance request pertains to activities that are proposed to impact only Zone 2 or any portion of Zone 2 of the riparian buffer. Minor variance requests shall be reviewed and approved based on the criteria in Sub-Item (12)(a) of this Rule by the local government pursuant to G.S. 153A-Article 18, or G.S. 160A-Article 19. The local government may attach conditions to the variance approval that support the purpose, spirit and intent of the riparian buffer protection program. Request for appeals to decisions made by the local government shall be made through the local government's appeals process, or to the Director for determinations involving activities listed in Item (3) of this Rule. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

(14) MAJOR VARIANCES. A major variance request pertains to activities that are proposed to impact any portion of Zone 1 of the riparian buffer. If the local government, or the Director for the cases involving activities listed in Item (3) of this Rule, has determined that a major variance request meets the requirements in Sub-Item (12)(a) of this Rule, then it shall prepare a preliminary finding and submit it to the Commission for approval. Within 90 days after receipt by the local government, or the Director for the cases involving activities listed in Item (3) of this Rule, the Commission shall review preliminary findings on major variance requests. The Commission may choose to approve, approve with conditions, or deny the major variance.

(15) MITIGATION. Persons who wish to undertake uses designated as allowable with mitigation shall meet the following requirements in order to proceed with their proposed use.

(a) Obtain a determination of "no practical alternatives" to the proposed use pursuant to Item(11) of this Rule; and

(b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 02B .0252.

(16) REQUIREMENTS SPECIFIC TO FOREST HARVESTING. The following requirements shall apply for forest harvesting operations and practices:

(a) The following measures shall apply in the entire riparian buffer:

(i) Logging decks and sawmill sites shall not be placed in the riparian buffer;

(ii) Access roads and skid trails shall be 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;

(iii) Timber felling shall be directed away from the stream or water body;

(iv) 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;

(v) Individual trees may be treated to maintain or improve their health, form or vigor;

(vi) Harvesting of dead or infected trees or other timber cutting techniques necessary to prevent or control extensive tree pest and disease infestation shall be allowed. These practices must be approved by the Division of Forest Resources for a specific site pursuant to 15A NCAC 01I .0100-.0209. The Division of Forest Resources must notify the local government of all approvals;

(vii) Removal of individual trees that are in danger of causing damage to structures or human life shall be allowed;

(viii) Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the riparian buffer shall be allowed provided that soil disturbance is minimized. Plantings shall consist primarily of native species;

(ix) High-intensity prescribed burns shall not be allowed;

(x) Application of fertilizer shall not be allowed except as a one-time use that is necessary for permanent stabilization; and

(xi) 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 Zone 1, 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 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:

(i) Tracked or wheeled vehicles are permitted for the purpose of selective timber harvesting where there is no other practical alternative for removal of individual trees provided activities comply with forest practices guidelines for water quality as defined in Rule 15A NCAC 01I .0101 through .0209, and provided no equipment shall operate within the first 10 feet immediately adjacent to the stream except at stream crossings designed, constructed and maintained in accordance with Rule 15A NCAC 01I .0203;

(ii) Soil disturbing site preparation activities are not allowed; and

(iii) Trees shall be removed with the minimum disturbance to the soil and residual vegetation: and

(c) In addition to the requirements of (b) in this Item, the following provisions for selective harvesting shall be met:

(i) The first 10 feet of Zone 1 directly adjacent to the stream or waterbody shall be undisturbed except for the removal of individual high value trees as defined provided that no trees with exposed primary roots visible in the streambank be cut unless listed as an exempt activity under Vegetation Management in the Table of Uses (9) of this Rule.

(ii) In the outer 20 feet of Zone 1, a maximum of 50 percent of the trees greater than five inches DBH may be cut and removed. The reentry time for harvest shall be no more frequent than every 15 years, except on forest plantations 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; and

(iii) In Zone 2, harvesting and regeneration of the forest stand shall be allowed in accordance with 15A NCAC 01I .0100 through .0209 as enforced by the Division of Forest Resources.

(17) RULE IMPLEMENTATION. This Rule shall be implemented as follows:

(a) For activities listed in Item (3) of this Rule, the Division shall implement the requirements of this Rule as of its effective date;

(b) Within six months of the effective revision date of this Rule, local governments shall review, revise as necessary, and submit a local program including all necessary ordinances to the Division for review. The local program shall detail local government buffer program implementation including but not limited to such factors as a method for resolution of disputes involving Authorization Certificate or variance determinations, a plan for record keeping, and a plan for enforcement. Local governments shall use the Division's publication, *Identification Methods for the Origins of Intermittent and Perennial Streams, v 3.1 February 28, 2005* available at http://portal.ncdenr.org/web/wq/swp/ws/401/waterresources/streamdeterminations to establish the existence of streams;

(c) Within six months of the Division approval of the revised local ordinance, the local government shall implement their revised buffer program;

(d) Upon implementation, subject local governments shall submit annual reports to the Division summarizing their activities in implementing each of the requirements in Item (4) of this Rule;

(e) The Division shall regularly audit local programs to ensure rule implementation; and

(f) If a local government fails to adopt or adequately implement its program as called for in this Rule, the Division may take appropriate enforcement action as authorized by statute, and may choose to assume responsibility for implementing that program until such time as it determines that the local government is prepared to comply with its responsibilities.

(18) Where the standards and management requirements for riparian areas are in conflict with other laws, regulations, and permits regarding streams, steep slopes, erodible soils, wetlands, floodplains, forest harvesting, surface mining, land disturbance activities, or other environmental protection areas, the more restrictive shall apply.

(19) The existing water supply requirement in Rule .0216(3)(b) of this Section that stipulates a 100 foot vegetated buffer, adjacent to perennial streams, for all new development activities which utilize the high density option, applies to the entire Randleman Lake watershed. The first 50 feet of these riparian areas on either side of these waters must also be protected in accordance with all the requirements of this Rule.

(20) OTHER LAWS, REGULATIONS AND PERMITS. In all cases, compliance with this Rule does not preclude the requirement to comply with all other federal, state and local regulations and laws.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-215.3(a)(1);*
Eff. April 1, 1999;
Amended Eff. June 1, 2010.

15A NCAC 02B .0251 RANDLEMAN LAKE WATER SUPPLY WATERSHED: STORMWATER REQUIREMENTS

The following is the urban stormwater management strategy for the Randleman Lake watershed:

(1) All local governments that have land use authority within the Randleman Lake watershed shall comply with stormwater management requirements as outlined in this Rule. Although the management requirements for the upper and the lower portions of the watershed are similar, additional density-related stormwater requirements apply to the lower portion of this watershed that do not apply to the upper portion of the watershed. The upper portion of the watershed is defined as those waters and lands of the Deep River watershed which drain to the Oakdale-Cotton Mill Dam. The lower portion of the watershed are those waters and lands of the Deep River upstream and draining to the Randleman Lake Dam, from the Oakdale-Cotton Mill Dam to the Randleman Dam.

(2) To meet the requirements of this Rule, the local governments with jurisdictions in the upper portion of the Randleman Reservoir watershed shall meet the state's rules for a WS-IV classification as specified in 15A NCAC 2B .0104, .0202 and .0216, the conditions specified in their existing ordinances, the riparian area protection requirements of Rule .0250 of this Section, along with the stormwater planning requirements set forth in Sub-Items (4), (5), and (6) of this Rule.

(3) To meet the requirements of this Rule, local governments with jurisdictions in the lower portion of the Randleman Lake watershed shall meet the provisions of Sub-Items (4), (5) and (6) of this Rule along with the following:

(a) Within 270 days of the effective date of this Rule, the affected jurisdictions, in coordination with the Piedmont Triad Regional Water Authority, shall submit local water supply ordinances to the Environmental Management Commission for approval. The ordinances shall at least meet the state's minimum rules for a WS-IV classification as specified in 15A NCAC 2B .0104, .0202 and .0216, except that the requirements of this Sub-Item shall replace the nonpoint source requirements in 15A NCAC 2B .0216(3)(b) for the lower portion of the Randleman Lake watershed.

(b) The local ordinances shall provide for review and approval of stormwater management plans for new developments to ensure that the following conditions can be met:

(i) Stormwater pollution control criteria for the Randleman Lake watershed outside of critical area:

(A) Low Density Option: For each development project, development density must be limited to either no more than one dwelling unit per acre of single family detached residential development (or 40,000 square foot lot excluding roadway right-of-way) or 12 percent built-upon area for all other residential and non-residential development. Stormwater runoff shall be transported primarily by vegetated conveyances. Conveyance system shall not include a discrete stormwater collection system as defined in 15A NCAC 2B .0202;

(B) High Density Option: If new development exceeds the low density option requirements as stated in Sub-Item (2)(b)(i) of this Rule, then engineered stormwater controls must be used to control runoff from the first inch of rainfall. Engineering controls may consist of wet detention ponds designed in accordance with 15A NCAC 2H .1000 or alternative stormwater management systems consisting of other treatment options, or a combination of options, that are approved by the Director of the Division of Water Quality in accordance with 15A NCAC 2B .0104(g). New residential and non residential development shall not exceed 50 percent built-upon area, unless an alternative high density option is submitted to the Commission as part of the submittal of the local water supply watershed protection ordinance and determined by the Commission to provide equal or greater water quality protection in Randleman Reservoir and its tributaries;

(C) Cluster development shall be allowed on a project-by-project basis as follows:

(I) overall density of the project meets associated density or stormwater control requirements of this Section;

(II) buffers meet the minimum statewide water supply watershed protection requirements and those specified for the Randleman Lake watershed riparian areas in Rule .0250 of this Section;

(III) built-upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas;

(IV) areas of concentrated development are located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways;

(V) remainder of tract to remain in vegetated or natural state by utilization of one of the methods provided in Sub-Item 3(b)(i)(C)(VI) of this Rule;

(VI) area in the vegetated or natural state may be conveyed to a property owners association; a local government for preservation as a park or greenway; a conservation organization; or placed in a permanent conservation or farmland preservation easement;

(VII) a maintenance agreement for the vegetated or natural area shall be filed with the Register of Deeds; and

(VIII) cluster development that meets the applicable low density option requirements shall transport stormwater runoff from the development by vegetated conveyances to the maximum extent practicable;

(D) If local governments choose the high density development option which requires engineered stormwater controls, then they shall assume ultimate responsibility for operation and maintenance of the required controls as outlined in Rule .0104 of this Subchapter;

(E) Impervious cover shall be minimized to the maximum extent practical through clustering, narrower and shorter paved areas (streets, driveways, sidewalks, cul-de-sacs, and parking lots), and spreading rooftop and other impervious area runoff over pervious areas. Land clearing during the construction process shall be limited to the maximum extent practical. The local government permit shall require recorded deed restrictions and protective covenants to ensure that development activities maintain the development consistent with the plans and specifications approved by the local governments;

(F) The project is in compliance with the riparian area protection requirements as specified in 15A NCAC 2B .0250 (Randleman Lake riparian area rule);

(G) No new development shall be allowed within 50 feet of waters affected by the Randleman riparian area rule 15A NCAC 2B .0250;

(H) New development meeting the high density option shall be located at least 100 feet from perennial waters as identified on topo or soil survey maps; however, within the area between 50 and 100 feet adjacent to the perennial water body, water dependent structures, or other structures, such as flag poles, signs and security lights, which result in only diminimus increases in impervious area and public projects such as road crossings and greenways may be allowed where no practicable alternative exists; these activities shall minimize built-upon surface area, divert runoff away from surface waters and maximize the utilization of BMPs;

(I) For local governments that do not use the high density option, a maximum of 10 percent of each jurisdiction's portion of the watershed outside of the critical area as delineated on April 1, 1999 may be developed with new development projects and expansions to existing development of up to 70 percent built-upon surface area in addition to the new development approved in compliance with the appropriate requirements of Sub-Item (3)(b)(ii)(A) of this Rule. For expansions to existing development, the existing built-upon surface area shall not be counted toward the allowed 70 percent built-upon surface area. A local government having jurisdiction within the watershed may transfer, in whole or in part, its right to the 10 percent/70 percent land area to local government within the watershed upon submittal of a joint resolution for review by the Commission. When the designated water supply watershed area is composed of public land, such as National Forest land, local governments may count the public land acreage within the designated watershed area outside of the critical area in figuring the acreage allowed under this provision. Each project shall, to the maximum extent practicable, minimize built-upon surface area, direct stormwater runoff away from surface waters and incorporate best management practices to minimize water quality impacts;

(ii) Stormwater pollution control criteria for critical areas of the watershed:

(A) Low Density Option: Development density must be limited to either no more than one dwelling unit per two acres of single family detached residential development (or 80,000 square foot lot excluding roadway right-of-way) or six percent built-upon area for all other residential and non-residential development. Stormwater runoff shall be transported primarily by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: If new development exceeds the low density option requirements as stated in Sub-Item (3)(b)(ii) of this Rule, then engineered stormwater controls must be used to control runoff from the first inch of rainfall. New residential and non residential development shall not exceed 30 percent built-upon area;

(C) No new permitted sites for land application of residuals or petroleum contaminated soils shall be allowed;

(D) No new landfills shall be allowed; and

(E) Sub-Items (3)(b)(i)(C)-(H) of this Rule also apply to the critical area.

(4) Within 12 months of the effective date of adoption of this Rule, all local governments with jurisdictions in the Randleman Lake watershed shall develop comprehensive stormwater management plans and submit those plans to the Commission for review and approval. Comprehensive stormwater management plans meeting the criteria set forth in Subparts (4)(a) through (4)(f) of this Rule shall be approved. Within six months of the Commission's approval of the local plan, subject local governments shall adopt and implement their approved plan. Those plans shall include, but not be limited to, the following:

(a) Evaluation of existing land use within Oak Hollow Lake subwatershed, High Point Lake subwatershed and Deep River 1 subwatershed in the Randleman Lake watershed with recommendations that show how overall built-upon area (for existing and future development) for each subwatershed can be minimized and high intensity land uses can be targeted away from surface waters and sensitive areas. Oak Hollow Lake subwatershed is defined as all land areas

draining to Oak Hollow Lake. High Point Lake subwatershed is defined as all land areas draining to High Point Lake, East Fork Deep River and West Fork Deep River from Oak Hollow Lake Dam. Deep River 1 subwatershed is defined as all land areas draining to the Deep River from High Point Lake Dam to Freeman Mill Dam. This evaluation shall be done by the local governments having jurisdiction in those watersheds, working in cooperation with the PTRWA;

(b) Coordination between all affected jurisdictions to encourage their development in the existing urban areas. The planning effort shall include provisions for areas of contiguous open space to be protected through conservation easements or other long-term protection measures and provisions to direct infrastructure growth towards existing urban development corridors rather than to rural lands;

(c) Evaluation of existing ordinances, municipal programs (maintenance, street cleaning, etc.) and other local policies to identify opportunities for stormwater quality improvements including reducing the amount of built-upon area that is required for uses such as parking, building setbacks, road widths and cul-de-sacs. The evaluations shall consider development options such as multiple story buildings, mixed use to encourage pedestrian travel and mass transit and an identification of municipal activities and procedures that may be modified to allow for stormwater pollution prevention opportunities;

(d) Implementation of watershed protection public education programs;

(e) Identification and removal of illegal discharges; and

(f) Identification of suitable locations for potential stormwater retrofits (such as riparian areas) that could be funded by various sources.

(5) Local governments may submit a more stringent local stormwater management program plan. Local stormwater management programs and modifications to these programs shall be kept on file by the Division of Water Quality.

(6) If a local government fails to submit an acceptable local stormwater management program plan within the time frames established in this Rule or fails to properly implement an approved plan, then stormwater management requirements for existing and new urban areas within its jurisdiction shall be administered through the NPDES municipal stormwater permitting program per 15A NCAC 2H .0126 which shall include at a minimum:

(a) Subject local governments shall be required to develop and implement comprehensive stormwater management programs for both existing and new development.

(b) These stormwater management programs shall provide all components that are required of local government stormwater programs in this Rule.

(c) Local governments that are subject to an NPDES permit shall be covered by the permit for at least one permitting cycle (five years) before they are eligible to submit a revised local stormwater management component of their water supply watershed protection program for consideration and approval by the EMC.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.1; 143-215.3(a)(1); Eff. April 1, 1999.*

15A NCAC 02B .0252 RANDLEMAN LAKE WATER SUPPLY WATERSHED: MITIGATION PROGRAM FOR PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

The following are the requirements for the Riparian Buffer Mitigation Program for the Randleman Lake Water Supply Watershed.

(1) PURPOSE. The purpose of this Rule is to set forth the mitigation requirements that apply to the Randleman Lake Water Supply Watershed existing riparian buffer protection program, as described in Rule 15A NCAC 02B .0250.

(2) APPLICABILITY. This Rule applies to persons who wish to impact a riparian buffer in the Randleman Lake water supply watershed when one of the following applies:

(a) A person has received an Authorization Certificate pursuant to 15A NCAC 02B .0250 for a proposed use that is designated as potentially allowable with mitigation; and

(b) A person has received a variance pursuant to 15A NCAC 02B .0250 and is required to perform mitigation as a condition of a variance approval.

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

(a) The impacts in square feet to each zone of the riparian buffer shall be determined by the Division or the delegated local authority by adding the following:

(i) The area of the footprint of the use causing the impact to the riparian buffer;

(ii) The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use; and

(iii) The area of any ongoing maintenance corridors within the riparian buffer associated with the use: and

(b) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Sub-item (3)(a) of this Rule to each zone of the riparian buffer:

(i) Impacts to Zone 1 of the riparian buffer shall be multiplied by 3;

(ii) Impacts to Zone 2 of the riparian buffer shall be multiplied by 1.5; and

(iii) Impacts to wetlands within Zones 1 and 2 of the riparian buffer that are subject to mitigation under 15A NCAC 02H .0506 shall comply with the mitigation ratios in 15A NCAC 02H .0506.

(4) THE LOCATION OF MITIGATION. The mitigation effort shall be the same distance from the Cape Fear River or its tributaries and within the watershed of Lake Randleman as the proposed impact, or closer to the Cape Fear River and within the watershed of Lake Randleman than the impact, and as close to the location of the impact as feasible.

(5) ISSUANCE OF THE MITIGATION DETERMINATION. The Division or the delegated local authority shall issue a mitigation determination that specifies the required area and location of mitigation pursuant to Items (3) and (4) of this Rule.

(6) OPTIONS FOR MEETING THE MITIGATION DETERMINATION. The mitigation determination made pursuant to Item (5) of this Rule may be met through one of the following options:

(a) Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Item (7) of this Rule;

(b) Donation of real property or of an interest in real property pursuant to Item (8) of this Rule; and

(c) 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 Item (9) of this Rule.

(7) 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 do so in accordance with 15A NCAC 02B .0269.

(8) 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:

(a) 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 Item (7) of this Rule. The value of the property interest shall be determined by an appraisal performed in accordance with Sub-Item (8)(d) (iv) 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 Item (7) of this Rule, the applicant shall pay the remaining balance due;

(b) The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity;

(c) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:

(i) 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;

(ii) The property shall contain riparian buffers not currently protected by the State's riparian buffer protection program that are in need of restoration;

(iii) The restorable riparian buffer on the property shall have a minimum length of 1000 linear feet along a surface water and a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water;

(iv) 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 Item (3) of this Rule;

(v) 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;

(vi) The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation;

(vii) The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and land acquisition cost;

(viii) 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;

(ix) The property shall not contain any hazardous substance or solid waste;

(x) 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;

(xi) The property and adjacent properties shall not have prior, current, and known future land use that would inhibit the function of the restoration effort; and

(xii) The property shall not have any encumbrances or conditions on the transfer of the property interests: and

(xiii) The location of the donation of real property shall comply with the requirements in Item (4) of this Rule.

(d) At the expense of the applicant or donor, the following information shall be submitted to the local governments, except state and federal entities shall submit to the Division, with any proposal for donations or dedications of interest in real property:

(i) Documentation that the property meets the requirements laid out in Sub-Item (8)(c) of this Rule;

(ii) 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;

(iii) 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;

(iv) 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; and

(v) A title certificate.

(9) RIPARIAN BUFFER RESTORATION OR ENHANCEMENT. Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:

(a) The applicant may restore or enhance a non-forested riparian buffer if either of the following applies:

(i) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Item (3) of this Rule; and

(ii) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Item (3) of this Rule;

(b) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Item (4) of this Rule;

(c) 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;

(d) Enhancement and restoration shall both have the objective of establishing a forested riparian buffer according to the requirements of this Item. Enhancement, shall be distinguished from the restoration based on existing buffer conditions. Where existing woody vegetation is sparse, that is greater than or equal to 100 trees per acre, but less than 200 trees per acre, a buffer may be enhanced. Where existing woody vegetation is absent, that is less than 100 trees per acre, a buffer may be restored;

(e) The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of 15A NCAC 02B .0250. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the local government, except for state and federal entities that shall submit a restoration or enhancement plan for approval to the Division. The restoration or enhancement plan shall contain the following:

(i) A map of the proposed restoration or enhancement site;

(ii) A vegetation plan. The vegetation plan shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity;

(iii) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer;

(iv) A fertilization plan; and

(v) A schedule for implementation;

(f) Within one year after the Division has approved the restoration or enhancement plan, the applicant shall present proof to the Division 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;

(g) The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's sediment removal functions; and

(h) 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 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1998, c. 221; Eff. June 1, 2010.*

15A NCAC 02B .0253 - .0254 RESERVED FOR FUTURE CODIFICATION

15A NCAC 02B .0255 TAR-PAMLICO RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: AGRICULTURAL NUTRIENT LOADING GOALS

All persons engaging in agricultural operations in the Tar-Pamlico River Basin, including those related to crops, horticulture, livestock, and poultry, shall collectively achieve and maintain certain nutrient loading levels. A management strategy to achieve this reduction is specified in Rule .0256 of this Section. These Rules apply to livestock and poultry operations above certain size thresholds in the Tar-Pamlico River Basin, in addition to requirements for animal operations set forth in general permits issued pursuant to G.S. 143-215.10C. The nutrient loading goals to be met collectively by the persons specified here are as follows:

(1) a 30 percent total nitrogen net loading reduction from 1991 loading from agriculture to the basin; and

(2) no net increase in total phosphorus loading over 1991 levels.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; Eff. April 1, 2001.*

15A NCAC 02B .0256 TAR-PAMLICO RIVER BASIN-NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: AGRICULTURAL NUTRIENT CONTROL STRATEGY

(a) PURPOSE. The purpose of this Rule is to set forth a process by which agricultural operations in the Tar-Pamlico River Basin will collectively limit their nitrogen and phosphorus loading to the Pamlico estuary. The purpose is to achieve and maintain a 30 percent reduction in collective nitrogen loading from 1991 levels within five to eight years and to hold phosphorus loading at or below 1991 levels within four years of Commission approval of a phosphorus accounting methodology.

(1) PROCESS. This Rule requires farmers in the Basin to implement land management practices that collectively, on a county or watershed basis, will achieve the nutrient goals. Local committees and a Basin committee will develop strategies, coordinate activities and account for progress.

(2) LIMITATION. This Rule may not fully address the agricultural nitrogen reduction goal of the Tar-Pamlico Nutrient Sensitive Waters Strategy in that it does not address atmospheric sources of nitrogen to the Basin, including atmospheric emissions of ammonia from sources located both within and outside of the Basin. As better information becomes available from ongoing research on atmospheric nitrogen loading to the Basin from these sources, and on measures to control this loading, the Commission may undertake separate rule-making to require such measures it deems necessary from these sources to support the goals of the Tar-Pamlico Nutrient Sensitive Waters Strategy.

(b) APPLICABILITY. This Rule shall apply to all persons engaging in agricultural operations in the Tar-Pamlico River Basin except certain persons engaged in such operations for educational purposes. Persons engaged for educational purposes shall be those persons involved in secondary school or lesser grade-level activities that are a structured part of an organized program conducted by a public or private educational institution or by an agricultural organization. Educational activities shall not include research activities in support of commercial production. For the purposes of this Rule, agricultural operations are activities that relate to any of the following pursuits:

(1) The commercial production of crops or horticultural products other than trees. As used in this Rule, commercial shall mean activities conducted primarily for financial profit.

(2) Research activities in support of such commercial production.

(3) The production or management of any of the following number of livestock or poultry at any time, excluding nursing young:

(A) 20 or more horses;

(B) 20 or more cattle;

(C) 150 or more swine;

(D) 120 or more sheep;

(E) 130 or more goats;

(F) 650 or more turkeys;

(G) 3,500 or more chickens; or

(H) A number of any single species or combination of species of livestock or poultry that exceeds 20,000 pounds of live weight at any time.

(4) Certain tree-harvesting activities described and defined as follows.

(A) The one-time harvest of trees on land within a riparian buffer described in 15A NCAC 02B .0259 that was open farmland on September 1, 2001. This one-time harvest of trees may be conducted within one tree cropping interval only under a verifiable farm plan that received final approval from a local agricultural agency on or after September 1, 2001 and that expressly allowed the harvest of trees no earlier than 10 years after the trees are established and the return of the land to another agricultural pursuit.

(B) The one-time harvest of trees on land within a riparian buffer described in 15A NCAC 02B .0259 that had trees established under an agricultural incentive program as of September 1, 2001.

(C) All tree harvesting described in Subparagraphs (b)(4)(A) and (b)(4)(B) of this Rule shall comply with Forest Practices Guidelines Related to Water Quality codified at 15A NCAC 01I. The nutrient removal functions that were provided by trees prior to their harvest shall be replaced by other measures that are implemented by the owner of the land from which the trees are harvested.

(D) The following definitions shall apply to terms used in Subparagraphs (b)(4)(A) through (b)(4)(C) of this Rule.

(i) "Agricultural incentive program" means any of the following programs and any predecessor program to any of the following programs:

(I) Agriculture Cost Share Program for Nonpoint Source Pollution Control established by G.S. 143-215.74.

(II) Conservation Reserve Enhancement Program established by 7 C.F.R. Part 1410 (January 1, 2001 Edition) and 15A NCAC 06G .0101 through 15A NCAC 06G .0106.

(III) Conservation Reserve Program established by 7 C.F.R. Part 1410 (January 1, 2001 Edition).

(IV) Environmental Quality Incentives Program established by 7 C.F.R. Part 1466 (January 1, 2001 Edition).

(V) Wetlands Reserve Program established by 7 C.F.R. Part 1467 (January 1, 2001 Edition).

(VI) Wildlife Habitat Incentives Program established by 7 C.F.R. Part 636 (January 1, 2001 Edition).

(ii) "Local agricultural agency" means the North Carolina Cooperative Extension Service, the Farm Services Agency of the United States Department of Agriculture, the Natural Resources Conservation Service of the United States Department of Agriculture, a Soil and Water Conservation District created pursuant to G.S. 139-5, or their successor agencies.

(iii) "Open farmland" means the footprint of land used for pasture or for crops or horticultural products other than trees. Open farmland may contain scattered trees if an open canopy existed on September 1, 2001 as determined from the most recent aerial photographs taken prior to September 1, 2001 for the Farm Services Agency of the United States Department of Agriculture.

(iv) "Tree" means a woody plant with a diameter equal to or greater than five inches when measured at a height of four and one-half feet above the ground.

(v) "Tree cropping interval" means the time required to establish and grow trees that are suitable for harvesting. The tree-cropping interval shall be set out in the farm plan and shall be no less than 10 years after the trees are established.

(c) METHOD FOR RULE IMPLEMENTATION. This Rule shall be implemented through a cooperative effort between a Basin Oversight Committee and Local Advisory Committees in each county or watershed. The membership, roles and responsibilities of these committees are set forth in Paragraphs (f) and (g) of this Rule. Committees' activities shall be guided by the following constraints:

(1) The Commission shall determine whether each Local Advisory Committee has achieved its nitrogen reduction goal within five years of the effective date of this Rule, and its phosphorus loading goal within four years of the date that a phosphorus accounting method is approved by the Commission, both based on the accounting process described in Paragraphs (f) and (g) of this Rule. Should the Commission determine that a Local Advisory Committee has not achieved its nitrogen goal within five years, then the Commission shall require additional BMP implementation as needed to ensure that the goal is met within eight years of the effective date of this Rule. The Commission shall similarly review compliance with the phosphorus goal four years after it approves a phosphorus accounting method, and shall require additional BMP implementation as needed to meet that goal within an additional three years from that date. All persons subject to this Rule who have not implemented BMPs in accordance with an option provided in Subparagraphs (d)(1) or (d)(2) of this Rule shall be subject to such further requirements deemed necessary by the Commission for any Local Advisory Committee that has not achieved a nutrient goal.

(2) Should a committee not form or not follow through on its responsibilities such that a local strategy is not implemented in keeping with Paragraph (g) of this Rule, the Commission may require all persons subject to this Rule in the affected area to implement BMPs as set forth in Paragraph (e) of this Rule.

(d) OPTIONS FOR MEETING RULE REQUIREMENTS. Persons subject to this Rule shall register their operations with their Local Advisory Committee according to the requirements of Paragraph (g) of this Rule within one year of the effective date of this Rule. Such persons may elect to implement any BMPs they choose that are recognized by the Basin Oversight Committee as nitrogen-reducing BMPs within five years of the effective date of this Rule. Persons who implement one of the following two options within five years of the effective date of this Rule for nitrogen-reducing BMPs and within four years of the date

that a phosphorus accounting method is approved by the Commission shall not be subject to any additional requirements that may be placed on persons under Paragraph (c) of this Rule. Persons subject to this Rule shall be responsible for implementing and maintaining the BMPs used to meet the requirements of this Rule for as long as they continue their agricultural operation. If a person ceases an operation and another person assumes that operation, the new operator shall be responsible for implementing BMPs that meet the requirements of this Paragraph.

(1) Option 1 is to implement site-specific BMPs that are accepted by the Local Advisory Committee as fully satisfying a person's obligations under this Rule based on BMP implementation needs identified in the local nutrient control strategy required under Subparagraph (g)(3) of this Rule and on nutrient reduction efficiencies established by the Basin Oversight Committee as called for under Subparagraphs (f)(2) and (f)(3) of this Rule.

(2) Option 2 is to implement standard BMPs that persons subject to this Rule choose from the alternatives established pursuant to Paragraph (e) of this Rule.

(e) STANDARD BEST MANAGEMENT PRACTICES (BMPs). Standard BMPs shall be individual BMPs or combinations of BMPs that achieve at least a 30 percent reduction in nitrogen loading and no increase in phosphorus loading relative to conditions that lack such BMPs. Standard BMPs shall be established for the purposes of this Rule by one of the following processes:

(1) The Soil and Water Conservation Commission may elect to approve, under its own authorities, standard BMP options for the Tar-Pamlico River Basin based on nutrient reduction efficiencies established by the Basin Oversight Committee pursuant to Subparagraph (f)(3) of this Rule and using criteria for nitrogen- and phosphorus-reducing BMPs as described in rules adopted by the Soil and Water Conservation Commission, including 15A NCAC 06E .0104 and 15A NCAC 06F .0104. One purpose of this process is to provide persons subject to this Rule the opportunity to work with the Soil and Water Conservation Commission in its development of standard BMP options; or

(2) In the unlikely event that the Soil and Water Conservation Commission does not approve an initial set of standard BMP options for the Tar-Pamlico River Basin within one year of the effective date of this Rule, then the Environmental Management Commission may approve standard BMP options within eighteen months of the effective date of this Rule. In that event, the standard BMP options approved by the Commission shall be designed to reduce nitrogen and phosphorus loading, as specified at the beginning of Paragraph (e) of this Rule, from agricultural sources through structural, management, or buffering farming BMPs or animal waste management plan components.

(f) BASIN OVERSIGHT COMMITTEE. The Basin Oversight Committee shall have the following membership, role and responsibilities:

(1) MEMBERSHIP. The Commission shall delegate to the Secretary the responsibility of forming a Basin Oversight Committee within two months of the effective date of this Rule. Members shall be appointed for five-year terms and shall serve at the pleasure of the Secretary. Until such time as the Commission determines that long-term maintenance of the nutrient loads is assured, the Secretary shall either reappoint members or replace members every five years. The Secretary shall solicit nominations for membership on this Committee to represent each of the following interests, and shall appoint one nominee to represent each interest. The Secretary may appoint a replacement at any time for an interest in Parts (f)(1)(F) through (f)(1)(J) of this Rule upon request of representatives of that interest:

(A) Division of Soil and Water Conservation;

(B) United States Department of Agriculture-Natural Resources Conservation Service (shall serve in an "ex-officio" non-voting capacity and shall function as a technical program advisor to the Committee);

(C) North Carolina Department of Agriculture and Consumer Services;

(D) North Carolina Cooperative Extension Service;

(E) Division of Water Quality;

(F) Environmental interests;

(G) Basinwide farming interests;

(H) Pasture-based livestock interests;

(I) Cropland farming interests; and

(J) The scientific community with experience related to water quality problems in the Tar-Pamlico River Basin.

(2) ROLE. The Basin Oversight Committee shall:

(A) Develop a tracking and accounting methodology pursuant to Subparagraph (f)(3) of this Rule. A final nitrogen methodology shall be submitted to the Commission for approval within one year after the effective date of this Rule. A final methodology for phosphorus shall be submitted at the earliest date possible as determined by the Basin Oversight Committee with input from the technical advisory committee described in Part (f)(2)(D) of this Rule.

(B) Identify and implement future refinements to the accounting methodology as needed to reflect advances in scientific understanding, including establishment of nutrient reduction efficiencies for BMPs.

(C) Appoint a technical advisory committee within 6 months of the effective date of this Rule to inform the Basin Oversight Committee on rule-related issues. The Basin Oversight Committee shall direct the committee to take the following actions at a minimum: monitor advances in scientific understanding related to phosphorus loading, evaluate the need for additional management action to meet the phosphorus loading goal, and report its findings to the Basin Oversight Committee on an annual basis. The Basin Oversight Committee shall in turn report these findings and its recommendations to the Commission on an annual basis following the effective date of this Rule, until such time as the Commission, with input from the Basin Oversight Committee, determines that the technical advisory committee has fulfilled its purpose. The Basin Oversight Committee shall solicit nominations for this committee from the Division of Soil and Water Conservation, United States Department of Agriculture-Natural Resources Conservation Service, North Carolina Department of Agriculture and Consumer Services, North Carolina Cooperative Extension Service, Division of Water Quality, environmental interests, agricultural interests, and the scientific community with experience related to the committee's charge.

(D) Review, approve and summarize county or watershed local strategies and present these strategies to the Commission for approval within two years after the effective date of this Rule.

(E) Establish minimum requirements for, review, approve and summarize local nitrogen and phosphorus loading annual reports as described under Subparagraph (g)(5) of this Rule, and present these reports to the Commission each October, until such time as the Commission determines that annual reports are no longer needed to assure long-term maintenance of the nutrient goals.

(3) ACCOUNTING METHODOLOGY. The Basin Oversight Committee shall develop an accounting methodology that meets the following requirements:

(A) The methodology shall quantify baseline total nitrogen and phosphorus loadings from agricultural operations in each county and for the entire basin.

(B) The methodology shall include a means of tracking implementation of BMPs, including number, type, and area affected.

(C) The methodology shall include a means of estimating incremental nitrogen and phosphorus reductions from actual BMP implementation and of evaluating progress toward the nutrient goals from BMP implementation. The methodology shall include nutrient reduction efficiencies for individual BMPs and combinations of BMPs that can be implemented toward the nitrogen and phosphorus goals.

(D) The methodology shall allow for future refinements to the nutrient baseline loading determinations, and to the load reduction accounting methodology.

(E) The methodology shall provide for quantification of changes in nutrient loading due to changes in agricultural land use, modifications in agricultural activity, or changes in atmospheric nitrogen loading to the extent allowed by advances in technical understanding.

(F) The methodology shall include a method to track maintenance of the nutrient net loads after the initial eight years of this Rule, including tracking of changes in BMPs and additional BMPs to offset new or increased sources of nutrients from agricultural operations.

(g) LOCAL ADVISORY COMMITTEES. The Local Advisory Committees shall have the following membership, roles, and responsibilities:

(1) MEMBERSHIP. A Local Advisory Committee shall be appointed as provided in this Paragraph in each county (or watershed as specified by the Basin Oversight Committee) within the Tar-Pamlico River Basin. As directed by S.L. 2001, c. 355, the Local Advisory Committees shall be appointed on or before November 1, 2001. They shall terminate upon a finding by the Environmental Management Commission that the long-

term maintenance of nutrient loads in the Tar-Pamlico River Basin is assured. Each Local Advisory Committee shall consist of:

(A) One representative of the local Soil and Water Conservation District;

(B) One local representative of the United States Department of Agriculture - Natural Resources Conservation Service;

(C) One local representative of the North Carolina Department of Agriculture and Consumer Services;

(D) One local representative of the North Carolina Cooperative Extension Service;

(E) One local representative of the North Carolina Division of Soil and Water Conservation; and

(F) At least five, but not more than 10 farmers who reside in the county or watershed.

(2) APPOINTMENT OF MEMBERS. The Director of the Division of Water Quality and the Director of the Division of Soil and Water Conservation of the Department of Environment and Natural Resources shall jointly appoint members described in Subparagraphs (g)(1)(A), (g)(1)(B), (g)(1)(D), and (g)(1)(E) of this Rule. As directed by S.L. 2001, c. 355, the Commissioner of Agriculture shall appoint the members described in Subparagraphs (g)(1)(C) and (g)(1)(F) of this Rule from persons nominated by nongovernmental organizations whose members produce or manage significant agricultural commodities in each county or watershed. Members of the Local Advisory Committees shall serve at the pleasure of their appointing authority.

(3) ROLE. The Local Advisory Committees shall:

(A) Conduct a registration process for persons subject to this Rule. This registration process shall be completed within one year after the effective date of this Rule. It shall obtain information that shall allow Local Advisory Committees to develop local strategies in accordance with Subparagraph (g)(4) of this Rule. At minimum, the registration process shall request the type and acreage of agricultural operations, nutrient-reducing BMPs implemented since January 1, 1992 and their operational status, and the acres affected by those BMPs. It shall provide persons with information on requirements and options under this Rule, and on available technical assistance and cost share options;

(B) Designate a member agency to compile and retain copies of all individual plans produced to comply with this Rule;

(C) Develop local nutrient control strategies for agricultural operations, pursuant to Subparagraph (g)(4) of this Rule, to meet the nitrogen and phosphorus goals assigned by the Basin Oversight Committee. The nitrogen component of the control strategy shall be submitted to the Basin Oversight Committee no later than twenty-three months from the effective date of this Rule. The phosphorus component of the control strategy shall be submitted within one year of the date that the Commission approves a phosphorus accounting methodology as described in Part (f)(2)(A) of this Rule;

(D) Ensure that any changes to the design of the local strategy will continue to meet the nutrient goals of this Rule; and

(E) Submit annual reports to the Basin Oversight Committee, pursuant to Subparagraph (g)(5) of this Rule, each May until such time as the Commission determines that annual reports are no longer needed to assure long-term maintenance of the nutrient goals.

(4) LOCAL NUTRIENT CONTROL STRATEGIES. The Local Advisory Committees shall be responsible for developing county or watershed nutrient control strategies that meet the following requirements. If a Local Advisory Committee fails to submit a nutrient control strategy as required in Part (g)(3)(C) of this Rule, the Commission may develop one based on the accounting methodology that it approves pursuant to Part (f)(2)(A) of this Rule.

(A) Local nutrient control strategies shall be designed to achieve the required nitrogen reduction goals within five years after the effective date of this Rule, and to maintain those reductions in perpetuity or until such time as this Rule is revised to modify this requirement. Strategies shall be designed to meet the phosphorus loading goals within four years of the date that the Commission approves a phosphorus accounting methodology as described in Part (f)(2)(A) of this Rule.

(B) Local nutrient control strategies shall specify the numbers and types of all agricultural operations within their areas, numbers of BMPs that will be implemented by enrolled operations and acres to be affected by those BMPs, estimated nitrogen and phosphorus reductions, schedule for BMP implementation, and operation and maintenance requirements.

(C) Local nutrient control strategies may prioritize BMP implementation to establish the most efficient and effective means of achieving the nutrient goals.

(5) ANNUAL REPORTS. The Local Advisory Committees shall be responsible for submitting annual reports for their counties or watersheds. Annual reports shall be submitted to the Basin Oversight Committee each May until such time as the Commission determines that annual reports are no longer needed to assure long-term maintenance of the nutrient goals. Annual reports shall quantify progress toward the nutrient goals with sufficient detail to allow for compliance monitoring at the farm level. The Basin Oversight Committee shall determine reporting requirements to meet these objectives. Those requirements may include information on BMPs implemented by individual farms, proper BMP operation and maintenance, BMPs discontinued, changes in agricultural land use or activity, and resultant net nutrient loading changes.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; S.L. 2001-355;*
Eff. September 1, 2001;
Temporary Amendment Eff. January 1, 2002 (exempt from 270 day requirement-S.L. 2001-355).

15A NCAC 02B .0257 TAR-PAMLICO RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: NUTRIENT MANAGEMENT

(a) PURPOSE. The purposes of this Rule are as follows, and are to be achieved within five years from the effective date of this Rule.

(1) To contribute to a 30 percent reduction in nitrogen loading to the Pamlico estuary from nutrient application (both inorganic fertilizer and organic nutrients) in the Tar-Pamlico basin, based on 1991 levels.

(2) To contribute to a capping of phosphorus loading to the estuary at 1991 levels from nutrient application (both inorganic fertilizer and organic nutrients) in the basin.

(b) DEFINITIONS. The following definitions shall apply to terms used in this Rule.

(1) Applicator means a person who applies fertilizer to the land or the immediate supervisor of such person.

(2) Consultant means a person who is hired to provide professional advice to another person.

(c) APPLICABILITY. This Rule shall apply as follows.

(1) This Rule shall apply to the following persons:

(A) Persons who own or manage cropland areas in the Tar-Pamlico River Basin for commercial purposes who have not developed a nutrient management plan for their property pursuant to 15A NCAC 02B .0256.

(B) Persons who own or manage commercial ornamental and floriculture areas and greenhouse production areas in the Tar-Pamlico River Basin.

(C) Persons who own or manage golf courses, grassed public recreational lands, grassed road or utility rights-of-way, or other turfgrass areas in the Tar-Pamlico River Basin.

(D) Persons who own or manage lawn and garden areas in residential, commercial, or industrial developments in the Tar-Pamlico River Basin except for residential landowners who apply fertilizer to their own property.

(2) This Rule, particularly Subparagraphs (d)(1) and (d)(2) of this Rule, shall apply to applicators hired by the persons listed in Subparagraph (c)(1) of this Rule to apply fertilizer to lands in the Tar-Pamlico River Basin.

(3) This Rule, particularly Subparagraph (d)(1) of this Rule, shall apply to applicators hired by residential landowners in the Tar-Pamlico basin.

(4) This Rule, particularly Subparagraph (d)(1) of this Rule, shall apply to nutrient management consultants hired by persons listed in this Paragraph to provide nutrient management advice for lands in the Tar-Pamlico River Basin.

(d) REQUIREMENTS. Subject persons shall meet the following requirements:

(1) Persons responsible for applying nutrients to their own land or land that they manage in the Tar-Pamlico basin, applicators hired by residential landowners in the Tar-Pamlico basin, and consultants who prepare nutrient management plans for persons who own or manage land in the Tar-Pamlico basin shall either:

(A) Attend and complete nutrient management training pursuant to Paragraph (e) of this Rule; or

(B) Complete a nutrient management plan for all lands to which they apply or manage the application of nutrients, or for which they provide nutrient management advice, pursuant to Paragraph (f) of this Rule.

(2) Persons who hire an applicator to apply nutrients to the land that they own or manage shall either:

(A) Ensure that the applicator they hire has attended and completed nutrient management training pursuant to Paragraph (e) of this Rule; or

(B) Ensure that the applicator they hire has completed a nutrient management plan for the land that they own or manage pursuant to Paragraph (f) of this Rule; or

(C) Complete a nutrient management plan for the land that they own or manage pursuant to Paragraph (f) of this Rule and ensure that the applicator they hire follows this plan.

(e) NUTRIENT MANAGEMENT TRAINING. Persons who choose to meet this Rule's requirements by completing nutrient management training shall meet the following requirements.

(1) Persons subject to this Rule as of its effective date shall sign up with the Cooperative Extension Service or the Division within one year of the effective date to take the nutrient management training. Such persons shall obtain a certificate from Extension or the Division within five years from the effective date of this Rule verifying completion of training that addresses, at minimum, proper management of nitrogen and phosphorus.

(2) Persons who become subject to this Rule after its effective date shall obtain a certificate from Extension or the Division within one year from the date that they become subject verifying completion of training that addresses, at minimum, proper management of nitrogen and phosphorus.

(3) Persons who fail to sign up or to obtain the nutrient management certificate within the required timeframes or who are found by the Director to have knowingly failed to follow nutrient management requirements as referenced in Subparagraphs (f)(1)(A) – (f)(1)(C) of this Rule shall be required to develop and properly implement nutrient management plans pursuant to Paragraph (f) of this Rule.

(4) Training certificates must be kept on-site or be produced within 24 hours of a request by the Division.

(f) NUTRIENT MANAGEMENT PLANS. Persons who choose to meet this Rule's requirements by completing a nutrient management plan shall meet the following requirements.

(1) Persons who are subject to this Rule as of its effective date and persons who become subject to this Rule after its effective date shall develop a nutrient management plan that meets the following standards within five years of the effective date or within 6 months from the date that they become subject, whichever is later.

(A) Nutrient management plans for cropland shall meet the standards and specifications adopted by the NC Soil and Water Conservation Commission, including those found in 15A NCAC 06E.0104 and 15A NCAC 06F .0104, which are incorporated herein by reference, including any subsequent amendments and additions to such rules that are in place at the time that plans are approved by a technical specialist as required under Subparagraph (f)(2) of this Rule.

(B) Nutrient management plans for turfgrass shall follow the North Carolina Cooperative Extension Service guidelines in "Water Quality and Professional Lawn Care" (NCCES publication number WQMM-155), "Water Quality and Home Lawn Care" (NCCES publication number WQMM-151), or guidelines distributed by land-grant universities. Copies may be obtained from the Division of Water Quality, 512 North Salisbury Street, Raleigh, North Carolina 27626 at no cost.

(C) Nutrient management plans for nursery crops and greenhouse production shall follow the Southern Nurserymen's Association guidelines promulgated in "Best Management Practices Guide For Producing Container-Grown Plants" or guidelines distributed by land-grant universities. Copies may be obtained from the Southern Nurserymen's Association, 1000 Johnson Ferry Road, Suite E-130, Marietta, GA 30068-2100 at a cost of thirty-five dollars ($35.00). The materials related to nutrient management plans for turfgrass, nursery crops and greenhouse production are hereby incorporated by reference including any subsequent amendments and editions and are available for inspection at the Department of Environment and Natural Resources Library, 512 North Salisbury Street, Raleigh, North Carolina.

(2) The person who writes the nutrient management plan shall have the plan approved in writing by a technical specialist. Appropriate technical specialists shall be as follows.

(A) Nutrient management plans for cropland using either inorganic fertilizer or organic nutrients shall be approved by a technical specialist designated pursuant to the process and criteria specified in Rules adopted by the Soil and Water Conservation Commission for nutrient management planning, including 15A NCAC 06F .0105, excepting Subparagraph (a)(2) of that Rule.

(B) Nutrient management plans for turfgrass and nursery crops and greenhouse production shall be approved by a technical specialist designated by the Soil and Water Conservation Commission pursuant to the process and criteria specified in 15A NCAC 06F .0105, excepting Subparagraph (a)(2) of that Rule. If the Soil and Water Conservation Commission does not designate such specialists, then the Environmental Management Commission shall do so using the same process and criteria.

(3) Nutrient management plans and supporting documents must be kept on-site or be produced within 24 hours of a request by the Division.

(4) The Division shall develop model nutrient management plans in consultation with the Cooperative Extension Service. The model plans shall address both nitrogen and phosphorus, and shall address the source of nutrients, the amount of nutrient applied, the placement of nutrients, and the timing of nutrient applications.

(g) COMPLIANCE. Persons who fail to comply with this Rule are subject to enforcement measures authorized in G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

(h) BASINWIDE EDUCATION. The Division shall be responsible for developing and implementing an education program that informs homeowners in the basin on proper residential nutrient management. The program shall be designed to reach as much of the residential population of the basin as practical on an ongoing basis. At a minimum, it shall emphasize fundamental nutrient management principles as well as measures for reducing stormwater runoff from residential properties. The Division shall begin implementation of the program within three years of the effective date of this Rule.

History Note: *Authority G. S. 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143B-282(d);*
Eff. April 1, 2001.

15A NCAC 02B .0258 TAR-PAMLICO RIVER BASIN-NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: BASINWIDE STORMWATER REQUIREMENTS

(a) PURPOSE. The purposes of this Rule are as follows.

(1) To achieve and maintain a reduction in nitrogen loading to the Pamlico estuary from lands in the Tar-Pamlico River Basin on which new development occurs. The goal of this Rule is to achieve a 30 percent reduction relative to pre-development levels;

(2) To limit phosphorus loading from these lands to the estuary. The goal of this Rule is to limit phosphorus loading to pre-development levels;

(3) To provide control for peak stormwater flows from new development lands to ensure that the nutrient processing functions of existing riparian buffers and streams are not compromised by channel erosion; and

(4) To minimize, to the greatest extent practicable, nitrogen and phosphorus loading to the estuary from existing developed areas in the basin.

(b) APPLICABILITY. This Rule shall apply to local governments in the Tar-Pamlico basin according to the following criteria.

(1) This Rule shall apply to the following municipal areas:
(A) Greenville
(B) Henderson
(C) Oxford
(D) Rocky Mount
(E) Tarboro
(F) Washington

(2) This Rule shall apply to the following counties:
(A) Beaufort
(B) Edgecombe
(C) Franklin
(D) Nash
(E) Pitt

(3) The Environmental Management Commission may designate additional local governments as subject to this Rule by amending this Rule based on the potential of those jurisdictions to contribute significant nutrient loads to the Tar-Pamlico River. At a minimum, the Commission shall review the need for additional designations as part of the Basinwide process for the Tar-Pamlico River Basin. The Commission shall

consider, at a minimum, the following criteria related to local governments: population within the basin, population density, past and projected growth rates, proximity to the estuary, and the designation status of municipalities within candidate counties.

(c) REQUIREMENTS. All local governments subject to this Rule shall develop stormwater management programs for submission to and approval by the Commission according to the following minimum standards:

(1) A requirement that developers submit a stormwater management plan for all new developments proposed within their jurisdictions. These stormwater plans shall not be approved by the subject local governments unless the following criteria are met:

(A) The nitrogen load contributed by the proposed new development activity shall not exceed 70 percent of the average nitrogen load contributed by the non-urban areas in the Tar-Pamlico River basin based on land use data and nitrogen export research data. Based on 1995 land use data and available research, the nitrogen load value shall be 4.0 pounds per acre per year;

(B) The phosphorus load contributed by the proposed new development activity shall not exceed the average phosphorus load contributed by the non-urban areas in the Tar-Pamlico River basin based on land use data and phosphorus export research data. Based on 1995 land use data and available research, the phosphorus load value shall be 0.4 pounds per acre per year;

(C) The new development shall not cause erosion of surface water conveyances. At a minimum, the new development shall not result in a net increase in peak flow leaving the site from pre-development conditions for the 1-year, 24-hour storm event; and

(D) Developers shall have the option of partially offsetting their nitrogen and phosphorus loads by providing treatment of off-site developed areas. The off-site area must drain to the same classified surface water, as defined in the Schedule of Classifications, 15A NCAC 2B .0316, that the development site drains to most directly. The developer must provide legal assurance of the dedicated use of the off-site area for the purposes described here, including achievement of specified nutrient load reductions and provision for regular operation and maintenance activities, in perpetuity. The legal assurance shall include an instrument, such as a conservation easement, that maintains this restriction upon change of ownership or modification of the off-site property. Before using off-site treatment, the new development must attain a maximum nitrogen export of six pounds/acre/year for residential development and 10 pounds/acre/year for commercial or industrial development.

(2) A public education program to inform citizens of how to reduce nutrient pollution and to inform developers about the nutrient and flow control requirements set forth in Part (c)(1).

(3) A mapping program that includes major components of the municipal separate storm sewer system, waters of the State, land use types, and location of sanitary sewers.

(4) A program to identify and remove illegal discharges.

(5) A program to identify and prioritize opportunities to achieve nutrient reductions from existing developed areas.

(6) A program to ensure maintenance of BMPs implemented as a result of the provisions in Subparagraphs (c)(1) and (c)(5).

(7) A program to ensure enforcement and compliance with the provisions in Subparagraph (c)(1).

(8) Local governments may include regional or jurisdiction-wide strategies within their stormwater programs as alternative means of achieving partial nutrient removal or flow control. At a minimum, such strategies shall include demonstration that any proposed measures will not contribute to degradation of surface water quality, degradation of aquatic or wetland habitat or biota, or destabilization of conveyance structure of involved surface waters. Such local governments shall also be responsible for including appropriate supporting information to quantify nutrient and flow reductions provided by these measures and describing the administrative process for implementing such strategies.

(d) TIMEFRAME FOR IMPLEMENTATION. The timeframe for implementing the stormwater management programs shall be as follows:

(1) Within 12 months of the effective date of this Rule, the Division shall submit a model local stormwater program that embodies the minimum criteria described in Paragraph (c) of this Rule to the Commission for approval. The Division shall work in cooperation with subject local governments in developing this model program.

(2) Within 12 months of the Commission's approval of the model local stormwater program or within 12 months of a local government's later designation pursuant to Subparagraph (b)(3), subject local governments shall submit their local stormwater management programs to the Commission for review and approval. These local programs shall meet or exceed the requirements in Paragraph (c) of this Rule.

(3) Within 18 months of the Commission's approval of the model local stormwater program or within 18 months of a local government's later designation pursuant to Subparagraph (b)(3), subject local governments shall adopt and implement their approved local stormwater management program.

(4) Local governments administering a stormwater management program shall submit annual reports to the Division documenting their progress and net changes to nitrogen load by October 30 of each year.

(e) COMPLIANCE. A local government that fails to submit an acceptable local stormwater management program within the timeframe established in this Rule or fails to implement an approved program shall be in violation of this Rule. In this case, the stormwater management requirements for its jurisdiction shall be administered through the NPDES municipal stormwater permitting program per 15A NCAC 2H .0126. Any local government that is subject to an NPDES municipal stormwater permit pursuant to this Rule shall:

(1) Develop and implement comprehensive stormwater management program to reduce nutrients from both existing and new development. This stormwater management program shall meet the requirements of Paragraph (c) of this Rule for new and existing development.

(2) Be subject to the NPDES permit for at least one permitting cycle (five years) before it is eligible to submit a local stormwater management program to the Commission for consideration and approval.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-282(d);*
Eff. April 1, 2001.

15A NCAC 02B .0259 TAR-PAMLICO RIVER BASIN: NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

The following is the management strategy for maintaining and protecting existing riparian buffers in the Tar-Pamlico River Basin.

(1) PURPOSE. The purpose of this Rule shall be to protect and preserve existing riparian buffers, to maintain their nutrient removal functions, in the entire Tar-Pamlico River Basin, whose surface waters are described in the Schedule of Classifications, 15A NCAC 02B .0316.

(2) DEFINITIONS. For the purpose of this Rule, these terms shall be defined as follows:

(a) "Channel" means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water. (current definition in Forest Practice Guidelines Related to Water Quality, 15A NCAC 01I .0102)

(b) "DBH" means Diameter at Breast Height of a tree, which is measured at 4.5 feet above ground surface level.

(c) "Ditch or canal" means a man-made channel other than a modified natural stream constructed for drainage purposes that is typically dug through inter-stream divide areas. A ditch or canal may have flows that are perennial, intermittent, or ephemeral and may exhibit hydrological and biological characteristics similar to perennial or intermittent streams.

(d) "Ephemeral (stormwater) stream" means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.

(e) "Forest plantation" means an area of planted trees that may be conifers (pines) or hardwoods. On a plantation, the intended crop trees are planted rather than naturally regenerated from seed on the site, coppice (sprouting), or seed that is blown or carried into the site.

(f) "High Value Tree" means a tree that meets or exceeds the following standards: for pine species, 14-inch DBH or greater or 18-inch or greater stump diameter; and, for hardwoods and wetland species, 16-inch DBH or greater or 24-inch or greater stump diameter.

(g) "Intermittent stream" means a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the conveyance of water.

(h) "Modified natural stream" means an on-site channelization or relocation of a stream channel and subsequent relocation of the intermittent or perennial flow as evidenced by topographic alterations in the immediate watershed. A modified natural stream must have the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(i) "Perennial stream" means a well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(j) "Perennial waterbody" means a natural or man-made basin that stores surface water permanently at depths sufficient to preclude growth of rooted plants, including lakes, ponds, sounds, non-stream estuaries and ocean. For the purpose of the State's riparian buffer protection program, the waterbody must be part of a natural drainageway (i.e., connected by surface flow to a stream).

(k) "Stream" means a body of concentrated flowing water in a natural low area or natural channel on the land surface.

(l) "Surface waters" means all waters of the state as defined in G.S. 143-212 except underground waters.

(m) "Tree" means a woody plant with a DBH equal to or exceeding five inches.

(3) APPLICABILITY. This Rule shall apply to 50-foot wide riparian buffers directly adjacent to surface waters in the Tar-Pamlico River Basin (intermittent streams, perennial streams, lakes, ponds, and estuaries), excluding wetlands. Except as described in Sub-Item (4)(a)(iii) of this Rule, wetlands adjacent to surface waters or within 50 feet of surface waters shall be considered as part of the riparian buffer but are regulated pursuant to 15A NCAC 02H .0506. The riparian buffers protected by this Rule shall be measured pursuant to Item (4) of this Paragraph. For the purpose of this Rule, a surface water shall be present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). Riparian buffers adjacent to surface waters that do not appear on either of the maps shall not be subject to this Rule. Riparian buffers adjacent to surface waters that appear on the maps shall be subject to this Rule unless one of the following applies.

(a) EXEMPTION WHEN AN ON-SITE DETERMINATION SHOWS THAT SURFACE WATERS ARE NOT PRESENT. When a landowner or other affected party believes that the maps have inaccurately depicted surface waters, he or she shall consult the Division or the appropriate delegated local authority. Upon request, the Division or delegated local authority shall make on-site determinations. Any disputes over on-site determinations shall be referred to the Director in writing. A determination of the Director as to the accuracy or application of the maps is subject to review as provided in Articles 3 and 4 of G.S. 150B. Surface waters that appear on the maps shall not be subject to this Rule if an on-site determination shows that they fall into one of the following categories.

(i) Ditches and manmade conveyances other than modified natural streams unless constructed for navigation or boat access.

(ii) Manmade ponds and lakes that are located outside natural drainage ways.

(iii) Ephemeral (stormwater) streams.

(b) EXEMPTION WHEN EXISTING USES ARE PRESENT AND ONGOING. This Rule shall not apply to portions of the riparian buffer where a use is existing and ongoing according to the following:

(i) A use shall be considered existing if it was present within the riparian buffer as of January 1, 2000. Existing uses shall include, but not be limited to, agriculture, buildings, industrial facilities, commercial areas, transportation facilities, maintained lawns, utility lines and on-site sanitary sewage systems. Only the portion of the riparian buffer that

contains the footprint of the existing use is exempt from this Rule. Activities necessary to maintain uses are allowed provided that no additional vegetation is removed from Zone 1, except that grazed or trampled by livestock, and existing diffuse flow is maintained. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised, the ground is stabilized and existing diffuse flow is maintained.

(ii) At the time an existing use is proposed to be converted to another use, this Rule shall apply. An existing use shall be considered to be converted to another use if any of the following applies:

(A) Impervious surface is added to the riparian buffer in locations where it did not exist previously.

(B) An agricultural operation within the riparian buffer is converted to a non-agricultural use.

(C) A lawn within the riparian buffer ceases to be maintained.

(4) ZONES OF THE RIPARIAN BUFFER. The protected riparian buffer shall have two zones as follows:

(a) Zone 1 shall consist of a vegetated area that is undisturbed except for uses provided for in Item (6) of this Rule. The location of Zone 1 shall be as follows:

(i) For intermittent and perennial streams, Zone 1 shall begin at the most landward limit of the top of bank or the rooted herbaceous vegetation and extend landward a distance of 30 feet on all sides of the surface water, measured horizontally on a line perpendicular to the surface water.

(ii) For ponds, lakes and reservoirs located within a natural drainage way, Zone 1 shall begin at the most landward limit of the normal water level or the rooted herbaceous vegetation and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to the surface water.

(iii) For surface waters within the 20 Coastal Counties (defined in 15A NCAC 02B .0202) within the jurisdiction of the Division of Coastal Management, Zone 1 shall begin at the most landward limit of:

(A) the normal high water level;

(B) the normal water level; or

(C) the landward limit of coastal wetlands as defined by the Division of Coastal Management;

and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to the surface water, whichever is more restrictive.

(b) Zone 2 shall consist of a stable, vegetated area that is undisturbed except for activities and uses provided for in Item (6) of this Rule. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised. Zone 2 shall begin at the outer edge of Zone 1 and extend landward 20 feet as measured horizontally on a line perpendicular to the surface water. The combined width of Zones 1 and 2 shall be 50 feet on all sides of the surface water.

(5) DIFFUSE FLOW REQUIREMENT. Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation.

(a) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow before the runoff enters Zone 2 of the riparian buffer.

(b) Periodic corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies.

(6) TABLE OF USES. The following chart sets out the uses and their designation under this Rule as exempt, allowable, allowable with mitigation, or prohibited. The requirements for each category are given in Item (7) of this Rule.

•

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Airport facilities:				

• Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer		X	 X	
Archaeological activities	X			
Bridges		X		
Dam maintenance activities	X			
Drainage ditches, roadside ditches and stormwater outfalls through riparian buffers: • Existing drainage ditches, roadside ditches, and stormwater outfalls provided that they are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies • New drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to control nitrogen and attenuate flow before the conveyance discharges through the riparian buffer • New drainage ditches, roadside ditches and stormwater outfalls that do not provide control for nitrogen 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 X
Drainage of a pond in a natural drainage way provided that a new riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the new channel	X			
Driveway crossings of streams and other surface waters subject to this Rule: • Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet or 2,500 square feet of riparian buffer • Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer • In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer • In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer	X	 X X	 X	
Fences provided that disturbance is minimized and installation does not result in removal of forest vegetation	X			
Forest harvesting - see Item (11) of this Rule				
Fertilizer application: • One-time fertilizer application to establish replanted vegetation • Ongoing fertilizer application	X			 X
Grading and revegetation in Zone 2 only provided that diffuse flow and the health of existing vegetation in Zone 1 is not compromised and disturbed areas are stabilized	X			
Greenway / hiking trails		X		
Historic preservation	X			

Landfills as defined by G.S. 130A-290.				X
Mining activities: • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Items (4) and (5) 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 requirements or Items (4) and (5) 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: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1[3]		X	X	
Non-electric utility line perpendicular crossings of streams and other surface waters subject to this Rule[3]: •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	X	X X	X X	
On-site sanitary sewage systems B new ones that use ground absorption				X
Overhead electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1[1,2,3]	X X			
Overhead electric utility line perpendicular crossings of streams and other surface waters subject to this Rule[3]: • Perpendicular crossings that disturb equal to or less than 150 linear feet of riparian buffer [1] • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer [1,2]	X	X		
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		X		

[1] Provided that, in Zone 1, 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 alternative evaluation by the Division.

- 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 completes a no practical alternative evaluation.

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

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Playground equipment: • 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: • New ponds provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the pond • New ponds where a riparian buffer that meets the requirements of Items (4) and (5) 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: • 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 or one-third of an acre of riparian buffer • Railroad crossings that impact greater than 150 linear feet or one-third of an acre 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: •Road crossings that impact equal to or less than 40 linear feet of riparian buffer •Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer •Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X	
Scientific studies and stream gauging	X			
Stormwater management ponds excluding dry ponds: $New stormwater management ponds provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the pond $New stormwater management ponds where a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the pond		X	X	
Stream restoration	X			
Streambank stabilization		X		
Temporary roads: •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 •Temporary roads used for bridge construction or replacement provided that restoration activities such as soil stabilization and revegetation, occur immediately after construction	X	X X		
Temporary sediment and erosion control devices: • In Zone 2 only provided that the vegetation in Zone 1 is not compromised and that discharge is released as diffuse flow in accordance with Item (5) of this Rule • In Zones 1 and 2 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	X		
Underground electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1[4]	X X			
Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule: • Perpendicular crossings that disturb less than or equal to 40 linear feet of riparian buffer[4] • Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer[4]	X	X		

[4] Provided that, in Zone 1, 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 alternative evaluation by the Division.

- 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.

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Vegetation management:				
• Emergency fire control measures provided that topography is restored	X			
• Periodic mowing and harvesting of plant products in Zone 2 only	X			
• Planting vegetation to enhance the riparian buffer	X			
• Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised	X			
• Removal of individual trees which are in danger of causing damage to dwellings, other structures or human life	X			
• Removal or poison ivy	X			
• Removal of understory nuisance vegetation as defined in: Smith, Cherri L. 1998. Exotic Plant Guidelines. Dept. of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. Guideline #30	X			
Water dependent structures as defined in 15A NCAC2B.0202		X		
Water supply reservoirs:				
• New reservoirs provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the reservoir		X		
• New reservoirs where a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the reservoir			X	
Water wells	X			
Wetland restoration	X			

(7) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated as exempt, allowable, allowable with mitigation and prohibited in Item (6) of this Rule shall have the following requirements:

(a) 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 Item (6) of this Rule for the specific use.

(b) ALLOWABLE. Uses designated as allowable may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule. These uses require written authorization from the Division or the delegated local authority.

(c) ALLOWABLE WITH MITIGATION. Uses designated as allowable with mitigation may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule and an appropriate mitigation strategy has been approved pursuant to Item (10) of this Rule. These uses require written authorization from the Division or the delegated local authority.

(d) PROHIBITED. Uses designated as prohibited may not proceed within the riparian buffer unless a variance is granted pursuant to Item (9) of this Rule. Mitigation may be required as one condition of a variance approval.

(8) DETERMINATION OF ANO PRACTICAL ALTERNATIVES." Persons who wish to undertake uses designated as allowable or allowable with mitigation shall submit a request for a "no practical alternatives" determination to the Division or to the delegated local authority. The applicant shall certify that the criteria identified in Sub-Item (8)(a) of this Rule are met. The Division or the delegated local authority shall grant an Authorization Certificate upon a "no practical alternatives" determination. The procedure for making an Authorization Certificate shall be as follows:

(a) For any request for an Authorization Certificate, the Division or the delegated local authority 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:

(i) 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.

(ii) 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.

(iii) Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(b) Requests for an Authorization Certificate shall be reviewed and either approved or denied within 60 days of receipt of a complete submission based on the criteria in Sub-Item (8)(a) of this Rule by either the Division or the delegated local authority. Failure to issue an approval or denial within 60 days shall constitute that the applicant has demonstrated "no practical alternatives." The Division or the delegated local authority 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:

(i) The name, address and phone number of the applicant;

(ii) The nature of the activity to be conducted by the applicant;

(iii) The location of the activity, including the jurisdiction;

(iv) 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;

(v) 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

(vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity.

(c) 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.

(9) VARIANCES. Persons who wish to undertake uses designated as prohibited may pursue a variance. The Division or the appropriate delegated local authority may grant minor variances. The variance request procedure shall be as follows:

(a) For any variance request, the Division or the delegated local authority shall make a finding of fact as to whether the following requirements have been met:

(i) 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:

(A) If the applicant complies with the provisions of this Rule, 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 shall not be considered adequate justification for a variance. Moreover, the Division or delegated local authority shall consider whether the variance is the minimum possible deviation from the terms of this Rule that shall make reasonable use of the property possible.

(B) The hardship results from application of this Rule to the property rather than from other factors such as deed restrictions or other hardship.

(C) The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, which is different from that of neighboring property.

(D) The applicant did not cause the hardship by knowingly or unknowingly violating this Rule.

(E) The applicant did not purchase the property after the effective date of this Rule, and then request an appeal.

(F) The hardship is unique to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice;

(ii) The variance is in harmony with the general purpose and intent of the State's riparian buffer protection requirements and preserves its spirit; and

(iii) In granting the variance, the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.

(b) MINOR VARIANCES. A minor variance request pertains to activities that are proposed only to impact any portion of Zone 2 of the riparian buffer. Minor variance requests shall be reviewed and approved based on the criteria in Sub-Item (9)(a) of this Rule by the either the Division or the delegated local authority pursuant to G.S. 153A-Article 18, or G.S. 160A-Article 19. The Division or the delegated local authority may attach conditions to the variance approval that support the purpose, spirit and intent of the riparian buffer protection program. Requests for appeals of decisions made by the Division shall be made to the Office of Administrative Hearings. Request for appeals made by the delegated local authority shall be made to the appropriate Board of Adjustment under G.S. 160A-388 or G.S. 153A-345.

(c) MAJOR VARIANCES. A major variance request pertains to activities that are proposed to impact any portion of Zone 1 or any portion of both Zones 1 and 2 of the riparian buffer. If the Division or the delegated local authority has determined that a major variance request meets the requirements in Sub-Item (9)(a) of this Rule, then it shall prepare a preliminary finding and submit it to the Commission. Preliminary findings on major 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 Sub-Item (9)(a) of this Paragraph have not been met shall be made to the Office of Administrative Hearings for determinations made by the Division 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 Sub-Item (9)(a) 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:

(i) Upon the Commission's approval, the Division or the delegated local authority shall issue a final decision granting the major variance.

(ii) Upon the Commission's approval with conditions or stipulations, the Division or the delegated local authority shall issue a final decision, which includes these conditions or stipulations.

(iii) Upon the Commission's denial, the Division or the delegated local authority shall issue a final decision denying the major variance.

(10) MITIGATION. Persons who wish to undertake uses designated as allowable with mitigation shall meet the following requirements in order to proceed with their proposed use.

(a) Obtain a determination of "no practical alternatives" to the proposed use pursuant to Item (8) of this Rule.

(b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 02B .0260.

(11) REQUIREMENTS SPECIFIC TO FOREST HARVESTING. The following requirements shall apply for forest harvesting operations and practices.

(a) The following measures shall apply in the entire riparian buffer:

(i) Logging decks and sawmill sites shall not be placed in the riparian buffer.

(ii) Access roads and skid trails shall be 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.

(iii) Timber felling shall be directed away from the stream or water body.

(iv) 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.

(v) Individual trees may be treated to maintain or improve their health, form or vigor.

(vi) Harvesting of dead or infected trees or application of pesticides necessary to prevent or control extensive tree pest and disease infestation shall be allowed. These practices must be approved by the Division of Forest Resources for a specific site. The Division of Forest Resources must notify the Division of all approvals.

(vii) Removal of individual trees that are in danger of causing damage to structures or human life shall be allowed.

(viii) Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the riparian buffer shall be allowed provided that soil disturbance is minimized. Plantings shall consist primarily of native species.

(ix) High intensity prescribed burns shall not be allowed.

(x) Application of fertilizer shall not be 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 Zone 1, 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:

(i) Tracked or wheeled vehicles are not permitted except at stream crossings designed, constructed and maintained in accordance with 15A NCAC 01I .0203.

(ii) Soil disturbing site preparation activities are not allowed.

(iii) Trees shall be removed with the minimum disturbance to the soil and residual vegetation.

(iv) The following provisions for selective harvesting shall be met:

(A) The first 10 feet of Zone 1 directly adjacent to the stream or waterbody shall be undisturbed except for the removal of individual high value trees as defined provided that no trees with exposed primary roots visible in the streambank be cut.

(B) In the outer 20 feet of Zone 1, a maximum of 50 percent of the trees greater than five inches dbh may be cut and removed. The reentry time for harvest shall be no more frequent than every 15 years, except on forest plantations 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.

(C) In Zone 2, harvesting and regeneration of the forest stand shall be allowed provided that sufficient ground cover is maintained to provide for diffusion and infiltration of surface runoff.

(12) REQUIREMENTS SPECIFIC TO LOCAL GOVERNMENTS WITH STORMWATER PROGRAMS FOR NITROGEN CONTROL. Local governments in the Tar-Pamlico River Basin that are required to have local

stormwater programs to control nitrogen loading shall have two options for ensuring protection of riparian buffers on new developments within their jurisdictions as follows.

(a) Obtain authority to implement a local riparian buffer protection program pursuant to 15A NCAC 02B .0261.

(b) Refrain from issuing local approvals for new development projects unless either:

(i) The person requesting the approval does not propose to impact the riparian buffer of a surface water that appears on either the most recent versions of the soil survey maps prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent versions of the 1:24,000 scale (7.5 minute quadrangle) topographic maps prepared by the United States Geologic Survey (USGS).

(ii) The person requesting the approval proposes to impact the riparian buffer of a surface water that appears on the maps described in Sub-Item (12)(b)(i) of this Paragraph and either:

(A) Has received an on-site determination from the Division pursuant to Sub-Item (3)(a) of this Rule that surface waters are not present;

(B) Has received an Authorization Certificate from the Division pursuant to Item (8) of this Rule for uses designated as Allowable under this Rule;

(C) Has received an Authorization Certificate from the Division pursuant to Item (8) of this Rule and obtained the Division's approval on a mitigation plan pursuant to Item (10) of this Rule for uses designated as Allowable with Mitigation under this Rule; or

(D) Has received a variance from the Commission pursuant to Item (9) of this Rule.

(13) OTHER LAWS, REGULATIONS AND PERMITS. In all cases, compliance with this Rule does not preclude the requirement to comply with all federal, state and local regulations and laws.

History Note: *Authority 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143B-282(d); S.L. 1999, c. 329, s. 7.1;*
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15A NCAC 02B .0260 TAR-PAMLICO RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: MITIGATION PROGRAM FOR PROTECTION AND MAINTENANCE OF RIPARIAN BUFFERS

The following are requirements for the Riparian Buffer Mitigation Program for the Tar-Pamlico Basin:

(1) PURPOSE. The purpose of this Rule is to set forth the mitigation requirements that apply to the riparian buffer protection program in the Tar-Pamlico Basin, as described in Rule 15A NCAC 2B .0259, and whose surface waters are described in the Schedule of Classifications, 15A NCAC 2B .0316.

(2) APPLICABILITY. This Rule applies to persons who wish to impact a riparian buffer in the Tar-Pamlico Basin when one of the following applies:

(a) A person has received an Authorization Certificate pursuant to 15A NCAC 2B .0259 for a proposed use that is designated as "allowable with mitigation."

(b) A person has received a variance pursuant to 15A NCAC 2B .0259 and is required to perform mitigation as a condition of a variance approval.

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

(a) The impacts in square feet to each zone of the riparian buffer shall be determined by the Division or the delegated local authority by adding the following:

(i) The area of the footprint of the use causing the impact to the riparian buffer.

(ii) The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use.

(iii) The area of any ongoing maintenance corridors within the riparian buffer associated with the use.

(b) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Sub-item (3)(a) of this Paragraph to each zone of the riparian buffer:

(i) Impacts to Zone 1 of the riparian buffer shall be multiplied by 3.

(ii) Impacts to Zone 2 of the riparian buffer shall be multiplied by 1.5.

(iii) Impacts to wetlands within Zones 1 and 2 of the riparian buffer that are subject to mitigation under 15A NCAC 2H .0506 shall comply with the mitigation ratios in 15A NCAC 2H .0506.

(4) THE LOCATION OF MITIGATION. The mitigation effort shall be located the same distance from the Pamlico River estuary as the proposed impact, or closer to the estuary than the impact, and as close to the location of the impact as feasible.

(5) ISSUANCE OF THE MITIGATION DETERMINATION. The Division or the delegated local authority shall issue a mitigation determination that specifies the required area and location of mitigation pursuant to Items (3) and (4) of this Rule.

(6) OPTIONS FOR MEETING THE MITIGATION DETERMINATION. The mitigation determination made pursuant to Item (5) of this Rule may be met through one of the following options:

(a) Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Item (7) of this Rule.

(b) Donation of real property or of an interest in real property pursuant to Item (8) of this Rule.

(c) 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 Item (9) of this Rule.

(7) 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:

(a) 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 Item (5) of this Rule by ninety-six cents per square foot or forty-one thousand, six hundred and twenty-five dollars per acre.

(b) The required fee shall be submitted to the Division of Water Quality, Wetlands Restoration Program, 1619 Mail Service Center, Raleigh, NC 27699-1619 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.

(c) The payment of a compensatory mitigation fee may be fully or partially satisfied by donation of real property interests pursuant to Item (8) of this Rule.

(d) The Division of Water Quality shall review the fee outlined in Sub-item (7)(a) of this Rule every two years and shall 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 Sub-item (7)(a) of this Rule when adjustments to this Schedule of Fees are deemed necessary.

(8) 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:

(a) 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 Item (7) of this Rule. The value of the property interest shall be determined by an appraisal performed in accordance with Sub-item (8)(d)(iv) 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 Sub-item (7)(a) of this Rule, the applicant shall pay the remaining balance due.

(b) The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity.

(c) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:

(i) 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.

(ii) The property shall contain riparian buffers not currently protected by the State's riparian buffer protection program that are in need of restoration.

(iii) The restorable riparian buffer on the property shall have a minimum length of 1000 linear feet along a surface water and a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water.

(iv) 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 Item (3) of this Rule.

(v) 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.

(vi) The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation;

(vii) The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and land acquisition costs.

(ix) 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.

(x) The property shall not contain any hazardous substance or solid waste.

(xi) 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.

(xii) The property and adjacent properties shall not have prior, current, and known future land use that would inhibit the function of the restoration effort.

(xiii) The property shall not have any encumbrances or conditions on the transfer of the property interests.

(d) At the expense of the applicant or donor, the following information shall be submitted to the Division with any proposal for donations or dedications of interest in real property:

(i) Documentation that the property meets the requirements laid out in Sub-Item (8)(c) of this Rule.

(ii) 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.

(iii) 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.

(iv) 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.

(v) A title certificate.

(9) RIPARIAN BUFFER RESTORATION OR ENHANCEMENT. Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:

(a) The applicant may restore or enhance a non-forested riparian buffer if either of the following applies:

(i) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Item (3) of this Rule.

(ii) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Item (3) of this Rule.

(b) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Item (4) of this Rule.

(c) 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.

(d) The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of 15A NCAC 2B .0259. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the Division. The restoration or enhancement plan shall contain the following.

(i) A map of the proposed restoration or enhancement site.

(ii) A vegetation plan. The vegetation plan shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity.

(iii) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer.

(iv) A fertilization plan.

(v) A schedule for implementation.

(e) Within one year after the Division has approved the restoration or enhancement plan, the applicant shall present proof to the Division 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.

(f) The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal functions.

(g) 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 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C;143B-282(d); S.L. 1999, c. 329, s. 7.1;*
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15A NCAC 02B .0261 TAR-PAMLICO RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: DELEGATION OF AUTHORITY FOR THE PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

This Rule sets out the following requirements for delegation of the responsibility for implementing and enforcing the Tar-Pamlico Basin riparian buffer protection program, as described in Rule 15A NCAC 2B .0259, to local governments:

(1) PROCEDURES FOR GRANTING AND RESCINDING DELEGATION. The Commission shall grant and rescind local government delegation of the Tar-Pamlico River Basin Riparian Buffer Protection requirements, as described in Rule 15A NCAC 2B. 0259, according to the following procedures.

(a) Local governments within the Tar-Pamlico River Basin may submit a written request to the Commission for authority to implement and enforce the Tar-Pamlico Basin riparian buffer protection requirements within their jurisdiction. The written request shall be accompanied by information which shows:

(i) 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);

(ii) The local government has the administrative organization, staff, legal authority, financial and other resources necessary to implement and enforce the Tar-Pamlico Basin riparian buffer protection requirements based on its size and projected amount of development;

(iii) The local government has adopted ordinances, resolutions, or regulations necessary to establish and maintain the Tar-Pamlico Basin riparian buffer protection requirements; and

(iv) The local government has provided a plan to address violations with appropriate remedies and actions including, but not limited to, civil or criminal remedies that shall restore buffer nutrient removal functions on violation sites and provide a deterrent against the occurrence of future violations.

(b) Within 90 days after the Commission has received the request for delegation, the Commission shall notify the local government whether it has been approved, approved with modifications, or denied.

(c) The Commission, upon determination that a delegated local authority is failing to implement or enforce the Tar-Pamlico Basin riparian buffer protection requirements in keeping with a request approved under Sub-item (1)(b) of this Rule, 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 Tar-Pamlico Basin riparian buffer protection requirements.

(d) The Commission may delegate its duties and powers for granting and rescinding local government delegation of the Tar-Pamlico Basin riparian buffer protection requirements, in whole or in part, to the Director.

(2) 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 and subsequent annual training sessions. The Administrator shall ensure that local government staff working directly with the program receive training to understand, implement and enforce the program.

(3) PROCEDURES FOR USES WITHIN RIPARIAN BUFFERS THAT ARE ALLOWABLE AND ALLOWABLE WITH MITIGATION. Upon receiving delegation, local authorities shall review proposed uses within the riparian buffer and issue approvals if the uses meet the Tar-Pamlico Basin riparian buffer protection requirements. Delegated local authorities shall issue an Authorization Certificate for uses if the proposed use meets the Tar-Pamlico Basin riparian buffer protection requirements, or provides for appropriate mitigated provisions to the Tar-Pamlico Basin riparian buffer protection requirements. The Division 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 does not challenge an Authorization Certificate within 30 days of issuance, then the delegated local authority's decision shall stand.

(4) VARIANCES. After receiving delegation, local governments shall review variance requests, provide approvals for minor variance requests and make recommendations to the Commission for major variance requests pursuant to the Tar-Pamlico Basin riparian buffer protection program.

(5) LIMITS OF DELEGATED LOCAL AUTHORITY. The Commission shall have jurisdiction to the exclusion of local governments to implement the Tar-Pamlico Basin riparian buffer protection requirements for the following types of activities:

(a) Activities conducted under the authority of the State;

(b) Activities conducted under the authority of the United States;

(c) Activities conducted under the authority of multiple jurisdictions;

(d) Activities conducted under the authority of local units of government.

(6) RECORD-KEEPING REQUIREMENTS. Delegated local authorities shall maintain on-site records for a minimum of 5 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 shall inspect local riparian buffer protection programs to ensure that the programs are being implemented and enforced in keeping with a request approved under Sub-item (1)(b) of this Rule. Each delegated local authority's records shall include the following:

(a) A copy of variance requests;

(b) The variance request's finding of fact;

(c) The result of the variance proceedings;

(d) A record of complaints and action taken as a result of the complaint;

(e) Records for stream origin calls and stream ratings; and

(f) Copies of request for authorization, records approving authorization and Authorization Certificates.

History Note: *Authority G S. 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143B-282(d); S.L. 1999; c. 329, s. 7.1;*
Temporary Adoption Eff. January 1, 2000;
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15A NCAC 02B .0262 JORDAN WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE

PURPOSE. The purpose of this Rule, 15A NCAC 02B .0263 through .0273 and .0311(p) shall be to restore and maintain nutrient-related water quality standards in B. Everett Jordan Reservoir; protect its classified uses as set out in 15A NCAC 02B .0216, including use as a source of water supply for drinking water, culinary and food processing purposes; and maintain or enhance protections currently implemented by local governments in existing water supply watersheds. These Rules, as further enumerated in Item (3) of this Rule, together shall constitute the Jordan water supply nutrient strategy, or Jordan nutrient strategy. Additional provisions of this Rule include establishing the geographic and regulatory scope of the Jordan nutrient strategy, defining its relationship to existing water quality regulations, setting specific nutrient mass load goals for Jordan Reservoir, providing for the use of adaptive management to restore Jordan Reservoir, and citing general enforcement authorities. The following provisions further establish the framework of the Jordan water supply nutrient strategy:

(1) SCOPE. B. Everett Jordan Reservoir is hereafter referred to as Jordan Reservoir. All lands and waters draining to Jordan Reservoir are hereafter referred to as the Jordan watershed. Jordan Reservoir and all waters draining to it have been supplementally classified as Nutrient Sensitive Waters (NSW) pursuant to 15A NCAC 02B .0101(e)(3) and 15A NCAC 02B .0223. Water supply waters designated WS-II, WS-III, and WS-IV within the Jordan watershed shall retain their classifications. The remaining waters in the Jordan watershed are classified WS-V as of the initial effective date of this Rule, August 11, 2009. The requirements of all of these water supply classifications shall be retained and applied except as specifically noted in Item (6) of this Rule and elsewhere within the Jordan nutrient strategy. Pursuant to G.S. 143-214.5(b), the entire Jordan watershed shall be designated a critical water supply watershed and through the Jordan nutrient strategy given additional, more stringent requirements than the state minimum water supply watershed management requirements. These requirements supplement the water quality standards applicable to Class C waters, as described in Rule .0211 of this Section, which apply throughout the Jordan watershed.

(2) STRATEGY GOAL. Pursuant to G.S. 143-215.1(c5), 143-215.8B, and 143B-282(c) and (d) of the Clean Water Responsibility Act of 1997, the Environmental Management Commission establishes the goal of reducing the average annual loads of nitrogen and phosphorus delivered to Jordan Reservoir from all point and nonpoint sources of these nutrients located within its watershed, as specified in Item (5) of this Rule, and provides for adaptive management of the strategy and goal, as specified in Item (8) of this Rule.

(3) RULES ENUMERATED. The second rule in the following list provides definitions for terms that are used in more than one rule of the Jordan nutrient strategy. An individual rule may contain additional definitions that are specific to that Rule. The rules of the Jordan nutrient strategy are titled as follows:

(a) Rule. 0262 - Purpose and Scope;
(b) Rule. 0263 - Definitions;
(c) Rule. 0264 - Agriculture;
(d) Rule. 0265 - Stormwater Management for New Development;
(e) Rule. 0266 - Stormwater Management for Existing Development;
(f) Rule. 0267 - Protection of Existing Riparian Buffers;
(g) Rule. 0268 - Mitigation for Riparian Buffers;
(h) Rule. 0269 - Riparian Buffer Mitigation Fees to the NC Ecosystem Enhancement Program;
(i) Rule. 0270 - Wastewater Discharge Requirements;
(j) Rule. 0271 - Stormwater Requirements for State and Federal Entities;
(k) Rule. 0272 - Fertilizer Management;
(l) Rule. 0273 - Options for Offsetting Nutrient Loads; and
(m) Rule. 0311 - Cape Fear River Basin.

(4) RESERVOIR ARMS AND SUBWATERSHEDS. For the purpose of the Jordan nutrient strategy, Jordan Reservoir is divided into three arms and the Jordan watershed is divided into three tributary subwatersheds as follows:

(a) The Upper New Hope arm of the reservoir, identified by index numbers 16-41-1-(14), 16-41-2-(9.5), and 16-41-(0.5) in the Schedule of Classifications for the Cape Fear River Basin, 15A NCAC 02B .0311, encompasses the upper end of the reservoir upstream of SR 1008, and its subwatershed encompasses all lands and waters draining into it.

(b) The Lower New Hope arm of the reservoir, identified by index number 16-41-(3.5) in the Schedule of Classifications for the Cape Fear River Basin, 15A NCAC 02B .0311, lies downstream of SR 1008 and upstream of the Jordan Lake Dam, excluding the Haw River arm of the reservoir, and its subwatershed encompasses all lands and waters draining into the Lower New Hope arm of the reservoir excluding those that drain to the Upper New Hope arm of the reservoir and the Haw River arm of the reservoir.

(c) The Haw River arm of the reservoir, identified by index number 16-(37.5) in the Schedule of Classifications for the Cape Fear River Basin, 15A NCAC 02B .0311, lies immediately upstream of Jordan Lake Dam, and its subwatershed includes all lands and waters draining into the Haw River arm of the reservoir excluding those draining into the Upper and Lower New Hope arms.

(5) NUTRIENT REDUCTION GOALS. Each arm of the lake has reduction goals, total allowable loads, point source wasteload allocations, and nonpoint source load allocations for both nitrogen and phosphorus based on a field-calibrated nutrient response model developed pursuant to provisions of G.S. 143-215.1(c5). The reduction goals and allocations shall be met collectively by the sources regulated under the Jordan nutrient strategy. The reduction goals are expressed in terms of a percentage reduction in delivered loads from the baseline years, 1997-2001, while allocations are expressed in pounds per year of allowable delivered load. Each arm and subwatershed shall conform to its respective allocations for nitrogen and phosphorus as follows:

(a) The at-lake nitrogen goals for the arms of Jordan Reservoir are as follows:

(i) The Upper New Hope arm has a 1997-2001 baseline nitrogen load of 986,186 pounds per year and a nitrogen Total Maximum Daily Load (TMDL) reduction goal of 35 percent. The resulting TMDL includes a total allowable load of 641,021 pounds of nitrogen per year: a point source mass wasteload allocation of 336,079 pounds of nitrogen per year, and a nonpoint source mass load allocation of 304,942 pounds of nitrogen per year.

(ii) The Lower New Hope arm has a 1997-2001 baseline nitrogen load of 221,929 pounds per year and a nitrogen TMDL capped at the baseline nitrogen load. The resulting TMDL includes a total allowable load of 221,929 pounds of nitrogen per year: a point source mass wasteload allocation of 6,836 pounds of nitrogen per year, and a nonpoint source mass load allocation of 215,093 pounds of nitrogen per year.

(iii) The Haw River arm has a 1997-2001 baseline nitrogen load of 2,790,217 pounds per year and a nitrogen TMDL reduction goal of eight percent. The resulting TMDL includes a total allowable load of 2,567,000 pounds of nitrogen per year: a point source mass wasteload allocation of 895,127 pounds of nitrogen per year, and a nonpoint source mass load allocation of 1,671,873 pounds of nitrogen per year.

(b) The at-lake phosphorus goals for the arms of Jordan Reservoir are as follows:

(i) The Upper New Hope arm has a 1997-2001 baseline phosphorus load of 87,245 pounds per year and a phosphorus TMDL reduction goal of five percent. The resulting TMDL includes a total allowable load of 82,883 pounds of phosphorus per year: a point source mass wasteload allocation of 23,108 pounds of phosphorus per year, and a nonpoint source mass load allocation of 59,775 pounds of phosphorus per year.

(ii) The Lower New Hope arm has a 1997-2001 baseline phosphorus load of 26,574 pounds per year and a phosphorus TMDL capped at the baseline phosphorus load. The resulting TMDL includes a total allowable load of 26,574 pounds of phosphorus per year: a point source mass wasteload allocation of 498 pounds of phosphorus per year, and a nonpoint source mass load allocation of 26,078 pounds of phosphorus per year.

(iii) The Haw River arm has a 1997-2001 baseline phosphorus load of 378,569 pounds per year and a phosphorus TMDL reduction goal of five percent. The resulting TMDL includes a

total allowable load of 359,641 pounds of phosphorus per year: a point source mass wasteload allocation of 106,001 pounds of phosphorus per year, and a nonpoint source mass load allocation of 253,640 pounds of phosphorus per year.

(c) The allocations established in this Item may change as a result of allocation transfer between point and nonpoint sources to the extent provided for in rules of the Jordan nutrient strategy and pursuant to requirements on the sale and purchase of load reduction credit set out in 15A NCAC 02B .0273.

(6) RELATION TO WATER SUPPLY REQUIREMENTS. The following water supply requirements shall apply:

(a) For all waters designated as WS-II, WS-III, or WS-IV within the Jordan watershed, the requirements of water supply 15A NCAC 02B .0214 through .0216 shall remain in effect with the exception of Sub-Item (3)(b) of those Rules addressing nonpoint sources. The nonpoint source requirements of Sub-Item (3)(b) of those Rules are superseded by the requirements of this Rule and 15A NCAC 02B .0263 through .0269, and .0271 through .0273, except as specifically stated in any of these Rules. For WS-II, WS-III, and WS-IV waters, the retained requirements of 15A NCAC 02B .0214 through .0216 are the following:

(i) Item (1) of 15A NCAC 02B .0214 through .0216 addressing best usages;

(ii) Item (2) of 15A NCAC 02B .0214 through .0216 addressing predominant watershed development conditions, discharges expressly allowed watershed-wide, general prohibitions on and allowances for domestic and industrial discharges, Maximum Contaminant Levels following treatment, and the local option to seek more protective classifications for portions of existing water supply watersheds;

(iii) Sub-Item (3)(a) of 15A NCAC 02B .0214 through .0216 addressing waste discharge limitations; and

(iv) Sub-Items (3)(c) through (3)(h) of 15A NCAC 02B .0214 through .0216 addressing aesthetic and human health standards.

(b) For waters designated WS-V in the Jordan Watershed, the requirements of Rules .0263 through .0273 and .0311 of this Subchapter shall apply. The requirements of 15A NCAC 02B .0218 shall also apply except for Sub-Items (3)(e) through (3)(h) of that Rule, which shall only apply where:

(i) The designation of WS-V is associated with a water supply intake used by an industry to supply drinking water for their employees; or

(ii) Standards set out in 15A NCAC 02B .0218(3)(e) through (3)(h) are violated at the upstream boundary of waters within those watersheds that are classified as WS-II, WS-III, or WS-IV. This Sub-Item shall not be construed to alter the nutrient reduction requirements set out in 15A NCAC 02B .0262(5) or 15A NCAC 2B .0275(3).

(7) APPLICABILITY. Types of parties responsible for implementing rules within the Jordan nutrient strategy and, as applicable, their geographic scope of responsibility, are identified in each rule. The specific local governments responsible for implementing Rules .0265, .0266, .0267, .0268, and .0273 of this Subchapter shall be as follows:

(a) Rules .0265, .0266, .0267, .0268, and .0273 of this Subchapter shall be implemented by all incorporated municipalities, as identified by the Office of the Secretary of State, with planning jurisdiction within or partially within the Jordan watershed. As of August 11, 2009, those municipalities are:

(i) Alamance;
(ii) Apex;
(iii) Burlington;
(iv) Carrboro;
(v) Cary;
(vi) Chapel Hill;
(vii) Durham;
(viii) Elon;
(ix) Gibsonville;
(x) Graham;
(xi) Green Level;
(xii) Greensboro;

(xiii) Haw River;
(xiv) Kernersville;
(xv) Mebane;
(xvi) Morrisville;
(xvii) Oak Ridge;
(xviii) Ossipee;
(xix) Pittsboro;
(xx) Pleasant Garden;
(xxi) Reidsville;
(xxii) Sedalia;
(xxiii) Stokesdale;
(xxiv) Summerfield; and
(xxv) Whitsett.

(b) Rules .0265, .0266, .0267, .0268, and .0273 of this Subchapter shall be implemented by the following counties for the portions of the counties where the municipalities listed in Sub-Item (7)(a) do not have an implementation requirement:
(i) Alamance;
(ii) Caswell;
(iii) Chatham;
(iv) Durham;
(v) Guilford;
(vi) Orange;
(vii) Rockingham; and
(viii) Wake.

(c) A unit of government may arrange through interlocal agreement or other instrument of mutual agreement for another unit of government to implement portions or the entirety of a program required or allowed under any of the rules listed in Item (3) of this Rule to the extent that such an arrangement is otherwise allowed by statute. The governments involved shall submit documentation of any such agreement to the Division. No such agreement shall relieve a unit of government from its responsibilities under these Rules.

(8) ADAPTIVE MANAGEMENT. The Division shall evaluate the effectiveness of the Jordan nutrient strategy no sooner than ten years following the effective date and periodically thereafter as part of the review of the *Cape Fear River Basinwide Water Quality Plan*. The Division shall base its evaluation on, at a minimum, trend analyses as described in the monitoring section of the *B. Everett Jordan Reservoir, North Carolina Nutrient Management Strategy and Total Maximum Daily Load*, and lake use support assessments. Both of these documents can be found on the Division's website at www.ncwater.org. The Division may also develop additional watershed modeling or other source characterization work. Any nutrient response modeling and monitoring on which any recommendation for adjustment to strategy goals may be based shall meet the criteria set forth in G.S. 143-215.1(c5) and meet or exceed criteria used by the Division for the monitoring and modeling used to establish the goals in Item (5) of this Rule. Any modification to these Rules as a result of such evaluations would require additional rulemaking.

(9) LIMITATION. The Jordan nutrient strategy may not fully address significant nutrient sources in the Jordan watershed in that these Rules do not directly address atmospheric sources of nitrogen to the watershed from sources located both within and outside of the watershed. As better information becomes available from ongoing research on atmospheric nitrogen loading to the watershed from these sources, and on measures to control this loading, the Commission may undertake separate rule making to require such measures it deems necessary from these sources to support the goals of the Jordan nutrient strategy.

(10) ENFORCEMENT. Failure to meet requirements of Rules .0262, .0264, .0265, .0266, .0267, .0268, .0269, .0270, .0271, .0272 and .0273 of this Subchapter may result in imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.1; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143 215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2012-187; Eff. August 11, 2009;*

Amended Eff. January 1, 2014; September 1, 2011.

15A NCAC 02B .0263 JORDAN WATER SUPPLY NUTRIENT STRATEGY: DEFINITIONS

The following words and phrases, which are not defined in G.S. 143, Article 21, shall be interpreted as follows for the purposes of the Jordan nutrient strategy:

(1) "Allocation" means the mass quantity of nitrogen or phosphorus that a discharger, group of dischargers, nonpoint source, or collection of nonpoint sources is assigned as part of a TMDL. For point sources, possession of allocation does not authorize the discharge of nutrients but is prerequisite to such authorization through a NPDES permit.

(2) "Applicator" means the same as defined in 15A NCAC 02B .0202(4).

(3) "Channel" means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water.

(4) "DBH" means diameter at breast height of a tree measured at 4.5 feet above ground surface level.

(5) "Delivered," as in delivered allocation, load, or limit, means the allocation, load, or limit that is measured or predicted at Jordan Reservoir. A delivered value is equivalent to a discharge value multiplied by the transport factor for that discharge location.

(6) "Development" means the same as defined in 15A NCAC 02B .0202(23).

(7) "Discharge," as in discharge allocation, load, or limit means the allocation, load, or limit that is measured at the point of discharge into surface waters in the Jordan watershed. A discharge value is equivalent to a delivered value divided by the transport factor for that discharge location.

(8) "Ditch or canal" means a man-made channel other than a modified natural stream constructed for drainage purposes that is typically dug through inter-stream divide areas. A ditch or canal may have flows that are perennial, intermittent, or ephemeral and may exhibit hydrological and biological characteristics similar to perennial or intermittent streams.

(9) "Ephemeral stream" means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.

(10) "Existing development" means development, other than that associated with agricultural or forest management activities, that meets one of the following criteria:

  (a) It either is built or has established a vested right based on statutory or common law as interpreted by the courts, for projects that do not require a state permit, as of the effective date of either local new development stormwater programs implemented under 15A NCAC 02B .0265 or, for projects requiring a state permit, as of the applicable compliance date established in 15A NCAC 02B .0271(5) and (6); or

  (b) It occurs after the compliance date set out in Sub-Item (4)(d) of Rule .0265 but does not result in a net increase in built-upon area.

(11) "Intermittent stream" means a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the continuous conveyance of water.

(12) "Jordan nutrient strategy," or "Jordan water supply nutrient strategy" means the set of 15A NCAC 02B .0262 through .0273 and .0311(p).

(13) "Jordan Reservoir" means the surface water impoundment operated by the US Army Corps of Engineers and named B. Everett Jordan Reservoir, as further delineated for purposes of the Jordan nutrient strategy in 15A NCAC 02B .0262(4).

(14) "Jordan watershed" means all lands and waters draining to B. Everett Jordan Reservoir.

(15) "Load" means the mass quantity of a nutrient or pollutant released into surface waters over a given time period. Loads may be expressed in terms of pounds per year and may be expressed as "delivered load" or an equivalent "discharge load."

(16) "Load allocation" means the same as set forth in federal regulations 40 CFR 130.2(g), which is incorporated herein by reference, including subsequent amendments and editions. These regulations may be obtained at

no cost from http://www.epa.gov/lawsregs/search/40cfr.html or from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.

(17) "Modified natural stream" means an on-site channelization or relocation of a stream channel and subsequent relocation of the intermittent or perennial flow as evidenced by topographic alterations in the immediate watershed. A modified natural stream must have the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(18) "New development" means any development project that does not meet the definition of existing development set out in this Rule.

(19) "Nitrogen" or "total nitrogen" means the sum of the organic, nitrate, nitrite, and ammonia forms of nitrogen in a water or wastewater.

(20) "NPDES" means National Pollutant Discharge Elimination System, and connotes the permitting process required for the operation of point source discharges in accordance with the requirements of Section 402 of the Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq.

(21) "Nutrients" means total nitrogen and total phosphorus.

(22) "Perennial stream" means a well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(23) "Perennial waterbody" means a natural or man-made basin, including lakes, ponds, and reservoirs, that stores surface water permanently at depths sufficient to preclude growth of rooted plants. For the purpose of the State's riparian buffer protection program, the waterbody must be part of a natural drainage way (i.e., connected by surface flow to a stream).

(24) "Phosphorus" or "total phosphorus" means the sum of the orthophosphate, polyphosphate, and organic forms of phosphorus in a water or wastewater.

(25) "Stream" means a body of concentrated flowing water in a natural low area or natural channel on the land surface.

(26) "Surface waters" means all waters of the state as defined in G.S. 143-212 except underground waters.

(27) "Technical specialist" means the same as defined in 15A NCAC 06H .0102(9).

(28) "Total Maximum Daily Load," or "TMDL," means the same as set forth in federal regulations 40 CFR 130.2(i) and 130.7(c)(1), which are incorporated herein by reference, including subsequent amendments and editions. These regulations may be obtained at no cost from http://www.epa.gov/lawsregs/search/40cfr.html or from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.

(29) "Total nitrogen" or "nitrogen" means the sum of the organic, nitrate, nitrite, and ammonia forms of nitrogen in a water or wastewater.

(30) "Total phosphorus" or "phosphorus" means the sum of the orthophosphate, polyphosphate, and organic forms of phosphorus in a water or wastewater.

(31) "Transport factor" means the fraction of a discharged nitrogen or phosphorus load that is delivered from the discharge point to Jordan Reservoir, as determined in an approved TMDL.

(32) "Tree" means a woody plant with a DBH equal to or exceeding five inches or a stump diameter exceeding six inches.

(33) "Wasteload" means the mass quantity of a nutrient or pollutant released into surface waters by a wastewater discharge over a given time period. Wasteloads may be expressed in terms of pounds per year and may be expressed as "delivered wasteload" or an equivalent "discharge wasteload."

(34) "Wasteload allocation" means the same as set forth in federal regulations 40 CFR 130.2(h), which is incorporated herein by reference, including subsequent amendments and editions. These regulations may be obtained at no cost from http://www.epa.gov/lawsregs/search/40cfr.html or from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 2001-355; S.L. 2005-190; S.L. 2006-259; Eff. August 11, 2009.*

15A NCAC 02B .0264 JORDAN WATER SUPPLY NUTRIENT STRATEGY: AGRICULTURE
(See S.L. 2013-395)

This Rule sets forth a process by which agricultural operations in the Jordan watershed will collectively limit their nitrogen and phosphorus loading to the Jordan Reservoir, as prefaced in Rule 15A NCAC 02B .0262. This process is as follows:

(1) PURPOSE. The purposes of this Rule are to achieve and maintain the percentage reduction goals defined in Rule 15A NCAC 02B .0262 for the collective agricultural loading of nitrogen and phosphorus from their respective 1997-2001 baseline levels, to the extent that best available accounting practices will allow. This Rule aims to achieve the goals set out in 15A NCAC 02B .0262 within six to nine years, as set out in Sub-Item (5)(b) of this Rule. Additionally this Rule will protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed.

(2) PROCESS. This Rule requires accounting for agricultural land management practices at the county and subwatershed levels in the Jordan watershed, and implementation of practices by farmers in these areas to collectively achieve the nutrient reduction goals on a county and subwatershed basis. Producers may be eligible to obtain cost share and technical assistance from the NC Agriculture Cost Share Program and similar federal programs to contribute to their counties' nutrient reductions. A Watershed Oversight Committee, and if needed Local Advisory Committees, will develop strategies, coordinate activities, and account for progress.

(3) LIMITATION. This Rule may not fully address significant nutrient sources relative to agriculture in that it does not directly address atmospheric sources of nitrogen to the Jordan watershed from agricultural operations located both within and outside of the Jordan watershed. As better information becomes available from ongoing research on atmospheric nitrogen loading to the Jordan watershed from these sources, and on measures to control this loading, the Commission may undertake separate rule-making to require such measures it deems necessary from these sources to support the goals of the Jordan Reservoir Nutrient Sensitive Waters Strategy.

(4) APPLICABILITY. This Rule shall apply to all persons engaging in agricultural operations in the Jordan watershed, including those related to crops, horticulture, livestock, and poultry. This Rule applies to livestock and poultry operations above the size thresholds in this Item in addition to requirements for animal operations set forth in general permits issued pursuant to G.S. 143-215.10C. Nothing in this Rule shall be deemed to allow the violation of any assigned surface water, groundwater, or air quality standard by any agricultural operation, including any livestock or poultry operation below the size thresholds in this Item. This Rule does not require specific actions by any individual person or operation if the county or counties in which they conduct operations can collectively achieve their nutrient reduction targets, in the manner described in Item (5) of this Rule, within six years of the effective date of this Rule. For the purposes of this Rule, agricultural operations are activities that relate to any of the following pursuits:

(a) The commercial production of crops or horticultural products other than trees. As used in this Rule, commercial shall mean activities conducted primarily for financial profit.

(b) Research activities in support of such commercial production.

(c) The production or management of any of the following number of livestock or poultry at any time, excluding nursing young:

(i) 5 or more horses;

(ii) 20 or more cattle;

(iii) 20 or more swine not kept in a feedlot, or 150 or more swine kept in a feedlot;

(iv) 120 or more sheep;

(v) 130 or more goats;

(vi) 650 or more turkeys;

(vii) 3,500 or more chickens; or

(viii) Any single species of any other livestock or poultry, or any combination of species of livestock or poultry, that exceeds 20,000 pounds of live weight at any time.

(5) METHOD FOR RULE IMPLEMENTATION. This Rule shall be implemented initially by a Watershed Oversight Committee and, if needed, through a cooperative effort between the Watershed Oversight Committee and Local Advisory Committees in each county. The membership, roles and responsibilities of these committees are set forth in Items (7) and (8) of this Rule. Committees' activities shall be guided by the following constraints:

(a) Within three years after the effective date of this Rule, the Watershed Oversight Committee shall provide the Commission with an initial assessment of the extent to which agricultural operations in each subwatershed have achieved the nitrogen goals identified in Item (1) of this Rule through activities conducted since the baseline period. The Watershed Oversight Committee shall use the accounting process described in Items (7) and (8) of this Rule to make its assessment. Should the Commission determine at that time that a subwatershed nitrogen goal has not been achieved, then Local Advisory Committees shall be formed in that subwatershed according to Item (8) of this Rule to further progress toward the goal by developing local strategies to guide implementation.

(b) For any subwatershed identified in Sub-Item (5)(a) of this Rule as not having achieved its nitrogen goal within three years, the Commission shall within six years after the effective date of this Rule again determine, with input from the Watershed Oversight Committee, whether the subwatershed has achieved its nitrogen goal. Should the Commission determine at that time that a subwatershed has not achieved its goal, then it shall require additional best management practice (BMP) implementation as needed to ensure that the goal is met within nine years after the effective date of this Rule. The Commission may also consider alternative recommendations from the Watershed Oversight Committee based on its assessment of the practicability of agricultural operations meeting the subwatershed goal. Should the Commission require some form of individual compliance, then it shall also subsequently approve a framework proposed by the Watershed Oversight Committee for allowing producers to obtain credit through offsite measures. Such offsite measures shall meet the requirements of 15A NCAC 02B .0273(2) – (4). The Commission shall review compliance with the phosphorus goals within six years of the effective date and shall require additional BMP implementation within any subwatershed as needed to meet its goal within an additional three years from that date.

(c) Should a committee called for under Sub-Item (5)(a) of this Rule not form nor follow through on its responsibilities such that a local strategy is not implemented in keeping with Item (8) of this Rule, the Commission shall require all persons subject to this Rule in the affected area to implement BMPs as needed to meet the goals of this Rule.

(6) RULE REQUIREMENTS FOR INDIVIDUAL OPERATIONS. Persons subject to this Rule shall adhere to the following requirements:

(a) If the initial accounting required under Sub-Item (5)(a) of this Rule determines that agricultural operations have not already collectively met the nitrogen reduction goals, persons subject to this Rule shall register their operations with their Local Advisory Committee according to the requirements of Item (8) of this Rule within four years after the effective date of this Rule. Within six years after the effective date of this Rule, such persons are not required to implement any specific BMPs but may elect to contribute to the collective local nutrient strategy by implementing any BMPs they choose that are recognized by the Watershed Oversight Committee as nitrogen-reducing or phosphorus-reducing BMPs.

(b) Should a local strategy not achieve its goal after six years, operations within that local area may face specific implementation requirements, as described under Sub-Item (5)(b) of this Rule.

(c) Producers may generate nitrogen loading reduction credit for sale to parties subject to or operating under other nutrient strategy rules in the Jordan watershed under either of the following circumstances and only pursuant to the conditions of Sub-Item (7)(b)(vii) of this Rule and 15A NCAC 02B .0273:

(ii) If the subwatershed in which they implement nitrogen-reducing practices has achieved its nitrogen goal.

(ii) At any point during the implementation of this Rule, a pasture-based livestock operation that implements an excluded buffer BMP on part or all of its operation may sell that portion of the nitrogen reduction credit attributed to the buffer restoration aspect of the practice, while the credit attributed to the exclusion aspect shall accrue to the achievement or maintenance of the goals of this Rule.

(7) WATERSHED OVERSIGHT COMMITTEE. The Watershed Oversight Committee shall have the following membership, role and responsibilities:

(a) MEMBERSHIP. The Director shall be responsible for forming a Watershed Oversight Committee within two months of the effective date of this Rule. Until such time as the Commission determines

that long-term maintenance of the nutrient loads is assured, the Director shall either reappoint members or replace members at least every six years. The Director shall solicit nominations for membership on this Committee to represent each of the following interests, and shall appoint one nominee to represent each interest except where a greater number is noted. The Director may appoint a replacement at any time for an interest in Sub-Items (7)(a)(vi) through (7)(a)(x) of this Rule upon request of representatives of that interest:

(i) Division of Soil and Water Conservation;

(ii) United States Department of Agriculture-Natural Resources Conservation Service (shall serve in an "ex-officio" non-voting capacity and shall function as a technical program advisor to the Committee);

(iii) North Carolina Department of Agriculture and Consumer Services;

(iv) North Carolina Cooperative Extension Service;

(v) Division of Water Quality;

(vi) Three environmental interests, at least two of which are residents of the Jordan watershed;

(vii) General farming interests;

(viii) Pasture-based livestock interests;

(ix) Equine livestock interests;

(x) Cropland farming interests; and

(xi) The scientific community with experience related to water quality problems in the Jordan watershed.

(b) ROLE. The Watershed Oversight Committee shall:

(i) Develop tracking and accounting methods for nitrogen and phosphorus loss. Submit methods to the Water Quality Committee of the Commission for approval based on the standards set out in Sub-Item (7)(c) of this Rule within two years after the effective date of this Rule;

(ii) Identify and implement future refinements to the accounting methods as needed to reflect advances in scientific understanding, including establishment or refinement of nutrient reduction efficiencies for BMPs;

(iii) Within three years after the effective date of this Rule, collect data needed to conduct initial nutrient loss accounting for the baseline period and the most current year feasible, perform this accounting, and determine the extent to which agricultural operations have achieved the nitrogen loss goal and phosphorus loss trend indicators for each subwatershed. Present findings to the Water Quality Committee of the Commission;

(iv) Review, approve, and summarize local nutrient strategies if required pursuant to Sub-Item (5)(a) of this Rule and according to the timeframe identified in Sub-Item (8)(c)(ii) of this Rule. Provide these strategies to the Division;

(v) Establish requirements for, review, approve and summarize local nitrogen and phosphorus loss annual reports as described under Sub-Item (8)(e) of this Rule, and present these reports to the Division annually, until such time as the Commission determines that annual reports are no longer needed to fulfill the purposes of this Rule. Present the annual report six years after the effective date to the Commission. Should that annual report find that a subwatershed has not met its nitrogen goal, include an assessment in that report of the practicability of producers achieving the goal within nine years after the effective date, and recommendations to the Commission as deemed appropriate;

(vi) Obtain nutrient reduction efficiencies for BMPs from the scientific community associated with design criteria identified in rules adopted by the Soil and Water Conservation Commission, including 15A NCAC 06E .0104 and 15A NCAC 06F .0104; and

(vii) Investigate and, if feasible, develop an accounting method to equate implementation of specific nitrogen-reducing practices on cropland or pastureland to reductions in nitrogen loading delivered to streams. Quantify the nitrogen credit generated by such practices for purposes of selling or buying credits. Establish criteria and a process as needed for the exchange of nitrogen credits between parties meeting the criteria of either Sub-Item

(5)(b) or Sub-Item (6)(c) of this Rule with parties subject to or operating under other nutrient strategy rules in the Jordan watershed pursuant to the requirements of 15A NCAC 02B .0273. Approve eligible trades, and ensure that such practices are accounted for and tracked separately from those contributing to the goals of this Rule.

(c) ACCOUNTING METHODS. Success in meeting this Rule's purpose will be gauged by estimating percentage changes in nitrogen loss from agricultural lands in the Jordan watershed and by evaluating broader trends in indicators of phosphorus loss from agricultural lands in the Jordan watershed. The Watershed Oversight Committee shall develop accounting methods that meet the following requirements:

(i) The nitrogen method shall quantify baseline and annual total nitrogen losses from agricultural operations in each county, each subwatershed, and for the entire Jordan watershed;

(ii) The nitrogen and phosphorus methods shall include a means of tracking implementation of BMPs, including number, type, and area affected;

(iii) The nitrogen method shall include a means of estimating incremental nitrogen loss reductions from actual BMP implementation and of evaluating progress toward and maintenance of the nutrient goals from changes in BMP implementation, fertilization, individual crop acres, and agricultural land use acres;

(iv) The nitrogen and phosphorus methods shall be refined as research and technical advances allow;

(v) The phosphorus method shall quantify baseline values for and annual changes in factors affecting agricultural phosphorus loss as identified by the phosphorus technical advisory committee established under 15A NCAC 02B .0256(f)(2)(C). The method shall provide for periodic qualitative assessment of likely trends in agricultural phosphorus loss from the Jordan watershed relative to baseline conditions;

(vi) Phosphorus accounting may also include a scientifically valid, survey-based sampling of farms in the Jordan watershed for the purpose of conducting field-scale phosphorus loss assessments and extrapolating phosphorus losses for the Jordan watershed for the baseline period and at periodic intervals; and

(vii) Aspects of pasture-based livestock operations that potentially affect nutrient loss and are not captured by the accounting methods described above shall be accounted for in annual reporting by quantifying changes in the extent of livestock-related nutrient controlling BMPs. Progress may be judged based on percent change in the extent of implementation relative to subwatershed percentage goals identified in Rule .0262 of this Section.

(8) LOCAL ADVISORY COMMITTEES. Local Advisory Committees required by Sub-Item (5)(a) of this Rule shall be formed for each county within the applicable subwatershed within three years and three months after the effective date of this Rule, and shall have the following membership, roles, and responsibilities:

(a) MEMBERSHIP. A Local Advisory Committee shall be appointed as provided for in this Item. It shall terminate upon a finding by the Commission that it is no longer needed to fulfill the purposes of this Rule. Each Local Advisory Committee shall consist of:

(i) One representative of the county Soil and Water Conservation District;

(ii) One representative of the county office of the United States Department of Agriculture Natural Resources Conservation Service;

(iii) One representative of the North Carolina Department of Agriculture and Consumer Services whose regional assignment includes the county;

(iv) One representative of the county office of the North Carolina Cooperative Extension Service;

(v) One representative of the North Carolina Division of Soil and Water Conservation whose regional assignment includes the county; and

(vi) At least two farmers who reside in the county.

(b) APPOINTMENT OF MEMBERS. The Director of the Division of Water Quality and the Director of the Division of Soil and Water Conservation of the Department of Environment and Natural Resources shall appoint members described in Sub-Items (8)(a)(i), (8)(a)(ii), (8)(a)(iv), and (8)(a)(v)

of this Rule. The Director of the Division of Water Quality, with recommendations from the Director of the Division of Soil and Water Conservation and the Commissioner of Agriculture, shall appoint the members described in Sub-Items (8)(a)(iii) and (8)(a)(vi) of this Rule from persons nominated by nongovernmental organizations whose members produce or manage agricultural commodities in each county. Members of the Local Advisory Committees shall serve at the pleasure of their appointing authority.

(c) ROLE. The Local Advisory Committees shall:

(i) Conduct a registration process for persons subject to this Rule. This registration process shall be completed within 48 months after the effective date of this Rule. The registration process shall request the type and acreage of agricultural operations. It shall provide persons with information on requirements and options under this Rule, and on available technical assistance and cost share options;

(ii) Develop local nutrient control strategies for agricultural operations, pursuant to Sub-Item (8)(d) of this Rule, to meet the nitrogen and phosphorus goals of this Rule. Strategies shall be submitted to the Watershed Oversight Committee no later than 46 months after the effective date of this Rule;

(iii) Ensure that any changes to the design of the local strategy will continue to meet the nutrient goals of this Rule; and

(iv) Submit reports to the Watershed Oversight Committee, pursuant to Sub-Item (8)(e) of this Rule, annually until such time as the Commission determines that annual reports are no longer needed to fulfill the purposes of this Rule.

(d) LOCAL NUTRIENT CONTROL STRATEGIES. Local Advisory Committees shall develop county nutrient control strategies that meet the following requirements. If a Local Advisory Committee fails to submit a nutrient control strategy required in Sub-Item (8)(c)(ii) of this Rule, the Commission may develop one based on the accounting methods that it approves pursuant to Sub-Item (7)(b)(i) of this Rule. Local strategies shall meet the following requirements:

(i) Local nutrient control strategies shall be designed to achieve the required nitrogen loss reduction goals and qualitative trends in indicators of agricultural phosphorus loss within six years after the effective date of this Rule, and to maintain those reductions in perpetuity or until such time as this Rule is revised to modify this requirement.

(ii) Local nutrient control strategies shall specify the numbers, acres, and types of all agricultural operations within their areas, numbers of BMPs that will be implemented by enrolled operations and acres to be affected by those BMPs, estimated nitrogen and phosphorus loss reductions, schedule for BMP implementation, and operation and maintenance requirements.

(e) ANNUAL REPORTS. The Local Advisory Committees shall be responsible for submitting annual reports for their counties to the Watershed Oversight Committee until such time as the Commission determines that annual reports are no longer needed to fulfill the purposes of this Rule. The Watershed Oversight Committee shall determine reporting requirements to meet these objectives. Those requirements may include information on BMPs implemented by individual farms, proper BMP operation and maintenance, BMPs discontinued, changes in agricultural land use or activity, and resultant net nitrogen loss and phosphorus trend indicator changes.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 2001-355; S.L. 2005-190; S.L. 2006-259; Eff. August 11, 2009; See S.L. 2013-395.*

15A NCAC 02B .0265 JORDAN WATER SUPPLY NUTRIENT STRATEGY: STORMWATER MANAGEMENT FOR NEW DEVELOPMENT

(See S.L. 2009-216; S.L. 2009-484; S.L. 2012-200, s. 9.(e); 2012-201, s. 11.(c); S.L. 2013-395)

The following is the stormwater strategy for new development activities within the Jordan watershed, as prefaced in 15A NCAC 02B .0262:

(1) PURPOSE. The purposes of this Rule are as follows:

(a) To achieve and maintain the nitrogen and phosphorus loading goals established for Jordan Reservoir in 15A NCAC 02B .0262 from lands in the Jordan watershed on which new development occurs;

(b) To provide control for stormwater runoff from new development in Jordan watershed to ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows; and

(c) To protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed from the potential impacts of new development.

(2) APPLICABILITY. This Rule shall apply to those areas of new development, as defined in 15A NCAC 02B .0263, that lie within the Jordan watershed and the planning jurisdiction of a municipality or county that is identified in 15A NCAC 02B .0262.

(3) REQUIREMENTS. All local governments subject to this Rule shall develop stormwater management programs for submission to and approval by the Commission, to be implemented in areas described in Item (2) of this Rule, based on the standards in this Item:

(a) An approved stormwater management plan shall be required for all proposed new development disturbing one acre or more for single family and duplex residential property and recreational facilities, and one-half acre or more for commercial, industrial, institutional, multifamily residential, or local government property. These stormwater plans shall not be approved by the subject local governments unless the following criteria are met:

(i) Nitrogen and phosphorus loads contributed by the proposed new development activity in a given subwatershed shall not exceed the unit-area mass loading rates applicable to that subwatershed as follows for nitrogen and phosphorus, respectively, expressed in units of pounds per acre per year: 2.2 and 0.82 in the Upper New Hope; 4.4 and 0.78 in the Lower New Hope; and 3.8 and 1.43 in the Haw. The developer shall determine the need for engineered stormwater controls to meet these loading rate targets by using the loading calculation method called for in Sub-Item (4)(a) or other equivalent method acceptable to the Division.

(ii) Proposed new development undertaken by a local government solely as a public road project shall be deemed compliant with the purposes of this Rule if it meets the riparian buffer protection requirements of 15A NCAC 02B .0267 and .0268.

(iii) Proposed new development subject to NPDES, water supply, and other state-mandated stormwater regulations shall comply with those regulations in addition to the other requirements of this Sub-Item. Proposed new development in any water supply watershed in the Jordan watershed designated WS-II, WS-III, or WS-IV shall comply with the density-based restrictions, obligations, and requirements for engineered stormwater controls, clustering options, and 10/70 provisions described in Sub-Items (3)(b)(i) and (3)(b)(ii) of the applicable Rule among 15A NCAC 02B .0214 through .0216;

(iv) Stormwater systems shall be designed to control and treat the runoff generated from all surfaces by one inch of rainfall. The treatment volume shall be drawn down pursuant to standards specific to each practice as provided in the July 2007 version of the *Stormwater Best Management Practices Manual* published by the Division, or other at least technically equivalent standards acceptable to the Division. To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows, stormwater flows from the new development shall not contribute to degradation of waters of the State. At a minimum, the new development shall not result in a net increase in peak flow leaving the site from pre-development conditions for the one-year, 24-hour storm event;

(v) Proposed new development that would replace or expand structures or improvements that existed as of December 2001, the end of the baseline period, and that would not result in a net increase in built-upon area shall not be required to meet the nutrient loading targets or high-density requirements except to the extent that it shall provide stormwater control at least equal to the previous development. Proposed new development that would replace or expand existing structures or improvements and would result in a net increase in built-upon area shall have the option either to achieve at

least the percentage loading reduction goals stated in 15A NCAC 02B .0262 as applied to nitrogen and phosphorus loading from the previous development for the entire project site, or to meet the loading rate targets described in Sub-Item (3)(a)(i). These requirements shall supersede those identified in 15A NCAC 02B .0104(q);

(vi) Proposed new development shall comply with the riparian buffer protection requirements of 15A NCAC 02B .0267 and .0268; and

(vii) Developers shall have the option of offsetting part of their nitrogen and phosphorus loads by implementing or funding offsite management measures as follows: Before using offsite offset options, a development shall attain a maximum nitrogen loading rate on-site of four pounds per acre per year for single-family, detached and duplex residential development and eight pounds per acre per year for other development, including multi-family residential, commercial and industrial and shall meet any requirements for engineered stormwater controls described in Sub-Item (3)(a)(iii) of this Rule. Offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus loading to the remaining reduction needed onsite to comply with the loading rate targets set out in Sub-Item (3)(a)(i) of this Rule. A developer may make offset payments to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program. A developer may use an offset option provided by the local government in which the development activity occurs. A developer may propose other offset measures to the local government, including providing his or her own offsite offset or utilizing a private seller. All offset measures identified in this Sub-Item shall meet the requirements of 15A NCAC 02B .0273 (2) through (4).

(b) A plan to ensure maintenance of best management practices (BMPs) implemented as a result of the provisions in Sub-Item (3)(a) of this Rule for the life of the development;

(c) A plan to ensure enforcement and compliance with the provisions in Sub-Item (3)(a) of this Rule for the life of the new development; and

(d) The following requirements in water supply 15A NCAC 02B .0104 shall apply to new development throughout the Jordan watershed:

(i) Requirements in Paragraph (f) for local governments to assume ultimate responsibility for operation and maintenance of high-density stormwater controls, to enforce compliance, to collect fees, and other measures;

(ii) Variance procedures in Paragraph (r);

(iii) Assumption of local programs by the Commission in Paragraph (x); and

(iv) Delegation of Commission authorities to the Director in Paragraph (aa).

(4) RULE IMPLEMENTATION. This Rule shall be implemented as follows:

(a) Within 18 months after the effective date of this Rule, the Division shall submit a model local stormwater program, including a model local ordinance, in conjunction with similar requirements in 15A NCAC 02B .0266, that embodies the criteria described in Item (3) of this Rule to the Commission for approval. The model program shall include a tool that will allow developers to account for nutrient loading from development lands and loading changes due to BMP implementation to meet the requirements of Item (3) of this Rule. The accounting tool shall utilize nutrient efficiencies and associated design criteria established for individual BMPs in the July 2007 version of the *Stormwater Best Management Practices Manual* published by the Division, or other at least technically equivalent standards acceptable to the Division. The Division shall work in cooperation with subject local governments and other watershed interests in developing this model program;

(b) Within six months after the Commission's approval of the model local stormwater program and model ordinance, subject local governments shall submit stormwater management programs, in conjunction with similar requirements in 15A NCAC 02B .0266, to the Division for preliminary approval. These local programs shall meet or exceed the requirements in Item (3) of this Rule;

(c) Within 15 months after the Commission's approval of the model local stormwater program, the Division shall provide recommendations to the Commission on local stormwater programs. The Commission shall either approve the programs or require changes based on the standards set out in Item (3) of this Rule. Should the Commission require changes, the applicable local government

shall have two months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;

(d) Within three months after the Commission's approval of a local program, or upon the Division's first renewal of a local government's NPDES stormwater permit, whichever occurs later, the affected local government shall complete adoption of and implement its local stormwater management program; and

(e) Upon implementation, subject local governments shall submit annual reports to the Division summarizing their activities in implementing each of the requirements in Item (3) of this Rule, including changes to nutrient loading due to implementation of Sub-Item (3)(a) of this Rule.

(5) RELATIONSHIP TO OTHER REQUIREMENTS. Local governments shall have the following options with regard to satisfying the requirements of other rules in conjunction with this Rule:

(a) A local government may in its program submittal under Sub-Item (4)(b) of this Rule request that the Division accept the local government's implementation of another stormwater program or programs, such as NPDES municipal stormwater requirements, as satisfying one or more of the requirements set forth in Item (3) of this Rule. The Division will provide determination on acceptability of any such alternatives prior to requesting Commission approval of local programs as required in Sub-Item (4)(c) of this Rule. The local government shall include in its program submittal technical information demonstrating the adequacy of the alternative requirements.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; Eff. August 11, 2009;*
See S.L. 2009-216; S.L. 2009-484; S.L. 2012-200, s. 9.(e); 2012-201, s. 11.(c); S.L. 2013-395.

15A NCAC 02B .0266 JORDAN WATER SUPPLY NUTRIENT STRATEGY: STORMWATER MANAGEMENT FOR EXISTING DEVELOPMENT

(See S.L. 2013-395)

Note: This rule was disapproved by SL 2009-216. See Session Law for replacement language.

15A NCAC 02B .0267 JORDAN WATER SUPPLY NUTRIENT STRATEGEY: PROTECTION OF EXISTING RIPARIAN BUFFERS

(See S.L. 2009-216; S.L. 2009-484; S.L. 2013-395)

Protection of the nutrient removal and other water quality benefits provided by riparian buffers throughout the watershed is an important element of the overall Jordan water supply nutrient strategy. The following is the strategy for riparian buffer protection and maintenance in the Jordan watershed, as prefaced in 15A NCAC 02B .0262:

(1) PURPOSE. The purposes of this Rule shall be to protect and preserve existing riparian buffers throughout the Jordan watershed as generally described in 15A NCAC 02B .0262, in order to maintain their nutrient removal and stream protection functions. Additionally this Rule will help protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed. Local governments shall establish programs to meet or exceed the minimum requirements of this Rule. The requirements of this Rule shall supersede all locally implemented buffer requirements stated in 15A NCAC 02B .0214 through .0216 as applied to WS-II, WS-III, and WS-IV waters in the Jordan watershed. Local governments subject to this Rule may choose to implement more stringent requirements, including requiring additional buffer width.

(2) DEFINITIONS. For the purpose of this Rule, these terms shall be defined as follows:

(a) 'Access Trails' means pedestrian trails constructed of pervious or impervious surfaces and related structures to access a surface water, including boardwalks, steps, rails, and signage.

(b) 'Airport Facilities' means all properties, facilities, buildings, structures, and activities that satisfy or otherwise fall within the scope of one or more of the definitions or uses of the words or phrases 'air navigation facility', 'airport', or 'airport protection privileges' under G.S. 63-1; the definition of 'aeronautical facilities' in G.S. 63-79(1); the phrase 'airport facilities' as used in G.S. 159-48(b)(1); the phrase 'aeronautical facilities' as defined in G.S. 159-81 and G.S. 159-97; and the phrase 'airport facilities and improvements' as used in Article V, Section 13, of the North Carolina Constitution, which shall include, without limitation, any and all of the following: airports, airport maintenance facilities, clear zones, drainage ditches, fields, hangars, landing lighting, airport and airport-related

offices, parking facilities, related navigational and signal systems, runways, stormwater outfalls, terminals, terminal shops, and all appurtenant areas used or suitable for airport buildings or other airport facilities, and all appurtenant rights-of-way; restricted landing areas; any structures, mechanisms, lights, beacons, marks, communicating systems, or other instrumentalities or devices used or useful as an aid, or constituting an advantage or convenience to the safe taking off, navigation, and landing of aircraft, or the safe and efficient operation or maintenance of an airport or restricted landing area; easements through, or interests in, air space over land or water, interests in airport hazards outside the boundaries of airports or restricted landing areas, and other protection privileges, the acquisition or control of which is necessary to ensure safe approaches to the landing areas of airports and restricted landing areas, and the safe and efficient operation thereof and any combination of any or all of such facilities. Notwithstanding the foregoing, the following shall not be included in the definition of 'airport facilities':

(i) Satellite parking facilities;

(ii) Retail and commercial development outside of the terminal area, such as rental car facilities; and

(iii) Other secondary development, such as hotels, industrial facilities, free-standing offices and other similar buildings, so long as these facilities are not directly associated with the operation of the airport, and are not operated by a unit of government or special governmental entity such as an airport authority, in which case they are included in the definition of 'airport facilities'.

(c) 'Forest management plan' means as defined in Chapter 160A-458.5(4).

(d) 'Forest plantation' means an area of planted trees that may be conifers (pines) or hardwoods. On a plantation, the intended crop trees are planted rather than naturally regenerated from seed on the site, coppice (sprouting), or seed that is blown or carried into the site.

(e) 'Greenway / Hiking Trails' means pedestrian trails constructed of pervious or impervious surfaces and related structures including but not limited to boardwalks, steps, rails, and signage, and that generally run parallel to the shoreline.

(f) 'High Value Tree' means a tree that meets or exceeds the following standards: for pine species, 14-inch DBH or greater or 18-inch or greater stump diameter; or for hardwoods and wetland species, 16-inch DBH or greater or 24-inch or greater stump diameter.

(g) 'Shoreline stabilization' is the in-place stabilization of an eroding shoreline. Stabilization techniques which include "soft" methods or natural materials (such as root wads, or rock vanes) may be considered as part of a restoration design. However, stabilization techniques that consist primarily of "hard" engineering, such as concrete lined channels, riprap, or gabions, while providing bank stabilization, shall not be considered stream restoration.

(h) 'Stream restoration' is defined as the process of converting an unstable, altered or degraded stream corridor, including adjacent riparian zone and flood-prone areas to its natural or referenced, stable conditions considering recent and future watershed conditions. This process also includes restoring the geomorphic dimension, pattern, and profile as well as biological and chemical integrity, including transport of water and sediment produced by the stream's watershed in order to achieve dynamic equilibrium. 'Referenced' or 'referenced reach' means a stable stream that is in dynamic equilibrium with its valley and contributing watershed. A reference reach can be used to develop natural channel design criteria for stream restoration projects.

(i) 'Stump diameter' means the diameter of a tree measured at six inches above the ground surface level.

(j) 'Temporary road' means a road constructed temporarily for equipment access to build or replace hydraulic conveyance structures such as bridges, culverts, pipes or water dependent structures, or to maintain public traffic during construction.

(3) APPLICABILITY. This Rule applies to all landowners and other persons conducting activities in the Jordan watershed, including state and federal entities, and to all local governments in the Jordan watershed, as described in 15A NCAC 02B .0262. Local governments shall develop riparian buffer protection programs for approval by the Commission, incorporating the minimum standards set out throughout this Rule and shall apply the requirements of this Rule throughout their jurisdictions within the Jordan watershed except where The Division shall exercise jurisdiction. For the following types of buffer activities in the Jordan watershed,

wherever local governments are referenced in this Rule, the Division shall implement applicable requirements to the exclusion of local governments:

(a) Activities conducted under the authority of the State.

(b) Activities conducted under the authority of the United States.

(c) Activities conducted under the authority of multiple jurisdictions.

(d) Activities conducted under the authority of local units of government.

(e) Forest harvesting activities described in Item (14) of this Rule.

(f) Agricultural activities.

(g) Activities conducted in a location where there is no local government program implementing NPDES stormwater requirements, Water Supply Watershed requirements, or a voluntary local stormwater or buffer initiative at the time of the activity.

(4) BUFFERS PROTECTED. The following minimum criteria shall be used for identifying regulated buffers:

(a) This Rule shall apply to activities conducted within, or outside of with impacts upon, 50-foot wide riparian buffers directly adjacent to surface waters in the Jordan watershed (intermittent streams, perennial streams, lakes, reservoirs and ponds), excluding wetlands.

(b) Wetlands adjacent to surface waters or within 50 feet of surface waters shall be considered as part of the riparian buffer but are regulated pursuant to 15A NCAC 02H .0506.

(c) A surface water shall be subject to this Rule if the feature is approximately shown on any of the following references, and shall not be subject if it does not appear on any of these references:

(i) The most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture.

(ii) The most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS).

(iii) The maps approved by the Commission as more accurate than those identified in Sub-Item (4)(c)(i) and (4)(c)(ii) of this Rule.

(d) Where the specific origination point of a stream regulated under this Item is in question, upon request of the Division or another party, the local government shall make an on-site determination. A local government representative who has successfully completed the Division's *Surface Water Identification Training Certification* course, its successor, or other equivalent training curriculum approved by the Division, shall establish that point using the latest version of the Division publication, *Identification Methods for the Origins of Intermittent and Perennial Streams*, available at http://h2o.enr.state.nc.us/ncwetlands/documents/NC_Stream_ID_Manual.pdf or from the Division of Water Quality, 401/Wetlands Unit, 1650 Mail Service Center, Raleigh, NC, 27699-1650. A local government may accept the results of a site assessment made by another party who meets these criteria. Any disputes over on-site determinations made according to this Sub-Item shall be referred to the Director in writing. The Director's determination is subject to review as provided in Articles 3 and 4 of G.S. 150B.

(e) Riparian buffers protected by this Rule shall be measured pursuant to Item (7) of this Rule.

(f) Parties subject to this rule shall abide by all State rules and laws regarding waters of the state including but not limited to 15A NCAC 02H .0500, 15A NCAC 02H .1300, and Sections 401 and 404 of the Federal Water Pollution Control Act.

(g) A riparian buffer may be exempt from this Rule as described in Item (5) or (6) of this Rule.

(h) No new clearing, grading, or development shall take place nor shall any new building permits be issued in violation of this Rule.

(5) EXEMPTION BASED ON ON-SITE DETERMINATION. When a landowner or other affected party including the Division believes that the maps have inaccurately depicted surface waters, he or she shall consult the appropriate local government. Upon request, a local government representative who has successfully completed the Division's *Surface Water Identification Training Certification* course, its successor, or other equivalent training curriculum approved by the Division, shall make an on-site determination. Local governments may also accept the results of site assessments made by other parties who have successfully completed such training. Any disputes over on-site determinations shall be referred to the Director in writing. A determination of the Director as to the accuracy or application of the maps is subject to review as provided in Articles 3 and 4 of G.S. 150B. Surface waters that appear on the maps shall not be subject to this Rule if a site evaluation reveals any of the following cases:

(a) Man-made ponds and lakes that are not part of a natural drainage way that is classified in accordance with 15A NCAC 02B .0100, including ponds and lakes created for animal watering, irrigation, or other agricultural uses. A pond or lake is part of a natural drainage way when it is fed by an intermittent or perennial stream or when it has a direct discharge point to an intermittent or perennial stream.

(b) Ephemeral streams.

(c) The absence on the ground of a corresponding intermittent or perennial stream, lake, reservoir, or pond.

(d) Ditches or other man-made water conveyances, other than modified natural streams.

(6) EXEMPTION WHEN EXISTING USES ARE PRESENT AND ONGOING. This Rule shall not apply to uses that are existing and ongoing; however, this Rule shall apply at the time an existing, ongoing use is changed to another use. Change of use shall involve the initiation of any activity that does not meet either of the following criteria for existing, ongoing activity:

(a) It was present within the riparian buffer as of the effective date of a local program enforcing this Rule and has continued to exist since that time. For any Division-administered activities listed in Item (3) of this Rule, a use shall be considered existing and ongoing if it was present within the riparian buffer as of the effective date of this Rule and has continued to exist 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, any of which involve either specific, periodic management of vegetation or displacement of vegetation by structures or regular activity. Only the portion of the riparian buffer occupied by the footprint of the existing use is exempt from this Rule. 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 50 feet of the surface water where it did not previously exist as of the effective date of a local program enforcing this Rule, or for Division-administered activities listed in Item (3) of this Rule as of the effective date of this Rule, and existing diffuse flow is maintained. Grading and revegetating Zone Two is allowed provided that the health of the vegetation in Zone One is not compromised, the ground is stabilized and existing diffuse flow is maintained.

(b) Projects or proposed development that are determined by the local government to meet at least one of the following criteria:

(i) Project requires a 401 Certification/404 Permit and these were issued prior to the effective date of the local program enforcing this Rule, and prior to the effective date of this Rule for Division-administered activities listed in Item (3) of this Rule;

(ii) Projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities, have begun construction or are under contract to begin construction and had received all required state permits and certifications prior to the effective date of the local program implementing this Rule, and prior to the effective date of this Rule for Division-administered activities listed in Item (3) of this Rule;

(iii) Projects that are being reviewed through the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (published by the US Army Corps of Engineers and Federal Highway Administration, 2003) or its immediate successor and that have reached agreement with DENR on avoidance and minimization by the effective date of the local program enforcing this Rule, and prior to the effective date of this Rule for state and federal entities; or

(iv) Projects that are not required to be reviewed by the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (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 local government prior to the effective date of the local program enforcing this Rule, or the written approval of the Division prior to the effective date of this Rule for state and federal entities.

(7) ZONES OF THE RIPARIAN BUFFER. The protected riparian buffer shall have two zones as follows:

(a) Zone One shall consist of a vegetated area that is undisturbed except for uses provided for in Item (9) of this Rule. The location of Zone One shall be as follows:

(i) For intermittent and perennial streams, Zone One shall begin at the top of the bank and extend landward a distance of 30 feet on all sides of the surface water, measured horizontally on a line perpendicular to a vertical line marking the top of the bank.

(ii) For ponds, lakes and reservoirs located within a natural drainage way, Zone One shall begin at the normal water level and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to a vertical line marking the normal water level.

(b) Zone Two shall consist of a stable, vegetated area that is undisturbed except for uses provided for in Item (9) of this Rule. Grading and revegetating in Zone Two is allowed provided that the health of the vegetation in Zone One is not compromised. Zone Two shall begin at the outer edge of Zone One and extend landward 20 feet as measured horizontally on a line perpendicular to the surface water. The combined width of Zones One and Two shall be 50 feet on all sides of the surface water.

(8) DIFFUSE FLOW REQUIREMENT. Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow prior to its entry into the buffer and reestablishing vegetation as follows:

(a) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow at non-erosive velocities before the runoff enters Zone Two of the riparian buffer;

(b) Periodic corrective action to restore diffuse flow shall be taken as necessary and shall be designed to impede the formation of erosion gullies; and

(c) As set out in Items (7) and (9) of this Rule, no new stormwater conveyances are allowed through the buffers except for those specified in Item (9) of this Rule addressing stormwater management ponds, drainage ditches, roadside ditches, and stormwater conveyances.

(9) TABLE OF USES. The following chart sets out potential new uses within the buffer, or outside the buffer with impacts on the buffer, and categorizes them as exempt, allowable, or allowable with mitigation. All uses not categorized as exempt, allowable, or allowable with mitigation are considered prohibited and may not proceed within the riparian buffer or outside the buffer if the use would impact the buffer, unless a variance is granted pursuant to Item (12) of this Rule. The requirements for each category are given in Item (10) of this Rule.

Use	Exempt *	Allowable*	Allowable with Mitigation *
Access trails: Pedestrian access trails leading to the surface water, docks, fishing piers, boat ramps and other water dependent activities: • Pedestrian access trails that are restricted to the minimum width practicable and do not exceed 4 feet in width of buffer disturbance, and provided that installation and use does not result in removal of trees as defined in this Rule and no impervious surface is added to the riparian buffer	X		
• Pedestrian access trails that exceed 4 feet in width of buffer disturbance, the installation or use results in removal of trees as defined in this Rule or impervious surface is added to the riparian buffer		X	

Use	Exempt *	Allowable*	Allowable with Mitigation *
Airport facilities: • Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer • Activities necessary to comply with FAA requirements (e.g. radar uses or landing strips)[1]		X X	 X
Archaeological activities	X		
Bridges		X	
Canoe Access provided that installation and use does not result in removal of trees as defined in this Rule and no impervious surface is added to the buffer.	X		

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

Dam maintenance activities: • Dam maintenance activities that do not cause additional buffer disturbance beyond the footprint of the existing dam or those covered under the U.S. Army Corps of Engineers Nationwide Permit No. 3 • Dam maintenance activities that do cause additional buffer disturbance beyond the footprint of the existing dam or those not covered under the U.S. Army Corps of Engineers Nationwide Permit No.3	X	 X	

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

Use	Exempt *	Allowable*	Allowable with Mitigation *
Drainage ditches, roadside ditches and stormwater conveyances through riparian buffers: • New stormwater flows to existing drainage ditches, roadside ditches, and stormwater conveyances provided flows do not alter or result in the need to alter the conveyance and are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies. • Realignment of existing roadside drainage ditches retaining the design dimensions, provided that no additional travel lanes are added and the minimum required roadway typical section is used based on traffic and safety considerations. • New or altered drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to control nutrients and attenuate flow before the conveyance discharges through the riparian buffer • New drainage ditches, roadside ditches and stormwater conveyances applicable to linear projects that do not provide a stormwater management facility due to topography constraints provided that other practicable BMPs are employed.	X	X X	X

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

Use	Exempt *	Allowable*	Allowable with Mitigation *
Drainage of a pond in a natural drainage way provided that a new riparian buffer that meets the requirements of Items (7) and (8) of this Rule is established adjacent to the new channel	X		
Driveway crossings of streams and other surface waters subject to this Rule: • Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet or 2,500 square feet of riparian buffer • Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer • In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer • In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer	X	X X	X
Driveway impacts other than crossing of a stream or other surface waters subject to this Rule			X
Fences: • Fences provided that disturbance is minimized and installation does not result in removal of trees as defined in this Rule • Fences provided that disturbance is minimized and installation results in removal of trees as defined in this Rule	X	X	
Forest harvesting - see Item (14) of this Rule			
Fertilizer application: one-time application to establish vegetation	X		
Grading and revegetation in Zone Two provided that diffuse flow and the health of existing vegetation in Zone One is not compromised and disturbed areas are stabilized until they are revegetated.	X		

Use	Exempt *	Allowable*	Allowable with Mitigation *

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

Greenway/hiking trails designed, constructed and maintained to maximize nutrient removal and erosion protection, minimize adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practical.		X	
Historic preservation	X		
Maintenance access on modified natural streams: a grassed travel way on one side of the water body when less impacting alternatives are not practical. The width and specifications of the travel way shall be only that needed for equipment access and operation. The travel way shall be located to maximize stream shading.		X	
Mining activities: • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Items (7) and (8) 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 requirements or Items (7) and (8) of this Rule are not established adjacent to the relocated channels • Wastewater or mining dewatering wells with approved NPDES permit	X	X	X
Playground equipment: • 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	

Use	Exempt *	Allowable*	Allowable with Mitigation *
Ponds created by impounding streams and not used as stormwater BMPs: • New ponds provided that a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is established adjacent to the pond • New ponds where a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is NOT established adjacent to the pond		X	X
Protection of existing structures, facilities and stream banks 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: • 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 or one-third of an acre of riparian buffer • Railroad crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

Use	Exempt *	Allowable*	Allowable with Mitigation *
Recreational and accessory structures in Zone Two: • Sheds and gazebos in Zone Two, provided they are not prohibited under local water supply ordinance: o Total footprint less than or equal to 150 square feet per lot. o Total footprint greater than 150 square feet per lot. • Wooden slatted decks and associated steps, provided the use meets the requirements of Items (7) and (8) of this Rule: o Deck at least eight feet in height and no vegetation removed from Zone One. o Deck less than eight feet in height or vegetation removed from Zone One.		X X	 X X
Removal of previous fill or debris provided that diffuse flow is maintained and vegetation 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: • Road crossings that impact equal to or less than 40 linear feet of riparian buffer • Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

Use	Exempt *	Allowable*	Allowable with Mitigation *
Road relocation: Relocation of existing private access roads associated with public road projects where necessary for public safety: • Less than or equal to 2,500 square feet of buffer impact • Greater than 2,500 square feet of buffer impact		X	X
Stormwater BMPs: • Wet detention, bioretention, and constructed wetlands in Zone Two if diffuse flow of discharge is provided into Zone One • Wet detention, bioretention, and constructed wetlands in Zone One		X	X
Scientific studies and stream gauging	X		
Streambank or shoreline stabilization		X	
Temporary roads, provided that the disturbed area is restored to pre-construction topographic and hydrologic conditions immediately after construction is complete and replanted immediately with comparable vegetation, except that tree planting may occur during the dormant season. A one-time application of fertilizer may be used to establish vegetation: At the end of five years the restored buffershall comply with the restoration criteria in Item (8) of 15A NCAC 02B .0268: • Less than or equal to 2,500 square feet of buffer disturbance • Greater than 2,500 square feet of buffer disturbance • Associated with culvert installation or bridge construction or replacement.	X	X X	

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

Use	Exempt *	Allowable*	Allowable with Mitigation *
Temporary sediment and erosion control devices, provided that the disturbed area is restored to pre-construction topographic and hydrologic conditions immediately after construction is complete and replanted immediately with comparable vegetation, except that tree planting may occur during the dormant season. A one-time application of fertilizer may be used to establish vegetation. At the end of five years the restored buffer shall comply with the restoration criteria in Item (8) of Rule 15A NCAC 02B .0268: • In Zone Two provided ground cover is established within timeframes required by the Sedimentation and Erosion Control Act, vegetation in Zone One is not compromised, and runoff is released as diffuse flow in accordance with Item (8) of this Rule. • In Zones one and two to control impacts associated with uses approved by the local government 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 that is authorized under Sections 401 and 404 of the Federal Water Pollution Control Act. • In-stream temporary erosion and sediment control measures for work within a stream channel.	X X	X X	
Utility, electric, aerial, perpendicular crossings of streams and other surface waters subject to this Rule[2,3,5]: • Disturb equal to or less than 150 linear feet of riparian buffer • Disturb greater than 150 linear feet of riparian buffer	X	X	

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

Use	Exempt *	Allowable*	Allowable with Mitigation *
Utility, electric, aerial, other than perpendicular crossings[5]:			
• Impacts in Zone Two		X	
• Impacts in Zone One[2,3]			X
Utility, electric, underground, perpendicular crossings[3,4,5]:			
• Disturb less than or equal to 40 linear feet of riparian buffer	X		
• Disturb greater than 40 linear feet of riparian buffer		X	
Utility, electric, underground, other than perpendicular crossings[4]:			
• Impacts in Zone Two	X		
• Impacts in Zone One[1]	X		
Utility, non-electric, perpendicular crossings of streams and other surface waters subject to this Rule[3,5]:			
• Disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor equalto or less than 10 feet in width	X		
• Disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width		X	
• 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		X	
• 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			X
• Disturb greater than 150 linear feet of riparian buffer			X

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

Use	Exempt *	Allowable*	Allowable with Mitigation *
Utility, non-electric, other than perpendicular crossings[4,5]: • Impacts in Zone Two • Impacts in Zone One[1]		X	X
Vegetation management: • Emergency fire control measures provided that topography is restored • Mowing or harvesting of plant products in Zone Two • 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 that are in danger of causing damage to dwellings, other structures or human life, or are imminently endangering stability of the streambank. • Removal of individual trees which are dead, diseased or damaged. • Removal of poison ivy • Removal of invasive exotic vegetation as defined in: *Smith, Cherri L. 1998. Exotic Plant Guidelines. Dept. of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. Guideline #30*	X X X X X X X X		
Vehicular access roads leading to water-dependent structures as defined in 15A NCAC 02B .0202, provided they do not cross the surface water and have minimum practicable width not exceeding ten feet.		X	
Water dependent structures as defined in 15A NCAC 02B .0202 where installation and use result in disturbance to riparian buffers.		X	

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

Use	Exempt *	Allowable*	Allowable with Mitigation *
Water supply reservoirs: • New reservoirs where a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is established adjacent to the reservoir • New reservoirs where a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is not established adjacent to the reservoir		X	X
Water wells • Single family residential water wells • All other water wells	X	X	
Wetland, stream and buffer restoration that results in impacts to the riparian buffers: • Wetland, stream and buffer restoration that requires Division approval for the use of a 401 Water Quality Certification • Wetland, stream and buffer restoration that does not require Division approval for the use of a 401 Water Quality Certification	X	X	
Wildlife passage structures		X	

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

[1] Provided that:

- No heavy equipment is used in Zone One.
- Vegetation in undisturbed portions of the buffer is not compromised.
- Felled trees are removed by chain.
- No permanent felling of trees occurs in protected buffers or streams.
- Stumps are removed only by grinding.
- At the completion of the project the disturbed area is stabilized with native vegetation.
- Zones one and two meet the requirements of Sub-Items (7) and (8) of this Rule.

[2] Provided that, in Zone One, 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 alternative evaluation by the local government, as defined in Item (11) of this Rule.

- 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.
- Riprap 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.

[3] Provided that poles or aerial infrastructure shall not be installed within 10 feet of a water body unless the local government completes a no practical alternative evaluation as defined in Item (11) of this Rule.

[4] Provided that, in Zone One, 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 alternative evaluation by the local government, as defined in Item (11) of this Rule.

- 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.
- Measures shall be taken upon completion of construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

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

(10) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated in Item (9) of this Rule as exempt, allowable, and allowable with mitigation within a riparian buffer shall have the following requirements:

(a) EXEMPT. Uses designated as exempt are permissible without local government authorization provided that they adhere to the limitations of the activity as defined in Item (9). In addition, exempt uses shall be designed, constructed and maintained to minimize soil disturbance and to provide the maximum water quality protection practicable, including construction, monitoring, and maintenance activities.

(b) ALLOWABLE. Uses designated as allowable may proceed provided that there are no practical alternatives to the requested use pursuant to Item (11) of this Rule. This includes construction, monitoring, and maintenance activities. These uses require written authorization from the local government.

(c) ALLOWABLE WITH MITIGATION. Uses designated as allowable with mitigation may proceed provided that there are no practical alternatives to the requested use pursuant to Item (11) of this Rule and an appropriate mitigation strategy has been approved pursuant to Item (13) of this Rule. These uses require written authorization from the local government.

(11) DETERMINATION OF "NO PRACTICAL ALTERNATIVES."

(a) Persons who wish to undertake uses designated as allowable or allowable with mitigation shall submit a request for a "no practical alternatives" determination to the local government. The applicant shall certify that the project meets all the following criteria for finding "no practical alternatives":

(i) 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;

(ii) 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; and

(iii) Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality;

(b) The applicant shall also submit at least the following information in support of their assertion of "no practical alternatives":

(i) The name, address and phone number of the applicant;

(ii) The nature of the activity to be conducted by the applicant;

(iii) The location of the activity, including the jurisdiction;

(iv) 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;

(v) 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

(vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity.

(c) Within 60 days of a submission that addresses Sub-Item (11)(b) of this Rule, the local government shall review the entire project and make a finding of fact as to whether the criteria in Sub-Item (11)(a) have been met. A finding of "no practical alternatives" shall result in issuance of an Authorization Certificate. Failure to act within 60 days shall be construed as a finding of "no practical alternatives" and an Authorization Certificate shall be issued to the applicant unless one of the following occurs:

(i) The applicant agrees, in writing, to a longer period;

(ii) The local government determines that the applicant has failed to furnish requested information necessary to the local government's decision;

(iii) The final decision is to be made pursuant to a public hearing; or

(iv) The applicant refuses access to its records or premises for the purpose of gathering information necessary to the local government's decision.

(d) The local government may attach conditions to the Authorization Certificate that support the purpose, spirit and intent of the riparian buffer protection program.

(e) Any appeals of determinations regarding Authorization Certificates shall be referred to the Director. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

(12) VARIANCES. Persons who wish to undertake prohibited uses may pursue a variance. The local government may grant minor variances. For major variances, local governments shall prepare preliminary findings and submit them to the Commission for approval. The variance request procedure shall be as follows:

(a) For any variance request, the local government shall make a finding of fact as to whether there are practical difficulties or unnecessary hardships that prevent compliance with the riparian buffer protection requirements. A finding of practical difficulties or unnecessary hardships shall require that the following conditions are met:

(i) If the applicant complies with the provisions of this Rule, 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 shall not be considered adequate justification for a variance. Moreover, the local government shall consider whether the variance is the minimum possible deviation from the terms of this Rule that shall make reasonable use of the property possible;

(ii) The hardship results from application of this Rule 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, such as its size, shape, or topography, such that compliance with provisions of this rule would not allow reasonable use of the property;

(iv) The applicant did not cause the hardship by knowingly or unknowingly violating this Rule;

(v) The applicant did not purchase the property after the effective date of this Rule, and then request a variance; and

(vi) The hardship is rare or unique to the applicant's property.

(b) For any variance request, the local government shall make a finding of fact as to whether 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) For any variance request, the local government shall make a finding of fact as to whether, in granting the variance, the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.

(d) MINOR VARIANCES. A minor variance request pertains to activities that will impact only Zone Two of the riparian buffer. Minor variance requests shall be reviewed and approved based on the criteria in Sub-Items (12)(a) through (12)(c) of this Rule by the local government pursuant to G.S. 153A-Article 18, or G.S. 160A-Article 19. The local government may attach conditions to the variance approval that support the purpose, spirit and intent of the riparian buffer protection program. Request for appeals to decisions made by the local governments shall be made in writing to the Director. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

(e) MAJOR VARIANCES. A major variance request pertains to activities that will impact any portion of Zone One or any portion of both Zones One and Two of the riparian buffer. If the local government has determined that a major variance request meets the requirements in Sub-Items (12)(a) through (12)(c) of this Rule, then it shall prepare a preliminary finding and submit it to the Commission for approval. Within 90 days after receipt by the local government, the Commission shall review preliminary findings on major variance requests and take one of the following actions: approve, approve with conditions and stipulations, or deny the request. Appeals from a Commission decision on a major variance request are made on judicial review to Superior Court.

(13) MITIGATION. Persons who wish to undertake uses designated as allowable with mitigation shall meet the following requirements in order to proceed with their proposed use:

(a) Obtain a determination of "no practical alternatives" to the proposed use pursuant to Item (11) of this Rule; and

(b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 02B .0268.

(14) REQUIREMENTS SPECIFIC TO FOREST HARVESTING. The following requirements shall apply for forest harvesting operations and practices:

(a) All the following measures shall apply in the entire riparian buffer as applicable:

(i) Logging decks and sawmill sites shall not be placed in the riparian buffer;

(ii) Access roads and skid trails shall be 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;

(iii) Timber felling shall be directed away from the stream or waterbody;

(iv) 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;

(v) Individual trees may be treated to maintain or improve their health, form or vigor;

(vi) Harvesting of dead or infected trees as necessary to prevent or control the spread of tree pest and disease infestation shall be allowed. These practices must be approved by the Division of Forest Resources for a specific site pursuant to the rule. The Division of Forest Resources must notify the Division of all approvals;

(vii) Removal of individual trees that are in danger of causing damage to structures or human life shall be allowed;

(viii) Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the riparian buffer shall be allowed provided that soil disturbance is minimized;

(ix) High-intensity prescribed burns shall not be allowed; and

(x) Application of fertilizer shall not be allowed except as necessary for permanent stabilization. Broadcast application of fertilizer 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 Zone One, 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 277.6 or on forest lands that have a forest management plan. A plan drafted under either option shall meet the standards set out in this Item. 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:

(i) Tracked or wheeled vehicles are permitted for the purpose of selective timber harvesting where there is no other practical alternative for removal of individual trees provided activities comply with forest practice guidelines for water quality as defined in 15A NCAC 01I .0101 through .0209, and provided no equipment shall operate within the first 10 feet immediately adjacent to the stream except at stream crossings designed, constructed and maintained in accordance with Rule 15A NCAC 01I .0203;

(ii) Soil disturbing site preparation activities are not allowed; and

(iii) Trees shall be removed with the minimum disturbance to the soil and residual vegetation.

(c) In addition to the requirements of (b) in this Item, the following provisions for selective harvesting shall be met:

(i) The first 10 feet of Zone One directly adjacent to the stream or waterbody shall be undisturbed except for the removal of individual high value trees as defined provided that no trees with exposed primary roots visible in the streambank be cut unless listed as an exempt activity under Vegetation Management in the Table of Uses, Sub-Item (9) of this Rule;

(ii) In the outer 20 feet of Zone One, a maximum of 50 percent of the trees greater than five inches DBH may be cut and removed. The reentry time for harvest shall be no more frequent than every 15 years, except on forest plantations 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; and

(iii) In Zone Two, harvesting and regeneration of the forest stand shall be allowed in accordance with 15A NCAC 01I .0100 through .0200 as enforced by the Division of Forest Resources.

(15) RULE IMPLEMENTATION. This Rule shall be implemented as follows:

(a) For Division-administered activities listed in Item (3) of this Rule, the Division shall implement the requirements of this Rule as of its effective date;

(b) Within two months after the effective date of this Rule, the Division shall submit a model local riparian buffer protection ordinance that embodies the standards set out in this Rule and 15A NCAC 02B .0268 to the Commission for approval;

(c) Within six months after the Commission's approval of a model local buffer ordinance, local governments shall submit local programs to the Division for review based on the standards set out in this Rule and 15A NCAC 02B .0268. A local program shall also detail implementation including but not limited to such factors as a method for making variance determinations, a plan for record keeping, and a plan for enforcement. Local governments shall use the latest version of the Division's publication, Identification Methods for the Origins of Intermittent and Perennial Streams, available at http://h2o.enr.state.nc.us/ncwetlands/documents/NC_Stream_ID_Manual.pdf or at the 401/Wetlands Unit of the North Carolina Division of Water Quality at: Mail Service Center 1650, Raleigh, NC, 27699-1650, to establish the existence of streams;

(d) Within one year after the Commission's approval of a model local buffer ordinance, the Division shall provide recommendations to the Commission on local buffer programs. The Commission shall either approve the programs or require changes based on the standards set out in this Rule and 15A NCAC 02B .0268. Should the Commission require changes, the applicable local government shall have two months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;

(e) Within two months after the Commission's approval of local buffer programs, local governments shall implement programs to ensure that existing land use activities and proposed development complies with local programs. A local government shall issue an approval for new development only if the development application proposes to avoid impacts to riparian buffers defined in Item (4) of this Rule, or where the application proposes to impact such buffers, it demonstrates that the applicant has done the following, as applicable:

(i) Determined that the activity is exempt from requirements of this Rule;

(ii) Received an Authorization Certificate from the Division pursuant to Item (11) of this Rule for uses designated as Allowable or Allowable with Mitigation;

(iii) For uses designated as Allowable with Mitigation, received approval of a mitigation plan pursuant to 15A NCAC 02B .0268; and

(iv) Received a variance pursuant to Item (12) of this Rule;

(f) Upon implementation, local governments shall submit annual reports to the Division summarizing their activities in implementing the requirements of this Rule;

(g) If a local government fails to adopt or adequately implement its program as called for in this Rule, the Division may take appropriate enforcement action as authorized by statute, and may choose to assume responsibility for implementing that program until such time as it determines that the local government is prepared to comply with its responsibilities; and

(h) LOCAL OVERSIGHT. The Division shall periodically inspect local programs to ensure that they are being implemented and enforced in keeping with the requirements of this Rule. Local governments shall maintain on-site records for a minimum of five years, and shall furnish a copy of these records to the Division within 30 days of receipt of a written request for them. Local programs' records shall include the following:

(i) A copy of all variance requests;

(ii) Findings of fact on all variance requests;

(iii) Results of all variance proceedings;

(iv) A record of complaints and action taken as a result of complaints;

(v) Records for stream origin calls and stream ratings; and

(vi) Copies of all requests for authorization, records approving authorization and Authorization Certificates.

(16) OTHER LAWS, REGULATIONS AND PERMITS. In all cases, compliance with this Rule does not preclude the requirement to comply with all other federal, state and local laws, regulations, and permits regarding streams, steep slopes, erodible soils, wetlands, floodplains, forest harvesting, surface mining, land disturbance activities, or any other landscape feature or water quality-related activity.

History Note: *Authority 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d) S.L. 1999-329, s. 7.1.; S.L. 2005-190; S.L. 2006-259;*
Eff. August 11, 2009;
See S.L. 2009-216 and S.L. 2009-484;
Amended Eff. September 1, 2011;
See S.L. 2013-395.

15A NCAC 02B .0268 JORDAN WATER SUPPLY NUTRIENT STRATEGY: MITIGATION FOR RIPARIAN BUFFERS

The following are requirements for the Riparian Buffer Mitigation Program for the Jordan watershed, as prefaced in 15A NCAC 02B .0262:

(1) PURPOSE. The purpose of this Rule is to set forth the mitigation requirements that the local governments in the Jordan watershed and listed in 15A NCAC 02B .0262, and in the cases stated in 15A NCAC 02B .0267(3) the Division, shall apply to the riparian buffer protection program called for in 15A NCAC 02B .0267. Additionally this Rule will help to protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed. Local programs shall be established to meet or exceed the minimum requirements of this Rule. For the types of buffer activities listed in 15A NCAC 02B .0267(3), the Division shall apply the requirements of this Rule wherever local governments are referenced. The requirements of this Rule shall supersede all locally implemented buffer requirements stated in 15A NCAC 02B .0214 through .0216 as applied to WS-II, WS-III, and WS-IV waters in the Jordan watershed. Local governments may choose to implement more stringent requirements, including the one-hundred foot buffer requirement set out in Sub-Items (3)(b)(i) of 15A NCAC 02B .0214 through .0216 for high-density developments.

(2) APPLICABILITY. This Rule applies to persons who wish to impact a riparian buffer in the Jordan watershed when one of the following applies:

(a) A person has received an Authorization Certificate pursuant to 15A NCAC 02B .0267 for a proposed use that is designated as "allowable with mitigation;" or

(b) A person has received a variance pursuant to 15A NCAC 02B .0267 and is required to perform mitigation as a condition of a variance approval.

(3) ISSUANCE OF THE MITIGATION APPROVAL. The local government shall issue a mitigation approval upon determining that a proposal meets the requirements set out in this Rule. The approval shall identify at a minimum the option chosen, the required and proposed areas, and either the mitigation location or the offset payment amount as applicable.

(4) OPTIONS FOR MEETING THE MITIGATION REQUIREMENT. The mitigation requirement may be met through one of the following options:

(a) Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to 15A NCAC 02B .0269 contingent upon acceptance of payments by the NC Ecosystem Enhancement Program, or to a private mitigation bank that complies with banking requirements of the US Army Corps of Engineers, currently set out at http://www.saw.usace.army.mil/WETLANDS/Mitigation/mitbanks.html or from the US Army Corps of Engineers, P.O. Box 1890, Wilmington, NC, 28402-1890, and the applicable trading criteria in 15A NCAC 02B .0273;

(b) Donation of real property or of an interest in real property pursuant to Item (7) of this Rule; or

(c) Restoration or enhancement of a non-forested riparian buffer pursuant to the requirements of Item (8) of this Rule.

(5) THE AREA OF MITIGATION. The local government shall determine the required area of mitigation, which shall apply to all mitigation options identified in Item (4) of this Rule and as further specified in the requirements for each option set out in this Rule, according to the following:

(a) The impacts in square feet to each zone of the riparian buffer shall be determined by the local government by adding the following:

(i) The area of the footprint of the use causing the impact to the riparian buffer;

(ii) The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use; and

(iii) The area of any ongoing maintenance corridors within the riparian buffer associated with the use.

(b) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Sub-item (5)(a) of this Rule to each zone of the riparian buffer:

(i) Impacts to Zone One of the riparian buffer shall be multiplied by three;

(ii) Impacts to Zone Two of the riparian buffer shall be multiplied by one and one-half; and

(iii) Impacts to wetlands within Zones One and Two of the riparian buffer that are subject to mitigation under 15A NCAC 02H .0506 shall comply with the mitigation ratios in 15A NCAC 02H .0506.

(6) THE LOCATION OF MITIGATION. For any option chosen, the mitigation effort shall be located within the same subwatershed of the Jordan watershed, as defined in Rule .0262 of this Section, and the same distance from the Jordan Reservoir as the proposed impact, or closer to the Reservoir than the impact, and as close to the location of the impact as feasible. Alternatively, the applicant may propose mitigation anywhere within the same subwatershed of the Jordan watershed, as defined in Rule .0262 of this Section, provided that the mitigation proposal accounts for differences in delivery of nutrients to the affected arm of Jordan Reservoir resulting from differences between the locations of the buffer impact and mitigation. Additional location requirements for the property donation option are enumerated in Sub-Item (7)(c)(i) of this Rule.

(7) 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:

(a) 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 15A NCAC 02B .0269. The value of the property interest shall be determined by an appraisal performed in accordance with Sub-item (7)(d)(iv) 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 15A NCAC 02B .0269, the applicant shall pay the remaining balance due;

(b) Accepted only if the conservation easement is granted in perpetuity;

(c) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:

(i) In addition to the location requirements of Item (6), the property shall be located within an area that is identified as a priority for restoration in, or is otherwise consistent with the goals of, the *Basinwide Wetlands and Riparian Restoration Plan for the Cape Fear River Basin* developed by the Department pursuant to G.S. 143-214.10;

(ii) The property shall contain riparian buffers not currently protected by the State's riparian buffer protection program that are in need of restoration as defined in Sub-Item (8)(d) of this Rule;

(iii) The restorable riparian buffer on the property shall have a minimum length of 1000 linear feet along a surface water and a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water;

(iv) The size of the restorable riparian buffer on the property to be donated shall equal or exceed the area of mitigation responsibility determined pursuant to Item (5) of this Rule;

(v) Restoration shall not require removal of man-made structures or infrastructure;

(vi) The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation;

(vii) The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and transaction costs;

(viii) 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;

(ix) The property shall not contain any hazardous substance or solid waste;

(x) 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;

(xi) The property and adjacent properties shall not have prior, current, and known future land use that would inhibit the function of the restoration effort; and

(xii) The property shall not have any encumbrances or conditions on the transfer of the property interests;

(d) At the expense of the applicant or donor, the following information shall be submitted to the local government with any proposal for donations or dedications of interest in real property:

(i) Documentation that the property meets the requirements laid out in Sub-Item (7)(c) of this Rule;

(ii) 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;

(iii) 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;

(iv) 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; and

(v) A title certificate.

(8) RIPARIAN BUFFER RESTORATION OR ENHANCEMENT. Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:

(a) The applicant may restore or enhance a non-forested riparian buffer if either of the following applies:

(i) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Item (5) of this Rule; or

(ii) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Item (5) of this Rule;

(b) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Item (6) of this Rule;

(c) 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;

(d) Enhancement and restoration shall both have the objective of establishing a forested riparian buffer according to the requirements of this Item. Enhancement shall be distinguished from restoration based on existing buffer conditions. Where existing trees are sparse, that is greater than or equal to 100 trees per acre but less than 200 trees per acre, a buffer may be enhanced. Where existing woody vegetation is absent, that is less than 100 trees per acre, a buffer may be restored;

(e) The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of 15A NCAC 02B .0267. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the local government. The restoration or enhancement plan shall contain the following:

(i) A map of the proposed restoration or enhancement site;

(ii) A vegetation plan. The vegetation plan shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity;

(iii) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer;

(iv) A fertilization plan; and

(v) A schedule for implementation;

(f) Within one year after the local government has approved the restoration or enhancement plan, the applicant shall present proof to the local government 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 both the State's and the local government's riparian buffer protection program;

(g) The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal functions; and

(h) 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 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 1999-329, s. 7.1.; S.L. 2005-190; S.L. 2006-259;*
Eff. August 11, 2009;
Amended Eff. September 1, 2011.

15A NCAC 02B .0269 RIPARIAN BUFFER MITIGATION FEES TO THE NC ECOSYSTEM ENHANCEMENT PROGRAM

The following is the process for payment of fees to the Riparian Buffer Restoration Fund administered by the North Carolina Ecosystem Enhancement Program as one option to mitigate riparian buffer impacts allowed under rules in this Subchapter. Persons who wish to use this option shall first meet the criteria established for doing so in the buffer rules in this subchapter that reference this Rule. Such buffer rules include, but may not be limited to, 15A NCAC 02B .0242, .0244, .0260, and .0268. Persons who choose to satisfy their mitigation determination by paying a compensatory mitigation fee to the Riparian Buffer Restoration Fund as allowed here shall use the following procedure:

(1) SCHEDULE OF FEES: The amount of payment into the Fund shall be based on the costs of riparian buffer restoration. The payment amount shall be determined by multiplying the acres or square feet of mitigation required under other rules in this Subchapter by an initial value of ninety-six cents per square foot or forty-one thousand eight hundred and eighteen dollars per acre ($41,818/acre). This initial per-acre rate shall be

adjusted in January of each year by staff of the NC Ecosystem Enhancement Program based upon the construction cost index factor published every December in the *Engineering News Record*.

(2) The required fee shall be submitted to the N.C. Ecosystem Enhancement Program (NC EEP), 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 pursuant to requirements of other rules in this Subchapter.

(3) The payment of a compensatory mitigation fee may be fully or partially satisfied by donation of real property interests pursuant to requirements of other rules in this Subchapter.

History Note: *Authority G S. 143-214.1; 143-214.5; 143-214.5(i); 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259;*
Eff. August 11, 2009.

15A NCAC 02B .0270 JORDAN WATER SUPPLY NUTRIENT STRATEGY: WASTEWATER DISCHARGE REQUIREMENTS

(See S.L. 2009-216; S.L. 2009-484; S.L. 2011-394, s. 14; S.L. 2013-395)

The following is the NPDES wastewater discharge management strategy for the B. Everett Jordan Reservoir watershed, or Jordan watershed:

(1) PURPOSE. The purpose of this Rule is to establish minimum nutrient control requirements for point source wastewater discharges in the Jordan watershed in order to restore and maintain water quality in the reservoir and its tributaries and protect their designated uses, including water supply.

(2) APPLICABILITY. This Rule applies to all wastewater treatment facilities discharging in the Jordan watershed that receive nutrient-bearing wastewater and are subject to requirements for individual NPDES permits.

(3) DEFINITIONS. For the purposes of this Rule, the following definitions apply:

(a) In regard to point source dischargers, treatment facilities, and wastewater flows and discharges,
  (i) "Existing" means that which was subject to a NPDES permit as of December 31, 2001;
  (ii) "Expanding" means that which has increased or will increase beyond its permitted flow as defined in this Rule; and
  (iii) "New" means that which was not subject to a NPDES permit as of December 31, 2001.

(b) "Active" allocation means that portion of an allocation that has been applied toward and is expressed as a nutrient limit in an individual NPDES permit. Allocation that is held but not applied in this way is "reserve" allocation.

(c) "Limit" means the mass quantity of nitrogen or phosphorus that a discharger or group of dischargers is authorized through a NPDES permit to release into surface waters of the Jordan watershed. Limits are enforceable and may be expressed as "delivered limit" or as the equivalent "discharge limit."

(d) "MGD" means million gallons per day.

(e) "Permitted flow" means the maximum monthly average flow authorized in a facility's NPDES permit as of December 31, 2001, with the following exceptions:

Facility Owner	Facility Name	NPDES Permit	Permitted Flow (MGD)
B. E. Jordan & Son, LLC	B. E. Jordan & Son WWTP	NC0042528	0.036
Durham County	Triangle WWTP	NC0026051	12.0
Fearrington Utilities, Inc.	Fearrington Village WWTP	NC0043559	0.5
Greensboro, City of	T.Z. Osborne WWTP	NC0047384	40.0
Mervyn R. King	Countryside Manor WWTP	NC0073571	0.03
OWASA	Mason Farm WWTP	NC0025241	14.5

Pittsboro, Town of	Pittsboro WWTP	NC0020354	2.25
Quarterstone Farm Assoc.	Quarterstone Farm WWTP	NC0066966	0.2
Aqua North Carolina, Inc.	Chatham WRF	NC0056413	0.35

(f) "Reserve" allocation means allocation that is held by a permittee or other person but which has not been applied toward and is not expressed as a nutrient limit in an individual NPDES permit. Allocation that has been applied and expressed in this way is "active" allocation.

(4) This Item provides for the initial division of nutrient wasteload allocations among point source dischargers under this strategy.

(a) The delivered wasteload allocations of nitrogen and phosphorus assigned to point source dischargers collectively in each of the Jordan subwatersheds, as set out in 15A NCAC 02B .0262(4), shall be divided as follows:

Subwatershed and Discharger Subcategories	Delivered Allocations (lb/yr) Total Nitrogen	Total Phosphorus
Upper New Hope Arm		
Permitted flows ≥ 0.1 MGD	332,466	22,498
Permitted flows < 0.1 MGD	3,613	608
Lower New Hope Arm		
Permitted flows ≥ 0.1 MGD	6,836	498
Permitted flows < 0.1 MGD	0	0
Haw River Arm		
Permitted flows ≥ 0.1 MGD	881,757	104,004
Permitted flows < 0.1 MGD	13,370	1,996

(b) The nutrient allocations in Sub-Item (a) of this Item shall be apportioned among the existing dischargers in each subcategory in proportion to the dischargers' permitted flows and the resulting delivered nutrient allocations assigned to each individual discharger.

(5) This Item describes allowable changes in nutrient allocations.

(a) The aggregate and individual nutrient allocations available to point source dischargers in the Jordan watershed are subject to change:

(i) Whenever the Commission, through rulemaking, revises the wasteload allocations in 15A NCAC 02B .0262 in order to ensure the protection of water quality in the reservoir and its tributaries or to conform with applicable state or federal requirements;

(ii) Whenever one or more point source dischargers acquires any portion of the nonpoint load allocations under the provisions in this Rule, and 15A NCAC 02B .0273, Options for Offsetting Nutrient Loads;

(iii) As the result of allocation transfers between point sources or between point and nonpoint sources, except that nutrient allocation can be transferred and applied only within its assigned subwatershed; or

(iv) Any allocation is valid only in the subwatershed for which it is first established.

(b) In the event that the Commission changes any nutrient wasteload allocation specified in 15A NCAC 02B .0262 or Item (4) of this Rule, the Commission shall also re-evaluate the apportionment among the dischargers and shall revise the individual allocations as necessary.

(6) This Item identifies nutrient control requirements specific to existing discharges.

(a) Beginning with the first full calendar year following the effective date of this Rule, any existing discharger with a permitted flow of 0.1 MGD or greater shall limit its total phosphorus discharge to its active individual discharge allocation as defined or modified pursuant to this Rule.

(b) No later than six months after the effective date of this Rule, each existing discharger with a permitted flow greater than or equal to 0.1 MGD shall evaluate its treatment facilities and operations and identify further opportunities to improve and optimize nitrogen reduction in the existing facilities beyond those previously implemented pursuant to G.S. 143-215.1B(d); and submit a report to the Division documenting its findings, proposing optimization measures, and describing expected results. No later than six months following Division acceptance of the report, or as provided in the acceptance, the discharger shall implement the proposed measures. Beginning one year following Division acceptance of the report and continuing through the fifth calendar year after the effective date of this Rule, each such discharger shall submit a progress report to the Division documenting the status of the proposed measures and the nitrogen reductions achieved at the facility.

(c) Beginning with the fifth full calendar year after the effective date of this Rule, each existing discharger with a permitted flow greater than or equal to 0.1 MGD shall limit its total nitrogen discharge to its active individual discharge allocation as defined or modified pursuant to this Rule.

(d) Not later than 45 days after the effective date of this Rule, the Director shall notify existing permittees of the individual nitrogen and phosphorus allocations assigned according to Item (4) of this Rule and shall further notify each permittee, pursuant to 15A NCAC 02H .0114, of the Division's intent to modify the permittee's NPDES permit to incorporate nitrogen and phosphorus limits pursuant to the requirements set out in this rule and in accordance with applicable rules and regulations.

(7) This Item identifies nutrient control requirements specific to new discharges.

(a) Any person proposing a new wastewater discharge to surface waters shall meet the following requirements prior to applying for an NPDES permit:

(i) Evaluate all practical alternatives to said discharge, pursuant to 15A NCAC 02H .0105(c)(2);

(ii) If the results of the evaluation support a new discharge, acquire sufficient nitrogen and phosphorus allocations for the discharge. The proponent may obtain allocation for the proposed discharge from existing dischargers pursuant to the applicable requirements of Item (9) of this Rule or employ measures to offset the increased nutrient loads resulting from the proposed discharge. The proponent may fund offset measures by making payment to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program, or implement other offset measures contingent upon approval by the Division, either of which shall meet the requirements of rule 15A NCAC 02B .0273. The offsets shall be of an amount equivalent to the allocations required for a period of 30 years. Payment for each 30-year portion of the nonpoint source load allocation shall be made prior to the ensuing permit issuance;

(iii) Determine whether the proposed discharge of nutrients will cause local water quality impacts; and

(iv) Provide documentation with its NPDES permit application demonstrating that the requirements of Sub-Items (i) through (iii) of this Sub-Item have been met.

(b) The nutrient discharge allocations and offsets for a new facility shall not exceed the mass loads equivalent to a concentration of 3.0 mg/L nitrogen or 0.18 mg/L phosphorus at the permitted flow in the discharger's NPDES permit.

(c) Upon the effective date of its NPDES permit, a new discharger shall be subject to nitrogen and phosphorus limits not to exceed its active individual discharge allocations.

(8) This Item identifies nutrient control requirements specific to expanding discharges.

(a) Any person proposing to expand an existing wastewater discharge to surface waters beyond its permitted flow as defined in this Rule shall meet the following requirements prior to applying for an NPDES permit:

(i) Evaluate all practical alternatives to said discharge, pursuant to 15A NCAC 02H .0105(c)(2);

(ii) If the results of the evaluation support an expanded discharge, acquire sufficient nitrogen and phosphorus allocations for the discharge. The proponent may obtain allocation for the proposed discharge from existing dischargers pursuant to the

applicable requirements of Item (9) of this Rule or employ measures to offset the increased nutrient loads resulting from the proposed discharge. The proponent may fund offset measures by making payment to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program or implement other offset measures contingent upon approval by the Division, either of which shall meet the requirements of rule 15A NCAC 02B .0273. The offsets shall be of an amount equivalent to the allocations required for a period of 30 years. Payment for each 30-year portion of the nonpoint source load allocation shall be made prior to the ensuing permit issuance;

(iii) Determine whether the proposed discharge of nutrients will cause local water quality impact; and

(iv) Provide documentation with its NPDES permit application demonstrating that the requirements of Sub-Items (i) through (iii) of this Sub-Item have been met.

(b) The nutrient discharge limits for an expanding facility shall not exceed the greater of its nutrient allocations or the mass value equivalent to a concentration of 3.0 mg/L nitrogen or 0.18 mg/L phosphorus at the permitted flow in the discharger's NPDES permit; except that this provision shall not result in an allocation or limit that is less than originally assigned to the discharger under this Rule.

(c) Upon expansion or upon notification by the Director that it is necessary to protect water quality, any discharger with a permitted flow of less than 0.1 MGD, as defined under this Rule, shall become subject to total nitrogen and total phosphorus permit limits not to exceed its active individual discharge allocations.

(9) This Item describes additional requirements regarding nutrient discharge limits for wastewater facilities:

(a) Annual mass nutrient limits shall be established as calendar-year limits.

(b) Any point source discharger holding nutrient allocations under this Rule may by mutual agreement transfer all or part of its allocations to any new, existing, or expanding dischargers in the same Jordan subwatershed or to other person(s), subject to the provisions of the Jordan nutrient strategy.

(c) For NPDES compliance purposes, the enforceable nutrient limits for an individual facility or for a compliance association described in Item (10) shall be the effective limits in the governing permit, regardless of the allocation held by the discharger or association.

(d) The Director may establish more stringent nitrogen or phosphorus discharge limits for any discharger upon finding that such limits are necessary to prevent the discharge from causing adverse water quality impacts on surface waters other than an arm of Jordan Reservoir as defined in Rule .0262(4) of this strategy. The Director shall establish such limits through modification of the discharger's NPDES permit in accordance with applicable rules and regulations. When the Director does so, the discharger retains its nutrient allocations, and the non-active portion of the discharger's allocation becomes reserve allocation. The allocation remains in reserve until the director determines that less stringent limits are allowable or until the allocation is applied to another discharge not subject to such water quality-based limits.

(e) In order for any transfer of allocation to become effective as a discharge limit in an individual NPDES permit, the discharger must request and obtain modification of the permit. Such request shall:

(i) Describe the purpose and nature of the modification;

(ii) Describe the nature of the transfer agreement, the amount of allocation transferred, and the dischargers or persons involved;

(iii) Provide copies of the transaction agreements with original signatures consistent with NPDES signatory requirements; and

(iv) Demonstrate to the Director's satisfaction that the increased nutrient discharge will not violate water quality standards in localized areas.

(f) Changes in a discharger's nutrient limits shall become effective upon modification of its individual permit but no sooner than January 1 of the year following modification. If the modified permit is issued after January 1, the Director may make the limit effective on that January 1 provided that the discharger made acceptable application in a timely manner.

(g) Regional Facilities. In the event that an existing discharger or group of dischargers accepts wastewater from another NPDES-permitted treatment facility in the same Jordan subwatershed and that acceptance results in the elimination of the discharge from the other treatment facility, the eliminated facility's delivered nutrient allocations shall be transferred and added to the accepting discharger's delivered allocations.

(10) This Item describes the option for dischargers to join a group compliance association to collectively meet nutrient control requirements.

(a) Any or all facilities within the same Jordan subwatershed may form a group compliance association to meet delivered nutrient allocations collectively. More than one group compliance association may be established in any subwatershed. No facility may belong to more than one association at a time.

(b) Any such association must apply for and shall be subject to an NPDES permit that establishes the effective nutrient limits for the association and for its members.

(c) No later than 180 days prior to the proposed date of a new association's operation or expiration of an existing association's NPDES permit, the association and its members shall submit an application for a NPDES permit for the discharge of nutrients to surface waters of the Jordan watershed. The association's NPDES permit shall be issued to the association and its members. It shall specify the delivered nutrient limits for the association and for each of its co-permittee members. Association members shall be deemed in compliance with the permit limits for nitrogen and phosphorus contained in their individually issued NPDES permits so long as they remain members in an association.

(d) An association's delivered nitrogen and phosphorus limits shall be the sum of its members' individual active delivered allocations for each nutrient plus any other active allocation obtained by the association or its members.

(e) The individual delivered allocations for each member in the association permit shall initially be equivalent to the discharge limits in effect in the member's NPDES permit. Thereafter, changes in individual allocations or limits must be incorporated into the members' individual permits before they are included in the association permit.

(f) An association and its members may reapportion the individual delivered allocations of its members on an annual basis. Changes in individual allocations or limits must be incorporated into the members' individual permits before they are included in the association permit.

(g) Changes in nutrient limits shall become effective no sooner than January 1 of the year following permit modification. If the modified permit is issued after January 1, the Director may make the limit effective on that January 1 provided that the discharger made acceptable application in a timely manner.

(h) Beginning with the first full calendar year that the nitrogen or phosphorus limits are effective, an association that does not meet its permit limit for nitrogen or phosphorus for a calendar year shall, no later than May 1 of the year following the exceedance, make an offset payment to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program or by implementing other load offsetting measures contingent upon approval by the Division, either of which shall meet the requirements of rule 15A NCAC 02B .0273.

(i) Association members shall be deemed in compliance with their individual delivered limits in the association NPDES permit for any calendar year in which the association is in compliance with its delivered limit. If the association fails to meet its delivered limit, the association and the members that have failed to meet their individual delivered nutrient limits in the association NPDES permit will be out of compliance with the association NPDES permit.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-215; 143-215.1; 143-215.3(a)(1); 143-215B; 143B-282(c); 143B-282(d); S.L. 1995, c. 572; S.L. 2005-190; S.L. 2006-259;*
Eff. August 11, 2009;
See S.L. 2009-216; S.L. 2009-484; S.L. 2011-394, s. 14; S.L. 2013-395.

15A NCAC 02B .0271 JORDAN WATER SUPPLY NUTRIENT STRATEGY: STORMWATER REQUIREMENTS FOR STATE AND FEDERAL ENTITIES

(See S.L. 2009-216; 2009-484; S.L. 2013-395)

The following is the stormwater strategy for the activities of state and federal entities within the Jordan watershed, as prefaced in Rule 02B .0262.

(1) PURPOSE. The purposes of this Rule are as follows.

(a) To achieve and maintain, on new non-road development lands, the nonpoint source nitrogen and phosphorus percentage reduction goals established for Jordan Reservoir in 15A NCAC 02B .0262 relative to the baseline period defined in that Rule, to provide the highest practicable level of treatment on new road development, and to achieve and maintain the percentage goals on existing developed lands by reducing loading from state-maintained roadways and facilities, and from lands controlled by other state and federal entities in the Jordan watershed;

(b) To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows from state-maintained roadways and facilities and from lands controlled by other state and federal entities in the Jordan watershed; and

(c) To protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed.

(2) APPLICABILITY. This Rule shall apply to all existing and new development, both as defined in 15A NCAC 02B .0263, that lies within or partially within the Jordan watershed under the control of the NC Department of Transportation (NCDOT), including roadways and facilities, and to all lands controlled by other state and federal entities in the Jordan watershed.

(3) NON-NCDOT REQUIREMENTS. With the exception of the NCDOT, all state and federal entities that control lands within the Jordan watershed shall meet the following requirements:

(a) For any new development proposed within their jurisdictions that would disturb one-half acre or more, non-NCDOT state and federal entities shall develop stormwater management plans for submission to and approval by the Division. These stormwater plans shall not be approved by the Division unless the following criteria are met:

(i) The nitrogen and phosphorus loads contributed by the proposed new development activity in a given subwatershed shall not exceed the unit-area mass loading rates applicable to that subwatershed as follows for nitrogen and phosphorus, respectively, expressed in units of pounds per acre per year: 2.2 and 0.82 in the Upper New Hope; 4.4 and 0.78 in the Lower New Hope; and 3.8 and 1.43 in the Haw. The developer shall determine the need for engineered stormwater controls to meet these loading rate targets by using the loading calculation method called for in this Section or other equivalent method acceptable to the Division.

(ii) Proposed new development subject to NPDES, water supply, and other state-mandated stormwater regulations shall comply with those regulations in addition to the other requirements of this Sub-Item. Proposed new development in any water supply watershed in the Jordan watershed designated WS-II, WS-III, or WS-IV shall comply with the density-based restrictions, obligations, and requirements for engineered stormwater controls, clustering options, and 10/70 provisions described in Sub-Items (3)(b)(i) and (3)(b)(ii) of the applicable Rule among 15A NCAC 02B .0214 through .0216;

(iii) Stormwater systems shall be designed to control and treat the runoff generated from all surfaces by one inch of rainfall. The treatment volume shall be drawn down pursuant to guidance specific to each practice as provided in the most recent version of the *Stormwater Best Management Practices Manual* published by the Division, or other technically at least equivalent guidance acceptable to the Division. To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows, stormwater flows from the development shall not contribute to degradation of waters of the State. At a minimum, the development shall not result in a net increase in peak flow leaving the site from pre-development conditions for the one-year, 24-hour storm event;

(iv) Proposed new development that would replace or expand structures or improvements that existed as of December 2001, the end of the baseline period, and which would not result in a net increase in built-upon area shall not be required to meet the nutrient loading targets or high-density requirements except to the extent that it shall provide

stormwater control at least equal to the previous development. Proposed new development that would replace or expand existing structures or improvements and would result in a net increase in built-upon area shall have the option either to achieve at least the percentage load reduction goals stated in 15A NCAC 02B .0262 as applied to nitrogen and phosphorus loading from the previous development for the entire project site, or to meet the loading rate targets described in Sub-Item (3)(a)(i);

(v) Proposed new development shall comply with the riparian buffer protection requirements of 15A NCAC 02B .0267 and .0268;

(vi) The entity shall have the option of offsetting part of the nitrogen and phosphorus loads by implementing or funding offsite management measures as follows: Before using offsite offset options, a development shall meet any requirements for engineered stormwater controls described in Sub-Item (3)(a)(iii) of this Rule, and shall attain a maximum nitrogen loading rate on-site of four pounds per acre per year for single-family, detached and duplex residential development and eight pounds per acre per year for other development, including multi-family residential, commercial and industrial and shall meet any requirements for engineered stormwater controls described in Sub-Item (3)(a)(iii) of this Rule. An entity may make offset payments to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program. An entity may propose other offset measures to the Division, including providing its own offsite offset or utilizing a private seller. All offset measures identified in this Sub-Item shall meet the requirements of 15A NCAC 02B .0273(2)-(4); and

(vii) The non-NCDOT state or federal entity shall include measures to ensure maintenance of best management practices (BMPs) implemented as a result of the provisions in Sub-Item (3)(a) of this Rule for the life of the development.

(b) For existing development, non-NCDOT state and federal entities shall develop and implement load reduction programs for achieving and maintaining nutrient load reductions from existing development based on the standards set out in this Sub-Item. Such entities shall submit these programs for approval by the Division. A load reduction program shall include the following elements and meet the associated criteria:

(i) The long-term objective of this program shall be for the entity to achieve the percentage nutrient load reduction goals in Item (5) of 15A NCAC 02B .0262 relative to annual mass loads, in pounds per year, representative of the baseline period defined in that Rule and reaching Jordan Reservoir from existing developed lands within each subwatershed under its control. Loads shall be calculated by applying the Tar-Pamlico Nutrient Export Calculation Worksheet, Piedmont Version, dated October 2004, or an equivalent or more accurate method acceptable to the Division, to acreages of different types of existing developed lands as defined in this Sub-Item and in Item (2) of this Rule. To provide entities spatial latitude to obtain reductions in different locations, loads thus calculated shall be converted to delivered loads to Jordan Reservoir using transport factors established in the Division document, *Nitrogen and Phosphorus Delivery from Small Watersheds to Jordan Lake*, dated June 30, 2002. Subject entities shall include estimates of, and plans for offsetting, nutrient load increases from lands developed subsequent to the baseline period but prior to implementation of new development programs. For these post-baseline developed lands, the new loading rate shall be compared to the applicable loading rate target in Sub-Item (3)(a)(i) of this Rule for the subwatershed and acres involved, and the difference shall constitute the load reduction need. Should percentage reduction goals be adjusted pursuant to Item (8) of 15A NCAC 02B .0262, then the annual load goals established in this Sub-Item shall be adjusted accordingly. Entities may seek to fund implementation of load-reducing activities through grant sources such as the North Carolina Clean Water Act Section 319 Grant Program, or other funding programs for nonpoint sources;

(ii) The load reduction program shall include a plan and supporting technical analysis for achieving half of each load reduction goal within 10 years after the effective date of this Rule, and a plan and timeframes for achieving the remaining half subject to modification

based on technical analysis at 10 years after effective date. A load reduction program may propose an alternative compliance timeframe provided it includes a technical analysis that demonstrates the need for that timeframe. A program technical analysis shall examine the feasibility of achieving stated goals and shall consider factors such as magnitude of reduction need relative to area within a subwatershed, the potential for utilizing the range of load-reducing activities listed in Sub-Item (3)(b)(iv), and relative costs and efficiencies of each activity to the extent information is available. The load reduction program shall propose implementation rates and timeframes for each activity, and shall provide for proportionate annual progress toward meeting the reduction goals as practicable, that is capable of being put into practice, done, or accomplished;

(iii) The load reduction program shall identify specific load-reducing practices implemented to date subsequent to the baseline period and for which it is seeking credit. It shall estimate load reductions for these practices using methods provided for in Item (8), and their anticipated duration;

(iv) The load reduction program shall identify the types of activities the entity intends to implement and types of existing development affected, relative proportions or a prioritization of practices, and the relative magnitude of reductions it expects to achieve from each. An entity may credit any nitrogen or phosphorus load reductions in excess of those required by other rules in this Chapter. The program shall identify the duration of anticipated load reductions, and may seek activities that provide sustained, long-term reductions. The load reduction program shall meet the requirements of 15A NCAC 02B .0273. Potential load-reducing activities may include stormwater activities such as street sweeping, improvement of existing ponds and stormwater structures, removal of existing built-upon area, retrofitting of existing development with engineered best management practices (BMPs), treatment of runoff in redevelopment projects, over-treatment of runoff in new development projects, source control activities such as pet waste reduction and fertilization reduction, alternative stormwater practices such as rain barrels, cisterns, downspout disconnections, and stormwater capture and reuse, restoration of ecological communities such as streams and riparian buffers, and wastewater activities such as creation of surplus allocation through advanced treatment at wastewater facilities, expansion of surplus allocation through regionalization, collection system improvements, and removal of illegal discharges;

(v) The load reduction program shall identify anticipated funding mechanisms or sources and discuss steps taken or planned to secure such funding;

(vi) An entity shall have the option of working with municipalities or counties within its subwatershed to jointly meet the load targets from all existing development within their combined jurisdictions. An entity may utilize private or third party sellers. All reductions shall meet the requirements of 15A NCAC 02B .0273;

(vii) The entity shall include measures to provide for operation and maintenance of retrofitted stormwater controls to ensure that they meet the load targets required in Sub-Item (3)(b) of this Rule for the life of the development; and

(viii) An entity may choose to conduct monitoring of stream flows and runoff from catchments to quantify disproportionately high loading rates relative to those used in the accounting methods stipulated under Item (8), and to subsequently target load-reducing activities to demonstrated high-loading source areas within such catchments for proportionately greater load reduction credit. An entity may propose such actions in its initial load reduction program submittal or at any time subsequent, and shall obtain Division approval of the monitoring design. It shall also obtain Division approval of any resulting load reduction benefits based on the standards set out in this Rule. As detailed in Item (5), an entity that chooses such monitoring initially may delay submittal of its load reduction program by one year for the purpose of incorporating monitoring findings into its program design provided it submits to the Division within six months of the effective date of this Rule a satisfactory monitoring proposal involving at least one year of up-

front monitoring, executes the monitoring, and provides the results to the Division as part of its load reduction program submittal.

(4) NCDOT REQUIREMENTS The NCDOT shall develop a single Stormwater Management Program that will be applicable to the entire Jordan watershed and submit this program for approval by the Division according to the following standards:

(a) Identify NCDOT stormwater outfalls from Interstate, US, and NC primary routes;

(b) Identify and eliminate illegal discharges into the NCDOT's stormwater conveyance system;

(c) Establish a program for post-construction stormwater runoff control for new development, including new and widening NCDOT roads and facilities. The program shall establish a process by which the Division shall review and approve stormwater designs for new NCDOT development projects. The program shall delineate the scope of vested projects that would be considered as existing development, and shall define lower thresholds of significance for activities considered new development. In addition, the following criteria shall apply:

(i) For new and widening roads, compliance with the riparian buffer protection requirements of Rules 15A NCAC 02B .0267 and .0268 which are expected to achieve a 30 percent nitrogen reduction efficiency in runoff treatment through either diffuse flow into buffers or other practices) shall be deemed as compliance with the purposes of this Rule.

(ii) New non-road development shall achieve and maintain the nitrogen and phosphorus percentage load reduction goals established for each subwatershed in 15A NCAC 02B .0262 relative to either area-weighted average loading rates of all developable lands as of the baseline period defined in 15A NCAC 02B .0262, or to project-specific pre-development loading rates. Values for area-weighted average loading rate targets for nitrogen and phosphorus, respectively, in each subwatershed shall be the following, expressed in units of pounds per acre per year: 2.2 and 0.82 in the Upper New Hope; 4.4 and 0.78 in the Lower New Hope; and 3.8 and 1.43 in the Haw. The NCDOT shall determine the need for engineered stormwater controls to meet these loading rate targets by using the loading calculation method called for in Item (8) or other equivalent method acceptable to the Division. Where stormwater treatment systems are needed to meet these targets, they shall be designed to control and treat the runoff generated from all surfaces by one inch of rainfall. Such systems shall be assumed to achieve the nutrient removal efficiencies identified in the most recent version of the *Stormwater Best Management Practices Manual* published by the Division provided that they meet associated drawdown and other design specifications included in the same document. The NCDOT may propose to the Division nutrient removal rates for practices currently included in the BMP Toolbox required under its NPDES stormwater permit, or may propose revisions to those practices or additional practices with associated nutrient removal rates. The NCDOT may use any such practices approved by the Division to meet loading rate targets identified in this Sub-Item. New non-road development shall also control runoff flows to meet the purpose of this Rule regarding protection of the nutrient functions and integrity of receiving waters.

(iii) For new non-road development, the NCDOT shall have the option of partially offsetting its nitrogen and phosphorus loads by implementing or funding offsite management measures. These offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus load to the remaining reduction needed onsite to comply with Sub-Item (4)(c)(ii) of this Rule. Before using offsite offset options, a development shall attain a maximum nitrogen loading rate of 8 pounds per acre per year. The NCDOT may make offset payments to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program. The NCDOT may propose other offset measures to the Division. All offset measures identified in this Sub-Item shall meet the requirements of 15A NCAC 02B .0273.

(d) Establish a program to identify and implement load-reducing opportunities on existing development within the watershed. The long-term objective of this effort shall be for the NCDOT to achieve the nutrient load goals in 15A NCAC 02B .0262 as applied to existing development under its control, including roads and facilities.

(i) For existing non-roadway development, the program shall include estimates of, and plans for offsetting, nutrient load increases from lands developed subsequent to the baseline period but prior to implementation of its new development program. It shall include a technical analysis that includes a proposed implementation rate and schedule. This schedule shall provide for proportionate annual progress toward reduction goals as practicable throughout the proposed compliance period. The program shall identify the types of activities NCDOT intends to implement and types of existing non-roadway development affected, relative proportions or a prioritization of practices, and the relative magnitude of reductions it expects to achieve from each.

(ii) For existing roadway development, NCDOT may meet minimum implementation rate and schedule requirements by implementing retrofits or other load-reducing measures in the watershed to achieve load reductions at the rate of 500 pounds of nitrogen reduction per 5-year period and at least 50 pounds per year. To the maximum extent practicable, retrofits shall be designed to treat the runoff generated from all surfaces by 1 inch of rainfall, and shall conform to the standards and criteria established in the most recent version of the Division-approved NCDOT BMP Toolbox required under NCDOT's NPDES stormwater permit. To establish removal rates for nutrients in the Toolbox, design criteria for individual practices therein shall be modified as needed consistent with such criteria in the most recent version of the *Stormwater Best Management Practices Manual* published by the Division, or other technically at least equivalent guidance acceptable to the Division, and the Division shall approve such modifications as part of the accounting process defined in Item (8) of this Rule. Other aspects of nutrient mass load calculations shall be based on the accounting process defined in Item (8) of this Rule.

(e) Initiate a "Nutrient Management Education Program" for NCDOT staff and contractors engaged in the application of fertilizers on highway rights of way. The purpose of this program shall be to contribute to the load reduction goals established in 15A NCAC 02B .0262 through proper application of nutrients, both inorganic fertilizer and organic nutrients, to highway rights of way in the Jordan watershed in keeping with the most current state-recognized technical guidance on proper nutrient management; and

(f) Address compliance with the riparian buffer protection requirements of 15A NCAC 02B.0267 and .0268 through a Division approval process.

(5) NON-NCDOT RULE IMPLEMENTATION. For all state and federal entities that control lands within the Jordan watershed with the exception of the NCDOT, this Rule shall be implemented as follows:

(a) Within six months after the effective date of this Rule, any entity that intends to use water quality monitoring to guide the initial design of its load reduction program shall provide a monitoring design to the Division. The Division shall notify any such entity of the adequacy of its design within three months of submittal. When an entity's monitoring design is deemed adequate, it may delay submittal of its load reduction program by up to one year from the timeframe given in Sub-Item (5)(c) of this Rule, whereupon the same time interval would be added to the approval and implementation timeframes given in Sub-Items (5)(d) through (5)(f) of this Rule;

(b) Upon Commission approval of the accounting methods required by Item (8) of this Rule, subject entities shall comply with the requirements of Sub-Item (3)(a) of this Rule for any new development proposed within their jurisdictions;

(c) Within 24 months after the Commission's approval of the accounting methods, subject entities shall submit load reduction programs to the Division for preliminary approval according to the standards set out in Sub-Item (3)(b) of this Rule;

(d) Within 34 months after the Commission's approval of the accounting methods, the Division shall request the Commission's approval of entities' load reduction programs. The Commission shall either approve the programs or require changes. Should the Commission require changes, the Division shall seek Commission approval at the earliest feasible date subsequent to the original request;

(e) Within 36 months after the Commission's approval of the accounting methods, or within two months following Commission approval of a load reduction program, whichever is later, entities shall begin to implement load reduction programs; and

(f) Upon implementation of the requirements of Item (3) of this Rule, subject entities shall provide annual reports to the Division documenting their progress in implementing those requirements.

(6) NCDOT RULE IMPLEMENTATION. For the NCDOT, this Rule shall be implemented as follows:

(a) Within 30 months of the effective date of this Rule, the NCDOT shall submit the Stormwater Management Program for the Jordan watershed to the Division for approval. This Program shall meet or exceed the requirements in Item (4) of this Rule;

(b) Within 40 months of the effective date of this Rule, the Division shall request the Commission's approval of the NCDOT Stormwater Management Program;

(c) Within 42 months of the effective date of this Rule, the NCDOT shall implement the approved Stormwater Management Program; and

(d) Upon implementation, the NCDOT shall submit annual reports to the Division summarizing its activities in implementing each of the requirements in Item (4) of this Rule. This annual reporting may be incorporated into annual reporting required under NCDOT's NPDES stormwater permit.

(7) RELATIONSHIP TO OTHER REQUIREMENTS. A party may in its program submittal under Item (5) or (6) of this Rule request that the Division accept its implementation of another stormwater program or programs, such as NPDES stormwater requirements, as satisfying one or more of the requirements set forth in Item (3) or (4) of this Rule. The Division shall provide determination on acceptability of any such alternatives prior to requesting Commission approval of programs as required in Items (5) and (6) of this Rule. The party shall include in its program submittal technical information demonstrating the adequacy of the alternative requirements.

(8) ACCOUNTING METHODS. Within 18 months after the effective date of this Rule, the Division shall submit a nutrient accounting framework to the Commission for approval. This framework shall include tools for quantifying load reduction assignments on existing development for parties subject to this Rule, load reduction credits from various activities on existing developed lands, and a tool that will allow subject parties to account for loading from new and existing development and loading changes due to BMP implementation, The Division shall work in cooperation with subject parties and other watershed interests in developing this framework. The Division shall periodically revisit these accounting methods to determine the need for revisions to both the methods and to existing development load reduction assignments made using the methods set out in this Rule. It shall do so no less frequently than every 10 years. Its review shall include values subject to change over time independent of changes resulting from implementation of this Rule, such as untreated export rates that may change with changes in atmospheric deposition. It shall also review values subject to refinement, such as BMP nutrient removal efficiencies.

History Note: *Authority G S. 143-214.1; 143-214.5; 143-214.5(i); 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259;*
Eff. August 11, 2009;
See S.L. 2009-216 and S.L. 2009-484;
Amended Eff. September 1, 2011;
See S.L. 2013-395.

15A NCAC 02B .0272 JORDAN WATER SUPPLY NUTRIENT STRATEGY: FERTILIZER MANAGEMENT

The following is the management strategy for controlling land-applied nutrients in the Jordan watershed, as prefaced in Rule .0262 of this Section.

(1) PURPOSE. The purpose of this Rule is to protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed by managing the application of nutrients, both inorganic fertilizer and organic nutrients, to lands in the Jordan watershed. The requirements of this Rule are to be fully implemented within three years from the effective date as set out in Item (6) of this Rule.

(2) APPLICABILITY. This Rule shall apply to the application of nutrients on:

(a) Cropland areas in the Jordan watershed for commercial purposes;

(b) Commercial ornamental and floriculture areas and greenhouse production areas in the Jordan watershed;

(c) Golf courses, public recreational lands, road or utility rights-of-way, or other commercial or institutional lands where any such land, or combination of such lands, under common management in the watershed totals at least five acres; and

(d) Any lands in the Jordan watershed where a hired applicator, as defined in 15A NCAC 02B .0202(4), who does not own or lease the lands applies nutrients to a total of at least five acres per year.

(3) REQUIREMENTS. Application of nutrients to lands subject to this Rule shall be in accordance with the following requirements:

(a) Application shall be made either:

(i) By an applicator who has completed nutrient management training pursuant to Item (4) of this Rule; or

(ii) Pursuant to a nutrient management plan that meets the requirements of Item (5) of this Rule.

(b) With the exception of residential homeowners, a person who hires an applicator to apply nutrients to the land that they own or manage in the Jordan watershed shall either:

(i) Ensure that the applicator they hire has attended and completed nutrient management training pursuant to Item (4) of this Rule; or

(ii) Ensure that the applicator they hire follows a nutrient management plan that has been developed for the land that they own or manage pursuant to Item (5) of this Rule.

(4) NUTRIENT MANAGEMENT TRAINING. To demonstrate compliance with this Rule through the nutrient management training option, the applicator shall have a certificate indicating completion of training provided by either the Cooperative Extension Service or the Division. Training certificates shall be kept on-site or be produced within 24 hours of a request by the Division. Training shall be sufficient to provide participants with an understanding of the value and importance of proper management of nitrogen and phosphorus, and the water quality impacts of poor nutrient management, and the ability to understand and properly carry out a nutrient management plan.

(5) NUTRIENT MANAGEMENT PLANS. Nutrient management plans developed to comply with this rule shall meet the following requirements:

(a) Nutrient management plans for cropland, excluding those for application of Class A bulk, and Class B wastewater residuals, regulated under 15A NCAC 02T .1100 and septage application regulated under 15A NCAC 13B .0815 through .0829, shall meet the standards and specifications adopted by the NC Soil and Water Conservation Commission, including those found in 15A NCAC 06E .0104 and 15A NCAC 06H .0104, which are incorporated herein by reference, including any subsequent amendments and editions to such rules that are in place at the time that plans are approved by a technical specialist as required under Sub-Item (5)(e) of this Rule.

(b) Nutrient management plans for application of Class A bulk, and Class B, wastewater residuals regulated under 15A NCAC 02T .1100 and septage application regulated under 15A NCAC 13B .0815 through .0829 shall meet the standards and specifications adopted by the NC Soil and Water Conservation Commission in 15A NCAC 06E .0104, including any subsequent amendments and editions to such rule that are in place at the time that plans are approved by the permitting agency. This compliance includes addressing the phosphorus requirements of US Department of Agriculture Natural Resources Conservation Service Practice Standard 590 regarding Nutrient Management.

(c) Nutrient management plans for lands identified in Sub-Item (2)(c) of this Rule shall follow the applicable guidance contained in the most recent version of North Carolina Cooperative Extension Service publications "Water Quality and Professional Lawn Care" (NCCES publication number WQWM-155), "Water Quality and Home Lawn Care" (NCCES publication number WQWM-151), or "Water Quality for Golf Course Superintendents and Professional Turf Managers" (NCCES publication number WQWM-156 Revised) as appropriate for the activity. The above-referenced guidelines are hereby incorporated by reference including any subsequent amendments and editions. Copies may be obtained from the Division of Water Quality, 512 North Salisbury Street, Raleigh, North Carolina 27604 at no cost. Nutrient management plans may also follow other

guidance distributed by land-grant universities for turfgrass management as long as it is equivalent to or more stringent than the above-listed guidelines.

(d) Nutrient management plans for ornamental and floriculture production shall follow the Nutrient Management section of the most recent version of the Southern Nursery Association guidelines promulgated in "Best Management Practices – A BMP Guide For Producing Container and Field Grown Plants". Copies may be obtained from the Southern Nursery Association, 1827 Powers Ferry Road SE, Suite 4-100, Atlanta, GA 30339-8422 or from www.sna.org. The materials related to nutrient management plans for ornamental and floriculture production are hereby incorporated by reference including any subsequent amendments and editions. Copies are available for inspection at the Department of Environment and Natural Resources Library, 512 North Salisbury Street, Raleigh, North Carolina 27604. Nutrient management plans for ornamental and floriculture production may also follow other guidance distributed by land-grant universities for such production as long as it is equivalent or more stringent than the above-listed guidelines.

(e) The nutrient management plan shall be approved in writing by an appropriate technical specialist, as defined in 15A NCAC 06H .0102(9), as follows:

(i) Nutrient management plans for cropland using either inorganic or organic nutrients, except those using biosolids or septage, shall be approved by a technical specialist designated pursuant to the process and criteria specified in rules adopted by the Soil and Water Conservation Commission for nutrient management planning, including 15A NCAC 06H .0104, excepting Sub-Item (a)(2) of that Rule.

(ii) Nutrient management plans for lands identified in Sub-Item (2)(c) of this Rule, ornamental and floriculture production shall be approved by a technical specialist designated by the Soil and Water Conservation Commission pursuant to the process and criteria specified in 15A NCAC 06H .0104 excepting Sub-Item (a)(2) of that Rule. If the Soil and Water Conservation Commission does not designate such technical specialists, then the Environmental Management Commission shall do so using the same process and criteria.

(f) Persons with approved waste utilization plans that are required under state or federal animal waste regulations are deemed in compliance with this Rule as long as they are compliant with their approved waste utilization plans.

(g) Nutrient management plans and supporting documents must be kept on-site or be produced within 24 hours of a request by the Division.

(6) COMPLIANCE. The following constitute the compliance requirements of this Rule:

(a) For proposed new application of Class A bulk, and Class B, wastewater residuals pursuant to permits obtained under 15A NCAC 02T .1100 or its predecessor, and septage application pursuant to permits obtained under 15A NCAC 13B .0815 through .0829, all applications for new permits shall be made according to, and subsequent nutrient applications shall comply with, the applicable requirements of this Rule as of its effective date.

(b) For existing, ongoing application of residuals and septage as defined in this Item, beginning one year after the effective date of this Rule, all applications for renewal of existing permits shall be made according to, and subsequent nutrient applications shall comply with, the applicable requirements of this Rule.

(c) For all other application with the exception of the application of residuals and septage as defined in this Item, the requirements of this Rule shall become effective three years after its effective date and shall apply to all application of nutrients on lands subject to this Rule after that date.

(d) Persons who fail to comply with this Rule are subject to enforcement measures authorized in G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

History Note: *Authority G. S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259;*
Eff. August 11, 2009.

15A NCAC 02B .0273 JORDAN WATER SUPPLY NUTRIENT STRATEGY: OPTIONS FOR OFFSETTING NUTRIENT LOADS

PURPOSE. This Rule provides parties subject to other rules within the Jordan nutrient strategy with options for meeting rule requirements by obtaining or buying credit for activities conducted by others (sellers) that produce excess load reductions relative to rule requirements. It provides the potential for parties who achieve excess load reductions to recover certain costs by selling such credits, and it provides opportunity for private parties to produce reductions and sell credits for profit. Overall it provides the potential for more cost-effective achievement of strategy reduction goals. Accounting is required to ensure and track the availability and use of trading credits. This accounting will be compared against compliance accounting required under other rules of the Jordan nutrient strategy. This Rule furthers the adaptive management intent of the strategy to protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed. The minimum requirements for these offset options are:

(1) PREREQUISITES. The following buyers shall meet applicable criteria identified here and in rules imposing reduction requirements on them before utilizing the option outlined in this Rule:
  (a) Agriculture Rule .0264: Agricultural producers shall receive approval from the Watershed Oversight Committee to obtain offsite credit pursuant to the conditions of Sub-Item (5)(b);
  (b) New Development Rule .0265: Developers shall meet onsite reduction requirements enumerated in Sub-Item (3)(a)(vii) before obtaining offsite credit;
  (c) Wastewater Rule .0270: New and expanding dischargers shall first make all reasonable efforts to obtain allocation from existing dischargers as stated in Sub-Items (7)(a)(ii) and (8)(a)(ii), respectively; and
  (d) State and Federal Entities Stormwater Rule .0271:
    (i) Non-DOT entities shall meet onsite new development reduction requirements enumerated in Sub-Item (3)(a)(vi); and
    (ii) NC DOT shall meet onsite non-road new development reduction requirements enumerated in Sub-Item (4)(c)(iii) before obtaining offsite credit.

(2) The party seeking approval to sell excess loading reduction credits pursuant to this Rule shall demonstrate to the Division that such reductions meet the following criteria:
  (a) Loading reductions eligible for credit are only those in excess of load reduction goals or percentage reductions required under rules in this Section or in excess of the percentage load reduction goals established in Rule .0262 of this strategy as applied to sources not addressed by rules in this section;
  (b) Load reductions eligible for credit shall not include reductions achieved under other regulations to mitigate or offset actions that increase nutrient loading;
  (c) These excess loading reductions shall be available as credit only within the same subwatershed of the Jordan watershed, as defined in Rule .0262 of this Section, as the reduction need that they propose to offset;
  (d) The party seeking to sell credits shall define the nature of the activities that would produce excess reductions and define the magnitude and duration of those reductions to the Division, including addressing the following items:
    (i) Account for differences in instream nutrient losses between the location of the reduction need and excess loading reduction in reaching the affected arm of Jordan Reservoir;
    (ii) Quantify and account for the relative uncertainties in reduction need estimates and excess loading reduction estimates;
    (iii) Ensure that excess loading reductions shall take place at the time and for the duration in which the reduction need occurs; and
    (iv) Demonstrate means adequate for assuring the achievement and claimed duration of excess loading reduction, including the cooperative involvement of any other involved parties.

(3) The party seeking approval to sell excess loading reductions shall provide for accounting and tracking methods that ensure genuine, accurate, and verifiable achievement of the purposes of this Rule. The Division shall work cooperatively with interested parties at their request to develop such accounting and tracking methods to support the requirements of Item (2) of this Rule.

(4) Proposals for use of offsetting actions as described in this Rule shall become effective after determination by the Director that the proposal contains adequate scientific or engineering standards or procedures

necessary to achieve and account for load reductions as required under Sub-Items (2) and (3) of this Rule, and that specific accounting tools required for these purposes in individual rules have been adequately established. In making this determination, the Director shall also evaluate the potential for excess loading to produce localized adverse water quality impacts that contribute to impairment of classified uses of the affected waters.

History Note: *Authority G S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-214.12; 143-214.21; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 1999; c. 329, s.7.1; S.L. 2005-190; S.L. 2006-259;*
Eff. August 11, 2009.

15A NCAC 02B .0274 NUTRIENT OFFSET PAYMENT RATES FOR THE NC ECOSYSTEM ENHANCEMENT PROGRAM

(a) The purpose of this Rule is to establish actual cost rates for the payment of nutrient offset fees to the NC Ecosystem Enhancement Program, subsequently referred to as the Program, where rules adopted by the Commission allow this option toward fulfillment of nutrient load reduction requirements and where the Program implements projects to achieve nutrient reductions. Wherever the term "cost" or "costs" is used in this Rule, it means the Program's costs associated with nutrient offset projects in a given rate area, as described below. For this purpose, the Program shall operate according to the requirements in this Rule.

(b) The Program shall calculate and publish general offset payment rates applicable to each river basin where Commission rules allow such nutrient offsets and special rates for specific watersheds as identified in Paragraph (d) of this Rule. All rates shall be based on the actual and complete per-pound nutrient reduction costs incurred by implementing projects in those watersheds.

(c) Payment rates shall be developed for nitrogen, phosphorus, or other nutrients as dictated by Commission rule requirements for each river basin.

(d) Special Watershed Rates. The Program shall apply special watershed rates to:

(1) The Neuse 03020201 cataloging unit below the Falls watershed, the Jordan Lake watershed, and the Falls Lake watershed; and

(2) Any eight digit cataloging unit or smaller watershed subject to nutrient management rules where costs are 40 percent greater than costs in the larger watershed or river basin in which that cataloging unit is located.

The initial rate for a special watershed with fewer than two nutrient reduction projects that have reached the design stage shall be the highest rate in effect under the Program for the applicable nutrient. The initial rate shall be revised for a special watershed the quarter following a quarter in which at least two nutrient reduction projects in that watershed have reached design stage.

(e) Once an area has been established as an area with Special Watershed Rates, it shall remain a Special Watershed Rate area.

(f) Rate Adjustment Frequency. Initial rates shall be effective as of the effective date of this Rule. They shall be adjusted quarterly whenever the rate increases ten percent above the existing rate. The rates shall also be adjusted annually. Annual calculations and adjusted rates shall be published by June 1 on the Program's Web site, www.nceep.net, and shall become effective July 1. Any quarterly rate adjustments shall become effective on the first day of October, January, or April as applicable, and shall be published on the same Web site two weeks prior to that date.

(g) Payment rates for each nutrient shall be determined for a rate area using the following equation and presented in per pound values:

$$ActualCostRate = \frac{ActualCosts_{PresentDay}}{TotalPoundsOffset_{PresentDay}} + AdjustmentFactor$$

Where:

(1) Actual Costs$_{PresentDay}$ means the sum of all costs adjusted for inflation as described in this Sub-Item. Costs are project costs and administrative costs. Projects in the calculation are completed projects, terminated projects and projects in process. At the time the rate is set, to ensure that collected payments are sufficient to implement new projects, all completed land acquisition contracts and expenditures shall be adjusted to present day values using the current North Carolina Department of Agriculture and Consumer Services' Agricultural Statistics Farm Real Estate Values. All other completed contracts and expenditures shall be

adjusted to present day values using the annual composite USACE Civil Works Construction Cost Index. Future land acquisition contract costs for projects in process are calculated using the Program's per credit contract costs of the same type adjusted to the inflated future value when the contracts will be encumbered using the North Carolina Department of Agriculture and Consumer Services' Agricultural Statistics Farm Real Estate Values. All other future contracts shall be calculated using the Program's per credit contract costs of the same type adjusted to the inflated future value when the contracts will be encumbered using the current composite USACE Civil Works Construction Cost Index. For projects in process where the contract type has not been determined, the cost of the project shall be calculated using the Program's average per pound cost adjusted to the future inflated value when the project will be initiated. Future year annual inflation rates shall be drawn from either the North Carolina Department of Agriculture and Consumer Services' Agricultural Statistics Farm Real Estate Values or the USACE Civil Works Construction Cost Index. If not available from either source, they shall be calculated using the average annual percentage change over the last three year period;

(2) As used in this Rule:

(A) Project Costs are the total costs associated with development of nutrient reduction projects including identification, land acquisition, project design, project construction, monitoring, maintenance and long-term stewardship;

(B) Administrative Costs are costs associated with administration of the Program including staffing, supplies and rent; and

(C) The cost for projects in process is the sum of expenditures of project contracts to date, contracted cost to complete existing contracts, and the projected cost of future contracts needed to complete those projects required to fulfill Program nutrient reduction obligations in the rate area;

(3) Total Pounds $Offset_{PresentDay}$ means the total number of pounds of a nutrient reduced by projects in the rate area at the time of calculation. If the Total Pounds $Offset_{PresentDay}$ for an existing or completed project is reduced, the Actual $Costs_{PresentDay}$ for that existing or completed project shall be proportionally adjusted; and

(4)
$$AdjustmentFactor = \frac{(ActualCosts - ActualReceipts)}{NumberofPoundsPaidDuringAdjustmentPeriod}$$

Where:

(A) The Adjustment Factor is a per-pound value used to bring actual costs and actual receipts into balance, ensuring that future payments are sufficient to cover the cost of implementing the Program in the rate area. The Adjustment Factor shall be applied in only those calculation periods where actual costs are calculated to be greater than actual receipts;

(B) Actual Costs are the same as Actual Costs PresentDay as defined in Subparagraph (1) of this Paragraph, except that existing contracts and completed land acquisitions are not adjusted for inflation;

(C) Actual Receipts are the sum of all offset payments made to the Program to date in the rate area at the time of calculation; and

(D) Number of Pounds Paid during Adjustment Period is the average number of pounds of a nutrient paid to the Program over the last three years in the rate area, multiplied by the adjustment period. If no payments have been made to the Program in a rate area, the number of pounds paid shall be set to 1,000 pounds until greater than 1,000 pounds have been purchased in that rate area.

(5) Adjustment Period is one to four years determined as follows for a rate area:

(A) One year if Actual Costs exceed Actual Receipts by less than five percent;

(B) Two years if Actual Costs exceed Actual Receipts by five percent or more but less than 15 percent;

(C) Three years if Actual Costs exceed Actual Receipts by 15 percent or more but less than 25 percent; and

(D) Four years if Actual Costs exceed Actual Receipts by 25 percent or more.

(h) When individual projects produce more than one type of nutrient reduction, the project costs shall be prorated for each nutrient being offset by the project.

(i) In cases where an applicant is required to reduce more than one nutrient type and chooses to use the Program to offset nutrients, the applicant shall make a payment for each nutrient.

History Note: *Authority G.S. 143-214.1; 143-214.20; 143-214.21; S.L. 1995, c. 572; S.L. 2006, c. 215; S.L. 2007, c. 438; S.L. 2009, c. 337; S.L. 2009, c. 484; S.L. 2009, c. 486;*
Eff. September 1, 2010.

15A NCAC 02B .0275 FALLS WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE

PURPOSE. The purpose of this Rule and Rules 15A NCAC 02B .0276 through .0282 and .0315(q) shall be to attain the classified uses of Falls of the Neuse Reservoir set out in 15A NCAC 02B .0211 from current impaired conditions related to excess nutrient inputs; protect its classified uses as set out in 15A NCAC 02B .0216, including use as a source of water supply for drinking water; and maintain and enhance protections currently implemented by local governments in existing water supply watersheds encompassed by the watershed of Falls of the Neuse Reservoir. The reservoir, and all waters draining to it, have been supplementally classified as Nutrient Sensitive waters (NSW) pursuant to 15A NCAC 02B .0101(e)(3) and 15A NCAC 02B .0223. These Rules, as enumerated in Item (6) of this Rule, together shall constitute the Falls water supply nutrient strategy, or Falls nutrient strategy, and shall be implemented in accordance with 15A NCAC 02B .0223. The following items establish the framework of the Falls nutrient strategy:

(1) SCOPE AND LIMITATION. Falls of the Neuse Reservoir is hereafter referred to as Falls Reservoir. All lands and waters draining to Falls Reservoir are hereafter referred to as the Falls watershed. The Falls nutrient strategy rules require controls that reduce nitrogen and phosphorus loads from significant sources of these nutrients throughout the Falls watershed. These Rules do not address atmospheric emission sources of nitrogen that is deposited into the watershed but do include provisions to account for reductions in such deposition as the water quality benefits of air quality regulations are quantified. Neither do these Rules address sources on which there is insufficient scientific knowledge to base regulation, other sources deemed adequately addressed by existing regulations, sources currently considered minor, or nutrient contributions from lake sediments, which are considered outside the scope of these Rules. The Commission may undertake additional rulemaking in the future or make recommendations to other rulemaking bodies as deemed appropriate to more fully address nutrient sources to Falls Reservoir. While the scope of these Rules is limited to the reduction of nutrient loads to surface waters, practitioners are encouraged to maximize opportunities for concurrently benefiting other ecosystem services where feasible in the course of achieving the nutrient objectives.

(2) CRITICAL WATER SUPPLY WATERSHED DESIGNATION. Water supply waters designated WS-II, WS-III, and WS-IV within the Falls watershed shall retain their classifications. The remaining waters in the Falls watershed shall be classified WS-V. The requirements of all of these water supply classifications shall be retained and applied except as specifically noted elsewhere within the Falls nutrient strategy. In addition, pursuant to G.S. 143-214.5(b), the entire Falls watershed shall be designated a critical water supply watershed and through the Falls nutrient strategy given additional, more stringent requirements than the state minimum water supply watershed management requirements. Water supply requirements of 15A NCAC 02B .0104 apply except to the extent that requirements of the Falls nutrient strategy are more stringent than provisions addressing agriculture, forestry, and existing development. These requirements supplement the water quality standards applicable to Class C waters, as described in Rule .0211 of this Section, which apply throughout the Falls watershed. Water supply watershed requirements shall be as follows:

(a) For WS-II, WS-III, and WS-IV waters, the retained requirements of Rules 15A NCAC 02B .0214 through .0216 are characterized as follows:

(i) Item (1) addressing best usages;

(ii) Item (2) addressing predominant watershed development conditions, discharges expressly allowed watershed-wide, general prohibitions on and allowances for domestic and industrial discharges, Maximum Contaminant Levels following treatment, and the local option to seek more protective classifications for portions of existing water supply watersheds;

(iii) Sub-Item (3)(a) addressing wastewater discharge limitations;

(iv) Sub-Item (3)(b) addressing nonpoint source and stormwater controls; and

(v) Sub-Items (3)(c) through (3)(h) addressing aesthetic and human health standards.

(b) For waters classified WS-V, the requirements of water supply Rule 15A NCAC 02B .0218 shall be applied.

(3) GOAL AND OBJECTIVES. To achieve the purpose of the Falls nutrient strategy, the Commission establishes the goal of attaining and maintaining nutrient-related water quality standards identified in 15A NCAC 02B .0211 throughout Falls Reservoir pursuant to G.S. 143-215.8B and 143B-282(c) and (d) of the Clean Water Responsibility Act of 1997. The Commission establishes a staged and adaptive implementation plan, outlined hereafter, to achieve the following objectives. The objective of Stage I is to, at minimum, achieve and maintain nutrient-related water quality standards in the Lower Falls Reservoir as soon as possible but no later than January 15, 2021 and to improve water quality in the Upper Falls Reservoir.

The objective of Stage II is to achieve and maintain nutrient-related water quality standards throughout Falls Reservoir. This is estimated to require a reduction of 40 and 77 percent in average annual mass loads of nitrogen and phosphorus respectively, delivered from the sources named in Item (6) in the Upper Falls Watershed from a baseline of 2006. The resulting Stage II allowable loads to Falls Reservoir from the watersheds of Ellerbe Creek, Eno River, Little River, Flat River, and Knap of Reeds Creek shall be 658,000 pounds of nitrogen per year and 35,000 pounds of phosphorus per year.

(4) STAGED IMPLEMENTATION. The Commission shall employ the staged implementation plan set forth below to achieve the goal of the Falls nutrient strategy:

(a) STAGE I. Stage I requires intermediate or currently achievable controls throughout the Falls watershed with the objective of reducing nitrogen and phosphorus loading, and attaining nutrient-related water quality standards in the Lower Falls Reservoir as soon as possible but no later than January 15, 2021, while also improving water quality in the Upper Falls Reservoir as described in this Item. Implementation timeframes are described in individual rules, with full implementation occurring no later than January 15, 2021;

(b) STAGE II. Stage II requires implementation of additional controls in the Upper Falls Watershed beginning no later than January 15, 2021 to achieve nutrient-related water quality standards throughout Falls Reservoir by 2041 to the maximum extent technically and economically feasible, with progress toward this overall objective as described in Sub-Item (5)(a); and

(c) MAINTENANCE OF ALLOCATIONS. Sources shall maintain the load reductions required under these Rules beyond the implementation stages.

(5) ADAPTIVE IMPLEMENTATION. The Commission shall employ the following adaptive implementation plan in concert with the staged implementation approach described in this Rule:

(a) The Division shall perform water quality monitoring throughout Falls Reservoir and shall accept reservoir water quality monitoring data provided by other parties that meet Division standards and quality assurance protocols. The Division shall utilize this data to estimate load reduction achieved and to perform periodic use support assessments pursuant to 40 CFR 130.7(b). It shall evaluate use support determinations to judge progress on and compliance with the goal of the Falls nutrient strategy, including the following assessments:

(i) Attainment of nutrient-related water quality standards downstream of Highway NC-98 crossing of Falls Reservoir no later than January 15, 2016;

(ii) Attainment of nutrient-related water quality standards in the Lower Falls Reservoir no later than January 15, 2021;

(iii) Attainment of nutrient-related water quality standards in the Lick Creek arm of Falls Reservoir and points downstream no later than January 15, 2026;

(iv) Attainment of nutrient-related water quality standards in the Ledge and Little Lick Creek arms of Falls Reservoir and points downstream no later than January 15, 2031;

(v) Attainment of nutrient-related water quality standards at points downstream of the Interstate 85 crossing of Falls Reservoir no later than January 15, 2036;

(vi) Attainment of nutrient-related water quality standards throughout Falls Reservoir no later than 2041;

(vii) Where the Division finds that acceptable progress has not been made towards achieving nutrient-related water quality standards throughout Falls Reservoir defined in Sub-Items (i) through (vi) of this Item or that conditions have deteriorated in a segment of Falls Reservoir as described in this Item, at any time, it shall evaluate compliance with the Falls

nutrient strategy rules, and may request Commission approval to initiate additional rulemaking;

(viii) Where the Division finds, based on reservoir monitoring, that nutrient-related water quality standards are attained in a previously impaired segment of Falls Reservoir, as described in this Item, and are met for sufficient time to demonstrate sustained maintenance of standards, as specified in individual rules of this strategy, it shall notify affected parties in that segment's watershed that further load reductions are not required and of requirements for maintenance of measures to prevent loading increases. Sufficient time is defined as at least two consecutive use support assessments demonstrating compliance with nutrient-related water quality standards in a given segment of Falls Reservoir.

(b) The Division, to address resulting uncertainties including those related to technological advancement, scientific understanding, actions chosen by affected parties, loading effects, and loading effects of other regulations, shall report to the Commission and provide information to the public in January 2016 and every five years thereafter as necessary. The reports shall address all of the following subjects:

(i) Changes in nutrient loading to Falls Reservoir and progress in attaining nutrient-related water quality standards as described in Sub-Items (5)(a)(i) through (vi) of this Rule;

(ii) The state of wastewater and stormwater nitrogen and phosphorus control technology, including technological and economic feasibility;

(iii) Use and projected use of wastewater reuse and land application opportunities;

(iv) The utilization and nature of nutrient offsets and projected changes. This shall include an assessment of any load reduction value derived from preservation of existing forested land cover;

(v) Results of any studies evaluating instream loading changes resulting from implementation of rules;

(vi) Results of any studies evaluating nutrient loading from conventional septic systems and discharging sand filter systems;

(vii) Assessment of the instream benefits of local programmatic management measures such as fertilizer or pet waste ordinances, improved street sweeping and the extent to which local governments have implemented these controls;

(viii) Results of applicable studies, monitoring, and modeling from which a baseline will be established to address changes in atmospheric deposition of nitrogen;

(ix) Recent or anticipated changes in regulations affecting atmospheric nitrogen emissions and their projected effect on nitrogen deposition;

(x) Results of any studies evaluating nutrient loading from groundwater;

(xi) Updates to nutrient loading accounting tools; and

(c) The Division shall submit a report to the Commission in July 2025 that shall address the following subjects in addition to the content required elsewhere under this Item:

(i) The physical, chemical, and biological conditions of the Upper Falls Reservoir including nutrient loading impacts;

(ii) Whether alternative regulatory action pursuant to Sub-Item (5)(g) would be sufficient to protect existing uses as required under the Clean Water Act;

(iii) The impact of management of the Falls Reservoir on water quality in the Upper Falls Reservoir;

(iv) The methodology used to establish compliance with nutrient-related water quality standards in Falls Reservoir and the potential for using alternative methods;

(v) The feasibility of achieving the Stage II objective; and

(vi) The estimated costs and benefits of achieving the Stage II objective;

(d) The Division shall make recommendations, if any, on rule revisions based on the information reported pursuant to Sub-Items (b) and (c) of this Rule;

(e) In developing the reports required under Sub-Items (b) and (c) of this Rule, the Division shall consult with and consider information submitted by local governments and other persons with an interest in Falls Reservoir. Following receipt of a report, the Commission shall consider whether

revisions to the requirements of Stage II are needed and may initiate rulemaking or any other action allowed by law;

(f) Recognizing the uncertainty associated with model-based load reduction targets, to ensure that allowable loads to Falls Reservoir remain appropriate as implementation proceeds, a person may at any time during implementation of the Falls nutrient strategy develop and submit for Commission approval supplemental nutrient response modeling of Falls Reservoir based on additional data collected after a period of implementation. The Commission may consider revisions to the requirements of Stage II based on the results of such modeling as follows:

(i) A person shall obtain Division review and approval of any monitoring study plan and description of the modeling framework to be used prior to commencement of such a study. The study plan and modeling framework shall meet any Division requirements for data quality and model support or design in place at that time. Within 180 days of receipt, the division shall either approve the plan and modeling framework or notify the person seeking to perform the supplemental modeling of changes to the plan and modeling framework required by the Division;

(ii) Supplemental modeling shall include a minimum of three years of lake water quality data unless the person performing the modeling can provide information to the Division demonstrating that a shorter time span is sufficient;

(iii) The Commission may accept modeling products and results that estimate a range of combinations of nitrogen and phosphorus percentage load reductions needed to meet the goal of the Falls nutrient strategy, along with associated allowable loads to Falls Reservoir, from the watersheds of Ellerbe Creek, Eno River, Little River, Flat River, and Knap of Reeds Creek and that otherwise comply with the requirements of this Item. Such modeling may incorporate the results of studies that provide new data on various nutrient sources such as atmospheric deposition, internal loading, and loading from tributaries other than those identified in this Sub-item. The Division shall assure that the supplemental modeling is conducted in accordance with the quality assurance requirements of the Division;

(iv) The Commission shall review Stage II requirements if a party submits supplemental modeling data, products and results acceptable to the Commission for this purpose. Where supplemental modeling is accepted by the Commission, and results indicate allowable loads of nitrogen and phosphorus to Falls Reservoir from the watersheds of Ellerbe Creek, Eno River, Little River, Flat River, and Knap of Reeds Creek that are substantially different than those identified in Item (3), then the Commission may initiate rulemaking to establish those allowable loads as the revised objective of Stage II relative to their associated baseline values;

(g) Nothing in this strategy shall be construed to limit, expand, or modify the authority of the Commission to undertake alternative regulatory actions otherwise authorized by state or federal law, including the reclassification of waters of the State pursuant to G.S. 143-214.1, the revision of water quality standards pursuant to G.S. 143-214.3, and the granting of variances pursuant to G.S. 143-215.3.

(6) RULES ENUMERATED. The Falls nutrient strategy rules consists of the following rules titled as follows:

(a) Rule .0275 Purpose and Scope;

(b) Rule .0276 Definitions. An individual rule may contain additional definitions for terms that are used in that rule only;

(c) Rule .0277 Stormwater Management for New Development;

(d) Rule .0278 Stormwater Management for Existing Development;

(e) Rule .0279 Wastewater Discharge Requirements;

(f) Rule .0280 Agriculture;

(g) Rule .0281 Stormwater Requirements for State and Federal Entities;

(h) Rule .0282 Options for Offsetting Nutrient Loads; and

(i) Rule .0315 Neuse River Basin.

(7) APPLICABILITY. Categories of parties required to implement the Falls nutrient strategy rules and, as applicable, their geographic scope of responsibility, are identified in each rule. The specific local governments responsible for implementing Rules .0277, .0278, and .0282 shall be as follows:

(a) All incorporated municipalities, as identified by the Office of the Secretary of State, with planning jurisdiction within or partially within the Falls watershed. Those municipalities are currently:

(i) Butner;
(ii) Creedmoor;
(iii) Durham;
(iv) Hillsborough;
(v) Raleigh;
(vi) Roxboro;
(vii) Stem; and
(viii) Wake Forest;

(b) All counties with jurisdiction in Falls watershed and for land where municipalities listed in Sub-Item (7)(a) do not have an implementation requirement:

(i) Durham;
(ii) Franklin;
(iii) Granville;
(iv) Orange;
(v) Person; and
(vi) Wake;

(c) A unit of government may arrange through interlocal agreement or other instrument of mutual agreement for another unit of government to implement portions or the entirety of a program required or allowed under any rule of this strategy to the extent that such an arrangement is otherwise allowed by statute. The governments involved shall submit documentation of any such agreement to the Division. No such agreement shall relieve a unit of government from its responsibilities under these Rules.

(8) ENFORCEMENT. Failure to meet requirements of Rules .0275, .0277, .0278, .0279, .0280, .0281, or .0282 of this Section may result in imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

History Note: *Authority G.S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486;*
Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).

15A NCAC 02B .0276 FALLS WATER SUPPLY NUTRIENT STRATEGY: DEFINITIONS

(a) Unless the context indicates otherwise, the following words and phrases, which are not defined in G.S. 143, Article 21, shall be interpreted as follows for the purposes of the Falls nutrient strategy:

(1) "Allocation" means the mass quantity of nitrogen or phosphorus that a discharger, group of dischargers, nonpoint source, or collection of nonpoint sources is assigned. For point sources, possession of allocation does not authorize the discharge of nutrients but is prerequisite to such authorization through a NPDES permit, and allocation may be further distinguished as follows:

(A) "Active" allocation means that portion of an allocation that has been applied toward and is expressed as a nutrient limit in an individual NPDES permit;

(B) "Reserve" allocation means allocation that is held by a permittee or other person but which has not been applied toward and is not expressed as a nutrient limit in an individual NPDES permit;

(2) "Applicator" means the same as defined in 15A NCAC 02B .0202(4);

(3) "Atmospheric nitrogen" means total oxidized nitrogen (NO_y) which includes all nitrogen oxides (including NO_2, NO, N_2, nitrogen trioxide [N_2O_3], nitrogen tetroxide [N_2O_4], dinitrogen pentoxide [N_2O_5], nitric acide (HNO3) peroxyacl nitrates (PAN)), the sum of which is referred to as reduced nitrogen (NH_x));

(4) "Delivered," as in delivered allocation, load, or limit, means the allocation, load, or limit that is measured or predicted at Falls Reservoir;

(5) "Development" means the same as defined in 15A NCAC 02B .0202(23);

(6) "Discharge," as in discharge allocation, load, or limit means the allocation, load, or limit that is measured at the point of discharge into surface waters in the Falls watershed;

(7) "Existing development" means development, other than that associated with agricultural or forest management activities that meets one of the following criteria:

(A) It either is built or has established a vested right based on statutory or common law as interpreted by the courts, as of the effective date of either local new development stormwater programs implemented under 15A NCAC 02B .0277 for projects that do not require a state permit or, as of the applicable compliance date established in 15A NCAC 02B .0281(5) and (6); or

(B) It occurs after the compliance date set out in Sub-Item (5)(d) of Rule .0277 but does not result in a net increase in built-upon area;

(8) "Falls nutrient strategy," or "Falls water supply nutrient strategy" means the set of 15A NCAC 02B .0275 through .0282 and .0315(p);

(9) "Falls Reservoir" means the surface water impoundment operated by the US Army Corps of Engineers and named Falls of Neuse Reservoir;

(10) "Upper Falls Reservoir" means that portion of the reservoir upstream of State Route 50;

(11) "Upper Falls Watershed" means that area of Falls watershed draining to Upper Falls Reservoir;

(12) "Lower Falls Reservoir" means that portion of the reservoir downstream of State Route 50;

(13) "Lower Falls Watershed" means that are of Falls watershed draining to lower falls Reservoir without first passing through Upper Falls Reservoir;

(14) "Load" means the mass quantity of a nutrient or pollutant released into surface waters over a given time period. Loads may be expressed in terms of pounds per year and may be expressed as "delivered load" or an equivalent "discharge load;"

(15) "Load allocation" means the same as set forth in federal regulations 40 CFR 130.2(g), which is incorporated herein by reference, including subsequent amendments and editions. These regulations may be obtained at no cost from http://www.epa.gov/lawsregs/search/40cfr.html or from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401;

(16) "New development" means any development project that does not meet the definition of existing development set out in this Rule;

(17) "Nitrogen" means the sum of the organic, nitrate, nitrite, and ammonia forms of nitrogen in a water or wastewater;

(18) "NPDES" means National Pollutant Discharge Elimination System, and connotes the permitting process required for the operation of point source discharges in accordance with the requirements of Section 402 of the Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq;

(19) "Nutrients" means total nitrogen and total phosphorus;

(20) "Phosphorus" or "total phosphorus" means the sum of the orthophosphate, polyphosphate, and organic forms of phosphorus in a water or wastewater;

(21) "Stream" means a body of concentrated flowing water in a natural low area or natural channel on the land surface;

(22) "Surface waters" means all waters of the state as defined in G.S. 143-212 except underground waters;

(23) "Technical specialist" means the same as defined in 15A NCAC 06H .0102(9);

(24) "Total nitrogen" means the same as 'nitrogen' defined in Item (17);

(25) "Total phosphorus" means the same as 'phosphorus' defined in Item (20);

(26) "Wasteload" means the mass quantity of a nutrient or pollutant released into surface waters by a wastewater discharge over a given time period. Wasteloads may be expressed in terms of pounds per year and may be expressed as "delivered wasteload" or an equivalent "discharge wasteload;" and

(27) "Wasteload allocation" means the same as set forth in federal regulations 40 CFR 130.2(h), which is incorporated herein by reference, including subsequent amendments and editions. These regulations may be obtained at no cost from http://www.epa.gov/lawsregs/search/40cfr.html or from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.

(b) The definitions in Rule .0279 shall also apply throughout these Falls Water Supply Nutrient Strategy rules.

History Note: *Authority G.S. 143-214.1; 1432-214.3;143-214.5; 143-214.7; 143-215.1; 143215.3; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L 2009-337; S.L 2009-486;*
Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).

15A NCAC 02B .0277 FALLS RESERVOIR WATER SUPPLY NUTRIENT STRATEGY: STORMWATER MANAGEMENT FOR NEW DEVELOPMENT

The following is the stormwater strategy, as prefaced in 15A NCAC 02B .0275, for new development activities within the Falls watershed:

(1) PURPOSE. The purposes of this Rule are as follows:
  (a) To achieve and maintain the nitrogen and phosphorus loading objectives established for Falls Reservoir in 15A NCAC 02B .0275 from lands in the Falls watershed on which new development occurs;
  (b) To provide control for stormwater runoff from new development in Falls watershed to ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows; and
  (c) To protect the water supply, aquatic life and recreational uses of Falls Reservoir from the potential impacts of new development.

(2) APPLICABILITY. This Rule shall apply to those areas of new development that lie within the Falls watershed and the planning jurisdiction of a municipality or county that is identified in 15A NCAC 02B .0275. This Rule shall not apply to development activities on state and federal lands that are set out in Rule .0281 of this Section.

(3) REQUIREMENTS. All local governments subject to this Rule shall develop stormwater management programs for submission to and approval by the Commission, to be implemented in areas described in Item (2) of this Rule. Nothing in this Rule preempts local governments from establishing requirements that are more restrictive than those set forth in this Rule. Local government stormwater management programs shall include the following elements and the standards contained in Item (4):
  (a) The requirement that a stormwater management plan shall be submitted for local government approval based on the standards in Item (4) for all proposed new development disturbing one-half acre or more for single family and duplex residential property and recreational facilities, and 12,000 square feet or more for commercial, industrial, institutional, multifamily residential, or local government property;
  (b) A plan to ensure maintenance of best management practices (BMPs) implemented to comply with this rule for the life of the development; and
  (c) A plan to ensure enforcement and compliance with the provisions in Item (4) of this Rule for the life of the new development.

(4) PLAN APPROVAL REQUIREMENTS. A developer's stormwater plan shall not be approved by a subject local government unless the following criteria are met:
  (a) Nitrogen and phosphorus loads contributed by the proposed new development activity shall not exceed the following unit-area mass loading rates for nitrogen and phosphorus, respectively, expressed in units of pounds/acre/year: 2.2 and 0.33. Proposed development that would replace or expand structures or improvements that existed as of December 2006, the end of the baseline period, and that would not result in a net increase in built-upon area shall not be required to meet the nutrient loading targets or high-density requirements except to the extent that the developer shall provide stormwater control at least equal to the previous development. Proposed development that would replace or expand existing structures or improvements and would result in a net increase in built-upon area shall have the option either to achieve at least the percentage loading reduction objectives stated in 15A NCAC 02B .0275 as applied to nitrogen and phosphorus loading from the previous development for the entire project site, or to meet the loading rate targets described in this Item. These requirements shall supersede those identified in 15A NCAC 02B .0104(q). The developer shall determine the load reductions needed to meet these loading rate targets by using the loading calculation method called for in Sub-Item (5)(a) or other equivalent method acceptable to the Division;

(b) The developer shall have the option of offsetting part of the nitrogen and phosphorus load by implementing or funding offsite offset measures. Before using an offsite offset option, a development shall implement onsite structural stormwater controls that achieve one of the following levels of reductions:

(i) Proposed new development activity disturbing at least one-half acre but less than one acre of land for single family and duplex residential property and recreational facilities, except as stated in Sub-Item (4)(b)(iv), shall achieve 30 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item (4)(e) of this Rule;

(ii) Proposed new development activity disturbing at least 12,000 but less than one acre of land for commercial, industrial, institutional, multifamily residential, or local government property, except as stated in Sub-Item (4)(b)(iv), shall achieve 30 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item (4)(e) of this Rule;

(iii) Except as stated in Sub-Item (4)(b)(iv), proposed new development activity that disturbs one acre of land or more shall achieve 50 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item (4)(e) of this Rule; or

(iv) Proposed development that would replace or expand structures or improvements that existed as of December 2006 and that increases impervious surface within a local government's designated downtown area, regardless of area disturbed, shall achieve 30 percent of the needed load reduction in both nitrogen and phosphorus onsite, and shall meet any requirements for engineered stormwater controls described in Sub-Item (4)(e) of this Rule;

(c) Offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus loading to the remaining reduction needed onsite to comply with the loading rate targets set out in Sub-Item (4)(a) of this Item. A developer may use any measure that complies with the requirements of Rules .0240 and .0282. of this Section;

(d) Proposed new development subject to NPDES, water supply, and other state-mandated stormwater regulations shall comply with those regulations in addition to the other requirements of this Sub-item. Proposed new development in any water supply watershed in the Falls watershed designated WS-II, WS-III, or WS-IV shall comply with the density-based restrictions, obligations, and requirements for engineered stormwater controls, clustering options, operation and maintenance responsibilities, vegetated setbacks, land application, and landfill provisions described in Sub-Items (3)(b)(i) and (3)(b)(ii) of the applicable rule among 15A NCAC 02B .0214 through .0216. Provided, the allowance in water supply watershed rules for 10 percent of a jurisdiction to be developed at up to 70 percent built-upon area without stormwater treatment shall not be available in the Falls watershed;

(e) Stormwater systems shall be designed to control and treat at a minimum the runoff generated from all surfaces in the project area by one inch of rainfall. The treatment volume shall be drawn down pursuant to standards specific to each practice as provided in the July 2007 version of the *Stormwater Best Management Practices Manual* published by the Division, or other at least technically equivalent standards acceptable to the Division;

(f) To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows, at a minimum, the new development shall not result in a net increase in peak flow leaving the site from pre-development conditions for the one-year, 24-hour storm event;

(g) New development may satisfy the requirements of this Rule by meeting the post-development hydrologic criteria set out in Chapter 2 of the North Carolina Low Impact Development Guidebook dated June 2009, or the hydrologic criteria in the most recent version of that guidebook;

(h) Proposed new development shall demonstrate compliance with the riparian buffer protection requirements of 15A NCAC 02B .0233 and .0242 or subsequent amendments or replacements to those requirements.

(5) RULE IMPLEMENTATION. This Rule shall be implemented as follows:

(a) No later than March 15, 2011, the Division shall submit a model local stormwater program, including a model local ordinance that embodies the criteria described in Items (3) and (4) of this Rule to the Commission for approval. The model program shall include a tool that will allow developers to account for nutrient loading from development lands and loading changes due to BMP implementation to meet the requirements of Items (3) and (4) of this Rule. The accounting tool shall utilize nutrient efficiencies and associated design criteria established for individual BMPs in the July 2007 version of the Stormwater Best Management Practices Manual published by the Division, or other more precise standards acceptable to the Division. At such time as data quantifying nutrient loads from onsite wastewater systems is made available, the new development nutrient export accounting tool shall be revised to require accounting for nutrient loading from onsite wastewater from newly developed lands that use such systems. Should research quantify significant loading from onsite wastewater systems, the Division may also make recommendations to the Commission for Public Health to initiate rulemaking to reduce nutrient loading to surface waters from these systems. The Division shall work in cooperation with subject local governments and other watershed interests in developing this model program;

(b) Within five months after the Commission's approval of the model local stormwater program and model ordinance, subject local governments shall submit stormwater management programs, in conjunction with similar requirements in 15A NCAC 02B .0278, to the Division for preliminary approval. These local programs shall meet or exceed the requirements in Items (3) and (4) of this Rule;

(c) Within 10 months after the Commission's approval of the model local stormwater program, the Division shall provide recommendations to the Commission on local stormwater programs. The Commission shall either approve the programs or require changes based on the standards set out in Items (3) and (4) of this Rule. Should the Commission require changes, the applicable local government shall have two months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;

(d) Within six months after the Commission's approval of a local program, or upon the Division's first renewal of a local government's NPDES stormwater permit, whichever occurs later, the affected local government shall complete adoption of and implement its local stormwater management program; and

(e) Upon implementation, subject local governments shall submit annual reports to the Division summarizing their activities in implementing each of the requirements in Items (3) and (4) of this Rule, including changes to nutrient loading.

(6) EQUIVALENT PROGRAM OPTION. A local government may in its program submittal under Sub-Item (5)(b) of this Rule request that the Division accept the local government's implementation of another stormwater program or programs as satisfying one or more of the requirements set forth in Items (3) and (4) of this Rule. The Division shall provide determination on the acceptability of any such alternative prior to requesting Commission approval of local programs as required in Sub-Item (5)(c) of this Rule. Should a local government propose alternative requirements to achieve and maintain the rate targets described in Sub-Item (4)(a) of this Rule, it shall include in its program submittal technical information demonstrating the adequacy of those requirements. Should an alternative program propose monitoring of watersheds to compare measured loading to expected loading, it shall at a minimum include the following:

(a) Engineering calculations that quantify expected loading from new development projects based on stormwater controls currently enforced;

(b) At least three years of continuous flow and nutrient monitoring data demonstrating that watershed loading rates are at or below rates that would result from meeting the requirements of this Rule and Rule .0278 of this Section based on the land cover composition of the watershed;

(c) An ongoing water quality monitoring program based on continuous flow and concentration sampling to be performed indefinitely into the future with results reported annually to the Division for review and approval;

(d) A corrective action plan to be implemented should data collected under the ongoing monitoring program demonstrate watershed loading is within 10 percent of the rate estimated in compliance with this Item; and

(e) Should a local government submit an alternate program for consideration that includes areas within its jurisdiction outside of the monitored watershed it shall submit technical information demonstrating the areas outside of the monitored watershed can reasonably be expected to load at equal or lesser rates than those estimated in compliance with this Item based on comparative analysis of land uses and other factors affecting nutrient loading.

History Note: *Authority G.S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486;*
Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).

15A NCAC 02B .0278 FALLS WATER SUPPLY NUTRIENT STRATEGY: STORMWATER MANAGEMENT FOR EXISTING DEVELOPMENT

This Rule establishes a staged, adaptive approach by which municipalities and counties shall contribute to achieving the nonpoint source loading objectives of the Falls Reservoir nutrient strategy by reducing or otherwise offsetting nutrient contributions from existing development. It provides local governments three years to develop programs that propose Stage I load reduction actions to the Division and requires local governments to begin and track measures to reduce nutrient loads from existing developed lands within their jurisdiction by January 15, 2014, as specified in Item (7). Local governments shall submit for approval and implement Stage II load reduction programs by January 15, 2021 and submit revised load reductions programs every five years thereafter. The following is the watershed stormwater strategy, as prefaced in Rule 15A NCAC 02B .0275, for existing development in the Falls watershed:

(1) PURPOSE. The purposes of this Rule are as follows:

(a) To achieve and maintain the nonpoint source nitrogen and phosphorus percentage reduction objectives established for Falls Reservoir in Rule 15A NCAC 02B .0275 on nutrient loading from existing development in the Falls watershed relative to the baseline period defined in that rule. Existing development is defined in Rule 15A NCAC 02B .0276; and

(b) To protect the water supply, aquatic life, and recreational uses of Falls Reservoir.

(2) APPLICABILITY. This Rule shall apply to municipalities and counties in the Falls watershed as identified in Rule 15A NCAC 02B .0275.

(3) STAGED AND ADAPTIVE IMPLEMENTATION REQUIREMENTS. Local governments shall employ the following staged and adaptive implementation program. All local governments subject to this Rule shall develop load-reducing programs for submission to and approval by the Commission that include the following staged elements and meet the associated minimum standards for each stage of implementation:

(a) In Stage I, a local government subject to this Rule shall implement a load reduction program that provides estimates of, and plans for offsetting by calendar year 2020, nutrient loading increases from lands developed subsequent to the baseline period and not subject to the requirements of the local government's Falls Lake new development stormwater program. For these post-baseline existing developed lands, the current loading rate shall be compared to the loading rate for these lands prior to development for the acres involved, and the difference shall constitute the load reduction need in annual mass load, in pounds per year. Alternatively, a local government may assume uniform pre-development loading rates of 2.89 pounds/acre/year N and 0.63 pounds/acre/year P for these lands. The local government shall achieve this Stage I load reduction by calendar year 2020. This Stage I program shall meet the criteria defined in Item (4) of this Rule;

(b) By January 15, 2021 and every five years thereafter, a local government located in the Upper Falls Watershed shall submit and begin implementing a Stage II load reduction program that meets the following requirements:

(i) If a local government achieves the Stage I reduction objectives described in this Item, a local government's initial Stage II load reduction program shall, at the local government's election, either (A) achieve additional annual reductions in nitrogen and phosphorus

loads from existing development greater than or equal to the average annual additional reductions achieved in the last seven years of Stage I or (B) provide for an annual expenditure that equals or exceeds the average annual amount the local government has spent to achieve nutrient reductions from existing development during the last seven years of Stage I. A local government's expenditures shall include all local government funds, including any state and federal grant funds used to achieve nutrient reductions from existing developed lands. The cost of achieving reductions from municipal wastewater treatment plants shall not be included in calculating a local government's expenditures. Notwithstanding this requirement, the EMC may approve an initial Stage II load reduction program based on a lower annual level of reduction or a lower annual level of expenditure if the local government demonstrates that continuing the prior annual level of reduction or annual level of expenditure is not reasonable or cost-effective given the reductions that will be achieved, or the expenditure would cause serious financial hardship to the local government;

(ii) If Stage I reduction objectives are not achieved, a local government's initial Stage II load reduction program shall, at the local government's election, either (A) achieve additional annual reductions in nitrogen and phosphorus loads from existing development greater than or equal to the average annual additional reductions achieved in the highest three years of implementation of Stage I or (B) provide for an annual expenditure that equals or exceeds the average annual amount the local government has spent to achieve nutrient reductions from existing development during the highest three years of implementation of Stage I. Annual expenditures shall be calculated in accordance with Sub-Item (3)(b)(i) of this Item;

(iii) Subsequent five year programs shall be designed to achieve the Stage II percent load reduction goals from existing developed lands in a local government's jurisdiction, shall include timeframes for achieving these goals and shall meet the requirements of Item (4) of this Rule;

(4) ELEMENTS OF LOAD REDUCTION PROGRAMS. A local government's Stage I and Stage II load reduction program shall address the following elements:

(a) Jurisdictions in the Eno River and Little River subwatersheds shall, as a part of their Stage I load reduction programs, begin and continuously implement a program to reduce loading from discharging sand filters and malfunctioning septic systems discharging into waters of the State within those jurisdictions and subwatersheds;

(b) Jurisdictions within any Falls subwatershed in which chlorophyll a levels have exceeded 40 micrograms/liter in more than seventy-five percent of the monitoring events in any calendar year shall, as part of their Stage I load reduction programs, begin and continuously implement a program to reduce nutrient loading into the waters of the State within those jurisdictions and that subwatersheds;

(c) The total amount of nutrient loading reductions in Stage I is not increased for local jurisdictions by the requirements to add specific program components to address loading from malfunctioning septic systems and discharging sand filters or high nutrient loading levels pursuant to Sub-Items (4)(a) and (b) of this Item;

(d) In preparation for implementation of their Stage I and Stage II load reduction programs, local governments shall develop inventories and characterize load reduction potential to the extent that accounting methods allow of the following by January 2013:

(i) Wastewater collection systems;

(ii) Discharging sand filter systems, including availability of or potential for central sewer connection;

(iii) Properly functioning and malfunctioning septic systems;

(iv) Restoration opportunities in utility corridors;

(v) Fertilizer management plans for local government-owned lands;

(vi) Structural stormwater practices, including intended purpose, condition, potential for greater nutrient control; and

(vii) Wetlands and riparian buffers including potential for restoration opportunities;

(e) A local government's load reduction need shall be based on the developed lands that fall within its general police powers and within the Falls watershed;

(f) The load reduction need shall not include lands under state or federal control, and a county shall not include lands within its jurisdictional boundaries that are under municipal police powers;

(g) Nitrogen and phosphorus loading from existing development, including loading from onsite wastewater treatment systems to the extent that accounting methods allow, shall be calculated by applying the accounting tool described in Sub-Item (7)(a) and shall quantify baseline loads of nitrogen and phosphorus to surface waters in the local government's jurisdiction as well as loading changes post-baseline. It shall also calculate target nitrogen and phosphorus loads and corresponding load reduction needs;

(h) The Commission shall recognize reduction credit for early implementation of policies and practices implemented after January 1, 2007 and before timeframes required by this Rule, to reduce runoff and discharge of nitrogen and phosphorus per Session Law 2009-486. The load reduction program shall identify specific load-reducing practices implemented to date subsequent to the baseline period and for which the local government is seeking credit. It shall estimate load reductions for these practices and their anticipated duration using methods provided for in Sub-Item (5)(a);

(i) The program shall include a proposed implementation schedule that includes annual implementation expectations. The load reduction program shall identify the types of activities the local government intends to implement and types of existing development affected, a prioritization of practices, magnitude of reductions it expects to achieve from each, and the costs and efficiencies of each activity to the extent information is available. The program shall identify the duration of anticipated loading reductions, and may seek activities that provide long-term reductions;

(j) The load reduction program shall identify anticipated funding mechanisms or sources and discuss steps take or planned to secure such funding;

(k) The program shall address the extent of load reduction opportunities intended from the following types of lands:

  (i) Lands owned or otherwise controlled by the local government;

  (ii) Each land use type of privately owned existing development including projected redevelopment, on which the local government's load reduction need is based as described in this Item; and

  (iii) Lands other than those on which the local government's load reduction need is based as described in this Item, including lands both within and outside its jurisdiction and including the use of interlocal agreements and private third party sellers;

(l) The program shall address the extent of load reduction proposed from the following stormwater and ecosystem restoration activities:

  (i) Bioretention;

  (ii) Constructed wetland;

  (iii) Sand filter;

  (iv) Filter strip;

  (v) Grassed swale;

  (vi) Infiltration device;

  (vii) Extended dry detention;

  (viii) Rainwater harvesting system;

  (ix) Treatment of redevelopment;

  (x) Overtreatment of new development;

  (xi) Removal of impervious surface;

  (xii) Retrofitting treatment into existing stormwater ponds;

  (xiii) Off-line regional treatment systems;

  (xiv) Wetland or riparian buffer restoration; and

  (xv) Reforestation with conservation easement or other protective covenant;

(m) The program shall evaluate the load reduction potential from the following wastewater activities:

  (i) Creation of surplus relative to an allocation established in Rule 15A NCAC 02B .0279;

  (ii) Expansion of surplus allocation through regionalization;

(iii) Connection of discharging sand filters and malfunctioning septic systems to central sewer or replacement with permitted non-discharge alternatives;
(iv) Removal of illegal discharges; and
(v) Improvement of wastewater collection systems;

(n) A local government may propose in its load reduction program the use of the following measures in addition to items listed in (l) and (m), or may propose other measures for which it can provide accounting methods acceptable to the Division:
(i) Redirecting runoff away from impervious surfaces;
(ii) Soil amendments;
(iii) Stream restoration;
(iv) Improved street sweeping; and
(v) Source control, such as pet waste and fertilizer ordinances;

(o) The program shall include evaluation of load reduction potential relative to the following factors:
(i) Extent of physical opportunities for installation;
(ii) Landowner acceptance;
(iii) Incentive and education options for improving landowner acceptance;
(iv) Existing and potential funding sources and magnitudes;
(v) Practice cost-effectiveness (e.g., cost per pound of nutrient removed);
(vi) Increase in per capita cost of a local government's stormwater management program to implement the program;
(vii) Implementation rate without the use of eminent domain; and
(viii) Need for and projected role of eminent domain;

(5) The Commission shall approve a Stage I load reduction program if it is consistent with Items (3) and (4) of this Rule. The Commission shall Approve a Stage II load reduction program if it is consistent with Items (3) and (4) of this Rule unless the Commission finds that the local governments can, through the implementation of reasonable and cost-effective measures not included in the proposed program, meet the Stage II nutrient load reductions required by this Rule by a date earlier than that proposed by the local government. If the Commission finds that there are additional or alternative reasonable and cost-effective measures, the Commission may require the local government to modify its proposed program to include such measures to achieve the required reductions by the earlier date. If the Commission requires such modifications, the local government shall submit a modified program within two months. The Division shall recommend that the Commission approve or disapprove the modified program within three months after receiving the modified program. In determining whether additional or alternative load reduction measures are reasonable and cost effective, the Commission shall consider factors identified in Sub-Item (4)(o) of this Rule. The Commission shall not require additional or alternative measures that would require a local government to:
(a) Install or require installation of a new stormwater collection system in an area of existing development unless the area is being redeveloped;
(b) Acquire developed private property; or
(c) Reduce or require the reduction of impervious surfaces within an area of existing development unless the area is being redeveloped.

(6) A municipality shall have the option of working with the county or counties in which it falls, or with another municipality or municipalities within the same subwatershed, to jointly meet the loading targets from all lands within their combined jurisdictions within a subwatershed. A local government may utilize private or third party sellers. All reductions involving trading with other parties shall meet the requirements of Rule 15A NCAC 02B .0282.

(7) RULE IMPLEMENTATION. This Rule shall be implemented as follows:
(a) By July 2013, the Division shall submit a Stage I model local program to the Commission for approval that embodies the criteria described in Items (3)(a) and (4) of this Rule. The Division shall work in cooperation with subject local governments and other watershed interests in developing this model program, which shall include the following:
(i) Model local ordinances as applicable;
(ii) Methods to quantify load reduction requirements and resulting load reduction assignments for individual local governments;

(iii) Methods to account for discharging sand filters, malfunctioning septic systems, and leaking collection systems; and

(iv) Methods to account for load reduction credits from various activities;

(b) Within six months after the Commission's approval of the Stage I model local program, subject local governments shall submit load reduction programs that meet or exceed the requirements of Items (3) and (4) of this Rule to the Division for review and preliminary approval and shall begin implementation and tracking of measures to reduce nutrient loads from existing developed lands within their jurisdictions;

(c) Within 20 months of the Commission's approval of the Stage I model local program, the Division shall provide recommendations to the Commission on existing development load reduction programs. The Commission shall either approve the programs or require changes based on the standards set out in Item (4) of this Rule. Should the Commission require changes, the applicable local government shall have two months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;

(d) Within three months after the Commission's approval of a Stage I local existing development load reduction program, the local government shall complete adoption of and begin implementation of its existing development Stage I load reduction program;

(e) Upon implementation of the programs required under Item (4) of this Rule, local governments shall provide annual reports to the Division documenting their progress in implementing those requirements within three months following each anniversary of program implementation date until such time the Commission determines they are no longer needed to ensure maintenance of reductions or that standards are protected. Annual reports shall include accounting of total annual expenditures, including local government funds and any state and federal grants used toward load reductions achieved from existing developed lands. Local governments shall indefinitely maintain and ensure performance of implemented load-reducing measures;

(f) By January 15, 2021 and every five years thereafter until accounting determines that assigned load reductions have been achieved, standards are met in the lake, or the Commission takes other actions per Rule 15A NCAC 02B .0275, local governments located in the upper Falls watershed as defined in Item (3) of Rule 15A NCAC 02B .0275 shall submit and begin implementation of a Stage II load reduction program or program revision to the Division. Within nine months after submittal, the Division shall make recommendations to the Commission on approval of these programs. The Commission shall either approve the programs or require changes based on the standards set out in this Rule. If the Commission require changes, the applicable local governments shall submit revisions within two months, and the Division shall provide follow-up recommendations to the Commission within three months after receiving revisions. Upon program approval, local governments shall revise implementation as necessary based on the approved program;

(g) A local government may, at any time after commencing implementation of its load reduction program, submit program revisions to the Division for approval based on identification of more cost-effective strategies or other factors not originally recognized;

(h) Once either load reductions are achieved per annual reporting or water quality standards are met in the lake per Rule 15A NCAC 02B .0275, local governments shall submit programs to ensure no load increases and shall report annually per Sub-Item (e) on compliance with no increases and take additional actions as necessary;

(i) At least every five years after the effective date, the Division shall review the accounting methods stipulated under Sub-Item (7)(a) to determine the need for revisions to those methods and to loading reductions assigned using those methods. Its review shall include values subject to change over time independent of changes resulting from implementation of this Rule, such as untreated export rates that may change with changes in atmospheric deposition. It shall also review values subject to refinement, such as nutrient removal efficiencies.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1);143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2009-337;*

Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).

15A NCAC 02B .0279 FALLS WATER SUPPLY NUTRIENT STRATEGY: WASTEWATER DISCHARGE REQUIREMENTS

The following is the NPDES wastewater discharge management strategy for the Falls of the Neuse Reservoir watershed (the Falls watershed):

(1) PURPOSE. The purpose of this Rule is to establish minimum nutrient control requirements for point source wastewater discharges in the Falls watershed in order to restore and maintain water quality in the reservoir and protect its designated uses.

(2) APPLICABILITY. This Rule applies to all wastewater treatment facilities discharging in the Falls watershed that receive nutrient-bearing wastewater and are subject to requirements for individual NPDES permits.

(3) DEFINITIONS. For the purposes of this Rule, the definitions in 15A NCAC 02B .0276 and the following definitions apply:

(a) In regard to point source dischargers, treatment facilities, and wastewater flows and discharges,

(i) "Existing" means that which was subject to an NPDES permit as of December 31, 2006;

(ii) "Expanding" means that which has increased or will increase beyond its permitted flow as defined in this Rule; and

(iii) "New" means that which was not subject to an NPDES permit as of December 31, 2006.

(b) "Limit" or "limitation," except when specified as a concentration limit, means the mass quantity of nitrogen or phosphorus that a discharger or group of dischargers is authorized through an NPDES permit to release into surface waters of the Falls watershed.

(c) "MGD" means million gallons per day.

(d) "Permitted flow" means the maximum monthly average flow authorized in a facility's NPDES permit as of December 31, 2006.

(4) INITIAL NUTRIENT ALLOCATIONS FOR EXISTING UPPER FALLS DISCHARGERS. This Item establishes initial Stage I and Stage II nutrient allocations for existing dischargers in the Upper Falls watershed:

(a) Stage I nitrogen and phosphorus allocations for dischargers with permitted flows of 0.1 MGD or greater are as follows:

		Mass Allocations (pounds/year)	
Facility Name	NPDES No.	Total Nitrogen	Total Phosphorus
North Durham	NC0023841	97,665	10,631
SGWASA	NC0026824	22,420	2,486
Hillsborough	NC0026433	10,422	1,352

(b) Stage I allocations for dischargers with permitted flows less than 0.1 MGD are equal to the Stage II allocations specified in Sub-Items (c) and (d) of this Item.

(c) Stage II nitrogen and phosphorus allocations are as follows:

	Mass Allocations (pounds/year)	
Discharger Subcategories	Total Nitrogen	Total Phosphorus
Permitted flows ≥ 0.1 MGD	97,617	5,438
Permitted flows < 0.1 MGD	1,052	175

(d) The Stage II allocations in Sub-Item (c) of this Item shall be divided among the existing dischargers in each subcategory in proportion to the dischargers' permitted flows as defined in this Rule, and the resulting nutrient allocations shall be assigned to each individual discharger.

(5) CHANGES IN NUTRIENT ALLOCATIONS.

(a) The aggregate and individual nutrient allocations available to point source dischargers in the Falls watershed are subject to change:

(i) Whenever the Commission, through rulemaking, revises the nutrient reduction targets in or pursuant to 15A NCAC 02B .0275 in order to ensure the protection of water quality in the reservoir and its tributaries or to conform with applicable state or federal requirements;

(ii) Whenever one or more point source dischargers acquires any portion of the nonpoint load allocations under the provisions in this Rule and 15A NCAC 02B .0282, Options for Offsetting Nutrient Loads; or

(iii) As the result of allocation transfers conducted between point sources or between point and nonpoint sources and in accordance with this Rule, provided that nutrient allocation can be transferred and applied only within the portion of the Falls watershed to which it was originally assigned (Upper or Lower).

(b) In the event that the Commission changes any nutrient reduction target specified in 15A NCAC 02B .0275 or in Item (4) of this Rule, the Commission shall also re-evaluate the apportionment among the dischargers and shall revise the individual allocations as necessary.

(6) NUTRIENT DISCHARGE LIMITATIONS FOR EXISTING UPPER FALLS DISCHARGERS.

(a) Beginning with calendar year 2016, any existing discharger with a permitted flow of 0.1 MGD or greater shall limit its total nitrogen and phosphorus discharges to its active, individual Stage I allocations as defined or modified pursuant to this Rule.

(b) Beginning with calendar year 2036, except as provided in Sub-item (d) of this Item, each existing discharger with a permitted flow greater than or equal to 0.1 MGD shall limit its total nitrogen and phosphorus discharges to its active, individual Stage II allocations as defined or modified pursuant to this Rule.

(c) Not later than March 15, 2011, the Director shall notify existing permittees of the individual Stage I and Stage II nutrient allocations initially assigned to them pursuant to this Rule.

(d) Not later than January 15, 2027, each existing discharger with a permitted flow greater than or equal to 0.1 MGD shall submit to the Division a plan for meeting its Stage II mass limitations. The plan shall describe the discharger's strategy for complying with the limitations and shall include a schedule for the design and construction of facility improvements and for the development and implementation of related programs necessary to the strategy. If a discharger determines that it cannot meet its limitations by calendar year 2036, the discharger may include its findings in the plan and request an extension of its compliance dates for the nitrogen and phosphorus limitations. This alternate plan shall document the compliance strategies considered and the reasons each was judged infeasible; identify the minimum loadings that are technically and economically feasible by 2036; and propose intermediate limits for the period beginning with 2036 and extending until the Stage II limitations can be met. Within 180 days of receipt, the Division shall approve the plan as submitted, which could include intermediate limits, or inform the discharger of any changes or additional information needed for approval. The Division shall incorporate the approved nitrogen and phosphorus mass limitations and compliance dates into the discharger's NPDES permit upon the next renewal or other major permit action following plan approval. If the Division extends the dates by which a discharger must meet Stage II limitations, the discharger shall update and submit its plan for Division approval every five years after the original submittal, and the Division shall take necessary and appropriate action as with the original plan, until the Stage II limitations are satisfied.

(e) It is the intent of this Item that all dischargers shall make continued progress toward complying with Stage II mass limitations. The Division shall not approve intermediate limitations that exceed either the applicable Stage I limitations or intermediate limitations previously approved pursuant to this Item.

(7) NUTRIENT DISCHARGE LIMITATIONS FOR EXISTING LOWER FALLS DISCHARGERS.

(a) Beginning with calendar year 2016, any existing discharger with a permitted flow of 0.1 MGD or greater shall limit its total nitrogen and phosphorus discharges as specified in this Item.

(b) CONCENTRATION LIMITS. The nitrogen and phosphorus discharge limits for existing dischargers shall be as follows:

	Discharge Limits (milligrams/liter)	
Limit Type	Total Nitrogen	Total Phosphorus
Monthly Average	8.0	1.0
Annual Average	5.5	0.5

Existing facilities must meet both monthly average and annual average limits in any given calendar year.

(c) MASS LIMITS.

(i) In addition to the concentration limits specified in this Item, the collective annual mass discharge of total phosphorus shall not exceed 911 pounds in any calendar year.

(ii) Any discharger may request a mass discharge limit in lieu of the concentration limit for nitrogen or phosphorus or both, in which case the Director shall set a limit equivalent to the annual average concentration limit at the facility's permitted flow. The resulting mass limit shall become effective with the ensuing calendar year or with calendar year 2016, whichever is later.

(8) NUTRIENT CONTROL REQUIREMENTS FOR NEW DISCHARGERS.

(a) Any person proposing a new wastewater discharge in the Upper Falls watershed shall meet the following requirements prior to applying for an NPDES permit:

(i) Evaluate all practical alternatives to said discharge, pursuant to 15A NCAC 02H .0105(c)(2);

(ii) If the results of the evaluation support a new discharge, acquire sufficient nitrogen and phosphorus allocations for the discharge. The proponent may obtain allocation for the proposed discharge from existing dischargers pursuant to the applicable requirements of Item (10) of this Rule or obtain allocation from other sources to offset the increased nutrient loads resulting from the proposed discharge. The proponent may fund offset measures by making payment to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that program or to another seller of offset credits approved by the Division or may implement other offset measures contingent upon approval by the Division, either of which shall meet the requirements of Rule 15A NCAC 02B .0282. The amount of allocation or offsets obtained shall be sufficient for the duration of the discharge or for a period of 30 years, whichever is shorter. Payment for each allocation or offset shall be made prior to the ensuing permit issuance;

(iii) Determine whether the proposed discharge of nutrients will cause local water quality impacts; and

(iv) Provide documentation with its NPDES permit application demonstrating that the requirements of Sub-Items (a)(i) through (a)(iii) of this Item have been met.

(b) The nutrient discharge limits for a new facility in the Upper Falls watershed shall not exceed the mass loads equivalent to a concentration of 3.0 milligrams per liter nitrogen or 0.1 milligrams per liter phosphorus at the permitted flow in the discharger's NPDES permit.

(c) Upon the effective date of its NPDES permit, a new discharger in the Upper Falls watershed shall be subject to nitrogen and phosphorus limits not to exceed its active individual discharge allocations in any given calendar year.

(d) The Director shall not issue an NPDES permit for any new wastewater facility that would discharge in the Lower Falls watershed and to which this Rule would apply.

(9) NUTRIENT CONTROL REQUIREMENTS FOR EXPANDING DISCHARGERS.

(a) Any person proposing to expand an existing wastewater discharge in the Upper Falls watershed beyond its permitted flow shall meet the following requirements prior to applying for an NPDES permit:

(i) Evaluate all practical alternatives to said discharge, pursuant to 15A NCAC 02H .0105(c)(2);

(ii) If the results of the evaluation support an expanded discharge, acquire sufficient nitrogen and phosphorus allocations for the discharge. The proponent may obtain allocation for the proposed discharge from existing dischargers pursuant to the

applicable requirements of Item (10) of this Rule or obtain allocation from other sources to offset the increased nutrient loads resulting from the proposed discharge. The proponent may fund offset measures by making payment to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that program or to another seller of offset credits approved by the Division or may implement other offset measures contingent upon approval by the Division, either of which shall meet the requirements of Rule 15A NCAC 02B .0282. The amount of allocation or offsets obtained shall be sufficient for the duration of the discharge or for a period of 30 years, whichever is shorter. Payment for each allocation or offset shall be made prior to the ensuing permit issuance;

(iii) Determine whether the proposed discharge of nutrients will cause local water quality impact; and

(iv) Provide documentation with its NPDES permit application demonstrating that the requirements of Sub-Items (a)(i) through (a)(iii) of this Item have been met;

(b) The nutrient discharge limits for an expanding facility in the Upper Falls watershed shall not exceed the mass value equivalent to a concentration of 3.0 milligrams per liter nitrogen or 0.1 milligrams per liter phosphorus at the expanded flow limit in the discharger's NPDES permit; except that this provision shall not result in an active allocation or limit that is less than originally assigned to the discharger under this Rule.

(c) Upon expansion or upon notification by the Director that it is necessary to protect water quality, any discharger with a permitted flow of less than 0.1 MGD in the Upper Falls watershed, shall become subject to total nitrogen and total phosphorus permit limits not to exceed its active individual discharge allocations.

(d) The Director shall not issue an NPDES permit for the expansion of any wastewater discharge in the Lower Falls watershed to which this Rule applies.

(10) ADDITIONAL PROVISIONS REGARDING NUTRIENT ALLOCATIONS AND LIMITATIONS.

(a) Annual mass nutrient limits shall be established as calendar-year limits.

(b) Any discharger holding nutrient allocations pursuant to this Rule may by mutual agreement transfer all or part of its allocations to any new, existing, or expanding dischargers or to other person(s) in the Falls watershed, subject to the provisions of this Rule and the Falls nutrient strategy, except that allocation shall not be transferred between the Upper and Lower Falls watersheds.

(c) For NPDES compliance purposes, the enforceable nutrient limits for an individual facility or for a compliance association described in Item (11) of this Rule shall be the effective limits in the governing permit, regardless of the allocation held by the discharger or association.

(d) The Director may establish more stringent nitrogen or phosphorus discharge limits for any discharger upon finding that such limits are necessary to prevent the discharge from causing adverse water quality impacts on surface waters tributary to Falls Reservoir. The Director shall establish such limits through modification of the discharger's NPDES permit in accordance with applicable rules and regulations. When the Director does so, the discharger retains its nutrient allocations, and the non-active portion of the discharger's allocation becomes reserve allocation. The allocation remains in reserve until the Director determines that less stringent limits are allowable or until the allocation is applied to another discharge not subject to such water quality-based limits.

(e) In order for any transfer of allocation to become effective as a discharge limit in an individual NPDES permit, the discharger must request and obtain modification of the permit. Such request shall:

(i) Describe the purpose and nature of the modification;

(ii) Describe the nature of the transfer agreement, the amount of allocation transferred, and the dischargers or persons involved;

(iii) Provide copies of the transaction agreements with original signatures consistent with NPDES signatory requirements; and

(iv) Demonstrate to the Director's satisfaction that the increased nutrient discharge will not violate water quality standards in localized areas.

(f) Changes in a discharger's nutrient limits shall become effective upon modification of its individual permit but no sooner than January 1 of the year following modification. If the modified permit is issued after January 1, the Director may make the limit effective on that January 1 provided that the discharger made acceptable application in a timely manner.

(g) REGIONAL FACILITIES. In the event that an existing discharger or group of dischargers accepts wastewater from another NPDES-permitted treatment facility and that acceptance results in the elimination of the discharge from the other treatment facility, the eliminated facility's nutrient allocations shall be transferred and added to the accepting discharger's allocations, except that allocation shall not be transferred between the Upper and Lower Falls watersheds.

(11) GROUP COMPLIANCE OPTION.

(a) Any facilities within the Upper or the Lower Falls watersheds may form a group compliance association to meet nutrient limits collectively within their respective portion of the Falls watershed. More than one group compliance association may be established in either portion of the watershed. No facility may be a co-permittee member of more than one association for any given calendar year.

(b) Any such association must apply for and shall be subject to an NPDES permit that establishes the effective nutrient limits for the association and for its members.

(c) No later than 180 days prior to the proposed date of a new association's operation or expiration of an existing association's NPDES permit, the association and its members shall submit an application for an NPDES permit for the discharge of nutrients to surface waters of the Falls watershed. The association's NPDES permit shall be issued to the association and its members. It shall specify the nutrient limits for the association and for each of its co-permittee members. Association members shall be deemed in compliance with the permit limits for nitrogen and phosphorus contained in their individually issued NPDES permits so long as they remain members in an association.

(d) An association's nitrogen and phosphorus limits shall be the sum of its members' individual active allocations for each nutrient plus any other active allocation obtained by the association or its members.

(e) The individual limits for each member in the association permit shall initially be equivalent to the discharge limits in effect in the member's NPDES permit. Thereafter, changes in individual allocations or limits shall be incorporated into the members' individual permits before they are included in the association permit.

(f) An association and its members may reapportion the individual allocations of its members on an annual basis. Changes in individual allocations or limits must be incorporated into the members' individual permits before they are included in the association permit.

(g) Changes in an association's nutrient limits shall become effective no sooner than January 1 of the year following permit modification. If the modified permit is issued after January 1, the Director may make the limit effective on that January 1 provided that the association made acceptable application in a timely manner.

(h) Beginning with the first full calendar year that the nitrogen or phosphorus limits are effective, an association that does not meet its permit limit for nitrogen or phosphorus for a calendar year shall, no later than May 1 of the year following the exceedance, make an offset payment to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that program or by implementing other load offsetting measures contingent upon approval by the Division, either of which shall meet the requirements of Rule 15A NCAC 02B .0282.

(i) Association members shall be deemed in compliance with their individual limits in the association NPDES permit for any calendar year in which the association is in compliance with its group limit for that nutrient. If the association fails to meet its limit, the association and the members that have failed to meet their individual nutrient limits in the association NPDES permit shall be deemed out of compliance with the association NPDES permit.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-215; 143-215.1; 143-215.3(a)(1); 143-215B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259;*

Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).

15A NCAC 02B .0280 FALLS RESERVOIR WATER SUPPLY NUTRIENT STRATEGY: AGRICULTURE

This Rule sets forth a staged process, as prefaced in 15A NCAC 02B .0275, by which agricultural operations in the Falls watershed will collectively limit their nitrogen and phosphorus loading to the Falls Reservoir. This process is as follows:

(1) PURPOSE. The purposes of this Rule are to achieve and maintain the percentage reduction objectives defined in 15A NCAC 02B .0275 for the collective agricultural loading of nitrogen and phosphorus from their respective 2006 baseline levels, to the extent that best available accounting practices will allow, in two stages. Stage I shall be 10 years and Stage II shall be 15 years, as set out in Item (5) of this Rule. Additionally this Rule will protect the water supply uses of the Falls Reservoir.

(2) PROCESS. This Rule requires accounting for agricultural land management practices at the county level in the Falls watershed, and implementation of practices by farmers to collectively achieve the nutrient reduction objectives on a watershed basis. Producers may be eligible to obtain cost share and technical assistance from the NC Agriculture Cost Share Program and similar federal programs to contribute to their counties' nutrient reductions. A Watershed Oversight Committee and Local Advisory Committees will develop strategies, coordinate activities, and account for progress.

(3) LIMITATION. This Rule does not fully address significant agricultural nutrient sources in that it does not directly address atmospheric sources of nitrogen to the Falls watershed from agricultural operations located both within and outside of the Falls watershed. As better information becomes available from ongoing research on atmospheric nitrogen loading to the Falls watershed from these sources, and on measures to control this loading, the Commission may undertake separate rule-making to require such measures it deems necessary from these sources to support the objectives of the Falls Nutrient Strategy.

(4) APPLICABILITY. This Rule shall apply to all persons engaging in agricultural operations in the Falls watershed, including those related to crops, horticulture, livestock, and poultry. This Rule applies to livestock and poultry operations above the size thresholds in this Item in addition to requirements for animal operations set forth in general permits issued pursuant to G.S. 143-215.10C. Nothing in this Rule shall be deemed to allow the violation of any assigned surface water, groundwater, or air quality standard by any agricultural operation, including any livestock or poultry operation below the size thresholds in this Item. This Rule shall not apply to dedicated land application sites permitted under 15A NCAC 02T .1100. This Rule does not require specific actions by any individual person or operation if agriculture in the Falls watershed can collectively achieve its Stage I nutrient reduction objectives, in the manner described in Item (5) of this Rule, by calendar year 2020. If the Stage I nutrient reduction objectives are not met by calendar year 2020, Stage II of implementation shall require specific actions by individuals and operations. For the purposes of this Rule, agricultural operations are activities that relate to any of the following pursuits:

(a) The commercial production of crops or horticultural products other than trees. As used in this Rule, commercial shall mean activities conducted primarily for financial profit.

(b) Research activities in support of such commercial production.

(c) The production or management of any of the following number of livestock or poultry at any time, excluding nursing young:

(i) Five or more horses;

(ii) 20 or more cattle;

(iii) 20 or more swine not kept in a feedlot, or 150 or more swine kept in a feedlot;

(iv) 120 or more sheep;

(v) 130 or more goats;

(vi) 650 or more turkeys;

(vii) 3,500 or more chickens; or

(viii) Any single species of any other livestock or poultry, or any combination of species of livestock or poultry that exceeds 20,000 pounds of live weight at any time.

(5) METHOD FOR RULE IMPLEMENTATION. This Rule shall be implemented in two stages and through a cooperative effort between the Watershed Oversight Committee and Local Advisory Committees in each county. The membership, roles and responsibilities of these committees are set forth in Items (7) and (8) of this Rule. Committee's activities shall be guided by the following:

(a) In Stage I, agriculture shall achieve a collective 20 percent reduction in nitrogen loading and a 40 percent reduction in phosphorus loading relative to the 2006 baseline by calendar year 2020.

(b) In Stage II, beginning in calendar year 2021 agriculture shall achieve a collective 40 percent reduction in nitrogen loading and a 77 percent reduction in phosphorus loading relative to the 2006 baseline by calendar year 2035.

(c) By January 15, 2013, the Watershed Oversight Committee shall provide the Commission with an initial assessment of the extent to which agricultural operations in the Falls watershed have achieved the Stage I nitrogen and phosphorus reduction objectives identified in Item (1) of this rule through activities conducted since the baseline period. The Watershed Oversight Committee shall use the accounting process described in Items (7) and (8) of this rule to make its assessment.

(d) If annual reporting following the 10th year of implementation indicates that agriculture has not collectively achieved its Stage I nitrogen and phosphorus reduction objectives identified in this Item, Stage II shall include specific implementation requirements for individual operators. Specifically, within five years of the start of Stage II, cropland operators shall establish vegetated riparian buffers adjacent to streams on all cropland where such buffers do not already exist. Additionally, pastured livestock operators shall establish excluded vegetated riparian buffers adjacent to streams where such excluded buffers do not already exist. Streams to which these requirements apply shall be those that meet the classification of intermittent or perennial streams using the September 2010 version of the *Identification Methods for the Origins of Intermittent and Perennial Streams Manual* published by the Division. Existing and newly established riparian buffers shall be a minimum of 20 feet in width with criteria further defined by the Watershed Oversight Committee.

The Commission may also consider alternative recommendations from the Watershed Oversight Committee based on the Committee's assessment of the practicability of agricultural operations meeting the Stage I objectives. Should the Commission accept some alternative form of individual compliance, then it shall also subsequently approve a framework proposed by the Watershed Oversight Committee for allowing producers to obtain credit through offsite measures. Such offsite measures shall meet the requirements of 15A NCAC 02B .0282.

(e) Should a committee called for under Item (5) of this Rule not form nor follow through on its responsibilities such that a local strategy is not implemented in keeping with Item (8) of this Rule, the Commission shall require all persons subject to this Rule in the affected area to implement BMPs as needed to meet the objectives of this Rule.

(6) RULE REQUIREMENTS FOR INDIVIDUAL OPERATIONS. Persons subject to this Rule shall adhere to the following requirements:

(a) Persons subject to this Rule shall register their operations with their Local Advisory Committee according to the requirements of Item (8) of this Rule;

(b) Persons are not required to implement any specific BMPs in Stage I, with the exception of Sub-Item (d) of this Item, but may elect to contribute to the collective local nutrient strategy by implementing any BMPs they choose that are recognized by the Watershed Oversight Committee as nitrogen-reducing or phosphorus-reducing BMPs;

(c) The Division shall require that residuals application, animal waste application, and surface irrigation pursuant to permits issued under 15A NCAC 02T .1100, 15A NCAC 02T .1300, and 15A NCAC 02T .0500 respectively, to lands within the Falls watershed be done in a manner that minimizes the potential for nitrogen and phosphorus loading to surface waters by implementing the following measures:

(i) Animal waste application operators subject to t the permitting requirements in this Sub-item shall meet Realistic Yield Expectation based nitrogen application rates and shall apply phosphorus in compliance with guidance established in the most recent version of North Carolina Agricultural Research Service's Technical Bulletin 323, "North Carolina Phosphorus Loss Assessment: I Model Description and II. Scientific Basis and Supporting Literature" developed by the Department of Soil Science and Biological and Agricultural Engineering at North Carolina State University. The Division shall modify all existing permits for affected lands to include these requirements upon their next renewal after effective date, and shall include these requirements in all new permits

issued after effective date. Permittees shall be required to comply with this condition upon permit issuance or renewal as applicable; and

(ii) Residual application and surface irrigation operators subject to the permitting requirements in this Sub-item shall meet Realistic Yield Expectation based nitrogen application rates and shall conduct and provide to the Division annual assessments of their soil test phosphorus index results and phosphorus loading rates. At such time as data quantifying the fate and transport of chemically bound phosphorus are made available, the Division may make recommendations to the Commission to consider whether revisions to the requirements of this Rule are needed and may initiate rulemaking or any other action allowed by law.

(d) Should a local strategy not achieve its Stage I objectives by calendar year 2020; operations within that local area shall face specific implementation requirements, as described under Sub-Item (5)(d) of this Rule.

(7) WATERSHED OVERSIGHT COMMITTEE. The Watershed Oversight Committee shall have the following membership, role and responsibilities:

(a) MEMBERSHIP. The Director shall be responsible for forming a Watershed Oversight Committee by March 15, 2011. Until such time as the Commission determines that long-term maintenance of the nutrient loads is assured, the Director shall either reappoint members or replace members at least every six years. The Director shall solicit nominations for membership on this Committee to represent each of the following interests, and shall appoint one nominee to represent each interest except where a greater number is noted. The Director of the Division of Water Quality may appoint a replacement at any time for an interest in Sub-Items (7)(a)(vi) through (7)(a)(x) of this Rule upon request of representatives of that interest or by the request of the Commissioner of Agriculture:

(i) Division of Soil and Water Conservation;

(ii) United States Department of Agriculture-Natural Resources Conservation Service (shall serve in an "ex-officio" non-voting capacity and shall function as a technical program advisor to the Committee);

(iii) North Carolina Department of Agriculture and Consumer Services;

(iv) North Carolina Cooperative Extension Service;

(v) Division of Water Quality;

(vi) Three environmental interests, at least two of which are residents of the Falls watershed;

(vii) General farming interests;

(viii) Pasture-based livestock interests;

(ix) Equine livestock interests;

(x) Cropland farming interests; and

(xi) The scientific community with experience related to water quality problems in the Falls watershed.

(b) ROLE. The Watershed Oversight Committee shall:

(i) Develop tracking and accounting methods for nitrogen and phosphorus loading and submit methods to the Water Quality Committee of the Commission for approval based on the standards set out in Sub-Item (7)(c) of this Rule by March 15, 2012;

(ii) Identify and implement future refinements to the accounting methods as needed to reflect advances in scientific understanding, including establishment or refinement of nutrient reduction efficiencies for BMPs;

(iii) By January 15, 2013, collect data needed to conduct initial nutrient loading accounting for the baseline period and the most current year feasible, perform this accounting, and determine the extent to which agricultural operations have achieved the Stage I nitrogen loading objective and phosphorus loading trend indicators for the watershed and present findings to the Water Quality Committee of the Commission;

(iv) Review, approve, and summarize local nutrient strategies if required pursuant to Sub-Item (5)(d) of this Rule and according to the timeframe identified in Sub-Item (8)(c)(ii) of this Rule. Provide these strategies to the Division;

(v) Establish requirements for, review, approve and summarize local nitrogen and phosphorus loading annual reports as described under Sub-Item (8)(e) of this Rule, and present the report to the Division annually, until such time as the Commission determines that annual reports are no longer needed to fulfill the purposes of Rule. Present a report in January 2014 to the Commission. Should that report find that agriculture in the watershed has not met its collective nitrogen or phosphorus objective, include an assessment in that report of the practicability of producers achieving the Stage I objective by calendar year 2020, and recommendations to the Commission as deemed appropriate;

(vi) Obtain nutrient reduction efficiencies for BMPs from the scientific community associated with design criteria identified in rules adopted by the Soil and Water Conservation Commission, including 15A NCAC 06E .0104 and 15A NCAC 06F .0104; and

(vii) Investigate and, if feasible, develop an accounting method to equate implementation of specific nutrient-reducing practices on cropland or pastureland to reductions in nutrient loading delivered to streams;

(viii) Quantify the nitrogen and phosphorus credits generated by such practices for the purpose of selling or buying credits; establish criteria and a process as needed for the exchange of nutrient credits between parties subject to this rule with each other or with parties subject to other nutrient strategy rules in the Falls lake watershed pursuant to the requirements of 15A NCAC 02B .0282; obtain approval from the Division for this trading program pursuant to the requirements of Rule .0282; approve eligible trades; and ensure that such credits traded for purposes of meeting this Rule are accounted for and tracked separately from those contributing to the objectives of other rules of the Falls nutrient strategy.

(c) ACCOUNTING METHODS. Success in meeting this Rule's purpose will be gauged by estimating percentage changes in nitrogen loading from agricultural lands in the Falls watershed and by evaluating broader trends in indicators of phosphorus loading from agricultural lands in the Falls watershed. The Watershed Oversight Committee shall develop accounting methods that meet the following requirements:

(i) The nitrogen method shall estimate baseline and annual total nitrogen loading from agricultural operations in each county and for the entire Falls watershed;

(ii) The nitrogen and phosphorus methods shall include a means of tracking implementation of BMPs, including number, type, and area affected;

(iii) The nitrogen method shall include a means of estimating incremental nitrogen loading reductions from actual BMP implementation and of evaluating progress toward and maintenance of the nutrient objectives from changes in BMP implementation, fertilization, individual crop acres, and agricultural land use acres;

(iv) The nitrogen and phosphorus methods shall be refined as research and technical advances allow;

(v) The phosphorus method shall quantify baseline values for and annual changes in factors affecting agricultural phosphorus loading as identified by the phosphorus technical advisory committee established under 15A NCAC 02B .0256(f)(2)(C). The method shall provide for periodic qualitative assessment of likely trends in agricultural phosphorus loading from the Falls watershed relative to baseline conditions;

(vi) Phosphorus accounting may also include a scientifically valid, survey-based sampling of farms in the Falls watershed for the purpose of conducting field-scale phosphorus loading assessments and extrapolating phosphorus loading for the Falls watershed for the baseline period and at periodic intervals; and

(vii) Aspects of pasture-based livestock operations that potentially affect nutrient loading and are not captured by the accounting methods described above shall be accounted for in annual reporting to the extent that advances in scientific understanding reasonably allow. Such accounting shall, at a minimum, quantify changes in the extent of livestock-related nutrient controlling BMPs. Progress may be judged based on percent change in

the extent of implementation relative to percentage objectives identified in Item(5) of this Rule.

(8) LOCAL ADVISORY COMMITTEES. Local Advisory Committees shall be formed for each county within the watershed by January 15, 2012, and shall have the following membership, roles, and responsibilities:

(a) MEMBERSHIP. A Local Advisory Committee shall be appointed as provided for in this Item. It shall terminate upon a finding by the Commission that it is no longer needed to fulfill the purposes of this Rule. Each Local Advisory Committee shall consist of:

(i) One representative of the county Soil and Water Conservation District;

(ii) One representative of the county office of the United States Department of Agriculture Natural Resources Conservation Service;

(iii) One representative of the North Carolina Department of Agriculture and Consumer Services;

(iv) One representative of the county office of the North Carolina Cooperative Extension Service;

(v) One representative of the North Carolina Division of Soil and Water Conservation whose regional assignment includes the county;

(vi) At least two farmers who reside in the county; and

(vii) One representative of equine livestock interests.

(b) APPOINTMENT OF MEMBERS. The Director of the Division of Water Quality and the Director of the Division of Soil and Water Conservation of the Department of Environment and Natural Resources shall appoint members described in Sub-Items (8)(a)(i), (8)(a)(ii), (8)(a)(iv), and (8)(a)(v) of this Rule. The Director of the Division of Water Quality, with recommendations from the Director of the Division of Soil and Water Conservation and the Commissioner of Agriculture, shall appoint the members described in Sub-Items (8)(a)(iii) and (8)(a)(vi) of this Rule from persons nominated by nongovernmental organizations whose members produce or manage agricultural commodities in each county. Members of the Local Advisory Committees shall serve at the pleasure of their appointing authorities.

(c) ROLE. The Local Advisory Committees shall:

(i) Conduct a registration process for persons subject to this Rule. This registration process shall be completed by January 15, 2012. The registration process shall request at a minimum the type and acreage of agricultural operations. It shall provide persons with information on requirements and options under this Rule, and on available technical assistance and cost share options;

(ii) Develop local nutrient control strategies for agricultural operations, pursuant to Sub-Item (8)(d) of this Rule, to meet the nitrogen and phosphorus objectives of this Rule. Strategies shall be submitted to the Watershed Oversight Committee by July 2012;

(iii) Ensure that any changes to the design of the local strategy will continue to meet the nutrient objectives of this Rule; and

(iv) Submit reports to the Watershed Oversight Committee, pursuant to Sub-Item (8)(e) of this Rule, annually beginning in calendar year 2012 until such time as the Commission determines that annual reports are no longer needed to fulfill the purposes of this Rule.

(d) LOCAL NUTRIENT CONTROL STRATEGIES. Local Advisory Committees shall develop nutrient control strategies. If a Local Advisory Committee fails to submit a nutrient control strategy required in Sub-Item (8)(c)(ii) of this Rule, the Commission may develop one based on the accounting methods that it approves pursuant to Sub-Item (7)(b)(i) of this Rule. Local strategies shall meet the following requirements:

(i) Local nutrient control strategies shall be designed to achieve the required nitrogen loading reduction objectives and qualitative trends in indicators of agricultural phosphorus loading by calendar year 2020, and to maintain those reductions in perpetuity or until such time as this rule is revised to modify this requirement; and

(ii) Local nutrient control strategies shall specify the numbers, acres, and types of all agricultural operations within their areas, numbers of BMPs that will be implemented by enrolled operations and acres to be affected by those BMPs, estimated nitrogen and

phosphorus loading reductions, schedule for BMP implementation, and operation and maintenance requirements.

(e) ANNUAL REPORTS. The Local Advisory Committees shall be responsible for submitting annual reports for their counties to the Watershed Oversight Committee until such time as the Commission determines that annual reports are no longer needed to fulfill the purposes of this Rule. The Watershed Oversight Committee shall determine reporting requirements to meet these objectives. Those requirements may include information on BMPs implemented by individual farms, proper BMP operation and maintenance, BMPs discontinued, changes in agricultural land use or activity, and resultant net nitrogen loading and phosphorus trend indicator changes. The annual reports in 2016 and 2026 shall address agriculture's success in complying with the load reduction requirements described in Items (5)(a) and (5)(b) of this Rule and shall include adjustments to address deficiencies to achieve compliance.

(f) PROGRESS. In 2016 the Division of Water Quality, in consultation with the Watershed Oversight Committee, shall submit a report to the Commission gauging the extent to which reasonable progress has been achieved towards the Stage I objectives described in this Rule.

History Note: *Authority G.S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486;*
Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).

15A NCAC 02B .0281 FALLS WATER SUPPLY NUTRIENT STRATEGY: STORMWATER REQUIREMENTS FOR STATE AND FEDERAL ENTITIES

The following is the stormwater strategy, as prefaced in Rule 02B .0275, for the activities of state and federal entities within the Falls watershed.

(1) PURPOSE. The purposes of this Rule are as follows.

(a) To achieve and maintain, on new non-road development lands, the nonpoint source nitrogen and phosphorus percentage reduction objectives established for Falls Reservoir in 15A NCAC 02B .0275 relative to the baseline period defined in Rule, to provide the highest practicable level of treatment on new road development, and to achieve and maintain the percentage objectives on existing developed lands by reducing loading from state-maintained roadways and facilities, and from lands controlled by other state and federal entities in the Falls watershed;

(b) To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows from state-maintained roadways and facilities and from lands controlled by other state and federal entities in the Falls watershed; and

(c) To protect the water supply, aquatic life, and recreational uses of Falls Reservoir.

(2) APPLICABILITY. This Rule shall apply to all existing and new development, both as defined in 15A NCAC 02B .0276, that lies within or partially within the Falls watershed under the control of the NC Department of Transportation (NCDOT), including roadways and facilities, and to all lands controlled by other state and federal entities in the Falls watershed.

(3) NON-NCDOT REQUIREMENTS. With the exception of the NCDOT, all state and federal entities that control lands within the Falls watershed shall meet the following requirements:

(a) For any new development proposed within their jurisdictions that would disturb one quarter acre or more, non-NCDOT state and federal entities shall develop stormwater management plans for submission to and approval by the Division;

(b) The non-NCDOT state or federal entity shall include measures to ensure maintenance of best management practices (BMPs) implemented as a result of the provisions in Sub-Item (a) of this Item for the life of the development; and

(c) A plan to ensure enforcement and compliance with the provisions in Sub-Item (4) of this Rule for the life of the new development.

(4) PLAN APPROVAL REQUIREMENTS. A developer's stormwater plan shall not be approved unless the following criteria are met:

(a) Nitrogen and phosphorus loads contributed by the proposed new development activity shall not exceed the following unit-area mass loading rates for nitrogen and phosphorus, respectively, expressed in units of pounds/acre/year: 2.2 and 0.33. Proposed development that would replace or expand structures or improvements that existed as of December 2006, the end of the baseline period, and that would not result in a net increase in built-upon area shall not be required to meet the nutrient loading targets or high-density requirements except to the extent that the developer shall provide stormwater control at least equal to the previous development. Proposed development that would replace or expand existing structures or improvements and would result in a net increase in built-upon area shall have the option either to achieve at least the percentage loading reduction objectives stated in 15A NCAC 02B .0275 as applied to nitrogen and phosphorus loading from the previous development for the entire project site, or to meet the loading rate targets described in this item. These requirements shall supersede those identified in 15A NCAC 02B .0104(q). The developer shall determine the need for engineered stormwater controls to meet these loading rate targets by using the loading calculation method called for in Sub-Item (4)(a) of 15A NCAC 02B .0277 or other equivalent method acceptable to the Division;

(b) The developer shall have the option of offsetting part of their nitrogen and phosphorus loads by implementing or funding offsite offset measures. Before using an offsite offset option, a development shall implement onsite structural stormwater controls that achieve one of the following levels of reductions:

(i) Proposed new development activity disturbing at least one quarter acre but less than one acre of land, except as stated in this Item, shall achieve 30 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in this item;

(ii) Except as stated in this Item, proposed new development activity that disturbs one acre of land or more shall achieve 50 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in this Item; or

(iii) Proposed development that would replace or expand structures or improvements that existed as of December 2006, the end of the baseline period, and that increases impervious surface within a designated downtown area, regardless of area disturbed, shall achieve 30 percent of the needed load reduction in both nitrogen and phosphorus onsite, and shall meet any requirements for engineered stormwater controls described in this Item;

(c) Offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus loading to the remaining reduction needed onsite to comply with the loading rate targets set out in this Item. A developer may use any measure that complies with the requirements of Rules .0240 and .0282 of this Section;

(d) Proposed new development subject to NPDES, water supply, and other state-mandated stormwater regulations shall comply with those regulations and with applicable permit limits in addition to the other requirements of this sub-item. Proposed new development in any water supply watershed in the Falls watershed designated WS-II, WS-III, or WS-IV shall comply with the density-based restrictions, obligations, and requirements for engineered stormwater controls, clustering options, operation and maintenance responsibilities, vegetated setbacks, land application, and landfill provisions described in Sub-Items (3)(b)(i) and (3)(b)(ii) of the applicable rule among 15A NCAC 02B .0214 through .0216. Provided, the allowance in water supply watershed rules for 10 percent of a jurisdiction to be developed at up to 70 percent built-upon area without stormwater treatment shall not be available in the Falls watershed;

(e) Stormwater systems shall be designed to control and treat at a minimum the runoff generated from all surfaces in the project area by one inch of rainfall. The treatment volume shall be drawn down pursuant to standards specific to each practice as provided in the July 2007 version of the *Stormwater Best Management Practices Manual* published by the Division, or other at least technically equivalent standards acceptable to the Division;

(f) To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows, at a minimum, the new development shall

not result in a net increase in peak flow leaving the site from pre-development conditions for the one-year, 24-hour storm event;

(g) New development may satisfy the requirements of this Rule by meeting the post-development hydrologic criteria set out in Chapter 2 of the *North Carolina Low Impact Development Guidebook* dated June 2009, or the hydrologic criteria in the most recent version of that guidebook; and

(h) Proposed new development shall demonstrate compliance with the riparian buffer protection requirements of 15A NCAC 02B .0233 and .0242.

(5) NON-NCDOT STAGED AND ADAPTIVE IMPLEMENTATION REQUIREMENTS. For existing development, non-NCDOT state and federal entities shall develop and implement staged load reduction programs for achieving and maintaining nutrient load reductions from existing development based on the standards set out in this Item. Such entities shall submit these load-reducing programs for approval by the Commission that include the following staged elements and meet the minimum standards for each stage of implementation:

(a) In Stage I, entities subject to this rule shall implement a load reduction program that provides estimates of, and plans for offsetting by calendar year 2020, nutrient loading increases from lands developed subsequent to the baseline (2006) and not subject to the requirements of the Falls Lake new development stormwater program. For these existing developed lands, the current loading rate shall be compared to the loading rate for these lands prior to development for the acres involved, and the difference shall constitute the load reduction need in annual mass load, in pounds per year. Alternatively, a state or federal entity may assume uniform pre-development loading rates of 2.89 pounds per acre per year N and 0.63 pounds per acre per year P for these lands. The entity shall achieve this stage one load reduction by calendar year 2020. This Stage I program shall meet the criteria defined in Item (4) of 15A NCAC 02B.0278; and

(b) By January 15, 2021, and every five years thereafter, a state or federal entity located in the Upper Falls Watershed as defined in Item (11) of 15A NCAC 02B .0276 shall submit and begin implementing a Stage II load reduction program or revision designed to achieve the percent load reduction objectives from existing developed lands under its control, that includes timeframes for achieving these objectives and that meets the criteria defined in Items (5) and (6) of this Rule.

(6) ELEMENTS OF NON-NCDOT LOAD REDUCTION PROGRAMS. A non-NCDOT state or federal entity load reduction program shall address the following elements:

(a) State and federal entities in the Eno River and Little River subwatersheds shall, as part of their Stage I load reduction programs, begin and continuously implement a program to reduce loading from discharging sand filters and malfunctioning septic systems owned or used by state or federal agencies discharging into waters of the State within those subwatersheds;

(b) State and federal entities in any Falls subwatershed in which chlorophyll a levels have exceeded 40 ug/L in more than seventy-five percent of the monitoring events in any calendar year shall, as part of their Stage I load reduction programs, begin and continuously implement a program to reduce nutrient loading into the waters of the State within that subwatersheds;

(c) The total amount of nutrient loading reductions in Stage I is not increased for state and federal entities by the requirements to add specific program components to address loading from malfunctioning septic systems and discharging sand filters or high nutrient loading levels pursuant to Sub-Items (a) and (b) of this Item;

(d) In preparation for implementation of their Stage I and Stage II load reduction programs, state and federal entities shall develop inventories and characterize load reduction potential to the extent that accounting methods allow for the following:

(i) Wastewater collection systems;

(ii) Discharging sand filter systems, including availability of or potential for central sewer connection;

(iii) Properly functioning and malfunctioning septic systems;

(iv) Restoration opportunities in utility corridors;

(v) Fertilizer management plans for state and federally owned lands;

(vi) Structural stormwater practices, including intended purpose, condition, potential for greater nutrient control; and

(vii) Wetlands and riparian buffers including potential for restoration opportunities.

(e) A state or federal entities load reduction need shall be based on the developed lands owned or used by the state or federal entity within the Falls watershed;

(f) Nitrogen and phosphorous loading from existing developed lands, including loading fromonsite wastewater treatment systems to the extent accounting methods allow, shall be calculated by applying the accounting tool described in Item (13) and shall quantify baseline loads of nitrogen and phosphorus to surface waters from the lands under the entity's control as well as loading changes post-baseline. It shall also calculate target nitrogen and phosphorus loads and corresponding reduction needs;

(g) Nitrogen and phosphorus loading from existing developed lands, including loading from onsite wastewater treatment systems to the extent accounting methods allow, shall be calculated by applying the accounting too described in Item (13) of this Rule and shall quantify baseline loads of nitrogen and phosphorus to surface waters from state and federal entities as well as loading changes post-baseline. It shall calculate target nitrogen and phosphorus loads and corresponding load reduction needs;

(h) The Commission shall recognize reduction credit for implementation of policies and practices implemented after January 1, 2007 and before January 15, 2011, to reduce runoff and discharge of nitrogen and phosphorus per Session Law 2009-486. The load reduction program shall identify specific load-reducing practices implemented subsequent to the baseline period and for which the entity is seeking credit. It shall estimate load reductions for these practices and their anticipated duration using methods provided for in Item (13);

(i) The program shall include a proposed implementation schedule that includes annual implementation expectations. The load reduction program shall identify the types of activities the state or federal entity intends to implement and types of existing development affected, relative proportions or prioritization of practices, relative magnitude of reductions it expects to achieve from each, and the relative costs and efficiencies of each activity to the extent information is available. The program shall identify the duration of anticipated loading reductions, and may seek activities that provide long-term reductions;

(j) The load reduction program shall identify anticipated funding mechanisms or sources and discuss steps taken or planned to secure such funding;

(k) The program shall address the extent of load reduction opportunities intended from the following types of lands:

(i) Lands owned or otherwise controlled by the state or federal entity; and

(ii) Lands other than those on which the entity's load reduction need is based as described in this Item, including lands both within and outside its jurisdiction and third party sellers.

(l) The program shall address the extent of load reduction proposed from, at a minimum, the following stormwater and ecosystem restoration activities:

(i) Bioretention;
(ii) Constructed wetland;
(iii) Sand filter;
(iv) Filter Strip;
(v) Grassed swale;
(vi) Infiltration device;
(vii) Extended dry detention;
(viii) Rainwater harvesting system;
(ix) Treatment of Redevelopment;
(x) Overtreatment of new development;
(xi) Removal of impervious surface;
(xii) Retrofitting treatment into existing stormwater ponds;
(xiii) Off-line regional treatment systems;
(xiv) Wetland or riparian buffer restoration; and
(xv) Reforestation with conservation easement or other protective covenant.

(m) The program shall evaluate the load reduction potential from the following wastewater activities:

(i) Creation of surplus relative to an allocation established in 15A NCAC 02B .0279;
(ii) Expansion of surplus allocation through regionalization;
(iii) Connection of discharging sand filters and malfunctioning septic systems to central sewer or replacement with permitted non-discharge alternatives;
(iv) Removal of illegal discharges; and
(v) Improvement of wastewater collection systems.

(n) A state or federal entity may propose in its load reduction program the use of the following measures in addition to items listed in (l) and (m), or may propose other measures for which it can provide equivalent accounting methods acceptable to the Division:
(i) Redirecting runoff away from impervious surfaces;
(ii) Soil amendments;
(iii) Stream restoration;
(iv) Improved street sweeping; and
(v) Source control, such as waste and fertilizer controls.

(o) The program shall include evaluation of load reduction potential relative to the following factors:
(i) Extent of physical opportunities for installation;
(ii) Landowner acceptance;
(iii) Incentive and education options for improving landowner acceptance;
(iv) Existing and potential funding sources and magnitudes;
(v) Practice cost-effectiveness (e.g., cost per pound of nutrient removed);
(vi) Increase in per capita cost of a non-NCDOT state or federal entity's stormwater management program to implement the program;
(vii) Implementation rate without the use of eminent domain; and
(viii) Need for and projected role of eminent domain.

(7) The Commission shall approve a non-NCDOT Stage I load reduction program if it meets the requirements of Items (5) and (6) of this Rule. The Commission shall approve a Stage II load reduction program if it meets the requirements of Items (5) and (6) of this Rule unless the Commission finds that the local non-NCDOT state or federal entity can, through the implementation of reasonable and cost-effective measures not included in the proposed program, meet the Stage II nutrient load reductions required by this Rule by a date earlier than that proposed by the non-NCDOT state or federal entity. If the Commission finds that there are additional or alternative reasonable and cost-effective measures, the Commission may require the non-NCDOT state or federal entity to modify its proposed program to include such measures to achieve the required reductions by the earlier date. If the Commission requires such modifications, the non-NCDOT state or federal entity shall submit a modified program within two months. The Division shall recommend that the Commission approve or disapprove the modified program within three months after receiving the modified program. In determining whether additional or alternative load reduction measures are reasonable and cost effective, the Commission shall consider factors including, but not limited to those identified in Sub-Item (6)(o) of this Rule. The Commission shall not require additional or alternative measures that would require a non-NCDOT state or federal entity to:
(a) Install a new stormwater collection system in an area of existing development unless the area is being redeveloped; or
(b) Reduce impervious surfaces within an area of existing development unless the area is being redeveloped.

(8) A non-NCDOT state or federal entity shall have the option of working with the county or counties in which it falls, or with a municipality or municipalities within the same subwatershed, to jointly meet the loading targets from all lands within their combined jurisdictions within a subwatershed. The entity may utilize private or third party sellers. All reductions involving trading with other parties shall meet the requirements of 15A NCAC 02B .0282.

(9) NCDOT REQUIREMENTS. The NCDOT shall develop a single Stormwater Management Program that will be applicable to the entire Falls watershed and submit this program for approval by the Division according to the standards set forth below. In addition, the program shall, at a minimum, comply with NCDOT's then-current stormwater permit. This program shall:
(a) Identify NCDOT stormwater outfalls from Interstate, US, and NC primary routes;
(b) Identify and eliminate illegal discharges into the NCDOT's stormwater conveyance system;

(c) Establish a program for post-construction stormwater runoff control for new development, including new and widening NCDOT roads and facilities. The program shall establish a process by which the Division shall review and approve stormwater designs for new NCDOT development projects. The program shall delineate the scope of vested projects that would be considered as existing development, and shall define lower thresholds of significance for activities considered new development. In addition, the following criteria shall apply:

(i) For new and widening roads, weigh stations, and replacement of existing bridges, compliance with the riparian buffer protection requirements of Rules 15A NCAC 02B .0233 and .0242 shall be deemed as compliance with the purposes of this Rule;

(ii) New non-road development shall achieve and maintain the nitrogen and phosphorus percentage load reduction objectives established in 15A NCAC 02B .0275 relative to either area-weighted average loading rates of all developable lands as of the baseline period defined in 15A NCAC 02B .0275, or to project-specific pre-development loading rates. Values for area-weighted average loading rate targets for nitrogen and phosphorus, respectively, are expressed in units of pounds per acre per year: 2.2 and 0.33. The NCDOT shall determine the need for engineered stormwater controls to meet these loading rate targets by using the loading calculation method called for in Item(13) of this Rule or other equivalent method acceptable to the Division. Where stormwater treatment systems are needed to meet these targets, they shall be designed to control and treat the runoff generated from all surfaces by one inch of rainfall. Such systems shall be assumed to achieve the nutrient removal efficiencies identified in the July 2007 version of the *Stormwater Best Management Practices Manual* published by the Division provided that they meet associated drawdown and other design specifications included in the same document. The NCDOT may propose to the Division nutrient removal rates for practices currently included in the BMP Toolbox required under its NPDES stormwater permit, or may propose revisions to those practices or additional practices with associated nutrient removal rates. The NCDOT may use any such practices approved by the Division to meet loading rate targets identified in this Sub-item. New non-road development shall also control runoff flows to meet the purpose of this Rule regarding protection of the nutrient functions and integrity of receiving waters; and

(iii) For new non-road development, the NCDOT shall have the option of offsetting part of their nitrogen and phosphorus loads by implementing or funding offsite management measures. Before using an offsite offset option, a development shall implement structural stormwater controls that achieve 50 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in this Item. Offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus loading to the remaining reduction needed onsite to comply with the loading rate targets set out in this Item. The NCDOT may use any measure that complies with the requirements of Rules .0240 and .0282 of this Section.

(d) Establish a program to identify and implement load-reducing opportunities on existing development within the watershed. The long-term objective of this effort shall be for the NCDOT to achieve the nutrient load objectives in 15A NCAC 02B .0275 as applied to existing development under its control, including roads and facilities:

(i) The NCDOT may achieve the nutrient load reduction objective in 15A NCAC 02B .0275 for existing roadway and non-roadway development under its control by the development of a load reduction program that addresses both roadway and non-roadway development in the Falls watershed. As part of the accounting process described in Item (13) of this Rule, baseline nutrient loads shall be established for roadways and industrial facilities using stormwater runoff nutrient load characterization data collected through the National Pollutant Discharge Elimination System (NPDES) Research Program under NCS0000250 Permit Part II Section G;

(ii) The program shall include estimates of, and plans for offsetting, nutrient load increases from lands developed subsequent to the baseline period but prior to implementation of its new development program. It shall include a technical analysis that includes a proposed implementation rate and schedule. This schedule shall provide for proportionate annual progress toward reduction objectives as practicable throughout the proposed compliance period. The program shall identify the types of activities NCDOT intends to implement and types of existing roadway and non-roadway development affected, relative proportions or a prioritization of practices, and the relative magnitude of reductions it expects to achieve from each;

(iii) The program to address roadway and non-roadway development may include stormwater retrofits and other load reducing activities in the watershed including: illicit discharge removal; street sweeping; source control activities such as fertilizer management at NCDOT facilities; improvement of existing stormwater structures; use of rain barrels and cisterns; stormwater capture and reuse; and purchase of nutrient reduction credits;

(iv) NCDOT may meet minimum implementation rate and schedule requirements by implementing a combination of at least six stormwater retrofits per year for existing development in the Falls watershed or some other minimum amount based on more accurate reduction estimates developed during the accounting tool development process;

(v) To the maximum extent practicable, retrofits shall be designed to treat the runoff generated from all surfaces by one inch of rainfall, and shall conform to the standards and criteria established in the most recent version of the Division-approved NCDOT BMP Toolbox required under NCDOT's NPDES stormwater permit. To establish removal rates for nutrients for individual practices described in the Toolbox, NCDOT shall submit technical documentation on the nutrient removal performance of BMPs in the Toolbox for Division approval. Upon approval, NCDOT shall incorporate nutrient removal performance data into the BMP Toolbox. If a retrofit is proposed that is not described in the NCDOT BMP Toolbox, then to the maximum extent practicable, such retrofit shall conform to the standards and criteria set forth in the July 2007 version of the *Stormwater Best Management Practices Manual* published by the Division, or other technically equivalent guidance acceptable to the Division;

(e) Initiate a "Nutrient Management Education Program" for NCDOT staff and contractors engaged in the application of fertilizers on highway rights of way. The purpose of this program shall be to contribute to the load reduction objectives established in 15A NCAC 02B .0275 through proper application of nutrients, both inorganic fertilizer and organic nutrients, to highway rights of way in the Falls watershed in keeping with the most current state-recognized technical guidance on proper nutrient management; and

(f) Address compliance with the riparian buffer protection requirements of 15A NCAC 02B.0233 and .0242 through a Division approval process.

(10) NON-NCDOT RULE IMPLEMENTATION. For all state and federal entities that control lands within the Falls watershed with the exception of the NCDOT, this Rule shall be implemented as follows:

(a) Upon Commission approval of the accounting methods required in Item (13) of this Rule, subject entities shall comply with the requirements of Items (3) and (4) of this Rule;

(b) By July 15, 2013, the Division shall submit a Stage I model local program to the Commission for approval that embodies the criteria described in Items (5) and (6) of this Rule. The Division shall work in cooperation with subject state and federal entities and other watershed interests in developing this model program, which shall include the following:

(i) Methods to quantify load reduction requirements and resulting load reduction assignments for individual entities;

(ii) Methods to account for discharging sand filters, malfunctioning septic systems, and leaking collection systems; and

(iii) Methods to account for load reduction credits from various activities;

(c) Within six months after the Commission's approval of the Stage I model local program, subject entities shall submit load reduction programs that meet or exceed the requirements of Items (5) and

(6) of this Rule to the Division for review and preliminary approval and shall begin implementation and tracking of measures to reduce nutrient loads from existing developed lands owned or controlled by the responsible state or federal entity;

(d) Within 20 months of the Commission's approval of the Stage I model local program, the Division shall provide recommendations to the Commission on existing development load reduction programs. The Commission shall either approve the programs or require changes based on the standards set out in Item (4) of this Rule. Should the Commission require changes, the applicable state or federal entity shall have two months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;

(e) Within three months after the Commission's approval of a Stage I existing development load reduction program, the affected entity shall complete adoption of and begin implementation of its existing development Stage I load reduction program;

(f) Upon implementation of the programs required under Item (4) of this Rule, state and federal entities subject to this Rule shall provide annual reports to the Division documenting their progress in implementing those requirements within three months following each anniversary of program implementation date until such time the Commission determines they are no longer needed to ensure maintenance of reductions or that standards are protected. State and federal entities shall indefinitely maintain and ensure performance of implemented load-reducing measures;

(g) By January 15, 2021 and every five years thereafter until either accounting determines load reductions have been achieved, standards are met, or the Commission takes other actions per 15A NCAC 02B .0275, state and federal entities located in the upper Falls watershed as defined in Item (3) of 15A NCAC 02B .0275 shall submit and begin implementation of Stage II load reduction program or program revision to the Division. Within nine months after submittal, the division shall make recommendations to the Commission on approval of these programs. The Commission shall either approve the programs or require changes based on the standards set out in this Rule. Should the Commission require changes, the applicable state or federal entity shall submit revisions within two months, and the Division shall provide follow-up recommendations to the Commission within three months after receiving revisions. Upon approval, the state or federal entity shall adjust implementation based on its approved program;

(h) A state or federal entity may, at any time after commencing implementation of its load reduction program, submit program revisions to the Division for approval based on identification of more cost-effective strategies or other factors not originally recognized;

(i) Once either load reductions are achieved per annual reporting or water quality standards are met in the lake per 15A NCAC 02B .0275, state and federal entities shall submit programs to ensure no load increases and shall report annually per Sub-Item (10)(f) on compliance with no increases and take additional actions as necessary; and

(j) Beginning January 2016 and every five years thereafter, the Division shall review the accounting methods stipulated under Sub-Item (10)(a) to determine the need for revisions to those methods and to loading reductions assigned using those methods. Its review shall include values subject to change over time independent of changes resulting from implementation of this Rule, such as untreated export rates that may change with changes in atmospheric deposition. It shall also review values subject to refinement, such as nutrient removal efficiencies.

(11) NCDOT RULE IMPLEMENTATION. For the NCDOT, this Rule, shall be implemented as follows:

(a) By July 2013, the NCDOT shall submit the Stormwater Management Program for the Falls watershed to the Division for approval. This Program shall meet or exceed the requirements in Item (9) of this Rule;

(b) By January 15, 2014, the Division shall request the Commission's approval of the NCDOT Stormwater Management Program;

(c) By January 15, 2014, the NCDOT shall implement the Commission-approved Stormwater Management Program; and

(d) Upon implementation, the NCDOT shall submit annual reports to the Division summarizing its activities in implementing each of the requirements in Item (9) of this Rule. This annual reporting may be incorporated into annual reporting required under NCDOT's NPDES stormwater permit.

(12) RELATIONSHIP TO OTHER REQUIREMENTS. A party may in its program submittal request that the Division accept its implementation of another stormwater program or programs, such as NPDES stormwater requirements, as satisfying one or more of the requirements set forth in Items (4) or (5) of this Rule. The Division shall provide determination on acceptability of any such alternatives prior to requesting Commission approval of programs under this Rule. The party shall include in its program submittal technical information demonstrating the adequacy of the alternative requirements.

(13) ACCOUNTING METHODS. By July 15, 2012, the Division shall submit a nutrient accounting framework to the Commission for approval. This framework shall include tools for quantifying load reduction assignments on existing development for parties subject to this Rule, load reduction credits from various activities on existing developed lands, and a tool that will allow subject parties to account for loading from new and existing development and loading changes due to BMP implementation. The Division shall work in cooperation with subject parties and other watershed interests in developing this framework. The Division shall periodically revisit these accounting methods to determine the need for revisions to both the methods and to existing development load reduction assignments made using the methods set out in this Rule. It shall do so no less frequently than every 10 years. Its review shall include values subject to change over time independent of changes resulting from implementation of this Rule, such as untreated export rates that may change with changes in atmospheric deposition. It shall also review values subject to refinement, such as BMP nutrient removal efficiencies.

History Note: *Authority G.S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486;*
Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).

15A NCAC 02B .0282 FALLS WATER SUPPLY NUTRIENT STRATEGY: OPTIONS FOR OFFSETTING NUIRIENT LOADS

PURPOSE. This Rule provides parties subject to other rules within the Falls nutrient strategy with options for meeting rule requirements by obtaining or buying credit for nutrient load-reducing activities conducted by others (sellers). It provides the potential for parties who achieve excess load reductions under the Falls nutrient strategy to recover certain costs by selling such credits, and it provides opportunity for third parties to produce reductions and sell credits. Overall it provides the potential for more cost-effective achievement of strategy reduction objectives. Accounting is required to ensure and track the availability and use of trading credits. This accounting will be compared against compliance accounting required under other rules of the Falls nutrient strategy to ensure that crediting is properly accounted for. This Rule furthers the adaptive management intent of the strategy to protect the water supply, aquatic life, and recreational uses of Falls Reservoir. The minimum requirements for the exchange of load reduction credits are:

(1) PREREQUISITES. The following buyers shall meet applicable criteria identified here and in rules imposing reduction requirements on them before utilizing the option outlined in this Rule:

(a) Agriculture Rule .0280: Owners of agricultural land shall receive approval from the Watershed Oversight Committee to obtain offsite credit pursuant to the conditions of Sub-Item (7)(b)(vii) of Rule .0280;

(b) New Development Rule .0277: Developers shall meet onsite reduction requirements enumerated in Sub-Item (4)(b) of Rule .0277 before obtaining offsite credit;

(c) Wastewater Rule .0279: New and expanding dischargers shall first make all reasonable efforts to obtain allocation from existing dischargers as stated in Sub-Items (7)(a)(ii) and (8)(a)(ii), respectively of Rule .0279; and

(d) State and Federal Entities Stormwater Rule .0281:

(i) Non-DOT entities shall meet onsite new development reduction requirements enumerated in Sub-Item (4)(b) of Rule .0281; and

(ii) NC DOT shall meet onsite non-road new development reduction requirements enumerated in Sub-Item (9)(c) of Rule .0281 before obtaining offsite credit.

(2) The party seeking approval to sell load reduction credits pursuant to this Rule shall demonstrate to the Division that such reductions meet the following criteria:

(a) Load reductions eligible for credit shall not include reductions that result from actions required to mitigate nutrient load-increasing actions under any regulation, except where a rule in this Section expressly allows such credit; and

(b) The party seeking to sell credits shall define the nature of the activities that would produce reductions and define the magnitude and duration of those reductions to the Division, including addressing the following items:

(i) Quantify and account for the relative uncertainties in reduction need estimates and load reduction estimates;

(ii) Ensure that load reductions shall take place at the time and for the duration in which the reduction need occurs; and

(iii) Demonstrate means adequate for assuring the achievement and claimed duration of load reduction, including the cooperative involvement of any other involved parties;

(c) Geographic Restrictions. Eligibility to use load reductions as credit is based on the following geographic criteria:

(i) Impacts in the upper Falls watershed as defined in Item (19) of 15A NCAC 02B .0276 may be offset only by load reductions achieved in the upper Falls watershed; and

(ii) Impacts in the lower Falls watershed as defined in Item (20) of 15A NCAC 02B .0276 shall be offset by load reductions achieved anywhere within the Falls watershed.

(3) The party seeking approval to sell load reduction credits shall provide for accounting and tracking methods that ensure genuine, accurate, and verifiable achievement of the purposes of this Rule, and shall otherwise meet the requirements of Rule .0240 of this Section, which establishes procedural requirements for nutrient offset payments. The Division shall work cooperatively with interested parties at their request to develop such accounting and tracking methods to support the requirements of Item (2) of this Rule.

(4) Local governments have the option of combining their reduction needs from NPDES dischargers assigned allocations in 15A NCAC 02B .0279 and existing development as described in 15A NCAC 02B .0278, including loads from properly functioning and malfunctioning septic systems and discharging sand filters, into one reduction and allocation requirement and meet them jointly.

(5) Proposals for use of offsetting actions as described in this Rule shall become effective after determination by the Director that the proposal contains adequate scientific or engineering standards or procedures necessary to achieve and account for load reductions as required under Items (2) and (3) of this Rule, and that specific accounting tools required for these purposes in individual rules have been adequately established. In making this determination, the Director shall also evaluate the potential for load offset elsewhere that results in localized adverse water quality impacts that contribute to impairment of classified uses of the affected waters.

(6) A party seeking to purchase nutrient offset credit from the NC Ecosystem Enhancement Program or from a public or private seller of reduction credit shall meet the applicable requirements of Rule .0240 of this Section, which establishes procedural requirements for nutrient offset payments, in addition to applicable requirements of this Rule. Requirements of Rule .0240 include, but are not limited to, the requirement for non-governmental entities to purchase credit from a provider other than the NC Ecosystem Enhancement Program if such credit is available.

(7) The Watershed Oversight Committee under Rule 15A NCAC 02B .0280 may satisfy the seller requirements of Items (2) and (3) of this Rule and the trading provisions of Rule .0280 for individual agricultural land owners by submitting to the Division for approval a trading program, or revisions to such a program, that demonstrates how individual trades shall meet the requirements of this Rule and Rule .0280, and by subsequently including in annual reports required under Rule .0280 separate tracking and accounting for such trades.

History Note: *Authority G.S. 143-214.1; 1432-214.3;143-214.5; 143-214.7; 143-215.1; 1432-15.3; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486;*
Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).

SECTION .0300 - ASSIGNMENT OF STREAM CLASSIFICATIONS

15A NCAC 02B .0301 CLASSIFICATIONS: GENERAL

(a) Schedule of Classifications. The classifications assigned to the waters of the State of North Carolina are set forth in the schedules of classifications and water quality standards assigned to the waters of the river basins of North Carolina, 15A NCAC 2B .0302 to .0317. These classifications are based upon the existing or contemplated best usage of the various streams and segments of streams in the basin, as determined through studies and evaluations and the holding of public hearings for consideration of the classifications proposed.

(b) Stream Names. The names of the streams listed in the schedules of assigned classifications were taken as far as possible from United States Geological Survey topographic maps. Where topographic maps were unavailable, U.S. Corps of Engineers maps, U.S. Department of Agriculture soil maps, and North Carolina highway maps were used for the selection of stream names.

(c) Classifications. The classifications assigned to the waters of North Carolina are denoted by the letters WS-I, WS-II, WS-III, WS-IV, WS-V, B, C, SA, SB, and SC in the column headed "class." A brief explanation of the "best usage" for which the waters in each class must be protected is given as follows:

Fresh Waters

Class WS-I: waters protected as water supplies which are in natural and undeveloped watersheds; in public ownership; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;

Class WS-II: waters protected as water supplies which are generally in predominantly undeveloped watersheds; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;

Class WS-III: waters protected as water supplies which are generally in low to moderately developed watersheds; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;

Class WS-IV: waters protected as water supplies which are generally in moderately to highly developed watersheds; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;

Class WS-V: waters protected as water supplies which are generally upstream and draining to Class WS-IV waters or waters previously used for drinking water supply purposes or waters used by industry to supply their employees, but not municipalities or counties, with a raw drinking water supply source, although this type of use is not restricted to a WS-V classification; no categorical restrictions on watershed development or treated wastewater discharges are required, however, the Commission or its designee may apply appropriate management requirements as deemed necessary for the protection of downstream receiving waters (15A NCAC 2B .0203); suitable for all Class C uses;

Class B: primary recreation and any other usage specified by the "C" classification;

Class C: aquatic life propagation and survival, fishing, wildlife, secondary recreation, and agriculture.

Tidal Salt Waters:

Class SA: shellfishing for market purposes and any other usage specified by the "SB" and "SC" classification;

Class SB: primary recreation and any other usage specified by the "SC" classification;

Class SC: aquatic life propagation and survival, fishing, wildlife, and secondary recreation.

Supplemental Classifications

Trout Waters: Suitable for natural trout propagation and maintenance of stocked trout;

Swamp Waters: Waters which have low velocities and other natural characteristics which are different from adjacent streams;

NSW: Nutrient Sensitive Waters which require limitations on nutrient inputs;

HQW: High Quality Waters which are waters that are rated as excellent based on biological and physical/chemical characteristics through division monitoring or special studies, native and special native trout waters (waters and their tributaries) designated by the Wildlife Resources Commission, primary nursery areas (PNA) designated by the Marine Fisheries Commission and other functional nursery areas designated by the Wildlife Resources Commission, critical habitat areas designated by the Wildlife Resources Commission or the Department of Agriculture, all water supply watersheds which are either classified as WS-I or WS-II or those for which a formal petition for reclassification as WS-I or WS-II has been

received from the appropriate local government and accepted by the Division of Environmental Management and all Class SA waters.

ORW: Outstanding Resource Waters which are unique and special waters of exceptional state or national recreational or ecological significance which require special protection to maintain existing uses.

FWS: Future Water Supply Waters which are waters intended for future drinking water supply purposes.

(d) Water Quality Standards. The water quality standards applicable to each classification assigned are those established in 15A NCAC 2B .0200, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina, as adopted by the North Carolina Environmental Management Commission.

(e) Index Number.

(1) Reading the Index Number. The index number appearing in the column so designated is an identification number assigned to each stream or segment of a stream, indicating the specific tributary progression between the main stem stream and the tributary stream.

(2) Cross-Referencing the Index Number. The inclusion of the index number in the schedule is to provide a cross reference between the classification schedules and an alphabetic list of streams.

(f) Classification Date. The classification date indicates the date on which enforcement of the provisions of Section 143-215.1 of the General Statutes of North Carolina became effective with reference to the classification assigned to the various streams in North Carolina.

(g) Reference. Copies of the schedules of classifications adopted and assigned to the waters of the various river basins may be obtained at no charge by writing to:

Director
Division of Environmental Management
Department of Environment, Health, and Natural Resources
Post Office Box 29535
Raleigh, North Carolina 27626-0535

(h) Places where the schedules may be inspected:

Division of State Library
Archives - State Library Building
109 E. Jones Street
Raleigh, North Carolina.

(i) Unnamed Streams.

(1) Any stream which is not named in the schedule of stream classifications carries the same classification as that assigned to the stream segment to which it is tributary except:

(A) unnamed streams specifically described in the schedule of classifications; or

(B) unnamed freshwaters tributary to tidal saltwaters will be classified "C"; or

(C) after November 1, 1986, any newly created areas of tidal saltwater which are connected to Class SA waters by approved dredging projects will be classified "SC" unless case-by-case reclassification proceedings are conducted.

(2) The following river basins have different policies for unnamed streams entering other states or for specific areas of the basin:
Hiwassee River Basin (Rule .0302); Little Tennessee River Basin and Savannah River Drainage Area (Rule .0303); French Broad River Basin (Rule .0304); Watauga River Basin (Rule .0305); Broad River Basin (Rule .0306); New River Basin (Rule .0307); Catawba River Basin (Rule .0308); Yadkin-Pee Dee River Basin (Rule .0309); Lumber River Basin (Rule .0310); Roanoke River Basin (Rule .0313); Tar-Pamlico River Basin (Rule .0316); Pasquotank River Basin (Rule .0317).

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 1995; August 3, 1992; August 1, 1990; October 1, 1989.

15A NCAC 02B .0302 HIWASSEE RIVER BASIN

(a) Places where the schedule may be inspected:

(1) Clerk of Court:
Cherokee County

Clay County;

(2) North Carolina Department of Environment, Health, and Natural Resources
Asheville Regional Office Interchange Building
59 Woodfin Place
Asheville, North Carolina.

(b) Unnamed Streams. Such streams entering Georgia or Tennessee shall be classified "C Tr."

(c) The Hiwassee River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) August 9, 1981;
(2) February 1, 1986;
(3) March 1, 1989;
(4) August 1, 1990;
(5) August 3, 1992;
(6) July 1, 1995;
(7) August 1, 2002.

(d) The Schedule of Classifications and Water Quality Standards for the Hiwassee River Basin was amended effective March 1, 1989 as follows:

(1) Fires Creek (Index No. 1-27) and all tributary waters were reclassified from Class C-trout and Class C to Class C-trout ORW and Class C ORW.
(2) Gipp Creek (Index No. 1-52-23) and all tributary waters were reclassified from Class C-trout and Class C to Class C-trout ORW and Class C ORW.

(e) The Schedule of Classifications and Water Quality Standards for the Hiwassee River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters(with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(f) The Schedule of Classifications and Water Quality Standards for the Hiwassee River Basin was amended effective July 1, 1995 with the reclassification of the Hiwassee River [Index Nos. 1-(42.7) and 1-(48.5)] from McComb Branch to the Town of Murphy water supply intake including tributaries from Classes WS-IV and WS-IV CA to Classes WS-IV, WS-IV CA, WS-V and C.

(g) The Schedule of Classifications and Water Quality Standards for the Hiwassee River Basin was amended effective August 1, 2002 with the reclassification of the Hiwassee River [portion of Index No. 1-(16.5)] from a point 1.2 mile upstream of mouth of McComb Branch to a point 0.6 mile upstream of McComb Branch (Town of Murphy proposed water supply intake) from Class WS-IV to Class WS-IV CA.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 2002; July 1, 1995; August 3, 1992; August 1, 1990; March 1, 1989.

15A NCAC 02B .0303 LITTLE TENN RIVER BASIN AND SAVANNAH RIVER DRAINAGE AREA

(a) The Little Tenn River Basin and Savannah River Drainage Area Schedule of Classifications and Water Quality Standards may be inspected at the following places:

(1) the Internet at http://h2o.enr.state.nc.us/csu/; and
(2) the North Carolina Department of Environment and Natural Resources:
(A) Asheville Regional Office
2090 US Highway 70
Swannanoa, North Carolina
(B) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) Unnamed Streams. Such streams entering Georgia or Tennessee shall be classified "C Tr." Such streams in the Savannah River drainage area entering South Carolina shall be classified "B Tr."

(c) The Little Tennessee River Basin and Savannah River Drainage Area Schedule of Classifications and Water Quality Standards was amended effective:

(1) February 16, 1977;
(2) March 1, 1977;
(3) July 13, 1980;
(4) February 1, 1986;
(5) October 1, 1987;
(6) March 1, 1989;
(7) January 1, 1990;
(8) July 1, 1990;
(9) August 1, 1990;
(10) March 1, 1991;
(11) August 3, 1992;
(12) February 1, 1993;
(13) August 1, 1994;
(14) September 1, 1996;
(15) August 1, 1998;
(16) August 1, 2000;
(17) April 1, 2003;
(18) January 1, 2007;
(19) November 1, 2007;
(20) July 1, 2009.

(d) The Schedule of Classifications of Water Quality Standards for the Little Tennessee Basin and Savannah River Drainage Area was amended effective March 1, 1989 as follows:

(1) Nantahala River (Index No. 2-57) from source to the backwaters of Nantahala Lake and all tributary waters were reclassified from Class B-trout, Class C-trout and Class C to Class B-trout ORW, Class C-trout ORW and Class C ORW.
(2) Chattooga River (Index No. 3) including Scotsman Creek, Overflow Creek, Big Creek, Talley Mill Creek and all tributary waters were reclassified from Class B-trout, Class C-trout and Class C to Class B-trout ORW, Class C-trout ORW and Class C ORW and Clear Creek and all tributary waters were reclassified from Class C-trout and Class C to Class B-trout and Class B.

(e) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective January 1, 1990 as follows:

(1) North Fork Coweeta Creek (Index No. 2-10-4) and Falls Branch (Index No. 2-10-4-1) were reclassified from Class C to Class B.
(2) Burningtown Creek (Index No. 2-38) was reclassified from C-trout to B-trout.

(f) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective July 1, 1990 by the reclassification of Alarka Creek (Index No. 2-69) from source to Upper Long Creek (Index No. 2-69-2) including all tributaries from Classes C and C Tr to Classes C HQW and C Tr HQW.

(g) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective March 1, 1991 as follows:

(1) Cartoogechaye Creek [Index Nos. 2-19-(1) and 2-19-(16)] from Gibson Cove Branch to bridge at U.S. Hwy. 23 and 441 and from the bridge at U.S. Hwy. 23 and 441 to the Little Tennessee River was reclassified from Classes WS-III Tr and C Tr to Classes WS-III and B Tr and B Tr respectively.
(2) Coweeta Creek (Index Nos. 2-10) from its source to the Little Tennessee River including all tributaries except Dryman Fork (Index No. 2-10-3) and North Fork Coweeta Creek (Index No. 2-10-4) was reclassified from Classes C and C Tr to Classes B and B Tr.

(h) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate

appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(i) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area has been amended effective February 1, 1993 as follows:

(1) Bearwallow Creek from its source to 2.3 miles upstream of the Toxaway River [Index No. 4-7-(1)] was revised to indicate the application of an additional management strategy (referencing 15A NCAC 02B .0201(d) to protect downstream waters; and

(2) the Tuckaseegee River from its source to Tennessee Creek [Index No. 2-79-(0.5)] including all tributaries was reclassified from Classes WS-III&B Tr HQW, WS-III HQW and WS-III to Classes WS-III Tr ORW and WS-III ORW.

(j) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective August 1, 1994 with the reclassification of Deep Creek [Index Nos. 2-79-63-(1) and 2-79-63-(16)] from its source to the Great Smokey Mountains National Park Boundary including tributaries from Classes C Tr, B Tr and C Tr HQW to Classes WS-II Tr and WS-II Tr CA.

(k) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective September 1, 1996 as follows:

(1) Deep Creek from the Great Smoky Mountains National Park Boundary to the Tuckasegee River [Index no. 2-79-63-(21)] was reclassified from Class C Tr to Class B Tr; and

(2) the Tuckasegee River from the West Fork Tuckasegee River to Savannah Creek and from Macks Town Branch to Cochran Branch [Index Nos. 2-79-(24), 2-79(29.5) and 2-79-(38)] was reclassified from Classes WS-III Tr, WS-III Tr CA and C to Classes WS-III&B Tr, WS-III&B Tr CA and B.

(l) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective August 1, 1998 with the reclassifications of Thorpe Reservoir (Lake Glenville), Humicane Creek, and Laurel Branch [Index Nos. 2-79-23-(1), 2-79-23-2, and 2-79-23-2-1 respectively] from classes WS-III&B, WS-III Tr and WS-III to classes WS-III&B HQW, WS-III Tr HQW, and WS-III HQW.

(m) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended August 1, 2000 with the reclassification of Wesser Creek [Index No. 2-79-52-5-1] from its source to Williams Branch from Class C to Class C Tr.

(n) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended April 1, 2003 with the reclassification of a portion of the Little Tennessee River [Index No. 2-(1)] from a point 0.4 mile upstream of N.C. Highway 28 to Nantahala River Arm of Fontana Lake from Class C to Class B.

(o) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended January 1, 2007 with the reclassification of the entire watersheds of all creeks that drain to the north shore of Fontana Lake between Eagle and Forney Creeks, including Eagle and Forney Creeks, [Index Nos. 2-96 through 2-164 (excluding all waterbodies that drain to the south shore of Fontana Lake)] from Class B, C Tr, WS-IV Tr CA, WS-IV Tr, and WS-IV & B CA to Class B ORW, C Tr ORW, WS-IV Tr ORW CA, WS-IV Tr ORW, and WS-IV & B ORW CA, respectively. Additional site-specific management strategies are outlined in Rule 15A NCAC 02B .0225(e)(12).

(p) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective November 1, 2007 with the reclassification of Richland Balsam Seep near Beechflat Creek [Index No. 2-79-28-3-2] to Class WL UWL as defined in 15A NCAC 02B. 0101. The Division of Water Quality maintains a Geographic Information Systems data layer of the UWL.

(q) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended July 1, 2009 with the reclassification of the watershed of the lower portion of the Horsepasture River [portion of Index Number 4-13-(12.5)] from a point approximately 0.60 miles downstream of N.C. 281 (Bohaynee Road) to the NC-SC state line from Class B Tr to Class B Tr ORW, and the watershed of the upper portion of the Horsepasture River [Index Number 4-13-(0.5) and a portion of Index Number 4-13-(12.5)] from source to a point approximately 0.60 miles downstream of N.C. 281 (Bohaynee Road) to include only the ORW management strategy as represented by "+". The "+" symbol as used in this paragraph means that all undesignated waterbodies that are located within the watershed of the upper portion of Horsepasture River shall comply with Paragraph (c) of Rule .0225 of this Subchapter in order to protect the designated waters as per Rule .0203 of this Subchapter and to protect outstanding resource values found throughout the entire Horsepasture River watershed. Site-specific management strategies are outlined in 15A NCAC 02B .0225(e)(13).

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1); S.L. 2005-97;*
Eff. February 1, 1976;

Amended Eff. July 1, 2009; November 1, 2007; January 1, 2007; April 1, 2003; August 1, 2000; August 1, 1998; September 1, 1996; August 1, 1994; February 1, 1993; August 3, 1992; March 1, 1991.

15A NCAC 02B .0304 FRENCH BROAD RIVER BASIN

(a) Effective February 1, 1976, the adopted classifications assigned to the waters within the French Broad River Basin are set forth in the French Broad River Basin Schedule of Classifications and Water Quality Standards, which may be inspected at the following places:

(1) the Internet at http://h2o.enr.state.nc.us/csu/; and

(2) the North Carolina Department of Environment and Natural Resources:

(A) Asheville Regional Office
2090 US Highway 70
Swannanoa, North Carolina

(B) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) Unnamed Streams. Such streams entering Tennessee are classified "B."

(c) The French Broad River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) September 22, 1976;
(2) March 1, 1977;
(3) August 12, 1979;
(4) April 1, 1983;
(5) August 1, 1984;
(6) August 1, 1985;
(7) February 1, 1986;
(8) May 1, 1987;
(9) August 1, 1990.

(d) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective March 1, 1989 as follows:

(1) Cataloochee Creek (Index No. 5-41) and all tributary waters were reclassified from Class C-trout and Class C to Class C-trout ORW and Class C ORW.

(2) South Fork Mills River (Index No. 6-54-3) down to Queen Creek and all tributaries were reclassified from Class WS-I and Class WS-III-trout to Class WS-I ORW and Class WS-III-trout ORW.

(e) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective October 1, 1989 as follows: Cane River (Index No. 7-3) from source to Bowlens Creek and all tributaries were reclassified from Class C trout and Class C to Class WS-III trout and Class WS-III.

(f) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective January 1, 1990 as follows: North Toe River (Index No. 7-2) from source to Cathis Creek (Christ Branch) and all tributaries were reclassified from Class C trout and Class C to Class WS-III trout and Class WS-III.

(g) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(h) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective October 1, 1993 as follows: Reasonover Creek [Index No. 6-38-14-(1)] from source to Reasonover Lake Dam and all tributaries were reclassified from Class B Trout to Class WS-V and B Trout, and Reasonover Creek [Index No. 6-38-14-(4)] from Reasonover Lake Dam to Lake Julia Dam and all tributaries were reclassified from Class C Trout to Class WS-V Trout.

(i) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective July 1, 1995 with the reclassification of Cane Creek [Index Nos. 6-57-(1) and 6-57-(9)] from its source to the French Broad River from Classes WS-IV and WS-IV Tr to Classes WS-V, WS-V Tr and WS-IV.

(j) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective November 1, 1995 as follows: North Toe River [Index Numbers 7-2-(0.5) and 7-2-(37.5)] from source to a point 0.2 miles downstream of Banjo Branch, including tributaries, has been reclassified from Class WS-III, WS-III Trout and WS-III Trout CA (critical area) to Class WS-IV Trout, WS-IV, WS-IV Trout CA, and C Trout.
(k) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective January 1, 1996 as follows: Stokely Hollow [Index Numbers 6-121.5-(1) and 6-121.5-(2)] from source to mouth of French Broad River has been reclassified from Class WS-II and Class WS-II CA to Class C.
(l) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended April 1, 1996 with the reclassification of the French Broad River [Index No. 6-(1)] from a point 0.5 miles downstream of Little River to Mill Pond Creek to Class WS-IV; French Broad River [Index No. 6-(51.5)] from a point 0.6 miles upstream of Mills River to Mills River to Class WS-IV CA (Critical Area), from Mills River to a point 0.1 miles upstream of Boring Mill Branch to Class C; and the Mills River [Index No. 6-54-(5)] was reclassified from City of Hendersonville water supply intake to a point 0.7 miles upstream of mouth of Mills River to Class WS-III, and from a point 0.7 miles upstream of mouth of Mills River to French Broad River to Class WS-III CA (Critical Area).
(m) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 1998 with the revision to the primary classification for portions of the French Broad River [Index No. 6-(38.5)] and the North Toe River 7-2-(10.5) from Class IV to Class C.
(n) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 1998 with the reclassification of Clear Creek [Index No. 6-55-(1)] from its source to Lewis Creek from Class C Tr to Class B Tr.
(o) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 2000 with the reclassification of Rough Creek [Index No. 5-8-4-(1)], including all tributaries, from its source to the Canton Reservoir from Class WS-I to Class WS-I Tr ORW.
(p) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 2002 with the revision to the primary classification for the French Broad River [Index No. 6-(1), 6-(27), 6-(47.5), 6-(52.5), and 6-(54.5)] including its four headwater forks' mainstems, watershed of tributary Davidson River, and watershed of tributary Bent Creek below Powhatan Dam, and the Nolichucky River [Index No. 7] including a lower portion of the North Toe River from Class C and Class WS-IV to Class B.
(q) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 2002 with the reclassification of the North Toe River [Index No. 7-2-(0.5)], including all tributaries, from source to a point 0.2 mile upstream of Pyatt Creek, from Class C Tr to Class WS-V Tr.
(r) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended September 1, 2004 with the reclassification of a portion of Richland Creek [Index No. 5-16(1)], from source to a point approximately 11.2 miles from source (Boyd Avenue), from Class B to Class B Tr, and all tributaries to the portion of the creek referenced in this Paragraph from C, C HQW, and WS-I HQW, and WS-I HQW to C Tr, C HQW Tr, and WS-I HQW Tr, respectively, except Hyatt Creek [Index No. 5-16-6], Farmer Branch [Index No. 5-16-11], and tributaries already classified as Tr.
(s) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective November 1, 2007 with the reclassification of McClure's Bog near Gash Creek [Index No. 6-47] to Class WL UWL as defined in 15A NCAC 02B .0101. The North Carolina Division of Water Quality maintains a Geographic Information Systems data layer of the UWL.
(t) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective September 1, 2009 with the reclassification of the entire watershed of Big Laurel Creek (Index No. 6-112) from source to the French Broad River from Class C Tr to Class C ORW Tr.
(u) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective September 1, 2009 with the reclassification of the entire watershed of Spring Creek [Index No. 6-118-(1) and 6-118-(27)] from source to the French Broad River from Class C Tr and Class C to Class C ORW Tr and Class C ORW.
(v) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin is amended December 1, 2011 with the reclassification of a portion of the French Broad River [Index No. 6-(54.5)] from the confluence of the Mills River to a point 0.2 miles downstream of the confluence of the Mills River from Class B to Class WS-IV&B CA.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. December 1, 2011; September 1, 2009; November 1, 2007; September 1, 2004; August 1, 2002; August 1, 2000; August 1, 1998; April 1, 1996; January 1, 1996; November 1, 1995; July 1, 1995.

15A NCAC 02B .0305 WATAUGA RIVER BASIN

(a) The Watauga River Basin Schedule of Classifications and Water Quality Standards may be inspected at the following places:

(1) the Internet at http://h2o.enr.state.nc.us/csu/; and

(2) the North Carolina Department of Environment and Natural Resources:

(A) Asheville Regional Office
2090 US Highway 70
Swannanoa, North Carolina

(B) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) Unnamed Streams. Such streams entering the State of Tennessee are classified "C."

(c) The Watauga River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) August 12, 1979;
(2) February 1, 1986;
(3) October 1, 1987;
(4) August 1, 1989;
(5) August 1, 1990;
(6) December 1, 1990;
(7) April 1, 1992;
(8) August 3, 1992;
(9) February 1, 1993;
(10) April 1, 1994;
(11) August 1, 1998;
(12) November 1, 2007.

(d) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin was amended effective July 1, 1989 as follows:

(1) Dutch Creek (Index No. 8-11) was reclassified from Class C-trout to Class B-trout.

(2) Pond Creek (Index No. 8-20-2) from water supply intake (located just above Tamarack Road) to Beech Creek and all tributary waters were reclassified from Class WS-III to C.

(e) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin was amended effective December 1, 1990 with the reclassification of the Watauga River from the US Highway 321 bridge to the North Carolina/Tennessee state line from Class C to Class B.

(f) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin was amended effective April 1, 1992 with the reclassification of Pond Creek from Classes WS-III and C to Classes WS-III Trout and C Trout.

(g) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(h) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin has been amended effective February 1, 1993 with the reclassification of Boone Fork (Index No. 8-7) and all tributary waters from Classes C Tr HQW and C HQW to Classes C Tr ORW and C ORW.

(i) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin has been amended effective April 1, 1994 with the reclassification of the Elk River from Peavine Branch to the North Carolina/Tennessee state line [Index No. 8-22-(3)] from Class C Tr to Class B Tr.

(j) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin has been amended effective August 1, 1998 with the reclassification of East Fork Pond Creek from its source to the backwater of Santis Lake, [Index No. 8-20-2-1.5] from Class WS-II Tr to Class WS-III Tr; the reclassification of West Fork Pond Creek (Santis Lake) [Index No. 8-20-2-1-(2)] from the backwaters of Santis Lake to Pond Creek from WS-II Tr CA to WS-III Tr CA; and the reclassification of the connecting stream of Lake Coffey [Index No. 8-20-2-2] from the dam at Lake Coffey to Pond Creek from WS-II Tr CA to C Tr.

(k) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin has been amended effective November 1, 2007 with the reclassification of the Beech Creek Bog near Beech Creek [Index No. 8-20] to Class WL UWL as defined in 15A NCAC 02B .0101. The North Carolina Division of Water Quality maintains a Geographic Information Systems data layer of the UWL.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. November 1, 2007; August 1, 1998; April 1, 1994; February 1, 1993; August 3,1992; April 1, 1992.

15A NCAC 02B .0306 BROAD RIVER BASIN

(a) The Broad River Basin Schedule of Classifications and Water Quality Standards may be inspected at the following places:

(1) Clerk of Court:
Buncombe County
Cleveland County
Gaston County
Henderson County
Lincoln County
McDowell County
Polk County
Rutherford County

(2) North Carolina Department of Environment and Natural Resources:

(A) Mooresville Regional Office
610 East Center Avenue
Suite 301
Mooresville, North Carolina

(B) Asheville Regional Office
2090 US Highway 70
Swannanoa, North Carolina.

(b) Unnamed Streams. Such streams entering South Carolina are classified "C."

(c) The Broad River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) March 1, 1977;
(2) February 12, 1979;
(3) August 12, 1979;
(4) April 1, 1983;
(5) February 1, 1986;
(6) August 3, 1992;
(7) September 1, 1994;
(8) August 1, 1998;
(9) August 1, 2000;
(10) April 1, 2001;
(11) March 1, 2007.

(d) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(e) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective September 1, 1994 with the reclassification of the Second Broad River [Index No. 9-41-(0.5)] from its source to Roberson Creek including associated tributaries was reclassified from Class WS-V to Classes WS-V, WS-IV and WS-IV CA.

(f) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective August 1, 1998 with the revision to the primary classification for portions of the Broad River [Index No. 9-(23.5)] from Class WS-IV to

Class C and Second Broad River [Index Nos. 9-41-(10.5) and 9-41-(14.5)] and First Broad River [Index No. 9-50-(11)] from Class WS-IV to Class WS-V.
(g) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended August 1, 2000 with the reclassification of the Green River [Index No. 9-29-(1)], including all tributaries, from its source to its mouth in Lake Summit at elevation 2011 from Class C Tr to Class B Tr.
(h) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective August 1, 2000 with the reclassification of Lake Montonia [Index No. 9-54-1-(1)], and all tributaries, from Class B to Class B HQW.
(i) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective April 1, 2001 with the reclassification of the Green River [Index No. 9-29-(1)], including all tributaries, from its source to the downstream side of the mouth of Rock Creek from Class B Tr to Class B Tr HQW.
(j) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective March 1, 2007 with the reclassification of the North Fork First Broad River (Index No. 9-50-4), including all tributaries, from its source to the First Broad River from Class C Tr to Class C Tr ORW.
(k) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective March 1, 2007 with the reclassification of a segment of the Broad River [Index No. 9-(25.5)] from a point 0.5 mile upstream of the City of Shelby proposed water supply intake to the City of Shelby proposed water supply intake from Class C to Class WS-IV CA, and from a point 0.5 mile upstream of the City of Shelby proposed water supply intake to a point approximately 0.3 mile downstream of its confluence with Cane Creek from Class C to Class WS-IV. The City of Shelby proposed water supply intake is to be placed on the Broad River at a point approximately one mile upstream of its confluence with the First Broad River.
(l) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective March 1, 2007 with the reclassification of a segment of the Broad River [Index No. 9-(25.5)] from a point 0.5 mile upstream of the Town of Forest City proposed water supply intake to the Town of Forest City proposed water supply intake from Class C to Class WS-IV CA, and from a point 0.5 mile upstream of the Town of Forest City proposed water supply intake to a point approximately 0.2 mile downstream of Rutherford County SR 1145 (Town of Rutherfordton water supply intake) from Class C to Class WS-IV. The Town of Forest City proposed water supply intake is to be placed on the Broad River at a point approximately 0.4 mile downstream of McKinney Creek.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. March 1, 2007; April 1, 2001; August 1, 2000; August 1, 1998; September 1, 1994; August 3, 1992; February 1, 1986; January 1, 1985.

15A NCAC 02B .0307 NEW RIVER BASIN

(a) Effective February 1, 1976, the adopted classifications assigned to the waters within the New River Basin are set forth in the New River Basin Schedule of Classifications and Water Quality Standards, which may be inspected at the following places:
- (1) the Internet at http://portal.ncdenr.org/web/wq/ps/csu/rules; and
- (2) the North Carolina Department of Environment and Natural Resources:
  - (A) Asheville Regional Office
    2090 US Highway 70
    Swannanoa, North Carolina;
  - (B) Winston-Salem Regional Office
    585 Waughtown Street
    Winston-Salem, North Carolina; and
  - (C) Division of Water Quality
    Central Office
    512 North Salisbury Street
    Raleigh, North Carolina.

(b) Unnamed Streams. Such streams entering the State of Tennessee are classified "C."
(c) The New River Basin Schedule of Classifications and Water Quality Standards was amended effective:
- (1) August 10, 1980 (see Paragraph (d) of this Rule);
- (2) April 1, 1983 (see Paragraph (e) of this Rule);
- (3) February 1, 1986 (see Paragraph (f) of this Rule);
- (4) August 1, 1989 (see Paragraph (g) of this Rule);
- (5) August 1, 1990 (see Paragraph (h) of this Rule);

(6) August 3, 1992 (see Paragraph (i) of this Rule);
(7) February 1, 1993 (see Paragraph (j) of this Rule);
(8) August 1, 1998 (see Paragraph (k) of this Rule);
(9) November 1, 2007 (see Paragraph (l) of this Rule);
(10) December 1, 2010 (see Paragraph (m) of this Rule); and
(11) July 3, 2012 (see Paragraph (n) of this Rule).

(d) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective August 10, 1980 as follows:

(1) South Fork New River [Index No. 10-1-(1)] from the confluence of the Middle Fork South Fork New River and the East Fork South Fork New River to Winkler Creek was reclassified from Class C to Class A-II;
(2) Middle Fork South Fork New River [Index Nos. 10-1-2-(6) and 10-1-2-(14)] from Brown Branch to the South Fork New River was reclassified from Class C and C Trout to Class A-II and A-II Trout;
(3) East Fork South Fork New River [Index Nos. 10-1-3-(1) and 10-1-3-(7)] was reclassified from Class C and C Trout to Class A-II and A-II Trout; and
(4) Winkler Creek [Index No. 10-1-4-(2) from Boone water supply intake dam to Watauga County SR 1549 and Flannery Fork [Index No. 10-1-4-3-(2)] from the dam at Camp Sky Ranch Bathing Lake to Winkler Creek were reclassified from Class C Trout to Class A-II Trout.

(e) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective April 1, 1983 as follows: Naked Creek [Index No. 10-1-32] was reclassified from Class C Trout to Class C.

(f) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective February 1, 1986 with the reclassification of all Class A-I and A-II streams to Class WS-I and WS-III in the New River Basin.

(g) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective August 1, 1989 as follows: South Fork New River [Index No. 10-1-(30)] from Dog Creek to New River and all tributary waters were reclassified from Class C-trout and Class C to Class B-trout and B.

(h) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective August 1, 1990 as follows:

(1) New River [Index No. 10] from the confluence of the North and South Forks New River to the last point at which the New River crosses the North Carolina/Virginia State line was reclassified from Class C to Class C HQW;
(2) South Fork New River [Index Nos. 10-1-(14.5), 10-1-(26), 10-1-(30), and 10-1-(33.5)] from Elk Creek to the confluence of the New River and North Fork New River was reclassified from Class C, B and WS-III to Class C HQW, B HQW and WS-III HQW;
(3) Howard Creek [Index Nos. 10-1-9-(1) and 10-1-9-(6)] from source to the South Fork New River was reclassified from Class WS-III Trout and C Trout to Class WS-III Trout HQW and C Trout HQW;
(4) Big Horse Creek [Index No. 10-2-21-(5.5)] from North Carolina/Virginia State line to lower Ashe County SR 1361 bridge was reclassified from Class C Trout to Class C Trout HQW; and
(5) Little River [Index No. 10-9-(11.5)] from N.C. Hwy. 18 bridge to the North Carolina/Virginia State line was reclassified from Class C to Class C HQW.

(i) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(j) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective February 1, 1993 as follows:

(1) the South Fork New River (Index No. 10-1-33.5) from Dog Creek to the New River was reclassified from Class B HQW to Class B ORW;
(2) the New River (Index No. 10) from the confluence of the North And South Fork New Rivers to the last point at which it crosses the North Carolina/Virginia State line was reclassified from Class C HQW to Class C ORW; and

(3) Old Field Creek (Index No. 10-1-22) from Call Creek to the South Fork New River, and Call Creek (Index No. 10-1-22-1) from its source to Old Field Creek were reclassified from Class WS-IV Trout to Class WS-IV Trout ORW.

(k) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective August 1, 1998 with the revision to the primary classification for a portion of the South Fork New River [Index No. 10-1 (20.5)] from Class WS-IV to Class WS-V.

(l) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective November 1, 2007 with the reclassification of Bluff Mountain Fen near Buffalo Creek [Index No. 10-2-20] to Class WL UWL as defined in 15A NCAC 02B .0101. The North Carolina Division of Water Quality maintains a Geographic Information Systems data layer of the UWL.

(m) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective December 1, 2010 with the reclassification of the North Fork New River [Index Nos. 10-2-(1), 10-2-(12)] and its tributaries from C+, C+ Trout and C Trout HQW to C ORW and C Trout ORW with the exception of the following:

(1) Index Nos. 10-2-21-9, 10-2-21-(8), 10-2-(11) and 10-2-20 were reclassified from C+ and C Trout + to C HQW and C Trout HQW; and

(2) Little Buffalo Creek and Claybank Creek (Index Nos. 10-2-20-1 and 10-2-20-1-1) did not qualify for the ORW or HQW designation; however, these waters shall be managed in the same way as the downstream designated HQW areas.

(n) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective July 3, 2012 as follows:

(1) the portion of the South Fork New River [Index No. 10-1-(14.5)] from the Town of Boone's intake, located nearly 0.5 miles upstream of SR 1100, to 875 feet downstream of SR 1351 from C HQW to WS-IV CA HQW;

(2) the portion of the South Fork New River [Index No. 10-1-(14.5)] from 875 feet downstream of SR 1351 to Elk Creek from C HQW to WS-IV HQW; and

(3) the portion of the South Fork New River [Index No. 10-1-(3.5)] from Elk Creek to 1.75 miles upstream of SR 1351 from C+ to WS-IV +.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. July 3, 2012; December 1, 2010; November 1, 2007; August 1, 1998; February 1, 1993; August 3, 1992; August 1, 1990; August 1, 1989.

15A NCAC 02B .0308 CATAWBA RIVER BASIN

(a) Effective February 1, 1976, the adopted classifications assigned to the waters within the Catawba River Basin are set forth in the Catawba River Basin Schedule of Classifications and Water Quality Standards, which may be inspected at the following places:

(1) the Internet at http://portal.ncdenr.org/web/wq/ps/csu/rules; and

(2) the North Carolina Department of Environment and Natural Resources:

(A) Mooresville Regional Office
610 East Center Avenue, Suite 301
Mooresville, North Carolina;

(B) Asheville Regional Office
2090 US Highway 70
Swannanoa, North Carolina; and

(C) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) Unnamed Streams. Such streams entering South Carolina are classified "C."

(c) The Catawba River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) March 1, 1977 (see Paragraph (d) of this Rule);

(2) August 12, 1979 (see Paragraph (e) of this Rule);

(3) April 1, 1982 (see Paragraph (f) of this Rule; Rule);

(4) January 1, 1985 (see Paragraph (g) of this Rule);

(5) August 1, 1985 (see Paragraph (h) of this Rule);
(6) February 1, 1986 (see Paragraph (i) of this Rule);
(7) March 1, 1989 (see Paragraph (j) of this Rule);
(8) May 1, 1989 (see Paragraph (k) of this Rule);
(9) March 1, 1990 (see Paragraph (l) of this Rule);
(10) August 1, 1990 (see Paragraph (m) of this Rule);
(11) August 3, 1992 (see Paragraph (n) of this Rule);
(12) April 1, 1994 (see Paragraph (o) of this Rule);
(13) July 1, 1995 (see Paragraph (p) of this Rule);
(14) September 1, 1996 (see Paragraph (q) of this Rule);
(15) August 1, 1998 (see Paragraph (r) of this Rule);
(16) April 1, 1999 (see Paragraph (s) of this Rule);
(17) August 1, 2000 (see Paragraph (t) of this Rule);
(18) August 1, 2004 (see Paragraph (u) of this Rule);
(19) May 1, 2007 (see Paragraph (v) of this Rule);
(20) September 1, 2010 (see Paragraph (w) of this Rule); and
(21) March 1, 2013 (see Paragraph (x) of this Rule).

(d) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective March 1, 1977 as follows:

(1) Torrence Branch (Index No. 11-136) from source to North Carolina-South Carolina State Line was reclassified from Class D to Class B; and
(2) Edwards Branch (Index No. 11-137-8-2-1) from source to Brier Creek was reclassified from Class D to Class C.

(e) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective August 12, 1979 as follows: Unnamed Tributary to Lower Little River (Robinette Creek) (Index No. 11-69-1.5) from source to Lower Little River was reclassified from Class C to Class B.

(f) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective April 1, 1982 as follows:

(1) Spainhour Creek (Index No. 11-39-3) from source to Lower Creek was reclassified from Class C (1) to Class C; and
(2) Allen Creek (Index No. 11-129-5-7-2-4) from source to Maiden Creek was reclassified from Class C to Class A-II.

(g) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective January 1, 1985 as follows: Catawba Creek from source to N.C. Highway 275 was reclassified from Class C(1) to Class C.

(h) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective August 1, 1985 as follows:

(1) Brier Creek (Index No. 11-137-8-2) from source to Little Sugar Creek was reclassified from Class C(1) to Class C;
(2) Little Hope Creek (Index No. 11-137-8-3) from source to Little Sugar Creek was reclassified from Class C(1) to Class C; and
(3) McMullen Creek (Index No. 11-137-9-5) from source to N.C. Highway 16 was reclassified from Class C(1) to Class C.

(i) The Schedule of Classification and Water Quality Standards for the Catawba River Basin was amended effective February 1, 1986 with the reclassification of all A-I and A-II streams to WS-I and WS-III in the Catawba River Basin.

(j) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective March 1, 1989 as follows:

Wilson Creek (Index No. 11-38-34) and all tributary waters were reclassified from Class B-trout and Class C-trout to Class B-trout ORW and Class C-trout ORW.

(k) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective May 1, 1989 as follows:

(1) Henry Fork [Index Nos. 11-129-1-(1) and 11-129-1-(2)] from source to Laurel Creek, including all tributaries, were reclassified from Class WS-I, C and C trout to Class WS-I ORW, C ORW and C trout ORW, except Ivy Creek and Rock Creek which will remain Class C trout and Class C; and

(2) Jacob Fork [Index Nos. 11-129-2-(1) and 11-129-2-(4)] from source to Camp Creek, including all tributaries, were reclassified from Class WS-III trout and WS-III to WS-III trout ORW and WS-III ORW.

(l) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective March 1, 1990 as follows:

(1) Upper Creek [Index No. 11-35-2-(1)] from source to Timbered Branch including all tributaries except Timbered Branch (Index No. 11-35-2-9) was reclassified from Class C Trout to Class C Trout ORW; and

(2) Steels Creek [Index No. 11-35-2-12(1)] from source to Little Fork and all tributaries was reclassified from Class C Trout to Class C Trout ORW.

(m) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective August 1, 1990 as follows:

(1) The classification for the portion of Mackey Creek [Index No. 11-15-(2)] from Marion Water Supply Intake to Laurel Fork was reclassified from Class C to Class C HQW;

(2) Laurel Fork Creek [Index No. 11-15-3] from source to Mackey Creek was reclassified from Class C Tr to Class C Tr HQW;

(3) Armstrong Creek [Index No. 11-24-14-(1)] from source to Bee Rock Creek was reclassified from Class WS-III Tr to Class WS-III Tr HQW;

(4) Two segments of Linville River [Index Nos. 11-29-(16) and 11-29-(19)] were reclassified from Class B Tr and Class B to Class B Tr HQW and Class B HQW, respectively;

(5) Upper Creek [Index No. 11-35-2-(8.5)] and its named tributaries were reclassified from Class C Tr to Class C Tr HQW;

(6) Upper Creek (Clear Water Beach Lake) [Index No. 11-35-2-(10)] from Holly Spring Branch to Dam Clear Water Beach Lake was reclassified from Class B Tr to Class B Tr HQW;

(7) Holly Spring Branch [Index No. 11-35-2-11] from source to Upper Creek was reclassified from Class C Tr to Class Tr HQW;

(8) Steels Creek [Index No. 11-35-2-12-(5)] from Little Fork to a point 1.7 miles upstream from N.C. Highway 181 Bridge was reclassified from Class B Tr to Class B Tr HQW and Steels Creek [Index No. 11-35-2-12-(7)] from a point 1.7 miles upstream from N.C. Highway 181 bridge to Clear Water Beach Lake, Upper Creek was reclassified from Class B to Class B HQW;

(9) Upper Creek [Index No. 11-35-2-(13)] from Dam at Clear Water Beach Lake to Warrior Fork was reclassified from Class WS-III Tr to Class WS-III Tr HQW;

(10) The portion of Johns River [Index No. 11-38-(28)] from Wilson Creek to Rhodhiss Lake, Catawba River was reclassified from Class C to Class C HQW;

(11) Mulberry Creek [Index No. 11-38-32-(1)] from source to Boone Fork and its tributaries Left Fork Mulberry Creek [Index No. 11-38-32-2], Right Fork Mulberry Creek [Index No. 11-38-32-3], Roaring Creek [Index No. 11-38-32-8] and Clark Branch [Index No. 11-38-32-10] were reclassified from Class C Tr to Class C Tr HQW;

(12) Amos Creek [Index No. 11-38-32-4] and Mills Creek [Index No. 11-38-32-5] and their named tributaries were reclassified from Class C to Class C HQW;

(13) Cane Branch [Index No. 11-38-32-6], Rush Branch [11-38-32-7] and Frankum Creek [11-38-32-9] and its named tributaries were reclassified from Class C to Class C HQW;

(14) Mulberry Creek [Index No. 11-38-32-(11)] from Boone Branch to Dam at Mulberry Beach was reclassified from Class B to Class B HQW;

(15) Boone Branch (Fork) [Index No. 11-38-32-12] and its named tributaries from source to Mulberry Creek were reclassified from Class B to Class B HQW;

(16) Brown Branch [Index No. 11-38-32-13] and Moore Branch [Index No. 11-38-32-14] were reclassified from Class B to Class B HQW; and

(17) Anderson Creek [Index No. 11-38-32-16] was reclassified from Class C to Class C HQW.

(n) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(o) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective April 1, 1994 as follows:

(1) Friday Lake (Index No. 11-125.5) from its source to Little Paw Creek was reclassified from Class C to Class B; and

(2) The Linville River [Index No. 12-29-(1)] from Grandmother Creek to Linville Falls was reclassified from Class C Tr to Class B Tr.

(p) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective July 1, 1995 with the reclassification of Clark Creek from a point 0.6 mile downstream of Catawba County SR 2014 to 0.4 mile upstream of Larkard Creek [Index No. 11-129-5-(4.5)], and Howards Creek from its source to 0.7 mile upstream of Lincoln County State Road 1200 [Index No. 11-129-4], including associated tributaries from Class WS-IV to Classes C and WS-IV.

(q) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective September 1, 1996 as follows:

(1) North Fork Catawba River [Index No. 11-24-(1)] from Laurel Branch to Armstrong Creek from Class C Tr to Class B Tr; and

(2) Catawba River (Lake Hickory) from Rhodhiss dam to highway 321 [Index No. 11-(51)] from Class WS-IV CA to Class WS-IV B CA.

(r) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective August 1, 1998 as follows:

(1) The primary classification for portions of South Fork Catawba River [Index No. 11-129-(0.5)] and Hoyle Creek [Index No. 11-129-15-(1)] was reclassified from Class WS-IV to Class WS-V;

(2) Mill Creek [Index No. 11-7] from its source to Swannanoa Creek, including all tributaries, from Class C Tr to Class Tr HQW;

(3) Toms Creek [Index Nos. 11-21-(1) and 11-21-(2)] from its source to Harris Creek, including all tributaries were reclassified from Class C Tr to Class Tr HQW; and

(4) Harris Creek to McDowell County SR 1434, including all tributaries were reclassified from Class C to Class HQW.

(s) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective April 1, 1999 as follows:

(1) Portion of the Catawba River [Index Nos. 11-(27.5) and 11-(31)] from Class WS-IV B and WS-IV to Class WS-V B and WS-V;

(2) Armstrong Creek [Index Nos. 11-24-14-(1), 11-24-14-(13.5) and 11-24-14-(14)], and all tributaries from Classes WS-II Tr, WS-II, WS-II CA and C Tr to Classes C Tr HQW and C HQW;

(3) Lookout Shoals Lake from Oxford Dam to Island Creek [Index No. 11-(67)] from Class WS-V to Class WS-IV CA, from Island Creek to Elk Shoal Creek [Index No. 11-(70.5)] from Class WS-IV to Class WS-IV CA and from Elk Shoal Creek to a point one half mile upstream of Lookout Shoals Dam [Index No. 11-(72)] from Class WS-IV B to Class WS-IV B CA;

(4) The classifications of tributary streams that are within five miles and draining to the normal pool elevation of Lookout Shoals Lake (Protected Area) have been revised to Class WS-IV; and

(5) The classifications of tributary streams that are within one half mile and draining to the normal pool elevation of Lookout Shoals Lake (Critical Area) have been revised to Class WS-IV CA.

(t) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended August 1, 2000 with the reclassification of Little Grassy Creek (Index No. 11-29-2), including all tributaries, from its source to the Linville River from Class C Tr to Class C Tr ORW.

(u) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended August 1, 2004 with the reclassification of a segment of three surface waters, more specifically Henry Fork [11-129-1-(1)], Jerry Branch [11-129-1-3-(1)], and He Creek [11-129-1-4-(1)], from source to a formerly used City of Morganton Water Intake from Class WS-I ORW to Class WS-V ORW.

(v) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended May 1, 2007 with the reclassification of the Catawba River [Index No. 11-(31.5)] from a point 0.6 mile upstream of Muddy Creek to a point 1.2 miles upstream of Canoe Creek from WS-IV to WS-IV Tr and Catawba River [Index No. 11-(32.3)] from a point 1.2 miles upstream of Canoe Creek to a point 0.7 mile upstream of Canoe Creek (Morganton water supply intake) from WS-IV CA to WS-IV Tr CA. Named and unnamed tributaries to this portion of the Catawba River are not classified as Trout. Between the last day of May and the first day of November the water quality standard for dissolved oxygen shall not be less than a daily average of 5.0 mg/l with a minimum instantaneous value of not less than 4.0 mg/l.

(w) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended September 1, 2010 with the reclassification of the portion of the Catawba River [Index No. 11-(1)], from its source to the Left Prong Catawba River confluence, and its named tributaries, Chestnut Branch (Fork) [Index No. 11-2], Clover Patch Branch [Index No. 11-3], Youngs Fork Creek [Index No. 11-4], Spring Branch [Index No. 11-5], and Left Prong Catawba River [Index No. 11-6] from Class C Tr to Class C Tr HQW.

(x) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended March 1, 2013 as follows:

(1) the portion of Maiden Creek [Index No. 11-129-5-7-2-(1)] from source to a point 0.7 mile upstream from backwaters of Maiden Reservoir, and its named tributary, Bee Branch [Index No. 11-129-5-7-2-2], from Class WS-II HQW to WS-V;

(2) the portion of Maiden Creek [Index No. 11-129-5-7-2-(2.5)] from a point 0.7 mile upstream from backwaters of Maiden Reservoir to dam at Maiden Reservoir from Class WS-II HQW CA to WS-V;

(3) the portion of Allen Creek [Index No. 11-129-5-7-2-4-(1)] from source to a point 0.7 mile upstream of Maiden water supply intake from Class WS-II HQW to WS-V; and

(4) the portion of Allen Creek [Index No. 11-129-5-7-2-4-(2)] from a point 0.7 mile upstream of Maiden water supply intake to Maiden water supply intake from Class WS-II HQW CA to WS-V.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. March 1, 2013; December 1, 2010; September 1, 2010; May 1, 2007; August 1, 2004; August 1, 2000; April 1, 1999; August 1, 1998; September 1, 1996; July 1, 1995; April 1, 1994; August 3, 1992; August 1, 1990.

15A NCAC 02B .0309 YADKIN-PEE DEE RIVER BASIN

(a) The Yadkin-Pee Dee River Schedule of Classifications and Water Quality Standards may be inspected at the following places:

(1) the Internet at http://h2o.enr.state.nc.us/csu/; and

(2) the North Carolina Department of Environment and Natural Resources:

(A) Mooresville Regional Office
610 East Center Avenue, Suite 301
Mooresville, North Carolina

(B) Winston-Salem Regional Office
585 Waughtown Street
Winston-Salem, North Carolina

(C) Fayetteville Regional Office
Systel Building
225 Green Street
Suite 714
Fayetteville, North Carolina

(D) Asheville Regional Office
2090 US Highway 70
Swannanoa, North Carolina

(E) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) Unnamed Streams. Such streams entering Virginia are classified "C," and such streams entering South Carolina are classified "C".

(c) The Yadkin-Pee Dee River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) February 12, 1979;

(2) March 1, 1983;

(3) August 1, 1985;

(4) February 1, 1986;

(5) October 1, 1988;

(6) March 1, 1989;
(7) January 1, 1990;
(8) August 1, 1990;
(9) January 1, 1992;
(10) April 1, 1992;
(11) August 3, 1992;
(12) December 1, 1992;
(13) April 1, 1993;
(14) September 1, 1994;
(15) August 1, 1995;
(16) August 1, 1998;
(17) April 1, 1999;
(18) July 1, 2006;
(19) September 1, 2006;
(20) November 1, 2007.

(d) The Schedule of Classifications and Water Quality Standard for the Yadkin-Pee Dee River Basin has been amended effective October 1, 1988 as follows:

(1) Mitchell River [Index No. 12-62-(1)] from source to mouth of Christian Creek (North Fork Mitchell River) including all tributaries has been reclassified from Class B Tr to Class B Tr ORW.
(2) Mitchell River [Index No. 12-62-(7)] from mouth of Christian Creek (North Fork Mitchell River) to Surry County SR 1315 including all tributaries has been classified from Class C Tr to C Tr ORW, except Christian Creek and Robertson Creek which will be reclassified from Class B Tr to Class B Tr ORW.
(3) Mitchell River [Index No. 12-62-(12)] from Surry County SR 1315 to mouth of South Fork Mitchell River including all tributaries from Class C to Class C ORW.

(e) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin was amended effective March 1, 1989 as follows:

(1) Elk Creek [Index Nos. 12-24-(1) and 12-24-(10)] and all tributary waters were reclassified from Class B-trout, Class C-trout and Class B to Class B-trout ORW, Class C-trout ORW and Class B ORW.

(f) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin was amended effective January 1, 1990 as follows: Barnes Creek (Index No. 13-2-18) was reclassified from Class C to Class C ORW.

(g) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin has been amended effective January 1, 1992 as follows:

(1) Little River [Index Nos. 13-25-(10) and 13-25-(19)] from Suggs Creek to Densons Creek has been reclassified from Classes WS-III and C to Classes WS-III HQW and C HQW.
(2) Densons Creek [Index No. 13-25-20-(1)] from its source to Troy's Water Supply Intake including all tributaries has been reclassified from Class WS-III to Class WS-III HQW.
(3) Bridgers Creek (Index No. 13-25-24) from its source to the Little River has been reclassified from Class C to Class C HQW.

(h) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin was amended effective April 1, 1992 with the reclassification of the North Prong South Fork Mitchell River from Class C to Class C Trout.

(i) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(j) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin has been amended effective December 1, 1992 as follows:

(1) Pike Creek (Index No. 12-46-1-2) was reclassified from Class C Tr to Class C Tr HQW;
(2) Basin Creek (Index No. 12-46-2-2) was reclassified from Class C Tr to Class C Tr ORW;
(3) Bullhead Creek (Index No. 12-46-4-2) was reclassified from Class C Tr to Class C Tr ORW;
(4) Rich Mountain Creek (Index No. 12-46-4-2-2) was reclassified from Class Tr to Class C Tr ORW; and
(5) Widows Creek (Index No. 12-46-4-4) was reclassified from Class C Tr HQW to Class C Tr ORW.

(k) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin has been amended effective September 1, 1994 as follows:

(1) Lanes Creek [Index Nos. 13-17-40-(1) and 13-17-40-(10.5)] from its source to the Marshville water supply dam including tributaries was reclassified from Classes WS-II and WS-II CA to Class WS-V.

(2) The South Yadkin River [Index Nos. 12-108-(9.7) and 12-108-(15.5)] from Iredell County SR 1892 to a point 0.7 mile upstream of the mouth of Hunting Creek including associated tributaries was reclassified from Classes WS-V, C and WS-IV to Classes WS-V, WS-IV, C and WS-IV CA.

(3) The Yadkin River [Index Nos. 12-(53) and 12-(71)] from a point 0.3 mile upstream of the mouth of Elkin Creek (River) to the Town of King water supply intake including associated tributaries was reclassified from Classes C and WS-IV to Classes WS-IV and WS-IV CA.

(4) The Yadkin River [Index Nos. 12-(80.5), 12-(81.5) and 12-(84.5)] from the Town of King water supply intake to the Davie County water supply intake reclassified from Classes C, B, WS-IV and WS-V to Classes WS-IV, WS-IV B and WS-IV CA.

(l) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin has been amended effective August 1, 1995 as follows: Bear Creek [Index Nos. 12-108-18-(3), 12-108-18-(3.3)], Little Bear Creek (Index No. 12-108-18-2), and Blue Branch (Index No. 12-108-18-2-1) were reclassified from WS-II and WS-II CA (Critical Area) to C and WS-IV.

(m) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin was amended effective August 1, 1998 with the revision to the primary classification for portions of the Yadkin River [Index No. 12-(45)] from Class WS-IV to WS-V, Yadkin River [Index No. 12-(67.5)] from Class WS-IV to Class C, Yadkin River [Index Nos. 12-(93.5) and 12-(98.5)] from Class WS-IV to Class WS-V, South Yadkin River [Index No. 12-108-(12.5)] from Class WS-IV to Class WS-V, and South Yadkin River [Index Nos. 12-108-(19.5) and 12-108-(22)] from Class WS-IV to Class C.

(n) The Schedule of Classifications and Water Quality Standards for the Yadkin Pee-Dee River Basin was amended effective April 1, 1999 with the reclassification of a portion of the Yadkin River [Index No. 12-(80.5)] from WS-IV CA to WS-IV. A portion of the Yadkin River 0.5 mile upstream of Bashavia Creek was reclassified from WS-IV to WS-IV CA. Bashavia Creek [Index Nos. 12-81-(0.5) and 12-81-(2)] was reclassified from WS-IV and WS-IV CA to Class C. Tributaries to Bashavia Creek were also reclassified to Class C. Portions of the Yadkin River [Index Nos. 12-(25.5) and 12-(27)] were reclassified from WS-IV to Class C and from WS-IV & B to Class B. Tributaries were reclassed from Class WS-IV to Class C. Supplemental classifications were not changed.

(o) The Schedule of Classifications and Water Quality Standards for the Yadkin Pee-Dee River Basin was amended effective July 1, 2006 with the reclassification of a portion of the Uwharrie River. More specifically, Index No. 13-2-(25), Index No. 13-2-(17.5), and a portion of Index No. 13-2-(1.5) was reclassified from Class WS-IV CA, WS-IV, and C, to Class WS-IV B CA, WS-IV B, and B, respectively.

(p) The Schedule of Classifications and Water Quality Standards for the Yadkin Pee-Dee River Basin was amended effective September 1, 2006 with the reclassification of a segment of the Yadkin River [portion of Index No. 12-(53)] from a point 0.3 mile upstream of the Town of Elkin proposed water supply intake to the Town of Elkin proposed water supply intake from C to WS-IV CA. The Town of Elkin proposed water supply intake is to be placed on the Yadkin River at a point directly above the mouth of Elkin Creek.

(q) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin was amended effective November 1, 2007 with the reclassifications as listed below, and the North Carolina Division of Water Quality maintains a Geographic Information Systems data layer of these UWLs.

(1) Black Ankle Bog near Suggs Creek [Index No. 13-25-12] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(2) Pilot Mountain Floodplain Pool near Horne Creek [Index No. 12-75] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. November 1, 2007; September 1, 2006; July 1, 2006; April 1, 1999; August 1, 1998; August 1, 1995; September 1, 1994; April 1, 1993; December 1, 1992.

15A NCAC 02B .0310 LUMBER RIVER BASIN

(a) The Lumber River Basin Schedule of Classifications and Water Quality Standards may be inspected at the following places:

(1) the Internet at http://h2o.enr.state.nc.us/csu/; and

(2) the North Carolina Department of Environment and Natural Resources:

(A) Fayetteville Regional Office
225 Green Street
Systel Building Suite 714
Fayetteville, North Carolina

(B) Wilmington Regional Office
127 Cardinal Drive Extension
Wilmington, North Carolina

(C) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) Unnamed Streams. Such streams entering South Carolina are classified "C Sw".

(c) The Lumber River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) March 1, 1977;
(2) December 13, 1979;
(3) September 14, 1980;
(4) April 12, 1981;
(5) April 1, 1982;
(6) February 1, 1986;
(7) July 1, 1990;
(8) August 1, 1990;
(9) August 3, 1992;
(10) September 1, 1996;
(11) August 1, 2000;
(12) November 1, 2007.

(d) The Schedule of Classifications and Water Quality Standards for the Lumber River Basin was amended effective July 1, 1990 by the reclassification of Naked Creek (Index No. 14-2-6) from source to Drowning Creek including all tributaries from Class WS-III to Class WS-III ORW.

(e) The Schedule of Classifications and Water Quality Standards for the Lumber River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(f) The Schedule of Classifications and Water Quality Standards for the Lumber River Basin was amended effective September 1, 1996 by the reclassification of the Lumber River from 2.0 miles upstream of highway 401 to a point 0.5 mile upstream of Powell Branch [Index Nos. 14-(3), 14-(4), 14-(4.5), 14-(7) and 14-(10.3)] from Classes WS-IV Sw HQW, WS-IV Sw HQW CA and C Sw HQW to Classes WS-IV B Sw HQW, WS-IV B Sw HQW CA and B Sw HQW.

(g) The Schedule of Classifications and Water Quality Standards for the Lumber River Basin was amended effective August 1, 2000 with the reclassification of Lake Waccamaw [Index No. 15-2] from Class B Sw to Class B Sw ORW.

(h) The Schedule of Classifications and Water Quality Standards for the Lumber River Basin was amended effective November 1, 2007 with the reclassifications listed below, and the North Carolina Division of Water Quality maintains a Geographic Information Systems data layer of these UWLs:

(1) Waccamaw Natural Lake Shoreline near Lake Waccamaw [Index No. 15-2] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.
(2) Green Swamp Small Depression Pond near Royal Oak Swamp [Index No. 15-25-1-12] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.
(3) Old Dock Savanna near Gum Swamp Run [Index No. 15-6] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.
(4) Myrtle Head Savanna near Mill Branch [Index No. 15-7-7] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(5) Goosepond Bay near Big Marsh Swamp [Index No. 14-22-2] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.
(6) Antioch Bay near Raft Swamp [Index No. 14-10-(1)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.
(7) Pretty Pond Bay near Big Marsh Swamp [Index No. 14-22-2] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.
(8) Dunahoe Bay near Big Marsh Swamp [Index No. 14-22-2] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.
(9) Hamby's Bay near Raft Swamp [Index No. 14-10-(1)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.
(10) Oak Savanna Bay near Smith Branch [Index No. 14-10-3] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.
(11) Big Island Savanna near Driving Creek [Index No. 15-7-1] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. November 1, 2007; August 1, 2000; September 1, 1996; August 3, 1992; August 1, 1990; July 1, 1990; February 1, 1986.

15A NCAC 02B .0311 CAPE FEAR RIVER BASIN

(a) Effective February 1, 1976, the adopted classifications assigned to the waters within the Cape Fear River Basin are set forth in the Cape Fear River Basin Schedule of Classifications and Water Quality Standards, which may be inspected at the following places:

(1) the Internet at http://portal.ncdenr.org/web/wq/ps/csu/rules; and
(2) the North Carolina Department of Environment and Natural Resources:
(A) Winston-Salem Regional Office
585 Waughtown Street
Winston-Salem, North Carolina
(B) Fayetteville Regional Office
225 Green Street
Systel Building Suite 714
Fayetteville, North Carolina
(C) Raleigh Regional Office
3800 Barrett Drive
Raleigh, North Carolina
(D) Washington Regional Office
943 Washington Square Mall
Washington, North Carolina
(E) Wilmington Regional Office
127 Cardinal Drive Extension
Wilmington, North Carolina
(F) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) The Cape Fear River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) March 1, 1977;
(2) December 13, 1979;
(3) December 14, 1980;
(4) August 9, 1981;
(5) April 1, 1982;
(6) December 1, 1983;
(7) January 1, 1985;

(8) August 1, 1985;
(9) December 1, 1985;
(10) February 1, 1986;
(11) July 1, 1987;
(12) October 1, 1987;
(13) March 1, 1988;
(14) August 1, 1990.

(c) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective June 1, 1988 as follows:

(1) Cane Creek [Index No. 16-21-(1)] from source to a point 0.5 mile north of N.C. Hwy. 54 (Cane Reservoir Dam) including the Cane Creek Reservoir and all tributaries has been reclassified from Class WS-III to WS-I.
(2) Morgan Creek [Index No. 16-41-1-(1)] to the University Lake dam including University Lake and all tributaries has been reclassified from Class WS-III to WS-I.

(d) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective July 1, 1988 by the reclassification of Crane Creek (Crains Creek) [Index No. 18-23-16-(1)] from source to mouth of Beaver Creek including all tributaries from C to WS-III.

(e) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective January 1, 1990 as follows:

(1) Intracoastal Waterway (Index No. 18-87) from southern edge of White Oak River Basin to western end of Permuda Island (a line from Morris Landing to Atlantic Ocean), from the eastern mouth of Old Topsail Creek to the southwestern shore of Howe Creek and from the southwest mouth of Shinn Creek to channel marker No. 153 including all tributaries except the King Creek Restricted Area, Hardison Creek, Old Topsail Creek, Mill Creek, Futch Creek and Pages Creek were reclassified from Class SA to Class SA ORW.
(2) Topsail Sound and Middle Sound ORW Area which includes all waters between the Barrier Islands and the Intracoastal Waterway located between a line running from the western most shore of Mason Inlet to the southwestern shore of Howe Creek and a line running from the western shore of New Topsail Inlet to the eastern mouth of Old Topsail Creek was reclassified from Class SA to Class SA ORW.
(3) Masonboro Sound ORW Area which includes all waters between the Barrier Islands and the mainland from a line running from the southwest mouth of Shinn Creek at the Intracoastal Waterway to the southern shore of Masonboro Inlet and a line running from the Intracoastal Waterway Channel marker No. 153 to the southside of the Carolina Beach Inlet was reclassified from Class SA to Class SA ORW.

(f) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective January 1, 1990 as follows: Big Alamance Creek [Index No. 16-19-(1)] from source to Lake Mackintosh Dam including all tributaries has been reclassified from Class WS-III NSW to Class WS-II NSW.

(g) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(h) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective June 1, 1994 as follows:

(1) The Black River from its source to the Cape Fear River [Index Nos. 18-68-(0.5), 18-68-(3.5) and 18-65-(11.5)] was reclassified from Classes C Sw and C Sw HQW to Class C Sw ORW.
(2) The South River from Big Swamp to the Black River [Index Nos. 18-68-12-(0.5) and 18-68-12(11.5)] was reclassified from Classes C Sw and C Sw HQW to Class C Sw ORW.
(3) Six Runs Creek from Quewhiffle Swamp to the Black River [Index No. 18-68-2] was reclassified from Class C Sw to Class C Sw ORW.

(i) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective September 1, 1994 with the reclassification of the Deep River [Index No. 17-(36.5)] from the Town of Gulf-Goldston water supply intake to US highway 421 including associated tributaries from Class C to Classes C, WS-IV and WS-IV CA.

(j) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective August 1, 1998 with the revision to the primary classification for portions of the Deep River [Index No. 17-(28.5)] from Class WS-IV to

Class WS-V, Deep River [Index No. 17-(41.5)] from Class WS-IV to Class C, and the Cape Fear River [Index 18-(10.5)] from Class WS-IV to Class WS-V.

(k) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective April 1, 1999 with the reclassification of Buckhorn Creek (Harris Lake)[Index No. 18-7-(3)] from the backwaters of Harris Lake to the Dam at Harris Lake from Class C to Class WS-V.

(l) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective April 1, 1999 with the reclassification of the Deep River [Index No. 17-(4)] from the dam at Oakdale-Cotton Mills, Inc. to the dam at Randleman Reservoir (located 1.6 mile upstream of U.S. Hwy 220 Business), and including tributaries from Class C and Class B to Class WS-IV and Class WS-IV & B. Streams within the Randleman Reservoir Critical Area have been reclassified to WS-IV CA. The Critical Area for a WS-IV reservoir is defined as 0.5 mile and draining to the normal pool elevation of the reservoir. All waters within the Randleman Reservoir Water Supply Watershed are within a designated Critical Water Supply Watershed and are subject to a special management strategy specified in 15A NCAC 02B .0248.

(m) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective August 1, 2002 as follows:

(1) Mill Creek [Index Nos. 18-23-11-(1), 18-23-11-(2), 18-23-11-3, 18-23-11-(5)] from its source to the Little River, including all tributaries was reclassified from Class WS-III NSW and Class WS-III B NSW to Class WS-III NSW HQW@ and Class WS-III B NSW HQW@.

(2) McDeed's Creek [Index Nos. 18-23-11-4, 18-23-11-4-1] from its source to Mill Creek, including all tributaries was reclassified from Class WS III NSW and Class WS-III B NSW to Class WS-III NSW HQW@ and Class WS-III B NSW HQW@.

The "@" symbol as used in this Paragraph means that if the governing municipality has deemed that a development is covered under a "5/70 provision" as described in Rule 15A NCAC 02B .0215(3)(b)(i)(E) (Fresh Surface Water Quality Standards for Class WS-III Waters), then that development is not subject to the stormwater requirements as described in rule 15A NCAC 02H .1006 (Stormwater Requirements: High Quality Waters).

(n) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective November 1, 2004 as follows:

(1) the portion of Rocky River [Index Number 17-43-(1)] from a point 0.3 mile upstream of Town of Siler City upper reservoir dam to a point 0.3 mile downstream of Lacy Creek from WS-III to WS-III CA.

(2) the portion of Rocky River [Index Number 17-43-(8)] from dam at lower water supply reservoir for Town of Siler City to a point 65 feet below dam (site of proposed dam) from C to WS-III CA.

(3) the portion of Mud Lick Creek (Index No. 17-43-6) from a point 0.4 mile upstream of Chatham County SR 1355 to Town of Siler City lower water supply reservoir from WS-III to WS-III CA.

(4) the portion of Lacy Creek (17-43-7) from a point 0.6 mile downstream of Chatham County SR 1362 to Town of Siler City lower water supply reservoir from WS-III to WS-III CA.

(o) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective November 1, 2007 with the reclassifications listed below, and the North Carolina Division of Water Quality maintains a Geographic Information Systems data layer of these UWLs.

(1) Military Ocean Terminal Sunny Point Pools, all on the eastern shore of the Cape Fear River [Index No. 18-(71)] were reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(2) Salters Lake Bay near Salters Lake [Index No. 18-44-4] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(3) Jones Lake Bay near Jones Lake [Index No. 18-46-7-1] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(4) Weymouth Woods Sandhill Seep near Mill Creek [18-23-11-(1)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(5) Fly Trap Savanna near Cape Fear River [Index No. 18-(71)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(6) Lily Pond near Cape Fear River [Index No. 18-(71)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(7) Grassy Pond near Cape Fear River [Index No. 18-(71)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(8) The Neck Savanna near Sandy Run Swamp [Index No. 18-74-33-2] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(9) Bower's Bog near Mill Creek [Index No. 18-23-11-(1)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(10) Bushy Lake near Turnbull Creek [Index No. 18-46] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(p) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective January 1, 2009 as follows:

(1) the portion of Cape Fear River [Index No. 18-(26)] (including tributaries) from Smithfield Packing Company's intake, located approximately 2 miles upstream of County Road 1316, to a point 0.5 miles upstream of Smithfield Packing Company's intake from Class C to Class WS-IV CA.

(2) the portion of Cape Fear River [Index No.18-(26)] (including tributaries) from a point 0.5 miles upstream of Smithfield Packing Company's intake to a point 1 mile upstream of Grays Creek from Class C to Class WS-IV.

(q) The schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective August 11, 2009 with the reclassification of all Class C NSW waters and all Class B NSW waters upstream of the dam at B. Everett Jordan Reservoir from Class C NSW and Class B NSW to Class WS-V NSW and Class WS-V & B NSW, respectively. All waters within the B. Everett Jordan Reservoir Watershed are within a designated Critical Water Supply Watershed and are subject to a special management strategy specified in 15A NCAC 02B .0262 through .0273.

(r) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective September 1, 2009 with the reclassification of a portion of the Haw River [Index No. 16-(28.5)] from the Town of Pittsboro water supply intake, which is located approximately 0.15 mile west of U.S. 15/501, to a point 0.5 mile upstream of the Town of Pittsboro water supply intake from Class WS-IV to Class WS-IV CA.

(s) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective March 1, 2012 with the reclassification of the portion of the Haw River [Index No. 16-(1)] from the City of Greensboro's intake, located approximately 650 feet upstream of Guilford County 2712, to a point 0.5 miles upstream of the intake from Class WS-V NSW to Class WS-IV CA NSW, and the portion of the Haw River [Index No. 16-(1)] from a point 0.5 miles upstream of the intake to a point 0.6 miles downstream of U.S. Route 29 from Class WS-V NSW to Class WS-IV NSW.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. March 1, 2012; September 1, 2009; August 11, 2009; January 1, 2009; November 1, 2007; November 1, 2004; August 1, 2002; April 1, 1999; August 1, 1998; September 1, 1994; June 1, 1994; August 3, 1992; August 1, 1990.

15A NCAC 02B .0312 WHITE OAK RIVER BASIN

(a) The White Oak River Basin Schedule of Classifications and Water Quality Standards may be inspected in the following places:

(1) the internet at http://h2o.enr.state.nc.us/csu/; and

(2) the North Carolina Department of Environment and Natural Resources:

(A) Washington Regional Office
943 Washington Square Mall
Washington, North Carolina;

(B) Wilmington Regional Office
127 Cardinal Drive Extension
Wilmington, North Carolina; and

(C) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) The White Oak River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) December 13, 1979 see Paragraph (c);

(2) June 1, 1988 see Paragraph (d);

(3) January 1, 1990 see Paragraph (e);

(4) August 1, 1990 see Paragraph (f);

(5) August 1, 1991 see Paragraph (g);

(6) June 1, 1992 see Paragraph (h);

(7) December 1, 1992 see Paragraph (i);
(8) November 1, 2007 see Paragraph (j);
(9) July 1, 2011 see Paragraph (k).

(c) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin has been amended effective December 13, 1979 with the reclassification of a portion of the White Oak River Restricted Area (Index No. 20-32) and a portion of the Newport River (Morehead City and Beaufort Harbors Restricted Area) [Index No. 21-(31)] from Class SC to Class SA.

(d) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin has been amended effective June 1, 1988 with the reclassification of unnamed waters as follows:

(1) a portion of the Roosevelt Natural Area Swamp, which drains to Bogue Sound (20-36), from Class SA to Class C Sw ORW.
(2) another portion of the Roosevelt Natural Area Swamp, which drains to Bogue Sound (20-36), from Class SA to Class SA Sw ORW.

(e) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin has been amended effective January 1, 1990 as follows:

(1) Intracoastal Waterway (Index No. 19-39) from northeastern boundary of Cape Fear River Basin to Daybeacon No. 17 including all unnamed bays, guts, and channels, except Rogers Bay and Mill Creek and Intracoastal Waterway (Index No. 19-41) from the northeast mouth of Goose Creek to the southwest mouth of Queen Creek were reclassified from Class SA to Class SA ORW.
(2) Bear Island ORW Area, which includes all waters within an area north of Bear Island defined by a line from the western most point on Bear Island to the northeast mouth of Goose Creek on the mainland, east to the southwest mouth of Queen Creek, then south to green marker No. 49, then northeast to the northern most point on Huggins Island, then southeast along the shoreline of Huggins Island to the southeastern most point of Huggins Island, then south to the northeastern most point on Dudley Island, then southwest along the shoreline of Dudley Island to the eastern tip of Bear Island to the western mouth of Foster Creek including Cow Channel were reclassified from Class SA to Class SA ORW.
(3) Bogue Sound (including Intracoastal Waterway from White Oak River Basin to Beaufort Inlet) (Index No. 20-36) from Bogue Inlet to a line across Bogue Sound from the southwest side of mouth of Gales Creek to Rock Point and all tributaries except Hunting Island Creek, Goose Creek, and Broad Creek were reclassified from Class SA to Class SA ORW.
(4) Core Sound (Index No. 21-35-7) from northern boundary of White Oak River Basin (a line from Hall Point to Drum Inlet) to Back Sound and all tributaries except Atlantic Harbor Restricted Area, Nelson Bay, Jarrett Bay, Williston Creek, Wade Creek and Middens Creek were reclassified from Class SA to Class SA ORW.
(5) Back Sound (Index No. 21-35) from a point on Shackleford Banks at lat. 34 degrees 40' 57" and long 76 degrees 37' 30" north to the western most point of Middle Marshes and along the northwest shoreline of Middle Marshes (to include all of Middle Marshes) to Rush Point on Harkers Island and along the southern shore of Harkers Island back to Core Sound and all tributaries were reclassified from Class SA to Class SA ORW.

(f) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin has been amended effective August 1, 1990 with the reclassification of a portion of the White Oak River [Index No. 20-(1)] from Spring Branch to Hunters Creek from Class C to Class C HQW.

(g) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin was amended effective August 1, 1991 by adding the supplemental classification NSW (Nutrient Sensitive Waters) to all waters in the New River Drainage Area above a line running across the New River from Grey Point to a point of land approximately 2,200 yards downstream of the mouth of Duck Creek.

(h) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin was amended effective June 1, 1992 with the reclassification of Peletier Creek (Index No. 20-36-11) from its source to Bogue Sound from Class SA to Class SB with the requirement that no discharges be allowed.

(i)The Schedule of Classifications and Water Quality Standards for the White Oak River Basin has been amended effective December 1, 1992 with the reclassification of the Atlantic Harbor Restricted Area (Index No. 21-35-7-2) from Class SC to Class SA ORW.

(j) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin has been amended effective November 1, 2007 with the reclassifications listed below, and the North Carolina Division of Water Quality maintains a Geographic Information Systems data layer of these UWLs:

(1) Theodore Roosevelt Maritime Swamp Forest near Roosevelt Natural Area Swamp [Index No. 20-36-9.5-(1)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(2) Bear Island Maritime Wet Grassland near the Atlantic Ocean [Index No. 99-(4)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(k) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin has been amended effective July 1, 2011 with the reclassification of a portion of Southwest Creek [Index No. 19-17-(0.5)] from a point approximately 0.5 mile upstream of Mill Run to Mill Run from Class C NSW to Class SC NSW, and another portion of Southwest Creek [Index No. 19-17-(6.5)] from Mill Run to New River from Class C HQW NSW to Class SC HQW NSW.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. July 1, 2011; November 1, 2007; December 1, 1992; June 1, 1992; August 1, 1991; August 1, 1990.

15A NCAC 02B .0313 ROANOKE RIVER BASIN

(a) Effective February 1, 1976, the adopted classifications assigned to the waters within the Roanoke River Basin are set forth in the Roanoke River Basin Schedule of Classifications and Water Quality Standards, which may be inspected at the following places:

(1) the Internet at http://h2o.enr.state.nc.us/csu/; and

(2) the North Carolina Department of Environment and Natural Resources:

(A) Raleigh Regional Office
3800 Barrett Drive
Raleigh, North Carolina

(B) Washington Regional Office
943 Washington Square Mall
Washington, North Carolina

(C) Winston-Salem Regional Office
585 Waughtown Street Winston-Salem, North Carolina

(D) Division of Water Quality
Regional Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) Unnamed Streams. Such streams entering Virginia are classified "C", except that all backwaters of John H. Kerr Reservoir and the North Carolina portion of streams tributary thereto not otherwise named or described shall carry the classification "B," and all backwaters of Lake Gaston and the North Carolina portion of streams tributary thereto not otherwise named or described shall carry the classification "C and B".

(c) The Roanoke River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) May 18, 1977;

(2) July 9, 1978;

(3) July 18, 1979;

(4) July 13, 1980;

(5) March 1, 1983;

(6) August 1, 1985;

(7) February 1, 1986.

(d) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective July 1, 1991 with the reclassification of Hyco Lake (Index No. 22-58) from Class C to Class B.

(e) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(f) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective August 1, 1998 with the reclassification of Cascade Creek (Camp Creek) [Index No. 22-12] and its tributaries from its source to the backwaters at the swimming lake from Class B to Class B ORW, and reclassification of Indian Creek [index No. 22-13] and its tributaries from its source to Window Falls from Class C to Class C ORW.
(g) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective August 1, 1998 with the reclassification of Dan River and Mayo River WS-IV Protected Areas. The Protected Areas were reduced in size.
(h) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective April 1, 1999 as follows:

(1) Hyco River, including Hyco Lake below elevation 410 [Index No. 22-58-(0.5)] was reclassified from Class B to Class WS-V B.
(2) Mayo Creek (Maho Creek) (Mayo Reservoir) [Index No. 22-58-15] was reclassified from its source to the dam of Mayo Reservoir from Class C to Class WS-V.

(i) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective April 1, 2001 as follows:

(1) Fullers Creek from source to a point 0.8 mile upstream of Yanceyville water supply dam [Index No. 22-56-4-(1)] was reclassified from Class WS-II to Class WS-III.
(2) Fullers Creek from a point 0.8 mile upstream of Yanceyville water supply dam to Yanceyville water supply dam [Index No. 22-56-4-(2)] was reclassified from Class WS-II CA to Class WS-III CA.

(j) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective November 1, 2007 with the reclassification of Hanging Rock Hillside Seepage Bog near Cascade Creek [Index No. 22-12-(2)] to Class WL UWL as defined in 15A NCAC 02B .0101. The Division of Water Quality maintains a Geographic Information Systems data layer of the UWL.
(k) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective July 3, 2012 as follows:

(1) a portion of the Dan River [Index No. 22-(39)] (including tributaries) from the City of Roxboro's intake, located approximately 0.7 mile upstream of NC Highway 62, to a point approximately 0.5 mile upstream of the City of Roxboro's intake from Class C to Class WS-IV CA.
(2) a portion of the Dan River [Index No. 22-(39)] (including tributaries) from a point approximately 0.5 mile upstream of the City of Roxboro's intake to the North Carolina-Virginia state line from Class C to Class WS-IV.

(l) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin is amended effective January 1, 2013 as follows:

(1) a portion of the Roanoke River [Index No. 23-(26)] (including tributaries) from the Martin County Regional Water And Sewer Authority's intake, located approximately 0.3 mile upstream of US 13/US 17, to a point approximately 0.5 mile upstream of the Martin County Regional Water And Sewer Authority's intake from Class C to Class WS-IV CA.
(2) a portion of the Roanoke River [Index No. 23-(26)] (including tributaries) from a point approximately 0.5 mile upstream of the Martin County Regional Water And Sewer Authority's intake to a point approximately 1 mile downstream of Coniott Creek (Town Swamp) from Class C to Class WS-IV.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. January 1, 2013; July 3, 2012; November 1, 2007; April 1, 2001; April 1, 1999; August 1, 1998; August 3, 1992; July 1, 1991; February 1, 1986; August 1, 1985.

15A NCAC 02B .0314 CHOWAN RIVER BASIN

(a) Places where the schedule may be inspected:

(1) Clerk of Court:
Bertie County
Chowan County
Gates County
Hertford County
Northampton County

(2) North Carolina Department of Environment, Health and Natural Resources:
(A) Raleigh Regional Office
3800 Barrett Drive
Raleigh, North Carolina
(B) Washington Regional Office
1502 North Market Street
Washington, North Carolina

(b) Unnamed Streams. Such streams entering Virginia are classified "C."

(c) All classifications assigned to the waters of the Chowan River Basin and referenced in (a) of this Rule are additionally classified as nutrient sensitive waters (-NSW) in accordance with the provisions of Rule .0214 of this Subchapter.

(d) The Chowan River Basin Schedule of Classification and Water Quality Standards was amended effective August 1, 1985.

History Note: *Filed as an Emergency Amendment [(f)] Eff. March 10, 1979, for a period of 120 days to expire on September 7, 1979;*
Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);
Eff. February 1, 1976;
Amended Eff. November 1, 1978; March 1, 1977;
Emergency Amendment [(f)] Made Permanent Eff. September 6, 1979;
Amended Eff. August 1, 1985; January 1, 1985.

15A NCAC 02B .0315 NEUSE RIVER BASIN

(a) Effective February 1, 1976, the adopted classifications assigned to the waters within the Neuse River Basin are set forth in the Neuse River Basin Schedule of Classification and Water Quality Standards, which may be inspected at the following places:

(1) the Internet at http://portal.ncdenr.org/web/wq/ps/csu/rules; and
(2) the North Carolina Department of Environment and Natural Resources:
(A) Raleigh Regional Office
3800 Barrett Drive
Raleigh, North Carolina;
(B) Washington Regional Office
943 Washington Square Mall
Washington, North Carolina;
(C) Wilmington Regional Office
127 Cardinal Drive
Wilmington, North Carolina;
(D) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) The Neuse River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) March 1, 1977 see Paragraph (c) of this Rule;
(2) December 13, 1979 see Paragraph (d) of this Rule;
(3) September 14, 1980 see Paragraph (e) of this Rule;
(4) August 9, 1981 see Paragraph (f) of this Rule;
(5) January 1, 1982 see Paragraph (g) of this Rule;
(6) April 1, 1982 see Paragraph (h) of this Rule;
(7) December 1, 1983 see Paragraph (i) of this Rule;
(8) January 1, 1985 see Paragraph (j) of this Rule;
(9) August 1, 1985 see Paragraph (k) of this Rule;
(10) February 1, 1986 see Paragraph (l) of this Rule;
(11) May 1, 1988 see Paragraph (m) of this Rule;
(12) July 1, 1988 see Paragraph (n) of this Rule;
(13) October 1, 1988 see Paragraph (o) of this Rule;
(14) January 1, 1990 see Paragraph (p) of this Rule;

(15) August 1, 1990;
(16) December 1, 1990 see Paragraph (q) of this Rule;
(17) July 1, 1991 see Paragraph (r) of this Rule;
(18) August 3, 1992;
(19) April 1, 1994 see Paragraph (t) of this Rule;
(20) July 1, 1996 see Paragraph (u) of this Rule;
(21) September 1, 1996 see Paragraph (v) of this Rule;
(22) April 1, 1997 see Paragraph (w) of this Rule;
(23) August 1, 1998 see Paragraph (x) of this Rule;
(24) August 1, 2002 see Paragraph (y) of this Rule;
(25) July 1, 2004 see Paragraph (z) of this Rule;
(26) November 1, 2007see Paragraph (aa) of this Rule;
(27) January 15, 2011 see Paragraph (bb) of this Rule; and
(28) July 1, 2012 see Paragraph (cc) of this Rule.

(c) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective March 1, 1977 with the a total of 179 streams in the Neuse River Basin reclassified from Class D to Class C.

(d) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective December 13, 1979 as follows: Little River [Index No. 27-57-(21.5)] from source to the dam at Wake Forest Reservoir has been reclassified from Class A-II to Class A-II and B.

(e) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective September 14, 1980 as follows: The Eno River from Durham County State Road 1003 to U.S Highway 501 [Index No. 27-2-(16)] was reclassified from Class C and B to Class A-II and B.

(f) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective August 9, 1981 to remove the swamp water designation from all waters designated SA in the Neuse River Basin.

(g) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective January 1, 1982 as follows: The Trent River from the mouth of Brice Creek to the Neuse River [Index No. 27-101-(39)] was reclassified from Class SC Sw to Class SB Sw.

(h) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective April 1, 1982 as follows:

(1) Longview Branch from source to Crabtree Creek [Index No. 27-33-(21)] was reclassified from Class C1 to Class C.
(2) Watson Branch from source to Walnut Creek [Index No. 27-34-(8)] was reclassified from Class C1 to Class C.

(i) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective December 1, 1983 to add the Nutrient Sensitive Waters classification to the entire river basin above Falls dam.

(j) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective January 1, 1985 as follows: Nobel Canal from source to Swift Creek [Index No. 27-97-(2)] was reclassified from Class C1 to Class C.

(k) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective August 1, 1985 as follows:

(1) Southeast Prong Beaverdam Creek from source to Beaverdam Creek [Index No. 27-33-15(2)] was reclassified from Class C1 to Class C.
(2) Pigeon House branch from source to Crabtree Creek [Index No. 27-33-(18)] was reclassified from Class C1 to Class C.
(3) Rocky Branch from source to Pullen Road [Index No. 27-34-6-(1)] was reclassified from Class C1 to Class C.
(4) Chavis Branch from source to Watson Branch [Index No. 27-37-8-1] was reclassified from Class C1 to Class C.

(l) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective February 1, 1986 to reclassify all Class A-I and Class A-II streams in the Neuse River Basin to WS-I and WS-III.

(m) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective May 1, 1988 to add the Nutrient Sensitive Waters classification to the waters of the Neuse River Basin below the Falls Lake dam.

(n) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective July 1, 1988 as follows:

(1) Smith Creek [Index No. 27-23-(1)] from source to the dam at Wake Forest Reservoir has been reclassified from Class WS-III to WS-I.

(2) Little River [Index No. 27-57-(1)] from source to the N.C. Hwy. 97 Bridge near Zebulon including all tributaries has been reclassified from Class WS-III to WS-I.

(3) An unnamed tributary to Buffalo Creek just upstream of Robertson's Pond in Wake County fromsource to Buffalo Creek including Leo's Pond has been reclassified from Class C to B.

(o) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective October 1, 1988 as follows:

(1) Walnut Creek (Lake Johnson, Lake Raleigh) [Index No. 27-34-(1)]. Lake Johnson and Lake Raleigh have been reclassified from Class WS-III to Class WS-III B.

(2) Haw Creek (Camp Charles Lake) (Index No. 27-86-3-7) from the backwaters of Camp Charles Lake to damat Camp Charles Lake has been reclassified from Class C to Class B.

(p) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective January 1, 1990 as follows:

(1) Neuse-Southeast Pamlico Sound ORW Area which includes all waters within a line beginning at the southwest tip of Ocracoke Island, and extending north west along the Tar-Pamlico River Basin and Neuse River Basin boundary line to Lat. 35 degrees 06' 30", thence in a southwest direction to Ship Point and all tributaries, were reclassified from Class SA NSW to Class SA NSW ORW.

(2) Core Sound (Index No. 27-149) from northeastern limit of White Oak River Basin (a line from Hall Point to Drum Inlet) to Pamlico Sound and all tributaries, except Thorofare, John Day Ditch were reclassified from Class SA NSW to Class SA NSW ORW.

(q) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective December 1, 1990 with the reclassification of the following waters as described in (1) through (3) of this Paragraph.

(1) Northwest Creek from its source to the Neuse River (Index No. 27-105) from Class SC Sw NSW to Class SB Sw NSW;

(2) Upper Broad Creek [Index No. 27-106-(7)] from Pamlico County SR 1103 at Lees Landing to the Neuse River from Class SC Sw NSW to Class SB Sw NSW; and

(3) Goose Creek [Index No. 27-107-(11)] from Wood Landing to the Neuse River from Class SC Sw NSW to Class SB Sw NSW.

(r) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective July 1, 1991 with the reclassification of the Bay River [Index No. 27-150-(1)] within a line running from Flea Point to the Hammock, east to a line running from Bell Point to Darby Point, including Harper Creek, Tempe Gut, Moore Creek and Newton Creek, and excluding that portion of the Bay River landward of a line running from Poorhouse Point to Darby Point from Classes SC Sw NSW and SC Sw NSW HQW to Class SA NSW.

(s) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(t) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective April 1, 1994 as follows:

(1) Lake Crabtree [Index No. 27-33-(1)] was reclassified from Class C NSW to Class B NSW.

(2) The Eno River from Orange County State Road 1561 to Durham County State Road 1003 [Index No. 27-10-(16)] was reclassified from Class WS-IV NSW to Class WS-IV B NSW.

(3) Silver Lake (Index No. 27-43-5) was reclassified from Class WS-III NSW to Class WS-III B NSW.

(u) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective July 1, 1996 with the reclassification of Austin Creek [Index Nos. 27-23-3-(1) and 27-23-3-(2)] from its source to Smith Creek from classes WS-III NSW and WS-III NSW CA to class C NSW.

(v) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective September 1, 1996 with the reclassification of an unnamed tributary to Hannah Creek (Tuckers Lake) [Index No. 27-52-6-0.5] from Class C NSW to Class B NSW.

(w) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective April 1, 1997 with the reclassification of the Neuse River (including tributaries) from mouth of Marks Creek to a point 1.3 miles downstream of Johnston County State Road 1908 to class WS-IV NSW and from a point 1.3 miles downstream of Johnston

County State Road 1908 to the Johnston County Water Supply intake (located 1.8 miles downstream of Johnston County State Road 1908) to class WS-IV CA NSW [Index Nos. 27-(36) and 27-(38.5)].
(x) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective August 1, 1998 with the revision of the Critical Area and Protected Area boundaries surrounding the Falls Lake water supply reservoir. The revisions to these boundaries are the result of the Corps of Engineers raising the lake's normal pool elevation. The result of these revisions is the Critical and Protected Area boundaries (classifications) may extend further upstream than the current designations. The Critical Area for a WS-IV reservoir is defined as 0.5 miles and draining to the normal pool elevation. The Protected Area for a WS-IV reservoir is defined as 5 miles and draining to the normal pool elevation. The normal pool elevation of the Falls Lake reservoir has changed from 250.1 feet mean sea level (msl) to 251.5 feet msl.
(y) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective August 1, 2002 with the reclassification of the Neuse River [portions of Index No. 27-(56)], including portions of its tributaries, from a point 0.7 mile downstream of the mouth of Coxes Creek to a point 0.6 mile upstream of Lenoir County proposed water supply intake from Class C NSW to Class WS-IV NSW and from a point 0.6 mile upstream of Lenoir County proposed water supply intake to Lenoir proposed water supply intake from Class C NSW to Class WS-IV CA NSW.
(z) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective July 1, 2004 with the reclassification of the Neuse River (including tributaries in Wake County) [Index Nos. 27-(20.7), 27-21, 27-21-1] from the dam at Falls Lake to a point 0.5 mile upstream of the Town of Wake Forest Water Supply Intake (former water supply intake for Burlington Mills Wake Finishing Plant) from Class C NSW to Class WS-IV NSW and from a point 0.5 mile upstream of the Town of Wake Forest proposed water supply intake to Town of Wake Forest proposed water supply intake [Index No. 27-(20.1)] from Class C NSW to Class WS-IV NSW CA. Fantasy Lake [Index No. 27 -57-3-1-1], a former rock quarry within a WS-II NSW water supply watershed, was reclassified from Class WS-II NSW to Class WS-II NSW CA.
(aa) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective November 1, 2007 with the reclassification of the entire watershed of Deep Creek (Index No. 27-3-4) from source to Flat River from Class WS-III NSW to Class WS-III ORW NSW.
(bb) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin is amended effective January 15, 2011 with the reclassification of all Class C NSW waters and all Class B NSW waters upstream of the dam at Falls Reservoir from Class C NSW and Class B NSW to Class WS-V NSW and Class WS-V & B NSW, respectively. All waters within the Falls Watershed are within a designated Critical Water Supply Watershed and are subject to a special management strategy specified in Rules 15A NCAC 02B .0275 through .0283.
(cc) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin is amended effective July 1, 2012 as follows:

(1) Johnston County owned quarry near Little River [Index No. 27-57-(20.2)] from Class C NSW to Class WS-IV NSW CA. The Division of Water Quality maintains a Geographic Information Systems data layer of this quarry;
(2) a portion of the Neuse River [Index Number 27-(41.7)] from a point approximately 1.4 miles downstream of Gar Gut to a point approximately 1.7 miles upstream of Bawdy Creek from Class WS-V NSW to Class WS-IV NSW; and
(3) a portion of the Neuse River [Index No. 27-(49.5)] from a point approximately 0.5 mile upstream of S.R. 1201 (Johnston County intake) to S.R. 1201 (Johnston County intake) from Class WS-IV NSW to Class WS-IV NSW CA.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. November 1, 2007; July 1, 2004 (see SL 2001-361); August 1, 2002; August 1, 1998; April 1, 1997; September 1, 1996; July 1, 1996; April 1, 1994; August 3, 1992; July 1, 1991;
Amended Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010);
Amended Eff. July 1, 2012.

15A NCAC 02B .0316 TAR-PAMLICO RIVER BASIN

(a) The Tar-Pamlico River Basin Schedule of Classifications and Water Quality Standards may be inspected at the following places:

(1) the internet at http://h2o.enr.state.nc.us/csu/; and
(2) the North Carolina Department of Environment and Natural Resources:

(A) Raleigh Regional Office
3800 Barrett Drive
Raleigh, North Carolina
(B) Washington Regional Office
943 Washington Square Mall
Washington, North Carolina
(C) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) Unnamed Streams. All drainage canals not noted in the schedule are classified "C Sw," except the main drainage canals to Pamlico Sound and its bays which are classified "SC."

(c) The Tar-Pamlico River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) March 1, 1977;
(2) November 1, 1978;
(3) June 8, 1980;
(4) October 1, 1983;
(5) June 1, 1984;
(6) August 1, 1985;
(7) February 1, 1986;
(8) August 1, 1988;
(9) January 1, 1990;
(10) August 1, 1990;
(11) August 3, 1992;
(12) April 1, 1994;
(13) January 1, 1996;
(14) September 1, 1996;
(15) October 7, 2003;
(16) June 1, 2004;
(17) November 1, 2007.

(d) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective August 1, 1988 as follows:

(1) Tar River (Index No. 28-94) from a point 1.2 miles downstream of Broad Run to the upstreamside of Tranters Creek from Class C to Class B.

(e) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective January 1, 1990 by the reclassification of Pamlico River and Pamlico Sound [Index No. 29-(27)] which includes all waters within a line beginning at Juniper Bay Point and running due south to Lat. 35° 18' 00", long. 76° 13' 20", thence due west to lat. 35° 18' 00", long 76° 20' 00", thence northwest to Shell Point and including Shell Bay, Swanquarter and Juniper Bays and their tributaries, but excluding the Blowout, Hydeland Canal, Juniper Canal and Quarter Canal were reclassified from Class SA and SC to SA ORW and SC ORW.

(f) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective January 1, 1990 by adding the supplemental classification NSW (Nutrient Sensitive Waters) to all waters in the basin from source to a line across Pamlico River from Roos Point to Persimmon Tree Point.

(g) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(h) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective April 1, 1994 with the reclassification of Blounts Creek from Herring Run to Blounts Bay [Index No. 29-9-1-(3)] from Class SC NSW to Class SB NSW.

(i) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective January 1, 1996 with the reclassification of Tranters Creek [Index Numbers 28-103- (4.5), 28-103- (13.5), 28-103- (14.5) and 28-103-(16.5)] from a point 1.5 miles upstream of Turkey Swamp to the City of Washington's former auxiliary water supply intake, including tributaries, from Class WS-IV Sw NSW and Class WS-IV CA Sw NSW to Class C Sw NSW.
(j) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective September 1, 1996 with the addition of Huddles Cut (previously unnamed in the schedule) classified as SC NSW with an Index No. of 29-25.5.
(k) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was temporarily amended effective October 7, 2003 and permanently amended June 1, 2004 with the reclassification of a portion of Swift Creek [Index Number 28-78-(0.5)] and a portion of Sandy Creek [Index Number 28-78-1-(19)] from Nash County SR 1004 to Nash County SR 1003 from Class C NSW to Class C ORW NSW, and the waters that drain to these two creek portions to include only the ORW management strategy as represented by "+". The "+" symbol as used in this paragraph means that all undesignated waterbodies that drain to the portions of the two creeks referenced in this Paragraph shall comply with Paragraph (c) of Rule .0225 of this Subchapter in order to protect the designated waters as per Rule .0203 of this Subchapter and to protect outstanding resource values found in the designated waters as well as in the undesignated waters that drain to the designated waters.
(l) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective November 1, 2007 with the reclassifications listed below, and the North Carolina Division of Water Quality maintains a Geographic Information Systems data layer of these UWLs.

(1) Goose Creek Tidal Freshwater Marsh along the confluence of Goose Creek [Index No. 29-33] and the Pamlico River [Index No. 29-(27)], along Flatty Creek [Index No. 29-11-4] a length of the Pamlico River shoreline [Index No. 29-(27)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.
(2) Mallard Creek Tidal Freshwater Marsh along Mallard Creek [Index No. 29-13-(1)] 0.2 miles above its confluence with the Pamlico River to Class WL UWL as defined in 15A NCAC 02B .0101.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 2003 (see S.L. 2003-433, s.1); September 1, 1996; January 1, 1996; April 1, 1994; August 3, 1992; August 1, 1990;
Temporary Amendment Eff. October 7, 2003;
Amended Eff. November 1, 2007; June 1, 2004.

15A NCAC 02B .0317 PASQUOTANK RIVER BASIN

(a) The Pasquotank River Basin Schedule of Classifications and Water Quality Standards may be inspected at the following places:

(1) the Internet at http://h2o.enr.state.nc.us/csu/; and
(2) the North Carolina Department of Environment and Natural Resources:
(A) Washington Regional Office
943 Washington Square Mall
Washington, North Carolina
(B) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) Unnamed Streams. All drainage canals not noted in the schedule are classified "C."
(c) The Pasquotank River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) March 1, 1977;
(2) May 18, 1977;
(3) December 13, 1979;
(4) January 1, 1985;
(5) February 1, 1986;
(6) January 1, 1990;
(7) August 1, 1990;
(8) August 3, 1992;

(9) August 1, 1998;
(10) August 1, 2000;
(11) November 1, 2007.

(d) The Schedule of Classifications and Water Quality Standards for the Pasquotank River Basin was amended effective January 1, 1990 by the reclassification of Alligator River [Index Nos. 30-16-(1) and 30-16-(7)] from source to U.S. Hwy. 64 and all tributaries except Swindells Canal, Florida Canal, New Lake, Fairfield Canal, Carters Canal, Dunbar Canal and Intracoastal Waterway (Pungo River - Alligator River Canal) were reclassified from C Sw and SC Sw to C Sw ORW and SC Sw ORW.

(e) The Schedule of Classifications and Water Quality Standards for the Pasquotank River Basin was amended effective August 1, 1990 as follows:

(1) Croatan Sound [Index No. 30-20-(1)] from a point of land on the southern side of mouth of Peter Mashoes Creek on Dare County mainland following a line eastward to Northwest Point on Roanoke Island and then from Northwest Point following a line west to Reeds Point on Dare County mainland was reclassified from Class SC to Class SB.

(2) Croatan Sound [Index No. 30-20-(1.5)] from Northwest Point on Roanoke Island following a line west to Reeds Point on Dare County mainland to William B. Umstead Memorial Bridge was reclassified from Class SC to Class SA.

(f) The Schedule of Classifications and Water Quality Standards for the Pasquotank River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(g) The Schedule of Classifications and Water Quality Standards for the Pasquotank River Basin was amended effective August 1, 1998 with the revision to the primary classification for a portion of the Pasquotank River [Index No. 30-3-(1.7)] from Class WS-IV to Class WS-V.

(h) The Schedule of Classifications and Water Quality Standards for the Pasquotank River Basin was amended effective August 1, 2000 with the reclassification of Lake Phelps [Index No. 30-14-4-6-1] from Class C Sw to Class B Sw ORW.

(i) The Schedule of Classifications and Water Quality Standards for the Pasquotank River Basin was amended effective November 1, 2007 with the reclassifications listed below, and the North Carolina Division of Water Quality maintains a Geographic Information Systems data layer of these UWLs.

(1) Phelps Lake Natural Lake Shoreline near Phelps Lake [Index No. 30-14-4-6-1] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

(2) Nags Head Woods near Buzzard Bay [Index No. 30-21-1] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. November 1, 2007; August 1, 2000; August 1, 1998; August 3, 1992; August 1 , 1990; January 1, 1990; February 1, 1986.

SECTION .0400 - EFFLUENT LIMITATIONS

15A NCAC 02B .0401 PURPOSE

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Repealed Eff. December 1, 1984.

15A NCAC 02B .0402 SCOPE

Effluent limits established herein shall apply to all effluents discharged from pretreatment facilities and from outlets and point sources to the waters of the state.

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976.

15A NCAC 02B .0403 DEFINITION OF TERMS

The terms used in this Section shall be as defined in G.S. 143-213 and as follows:

(1) The term "commission" means the Environmental Management Commission or its successor.

(2) The term "director" means the Director of the Division of Environmental Management, Department of Natural Resources and Community Development.

(3) The term "staff" means the division of environmental management, or its successor.

(4) The term "BPCTCA" shall mean best practicable control technology currently available. Effluent limitations determined as BPCTCA are immediately applicable and shall be complied with not later than July 1, 1977.

(5) The term "BPWTT" shall mean best practicable waste treatment technology. Effluent limitations established by this designation shall be complied with not later than July 1, 1983.

(6) The term "BCT" shall mean best conventional pollutant control technology. Effluent limitations designated as BCT will control the discharge of pollutants determined to be conventional in nature and these limitations shall be complied with not later than July 1, 1984.

(7) The term "BAT" shall mean best available technology economically achievable. Effluent limitations designated as BAT will control the discharge of pollutants determined to be nonconventional in nature and these limitations will come into effect on July 1, 1984, and shall be complied with not later than July 1, 1987.

(8) The term "BAT/BMP'S" shall mean best available technology economically achievable/best management practices. Effluent limitations designated as BAT/BMP's will control the discharge of pollutants determined to be toxic in nature. Compliance with these designated effluent limitations must be maintained not later than three years after such limitations are developed, or not later than July 1, 1984, whichever is later, but in no case later than July 1, 1987.

(9) The term "new source performance standards" shall mean the effluent limitations required of an industrial discharger determined under the guidance of 15A NCAC 2B .0407 to be a new source.

(10) The term "waste stabilization pond" (also called "lagoons" or "oxidation ponds") shall mean a large, relatively shallow basin designed for long term detention of wastewater which may or may not have received prior treatment. While in the basin, the wastewater is biologically treated to reduce biochemical oxygen demand and suspended solids. Stabilization ponds are further defined as:

(a) Photosynthetic Pond. A pond which is designed to rely on photosynthetic oxygenation (i.e., oxygen from algae) for any portion of the oxygen needed for waste treatment; This includes oxidation ponds and facultative lagoons. These ponds may have supplemental aeration by mechanical means. With regard to hydraulic flow, photosynthetic ponds are either of the:

(i) flow-through type, in which the pond discharges relatively continuously throughout the year; or

(ii) controlled-discharge type, in which the pond is designed to retain the wastewater without discharge from six months to one year, followed by controlled discharge over a short time interval (typically about one to three weeks);

(b) Aerated Pond. A pond which is not designed to rely on any photosynthetic oxygenation to provide oxygen needed for biological waste treatment; Air is supplied by mechanical means. Aerated ponds are either:

(i) complete mix, in which sufficient energy is imparted to the wastewater to prevent deposition of solids in the pond; or

(ii) partial-mix, in which only sufficient energy is used to dissolve and mix oxygen in the wastewater. Solid materials settle in the partial-mix pond and are decomposed anaerobically. There will be algae in the partial-mix aerated pond, but usually far fewer than in a photosynthetic pond.

This definition does not include polishing or holding ponds which are preceded by other biochemical or physical/chemical secondary treatment processes and designed to increase their efficiency. The pond may be single-cell or multi-cell.

(11) The term "best waste stabilization pond technology" shall mean a monthly average effluent suspended solids concentration of 90 mg/l and a weekly maximum average effluent suspended solids concentration of 135 mg/l for those waste stabilization ponds that are achieving the level of effluent quality established for biochemical oxygen demand in .0406(a)(2) of this Section.

(12) The term "minimum treatment requirements" means the effluent limitations required to comply with the designations secondary treatment as defined in 15A NCAC 2B .0406, BPWTT, BPCTCA, BCT, BAT and/or BAT/BMP's as required of a specific wastewater discharge. Minimum treatment requirements must be met even if the receiving waters affected can or are expected to be able to accept higher pollutant-load levels and still meet applicable water quality standards.

(13) The term "water quality limited segment" means a segment where it is known that water quality does not meet applicable water quality standards or is not expected to meet them even after the application of minimum treatment requirements.

(14) The term "effluent limited segment" means a segment where it is known that water quality is meeting and will continue to meet applicable water quality standards or where there is adequate demonstration that water quality will meet applicable water quality standards after the application of minimum treatment requirements.

(15) The term "settleable solids" means the volumetric measurement of solids after a specified settling time. The determination of settleable solids shall be made in the following manner: one liter of the wastewater is placed in a standard Imhoff cone and allowed to settle for 45 minutes. After 45 minutes settling, the liquid layer is gently stirred and allowed to settle for 15 additional minutes. The volume of solids is immediately read in milliliter per liter (ml/l).

(16) The term "oxygen consuming wastes" means those wastewater discharge components recognized as being oxygen demanding in the aquatic environment. These are generally limited by BOD(5) and NH(3)-N.

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 12, 1979; November 1, 1978; December 1, 1976.

15A NCAC 02B .0404 EFFLUENT LIMITATIONS IN WATER QUALITY LIMITED SEGMENTS

(a) Effluent limitations more stringent than minimum treatment requirements shall be developed by the staff and approved by the Director for all existing or proposed dischargers to water quality limited segments of the surface waters of the state. The basis of these water quality effluent limitations shall be maintenance of water quality standards.

(b) The staff shall also provide on a case-by-case basis for seasonal variation in the discharge of oxygen-consuming wastes. In order to be considered eligible for seasonal effluent limitations, a request must be submitted to the Director along with a rationale as to the need for such limitations. Permit reissuance or modification during the remaining time of an existing permit will be considered on the basis of demonstrated need. In no case shall this variation cause or be expected to cause a receiving water body to violate applicable water quality standards.

(c) For the purpose of determining seasonal effluent limitations, the year shall consist of a summer and a winter discharge period. The summer period will begin April 1 and extend through October 31. The winter period shall be that portion of the year from November 1 to March 31. The summer oxygen-consuming wasteload allocation shall be developed using the flow criteria specified in 15A NCAC 2B .0206. The winter oxygen-consuming wasteload allocation shall in no case be less stringent than two times the summer oxygen-consuming waste load limitations nor shall it be less restrictive than minimum treatment requirements.

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 12, 1979.

15A NCAC 02B .0405 EFFLUENT LIMITS: GUIDELINES FOR EFFLUENT LIMITED SEGMENTS

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1), (4);*
Eff. February 1, 1976;

Amended Eff. November 1, 1978; December 1, 1976;
Repealed Eff. December 1, 1984.

15A NCAC 02B .0406 EFFLUENT LIMITS IN EFFLUENT LIMITED SEGMENTS

(a) Municipal Wastewaters and Other Similar Discharges

(1) Applicability. This Regulation is applicable to all municipal wastewater treatment discharges and all discharges consisting primarily of domestic sewage. In addition to the limits contained herein, limits applicable to industrial categories contained in .0406(b) of this Section will be applicable to any municipality having industrial waste discharges from industries in any single category which discharges 10 or more percent of the average daily wastewater flow to the municipal system or where the municipal system and the effluent discharge is significantly impacted.

(2) Effluent Limitations Except for Waste Stabilization Ponds Included in (3) of This Subsection. In mg/l expressed as monthly average and weekly maximum average:

Effluent Characteristic	SECONDARY Monthly Avg.	SECONDARY Weekly Avg.	"BPWTT" Avg.	"BPWTT" Max.
BOD(5)	30 mg/l	45 mg/l	Reserved	
TSS	30 mg/l	45 mg/l	Reserved	
Fecal Coliform	(Effluent limitations for coliform bacteria and pH shall be imposed only if necessary to maintain compliance with applicable water quality standards.)		Reserved	
pH			Reserved	

(3) Effluent limitations for waste stabilization ponds provided that:

(A) Waste stabilization ponds are the sole process used for secondary treatment;

(B) The maximum facility design capacity is two million gallons per day or less; and

(C) Operation and maintenance data indicate that the requirements for TSS of Part (2) of this Subsection cannot be achieved. In mg/l expressed as monthly average and weekly maximum average:

Effluent Characteristic	SECONDARY Monthly Avg.	SECONDARY Weekly Avg.	"BPWTT" Avg.	"BPWTT" Max.
BOD(5)	30 mg/l	45 mg/l	Reserved	
TSS	90 mg/l	135 mg/l	Reserved	
Fecal Coliform	(Effluent limitations for coliform bacteria and pH shall be imposed only if necessary to maintain compliance with applicable water quality standards.)		Reserved	
pH			Reserved	

(b) Industrial Waste Discharges. Effluent limits for industrial waste discharges are set forth in the Environmental Protection Agency guidelines and standards listed in this Rule which are adopted by reference as amended through June 1, 1984:

40 CFR 129 -- EPA Toxic Pollutant Effluent Standards
40 CFR 401 -- EPA General Provisions for Effluent Guidelines and Standards
40 CFR 405 -- EPA Effluent Guidelines and Standards for Dairy Products
40 CFR 406 -- EPA Effluent Guidelines and Standards for Grain Mills
40 CFR 407 -- EPA Effluent Guidelines and Standards for Canned and Preserved Fruits and Vegetables
40 CFR 408 -- EPA Effluent Guidelines and Standards for Canned and Preserved Seafood
40 CFR 409 -- EPA Effluent Guidelines and Standards for Sugar Processing
40 CFR 410 -- EPA Effluent Guidelines and Standards for Textiles
40 CFR 411 -- EPA Cement Manufacturing Effluent Guidelines and Standards
40 CFR 413 -- EPA Effluent Guidelines and Standards for Electroplating
40 CFR 414 -- EPA Effluent Guidelines and Standards for Organic Chemicals
40 CFR 415 -- EPA Effluent Guidelines and Standards for Inorganic Chemicals
40 CFR 416 -- EPA Effluent Guidelines and Standards for Plastics and Synthetics
40 CFR 417 -- EPA Effluent Guidelines and Standards for Soaps and Detergents
40 CFR 418 -- EPA Effluent Guidelines and Standards for Fertilizer Manufacturing
40 CFR 419 -- EPA Effluent Guidelines and Standards for Petroleum Refining
40 CFR 420 -- EPA Effluent Guidelines and Standards for Iron and Steel Manufacturing
40 CFR 421 -- EPA Effluent Guidelines and Standards for Nonferrous Metals
40 CFR 422 -- EPA Phosphate Manufacturing Effluent Guidelines and Standards
40 CFR 423 -- EPA Effluent Guidelines and Standards for Steam Electric Power Generating
40 CFR 424 -- EPA Effluent Guidelines for Ferroalloy Manufacturing
40 CFR 425 -- EPA Effluent Guidelines and Standards for Leather Tanning and Finishing
40 CFR 426 -- EPA Effluent Guidelines and Standards for Glass Manufacturing
40 CFR 427 -- EPA Effluent Guidelines and Standards for Asbestos Manufacturing
40 CFR 428 -- EPA Effluent Guidelines for Rubber Processing
40 CFR 429 -- EPA Effluent Guidelines and Standards for Timber Products
40 CFR 430 -- EPA Effluent Guidelines and Standards for Pulp, Paper, and Paper Board
40 CFR 431 -- EPA Effluent Guidelines and Standards for Builders Paper and Board Mills
40 CFR 432 -- EPA Effluent Guidelines and Standards for Meat Products
40 CFR 433 -- EPA Effluent Guidelines and Standards for Metal Finishing
40 CFR 434 -- EPA Effluent Guidelines and Standards for Coal Mining
40 CFR 435 -- EPA Effluent Guidelines and Standards for Offshore Oil and Gas Extraction
40 CFR 436 -- EPA Effluent Guidelines and Standards for Mineral Mining and Processing
40 CFR 439 -- EPA Effluent Guidelines and Standards for Pharmaceutical Manufacturing
40 CFR 440 -- EPA Effluent Guidelines and Standards for Ore Mining and Dressing
40 CFR 443 -- EPA Effluent Guidelines and Standards for Paving and Roofing Materials
40 CFR 446 -- EPA Effluent Guidelines and Standards for Paint Formulating
40 CFR 447 -- EPA Effluent Guidelines and Standards for Ink Formulating
40 CFR 454 -- EPA Effluent Guidelines and Standards for Gum and Wood Chemicals Manufacturing
40 CFR 455 -- EPA Effluent Guidelines for Pesticide Chemicals Manufacturing
40 CFR 457 -- EPA Effluent Guidelines and Standards for Explosives Manufacturing
40 CFR 458 -- EPA Effluent Guidelines and Standards for Carbon Black Manufacturing
40 CFR 459 -- EPA Effluent Guidelines and Standards for Photographic Processing
40 CFR 460 -- EPA Effluent Guidelines and Standards for Hospitals
40 CFR 465 -- EPA Effluent Guidelines and Standards for Coil Coating
40 CFR 466 -- EPA Effluent Guidelines and Standards for Porcelain Enameling
40 CFR 467 -- EPA Effluent Guidelines and Standards for Aluminum Forming
40 CFR 468 -- EPA Effluent Guidelines and Standards for Copper Forming
40 CFR 469 -- EPA Effluent Guidelines and Standards for Electrical and Electronic Components

(c) Copies of these Federal Regulations are on file at:

(1) Division of Environmental Management

Department of Natural Resources and Community Development
P.O. Box 27687, Raleigh, N.C. 27611

(2) Asheville Regional Office
Interchange Building, 59 Woodfin Place
Asheville, N.C. 28802

(3) Fayetteville Regional Office
Wachovia Building, Suite 714
Fayetteville, N.C. 28301

(4) Mooresville Regional Office
919 North Main Street
Mooresville, N.C. 28115

(5) Raleigh Regional Office
3800 Barrett Drive
Raleigh, N.C. 27609

(6) Washington Regional Office
1502 North Market Street
Washington, N.C. 27889

(7) Wilmington Regional Office
7225 Wrightsville Avenue
Wilmington, N.C. 28403.

(8) Winston-Salem Regional Office
8003 North Point Boulevard
Winston-Salem, N.C. 27106

(d) In cases where effluent limits established by Paragraph (b) of this Rule are not adequate to control settleable solids, the staff shall establish effluent limits for settleable solids. Such effluent limitations for settleable solids will be applicable only when the projected average solids concentration exceeds 5.0 ml/l and the limitations established shall lie within the range of 0.1 ml/l to 5.0 ml/l. The establishment of such limitations for any discharge shall be approved by the Director of the Division of Environmental Management.

(e) For industrial categories or parts of categories for which effluent limits and guidelines have not been published and adopted, effluent limitations for existing industrial waste discharges, or new industrial waste discharges shall be calculated by the staff using the projected limits of the Environmental Protection Agency, the Environmental Protection Agency development document and other available information in order to achieve the purposes of Article 21. Such limits developed by the staff shall be subject to approval by the Director.

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1), (4);*
Eff. February 1, 1976;
Amended Eff. July 1, 1988; December 1, 1984; November 1, 1978; December 1, 1976.

15A NCAC 02B .0407 GUIDANCE FOR DETERMINING A NEW SOURCE

(a) A source should be considered a new source by the Director provided on the date of publication of any applicable new source performance standard there has not been any:

(1) significant site preparation work, such as major clearing or excavation; or

(2) placement, assembly, or installation of unique facilities or equipment at the premises where such facilities or equipment will be used; or

(3) contractual obligation to purchase such unique facilities or equipment; Facilities and equipment shall include only the major items listed below, provided that the value of such items represents a substantial commitment to construct the facility:

(A) structures, or

(B) structural materials, or

(C) machinery, or

(D) process equipment, or

(E) construction equipment.

(4) contractual obligation with a firm to design, engineer and erect a completed facility (i.e., a turnkey plant).

(b) A modification to an existing source will be considered a new source if the alteration is of such magnitude to, in effect, create a new facility. In making such a determination, the Director shall find that the permit modification procedures are not appropriate and shall consider, among other relevant factors, whether as a result of the alteration, the source can reasonably achieve the standard of performance. Only those portions of a facility determined to be a new source shall be required to achieve new source performance standards.

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1), (4);*
Eff. December 1, 1976.

SECTION .0500 - SURFACE WATER MONITORING: REPORTING

15A NCAC 02B .0501 PURPOSE

The purpose of this Section is to set forth the requirements of the Environmental Management Commission for monitoring and reporting the quantity and quality of wastewater discharges to, and their effects upon, the water resources of the state.

History Note: *Authority G.S. 143-215.64; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. December 1, 1984.

15A NCAC 02B .0502 SCOPE

This Section shall apply to all persons subject to the provisions of G.S. 143-215.1.

History Note: *Authority G.S. 143-215.64; 143-215.68;*
Eff. February 1, 1976.

15A NCAC 02B .0503 DEFINITIONS

Unless the context otherwise requires, the terms used herein shall be as defined in G.S. 143-213 and as follows:

(1) "Biological monitoring" shall mean the sampling or testing of the biological integrity of surface waters and measurements of impacts including accumulations of pollutants in tissue, toxicity monitoring, and characterization of instream biological populations.

(2) "Classified water pollution control facility" means a treatment works classified by the Water Pollution Control System Operator Certification Commission pursuant to Chapter 90A of the North Carolina General Statutes as class I, class II, class III, or class IV facility, or such other classifications as the Water Pollution Control System Operator Certification Commission may hereafter adopt.

(3) "Commercial laboratory" means any laboratory which analyzes water samples for a fee.

(4) "Composite sample" means: a sample gathered over a 24 hour period by continuous sampling or combining grab samples in such a manner as to result in a total sample which is representative of the wastewater discharge during the sample period. This sample may be obtained by methods given below, however, the Director may designate the most appropriate method, number and size of aliquots necessary and the time interval between grab samples on a case-by-case basis. Samples may be collected manually or automatically.

(a) Continuous - a single, continuous sample collected over a 24 hour period proportional to the rate of flow.

(b) Constant time/variable volume - a series of grab samples collected at equal time intervals over a 24 hour period of discharge and combined proportional to the rate of flow measured at the time of individual sample collection, or

(c) Variable time/constant volume - a series of grab samples of equal volume collected over a 24 hour period with the time intervals between samples determined by a preset number of gallons passing

the sampling point. Flow measurement between sample intervals shall be determined by use of a flow recorder and totalizer, and the preset gallon interval between sample collection fixed at no greater than 1/24 of the expected total daily flow at the treatment system, or

(d) Constant time/constant volume - a series of grab samples of equal volume collected over a 24 hour period at a constant time interval. This method may be used in situations where effluent flow rates vary less than 15 percent. The grab samples shall be taken at intervals of no greater than 20 minutes apart during any 24 hour period and must be of equal size and of no less than 100 milliliters. Use of this method requires prior approval by the Director.

(5) "Daily" means every day on which a wastewater discharge occurs except Saturdays, Sundays and legal holidays unless otherwise specified by the Director.

(6) "Design flow" means the average daily volume of wastewater which a water pollution control facility was designed, approved and constructed to treat.

(7) "Design treatment capability" means a water pollution control facility's capacity to achieve a specified degree of reduction in waste constituents at a specified design flow, to meet specified limits or removal efficiencies.

(8) "Director" means the Director of the Division of Environmental Management, Department of Environment, Health, and Natural Resources.

(9) "Division" means the Division of Environmental Management, Department of Environment, Health, and Natural Resources.

(10) "Domestic wastewater" means water-carried human wastes together with all other water-carried wastes normally present in wastewater from non-industrial processes.

(11) "Downstream" means locations in the receiving waters below (downstream of) a point of waste discharge after a reasonable opportunity for dilution and mixture as specified in the Commission's "Rules, Regulations, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina."

(12) "Effluent" means wastewater discharged following all treatment processes from a water pollution control facility or other point source whether treated or untreated.

(13) "Flow" means the total volume of wastewater discharged from an outlet during any given period.

(14) "Grab sample" means an individual sample collected instantaneously. Samples of this type must be representative of the discharge or the receiving waters.

(15) "Industrial establishment" means any industrial, business, commercial or governmental enterprise which produces water carried wastes.

(16) "Influent" means the wastewater entering a water pollution control facility.

(17) "Monitoring" means a program of sample collection, analysis, and observation sufficient to quantify various aspects of waste streams, treatment plant operations and environmental impacts.

(18) "Point source" means any discernible, confined, and discrete conveyance, including, but not specifically limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, or concentrated animal feeding operation from which waste is or may be discharged to the waters of the state.

(19) "Quarterly" means occurring four times during a 12-month period at a frequency of once per each interval of three consecutive months.

(20) "Quarterly Average" means the average of all samples taken over a quarterly period.

(21) "Sample" means a representative portion of the wastewater from water pollution control facilities or of receiving waters.

(22) "Standard Industrial Classification" (SIC) means those numerical designations set forth in "The Standard Industrial Classification Manual," (Superintendent of Documents, U.S. Government Printing Office) classifying industries according to the type of activity (relating to major products manufactured or principle services furnished) in which they are engaged. For the purposes of this Section, each industry or unit of government shall be classified by SIC numbers applicable to each activity carried on by such establishment or unit which results in a discharge of wastewater. In addition, any industrial establishment or unit of government which collects or discharges domestic sewage is hereby assigned SIC number 4952. The Standard Industrial Classification Manual, as used in this Section, is hereby incorporated by reference, including any subsequent amendments and editions. A copy is available for inspection at the central office of the Division of Environmental Management, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained at the GPO Bookstore, Room 100, 275 Peachtree Street NE, or Post Office Box 56445, Atlanta GA 30343 at a cost of twenty-four dollars ($24.00).

(23) "Storet number" means a number which designates a test or measurement according to the analytical procedure used or a method of measurement and units of measurement. Storet is an acronym for the water quality data storage and retrieval computer system of the Environmental Protection Agency.

(24) "Toxic substances" means any substance, or combinations of substances, including disease-causing agents, which, after discharge, and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, has the potential to cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions or suppression of reproduction or growth) or physical deformities in such organisms or their offspring or other adverse health effects.

(25) "Toxicity monitoring" means controlled toxicity testing procedures employed to measure lethality or other harmful effects as measured by either aquatic populations or indicator species used as test organisms from exposure to a specific chemical or mixture of chemicals (as in an effluent) or ambient stream conditions.

(26) "Unit of government" means any incorporated city, town or village, county, sanitary district, metropolitan sewerage district, water or sewer authority, special purpose district, other municipality, or any agency, board, commission, department or political subdivision or public corporation of the state, now or hereafter created or established, empowered to provide wastewater collection systems or wastewater treatment works.

(27) "Upstream" means locations in the receiving waters near but above (upstream of) a point of wastewater discharge and unaffected by the discharge.

(28) "Water pollution control facilities" or "facility" means "treatment works" as defined in G.S. 143-213.

History Note: *Authority G.S. 143-213; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. April 1, 1993; December 1, 1984.

15A NCAC 02B .0504 CLASSIFICATION OF WASTE SOURCES

(a) All persons subject to the requirements of these Rules shall determine the standard industrial classification (SIC) number for each type of activity (required to be reported under Rule .0506 of this Section) in which they are engaged by reference to the Standard Industrial Classification Manual.

(b) Environmental Management Commission hereby assigns SIC number 4952 to every industrial establishment or unit of government which collects or discharges domestic wastewater, whether from on-premises bathrooms, restrooms, kitchens, dining rooms, water pollution control facilities, or from any other source.

(c) The owner or person in responsible charge of every water pollution control facility, which receives a wastewater influent from more than one source, shall determine and report to the Department of Environment, Health, and Natural Resources the name and standard industrial classification number(s) for each applicable activity(ies) of every industrial establishment contributing wastes containing toxic substances, in toxic quantities, and also every industrial establishment contributing an average daily wastewater influent of one percent or more of the design flow of the facility or in excess of 100,000 gallons per day, whichever is less, and shall report such other information as is required by Rule .0505 of this Section; provided; however, that it is not required that the name and SIC number of any source contributing domestic sewage influent only be reported hereunder.

(d) The average daily influent volume contributed by any one source may be computed by dividing the total volume of wastewater discharged by the source during the reporting year by the total number of days that the source operated during the reporting year.

History Note: *Authority G.S. 143-215.64; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. April 1, 1993; December 1, 1984; November 1, 1978.

15A NCAC 02B .0505 MONITORING REQUIREMENTS

(a) General. Every person subject to this Section shall be required to establish, operate and maintain a monitoring program consistent with their National Pollutant Discharge Elimination System (NPDES) Permit or as required by the Director.

(b) Wastewater and Stream Flow Measurement.

(1) A device or method, approved by the Director for determining the rate of flow of all discharges of wastewater whether treated or untreated shall be provided at those point sources of which monthly reports of monitoring tests and measurements are required unless specifically excepted by the Director as not significant. All water pollution control facilities shall install, operate, and maintain continuous flow measuring with recording devices or totalizing devices, if approved by the Director, or shall employ other flow measuring or flow control methods approved by the Director and shall submit monthly reports of such data as required in Rule .0506 of this Section. The permittee shall install appropriate flow measurement devices consistent with approved engineering and scientific practices to ensure the accuracy and reliability of measurements of the volume of monitored discharges. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10 percent from true discharge volumes. Flow measurement devices shall be accurately calibrated at a minimum of once per year and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. The flow measurement device and location shall be approved by the Director prior to installation. Records of flow measurement device calibration shall be kept on file by the permittee for a period of at least three years. At a minimum, data to be included in this documentation shall be:

(A) Date of flow measurement device calibration

(B) Name of person performing calibration.

(2) A reading of the U.S. Geological Survey stream flow staff gauge or reference point shall be made at the time of stream sampling in those instances so determined the Director.

(c) Sampling.

(1) Frequency and Location. Except as otherwise provided herein, all industrial establishments and units of government shall take influent, effluent and stream samples at such locations and with such frequency as shall be necessary to conduct the tests and analyses required by Rule .0508 of this Section.

(2) Establishment of Sampling Points:

(A) Sampling points as required in Rule .0508 of this Section shall be established for collecting influent and effluent samples for each facility.

(B) Sampling points shall be established in the receiving waters at one or more upstream locations and at one or more downstream locations. These locations shall be specified by the Director.

(3) Collection of Samples:

(A) Samples collected in receiving waters shall be grab samples.

(B) Samples of the influent and effluent of the water pollution control facility or other point source shall be composite samples, except as provided in Rule .0505 (c)(3)(C) of this Section, or for facilities with design flows of 30,000 gallons per day or less unless required by the Director. The Director may specify the methods of sample collection as to type of sample and type of composite sampling required.

(C) The following influent and effluent tests shall be made on grab samples and shall not be made on composite samples:

(i) dissolved oxygen,
(ii) temperature,
(iii) settleable matter,
(iv) turbidity,
(v) pH,
(vi) residual chlorine,
(vii) coliform bacteria (fecal or total),
(viii) cyanide,
(ix) oil and grease,
(x) sulfides,
(xi) phenols,
(xii) volatile organics.

(4) Stream sampling may be discontinued at such times as flow conditions in the receiving waters or extreme weather conditions will result in a substantial risk of injury or death to persons collecting samples. In such

cases, on each day that sampling is discontinued, written justification for the discontinuance shall be specified in the monitoring report for the month in which the event occurred. This provision shall be strictly construed and may not be utilized to avoid the requirements of this Section when performance of these requirements is attainable. When there is a discontinuance pursuant to this provision, stream sampling shall be resumed at the first opportunity after the risk period has ceased.

(d) Biological and Toxicity Monitoring. Biological and Toxicity monitoring may be required when, in the opinion of the Director, such monitoring is necessary to establish whether the designated best use of the waters as determined by the Environmental Management Commission, is being or may be impaired or when toxic substances are known or suspected to be present in the facility's discharge.

(e) Tests and Analyses.

(1) If a water pollution control facility receives waste influent from two or more sources, every test required by Rule .0508 of this Section for the standard industrial classification number applicable to the sources shall be performed one time, and it shall not be necessary to repeat such tests for each source; however, the tests shall be performed at the intervals specified by Rule .0508 of this Section for the applicable industrial classification requiring the most frequent test interval.

(2) If analyses of samples of any effluent or any receiving water (collected by the state or a public agency) indicate a violation of effluent limitations, or water quality standards or indicate exceedances of stream action levels or that a violation of water quality standards or exceedances of stream action levels may result under any projected conditions including minimum stream flow and temperature extremes, the Director may require the person responsible for the violation or potential violation to monitor the pollutants or parameters at such points and with such frequency as he determines appropriate. If the source of the pollutant is unknown, the Director may require monitoring for specific pollutants from any suspected discharger.

(3) If the wastewaters discharged by any water pollution control facility violate any effluent limitations or water quality standards or exceeds any stream action levels or contribute to the violation of water quality standards or exceedance of stream action levels established by the Environmental Management Commission the facility shall perform and report such additional tests and measurements at such frequencies and for such periods of time as the Director may require.

(4) Approved Methods of Analysis. The methods used in collection, preservation and analysis of samples shall conform to the guidelines of the Environmental Protection Agency codified as 40 CFR Part 136, which is hereby incorporated by reference including any subsequent amendments and editions. Copies may be obtained from the New Orders, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954 at a cost of three hundred forty dollars ($340.00) per edition. The single volume containing 40 CFR Part 136 may be obtained at a cost of thirty dollars ($30.00). Other analytical procedures shall conform to those found in either the most recent approved edition of "Standard Methods for the Examination of Water and Wastewater", (published jointly by the American Public Health Association, the American Water Works Association, and the Water Environment Federation), or "Methods for Chemical Analysis of Waters and Wastes", 1983, or subsequent editions or other methods as approved by the Director. Standard Methods for the Examination of Water and Wastewater is hereby incorporated by reference including any subsequent approved amendments and approved editions. Copies may be obtained from the American Water Works Association, 6666 West Quincy Avenue, Denver CO 82535 at a cost of one hundred sixty dollars ($160.00) per edition. Methods for Chemical Analysis of Waters and Wastes is hereby incorporated by reference including any subsequent amendments and editions. Copies may be obtained from the NTIS, 5285 Port Royal Road, Springfield, VA 22161 at a cost of fifty dollars ($50.00) per edition. All material incorporated by reference in this Rule is available for inspection at the Central office of the Division of Environmental Management, 512 North Salisbury Street, Raleigh, North Carolina 27626-0535. All test procedures must produce detection and reporting levels that are below the permit discharge requirements and all data generated must be reported to the approved detection level or lower reporting level of the procedure. If no approved methods are determined capable of achieving detection and reporting levels below permit discharge requirements, then the approved method with the lowest detection and reporting level must be used. Biological testing shall be performed in accordance with 15A NCAC 2B .0103(b).

(5) Approval of Laboratories. Analytical determinations made pursuant to the monitoring and reporting requirements of this Section shall be made in adequately equipped laboratories staffed by person(s) competent to perform tests. Only monitoring programs which provide for the making of analytical

determinations by qualified employees of the owner or by a laboratory certified by the Division under 15A NCAC 2H .0800 or 15A NCAC 2H .1100 will be considered adequate.

(f) Process Control Monitoring Testing: The Director may require, on a case-by-case basis, process control monitoring testing suitable for the size and classification of the facility.

History Note: *Authority G.S. 143-215.64; 143-215.66; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. April 1, 1993; December 1, 1984; November 1, 1978.

15A NCAC 02B .0506 REPORTING REQUIREMENTS

(a) General:

(1) Every person subject to this Section shall file certified monitoring reports setting forth the results of tests and measurements conducted pursuant to NPDES permit monitoring requirements.

(A) Monthly monitoring reports shall be filed no later than 30 calendar days after the end of the reporting period for which the report is made.

(B) Reports filed pursuant to the requirements of Subparagraph (a)(1) of this Rule shall be of forms furnished or approved by the Director and shall be submitted in duplicate to:

ATTN: CENTRAL FILES
DIVISION OF ENVIRONMENTAL MANAGEMENT
POST OFFICE BOX 29535
RALEIGH, NORTH CAROLINA 27626-0535.

(C) A copy of all reports submitted to the Director pursuant to this Section shall be retained by the owner of each water pollution control facility for a period of at least three years from the date of submission and be readily available to the Division for inspection.

(D) In order to document information contained in reports submitted to the Director pursuant to this Section, the owner of each pollution control facility is required to retain or have readily available for inspection by the Division, the following items for a period of at least three years from report submission:

(i) the original laboratory reports from any certified laboratory utilized for sample analysis. Such reports must be signed by the laboratory supervisor, and must indicate the date and time of sample collection and analysis, and the analysts' name;

(ii) bench notes and data logs for sample analyses performed by the pollution control facility staff or operator in responsible charge, whether or not the facility has a certified lab; and

(iii) copies of all process control testing.

(E) In situations where no discharge has occurred from the facility during the report period, the permittee is required to submit a monthly monitoring report giving all required information and indicating "NO FLOW" unless the Director agrees to waive the reporting requirement during extended conditions of no discharge.

(2) Every person subject to this Section shall report by telephone to either the central office or appropriate regional office of the Division as soon as possible but no later than 24 hours after occurrence or on the next working day (however, if the occurrence is one which may endanger the public health, or fish or wildlife, and contact with the central office or the appropriate regional office cannot be made, such person shall report as soon as possible to the State Highway Patrol Warning Point in state 1-800-662-7956 or out of state 919-733-3861) following the occurrence or first knowledge of the occurrence of any of the following:

(A) Any failure of a collection system, pumping station or treatment facility resulting in a by-pass without treatment of all or any portion of the wastewater.

(B) Any occurrence at the water pollution control facility which results in the discharge of significant amounts of wastes which are abnormal in quantity or characteristic, such as the dumping of the contents of a sludge digester, the known passage of a hazardous substance through the facility, or any other unusual circumstances.

(C) Any process unit failure, due to known or unknown reasons, that renders the facility incapable of adequate wastewater treatment, such as mechanical or electrical failures of pumps, aerators, compressors, etc.

(3) Persons reporting such occurrences by telephone shall also provide a written report to the Division in letter form setting out the information required in Subparagraph (a)(4) of this Rule and pertinent information pertaining to the occurrence. This report must be received by the Division within five days following first knowledge of the occurrence.

(4) All reports required to be filed by this Section shall contain the following information in addition to such other information as is required for the particular report:

(A) name of facility,

(B) water pollution control facility location,

(C) the class assigned to the water pollution control facility,

(D) the water pollution control facility permit number assigned by the Department of Environment, Health, and Natural Resources to the permit or other approval document issued by the Environmental Management Commission under which the discharge is made,

(E) contact name and telephone number and mailing address,

(F) estimated nature and extent of environmental damage caused by the incident.

(5) Any person desiring confidentiality for any influent information submitted shall specify the influent information for which confidentiality is sought and shall justify such request to the Department of Environment, Health, and Natural Resources, and if such request is approved by the Director shall by an appropriate stamp, indicate the location of such information on each report filed thereafter.

(b) Monthly Monitoring Reports:

(1) Every person operating a monitoring system required by this Section shall file a monitoring report once each month which includes the data for the samples collected during the month. This report shall be filed no later than 30 calendar days after the end of the reporting period for which the report is made.

(2) Monthly monitoring reports shall be reviewed, compliance status determined, certified by signature, and submitted by the following:

(A) For a corporation: by a responsible corporate officer. For the purpose of the Section, a responsible corporate officer means:

(i) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or

(ii) the manager of one or more manufacturing production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding twenty-five million dollars ($25,000,000) (in second quarter 1980 dollars), if authority to sign documents had been assigned or delegated to the manager in accordance with corporate procedures.

(B) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(C) For a municipality, State, Federal, County, or other public agency: by either a principal executive officer or ranking elected official;

(D) Duly authorized representative of the person described in Paragraphs (b)(2)(A), (B) and (C). A person is a duly authorized representative only if:

(i) The authorization is made in writing by a person described in Paragraphs (b)(2)(A), (B) and (C);

(ii) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, a position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(iii) The written authorization is submitted to the Permit Issuing Authority. Permittees authorizing another individual to sign as representative in no way relinquishes any responsibility for the permit or his responsibility to remain familiar with the permit

conditions, limits, including any modifications, and for the compliance data reports for the permit.

(E) Permittee signing the report certifies to the following statement: " I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations." The monthly report shall also be certified by the operator in responsible charge of a classified treatment facility or by the manager of an industrial establishment which has a point source of waste discharge and which does not have a classified water pollution control facility.

(3) In addition to the information required on all reports [see Subparagraph (a)(4) of this Rule] the following information shall be submitted in monthly monitoring reports:

(A) name of person or group collecting sample or making observation;

(B) name of person or group that analyzed sample;

(C) name of operator in responsible charge of the facility and the grade certificate held;

(D) sampling point for each sample;

(E) date and time (on 2400 hour clock basis) at which each grab sample was collected;

(F) composite samples:

(i) date on which collection of composite samples is commenced,

(ii) time of starting and ending of composite sample period on 2400 hour clock basis;

(G) wastewater flow in million gallons per day (MGD);

(H) Results of analyses (reported to the designated number of figures with a properly placed decimal point as indicated on each report sheet) together with the proper storet number (to be furnished by the Division) for the analytical procedure used and the reporting units shall be those specified by the NPDES permit or current enforcement document, unless modified by the Director;

(I) Only numeric values will be accepted in reporting results of fecal coliform testing. The reporting of "too numerous to count" (TNTC) as a value will constitute a violation;

(J) The results of all tests on the characteristics of the effluent, including but not limited to NPDES Permit Monitoring Requirements, shall be reported on monthly report forms;

(K) The monthly average of analysis for each parameter and the maximum and minimum values for the month shall be reported;

(L) Certification by the Operator in Responsible Charge (ORC) as to the accuracy and completeness of the report and that he/she has performed and documented the required visitation and process control.

(c) Additional Reporting/Monitoring Requirements:

(1) When a facility is operated on an independent contract basis, the operator in responsible charge shall notify the owner of the facility in writing of any existing or anticipated conditions at the facility which may interfere with its proper operation and which need corrective action by the owner. The notice shall include recommendations for corrective action.

(2) Two copies of the notice to the owner shall be sent to the Division as an attachment to the next monthly monitoring report.

(3) A log demonstrating visitation at the proper frequency for the assigned classification, including dates and times of visits, and documentation of proper process control monitoring shall be maintained and shall be submitted to the Division upon request. Copies of all information must be readily available for inspection for a period of three years.

(d) All information submitted will be classified as public information unless determined otherwise by the Director.

History Note: *Authority G.S. 143-215.1(b); 143-215.64; 143-215.65; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. August 2, 1993; April 1, 1993; December 1, 1984; November 1, 1978.

15A NCAC 02B .0507 IMPLEMENTATION

History Note: *Authority G.S. 143-215.68; 143-215.64 to 143-215.66;*
Eff. February 1, 1976;
Amended Eff. November 1, 1978;
Repealed Eff. December 1, 1984.

15A NCAC 02B .0508 TESTS AND MEASUREMENTS APPLICABLE TO SICS

(a) Determination of Type and Frequency of Tests and Measurements:

(1) Introduction. The tables set forth in this Rule are designed to indicate, for any particular water pollution control facility or point source, the minimum standard tests and measurements which are to be performed, the minimum frequency with which the tests and measurements are to be conducted, and the location and minimum number of sampling points that are required.

(2) Determination of Facility Class and SIC Numbers. Before these tables may be applied, the standard industrial classification(s) of the activities discharging to the water pollution control facility must be determined from The Standard Industrial Classification Manual. The classification of the facility as determined by the Water Pollution Control System Operators Certification Commission, must also be known.

(b) Modification of Test(s) or Measurement(s) Requirements:

(1) If it is demonstrated to the satisfaction of the Director that any of the tests and measurements, sampling points, or frequency of sampling requirements, as required in this Rule for a particular SIC group, are not applicable to the discharge of a particular water pollution control facility, or if it can be demonstrated that the objectives of this Section can be achieved by other acceptable means, then such requirements may be waived or modified to the extent that the Director determines to be appropriate.

(2) In addition to the tests and measurements as listed in this Rule applicable to each of the SIC groups, persons subject to this Section may be required to perform such additional tests and measurements at such sampling points and with such frequency as are determined by the Director to be necessary to adequately monitor constituents of the waste discharge and their effect upon the receiving waters. This monitoring may include, but not be limited to weekends and holidays as deemed necessary by the Director to ensure representative sampling and proper operation and maintenance of any facility.

(c) Unclassified Activities:

(1) Any person owning or operating a water pollution control facility who determines that a major SIC group(s) is not listed in this Rule for an activity subject to this Section shall so notify the Division.

(2) The Director shall prescribe the number and location of sampling points and the frequency with which tests and measurements must be made for such pollutant or pollutant effects as it shall deem necessary to properly monitor the quantity or quality of waste discharges resulting from any activity subject to this Section which is not included in the major SIC groups set forth in this Rule and to properly monitor effects of the discharges upon the waters of this state.

(d) Index of Major Standard Industrial Groups:

SIC Number	Major Products or Services
1400-1499	Mining
2000-2199	Food, Beverage and Tobacco Processing
2200-2299	Textile Processing
2400-2599	Lumber and Wood Products Except Wet Decking
2600-2699	Paper and Allied Products
2800-2899	Chemical and Allied Products
2900-2999	Petroleum Refining and Related Industries
3100-3199	Leather and Leather Products
3400-3699	Fabricated Metal Products Except Ordnance, Machinery and Transportation Equipment Machinery Electrical Machinery, Equipment and Supplies
4900-4939	Electric, and Gas Services

4941	Water Supply
4952	Wastewater and all facilities discharging primarily domestic wastewater
7000-8999	Services

Abbreviations for sampling locations and frequencies to be used with SIC monitoring requirements:

"I" means influent "E" means effluent "U" means upstream "D" means downstream
"2/month" means samples are collected twice per month with a required 10 day interval between the collection of the samples
"3/week" means samples are collected three times per week on three separate days

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MINING
MINIMUM REQUIREMENTS FOR SIC 1400-1499

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	Turbidity	E	Monthly	Monthly	Monthly	Monthly
2.	Settleable Matter	E	Monthly	Monthly	Monthly	Monthly
3.	TSS	E	Monthly	Monthly	Monthly	Monthly
4.	pH	E	Monthly	Monthly	Monthly	Monthly
5.	Toxics and Toxicity		**	**	**	**

FOOD AND BEVERAGE PROCESSING AND TOBACCO PROCESSING
MINIMUM REQUIREMENTS FOR SIC 2000-2199
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	TSS	E	2/month	Weekly	3/week	Daily
5.	Ammonia Nitrogen	E	Monthly	2/month	Weekly	Weekly
6.	Total Nitrogen	E	*	*	*	*
7.	Total Phosphorus	E	*	*	*	*
8.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily
8.	Ammonia Nitrogen	E	2/month	Weekly	3/week	Daily
9.	Total Nitrogen	E	*	*	*	*
10.	Total Phosphorus	E	*	*	*	*
11.	Toxics and Toxicity		**	**	**	**

12.	Conductivity	E	Weekly	Weekly	3/week	Daily
13.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

TEXTILE PROCESSING
MINIMUM REQUIREMENTS FOR SIC 2200-2299
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	COD	E	2/month	Weekly	3/week	Daily
5.	TSS	E	2/month	Weekly	3/week	Daily
6.	Total Nitrogen	E	*	*	*	*
7.	Total Phosphorus	E	*	*	*	*
8.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	COD	E	2/month	Weekly	Weekly	Weekly
8.	TSS	E	2/month	Weekly	3/week	Daily
9.	Total Nitrogen	E	*	*	*	*
10.	Total Phosphorus	E	*	*	*	*
11.	Toxics and Toxicity		**	**	**	**
12.	Conductivity	E	Weekly	Weekly	3/week	Daily
13.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

LUMBER AND WOOD PRODUCTS (EXCLUDING WET DECKING)
MINIMUM REQUIREMENTS FOR SIC 2400-2599
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	COD	E	Monthly	2/month	Weekly	3/week
5.	Total Phenols	E	2/month	Weekly	3/week	Daily

6.	TSS	E	2/month	Weekly	3/week	Daily
7.	Total Nitrogen	E	*	*	*	*
8.	Total Phosphorus	E	*	*	*	*
9.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, 0C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, 0C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 200C	E	2/month	Weekly	3/week	Daily
7.	COD	E	2/month	Weekly	3/week	Daily
8.	Total Phenols	E	2/month	Weekly	3/week	Daily
9.	TSS	E	2/month	Weekly	3/week	Daily
10.	Total Nitrogen	E	*	*	*	*
11.	Total Phosphorus	E	*	*	*	*
12.	Toxics and Toxicity		**	**	**	**
13.	Conductivity	E	Weekly	Weekly	3/week	Daily
14.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

PAPER AND ALLIED PRODUCTS
MINIMUM REQUIREMENTS FOR SIC 2600-2699
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	TSS	E	2/month	Weekly	3/week	Daily
5.	Total Nitrogen	E	*	*	*	*
6.	Total Phosphorus	E	*	*	*	*
7.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily
8.	Total Nitrogen	E	*	*	*	*
9.	Total Phosphorus	E	*	*	*	*
10.	Toxics and Toxicity		**	**	**	**
11.	Conductivity	E	Weekly	Weekly	3/week	Daily
12.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

CHEMICAL AND ALLIED PRODUCTS
MINIMUM REQUIREMENTS FOR SIC 2800-2899
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	TSS	E	2/month	Weekly	3/week	Daily
5.	Total Nitrogen	E	*	*	*	*
6.	Total Phosphorus	E	*	*	*	*
7.	Toxics and Toxicity		**	**	**	**
	WATER QUALITY LIMITED					
1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily
8.	Total Nitrogen	E	*	*	*	*
9.	Total Phosphorus	E	*	*	*	*
10.	Toxics and Toxicity		**	**	**	**
11.	Conductivity	E	Weekly	Weekly	3/week	Daily
12.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

PETROLEUM REFINING AND RELATED INDUSTRIES
MINIMUM REQUIREMENTS FOR SIC 2900-2999
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	TSS	E	2/month	Weekly	3/week	Daily
5.	Total Phenols	E	2/month	Weekly	3/week	Daily
6.	Oil and Grease	E	2/month	Weekly	3/week	Daily
7.	Total Nitrogen	E	*	*	*	*
8.	Total Phosphorus	E	*	*	*	*
9.	Toxics and Toxicity		**	**	**	**
	WATER QUALITY LIMITED					
1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily

2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily
8.	Total Phenols	E	2/month	Weekly	3/week	Daily
9.	Oil and Grease	E	2/month	Weekly	3/week	Daily
10.	Total Nitrogen	E	*	*	*	*
11.	Total Phosphorus	E	*	*	*	*
12.	Toxics and Toxicity		**	**	**	**
13.	Conductivity	E	Weekly	Weekly	3/week	Daily
14.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

LEATHER AND LEATHER PRODUCTS
MINIMUM REQUIREMENTS FOR SIC 3100-3199
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	TSS	E	2/month	Weekly	3/week	Daily
5.	COD	E	2/month	Weekly	Weekly	Daily
6.	Ammonia Nitrogen	E	Monthly	Weekly	Weekly	Weekly
7.	Oil and Grease	E	2/month	Weekly	3/week	Daily
8.	Turbidity	E	Weekly	3/week	Daily	Daily
9.	Total Nitrogen	E	*	*	*	*
10.	Total Phosphorus	E	*	*	*	*
11.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily
8.	COD	E	2/month	Weekly	3/week	Daily
9.	Ammonia Nitrogen	E	2/month	Weekly	3/week	Daily
10.	Oil and Grease	E	2/month	Weekly	3/week	Daily
11.	Turbidity	E	Weekly	Weekly	3/week	Daily
12.	Total Nitrogen	E	*	*	*	*
13.	Total Phosphorus	E	*	*	*	*
14.	Toxics and Toxicity		**	**	**	**
15.	Conductivity	E	Weekly	Weekly	3/week	Daily
16.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

FABRICATED METAL PRODUCTS EXCEPT ORDINANCE;MACHINERY AND TRANSPORTATION EQUIPMENT MACHINERYELECTRICAL MACHINERY, EQUIPMENT AND SUPPLIES

MINIMUM REQUIREMENTS FOR SIC 3400-3699

EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	Oil and Grease	E	2/month	Weekly	3/week	Daily
4.	Total Nitrogen	E	*	*	*	*
5.	Total Phosphorus	E	*	*	*	*
6.	Toxics and Toxicity		**	**	**	**
7.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	pH	E	Weekly	Weekly	3/week	Daily
3.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
4.	Oil and Grease	E	2/month	Weekly	3/week	Daily
5.	Total Nitrogen	E	*	*	*	*
6.	Total Phosphorus	E	*	*	*	*
7.	Toxics and Toxicity		**	**	**	**

ELECTRICAL AND GAS SERVICES

MINIMUM REQUIREMENTS FOR SIC 4900-4939

EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	Weekly	Weekly
2.	Temperature, °C	E	Weekly	Weekly	Weekly	Weekly
3.	Total Nitrogen	E	*	*	*	*
4.	Total Phosphorus	E	*	*	*	*
5.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	Weekly	Weekly
2.	pH	E	Weekly	Weekly	Weekly	Weekly
3.	Temperature, °C	E	Weekly	Weekly	Weekly	Weekly
4.	Total Nitrogen	E	*	*	*	*
5.	Total Phosphorus	E	*	*	*	*
6.	Toxics and Toxicity		**	**	**	**

Note: The following monitoring for steam electric generating establishments discharging once through cooling water or cooling tower blowdown shall be required whether or not the discharge is from a classified facility.

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	Temperature, °C	E	Cont.	Cont.	Cont.	Cont.
2.	Temperature, °C	U, D	3/week+	3/week+	3/week+	3/week+
3.	Flow		Continuous during discharge	Continuous during discharge	Continuous during discharge	Continuous during discharge

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WATER SUPPLY PLANTS
MINIMUM REQUIREMENTS FOR SIC 4941
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	Settleable Solids	E	Weekly	Weekly	Weekly	Weekly
2.	TSS	E	2/month	2/month	2/month	2/month
3.	Turbidity	E	Weekly	Weekly	Weekly	Weekly
4.	pH	E	Weekly	Weekly	Weekly	Weekly
5.	Chloride	E	Weekly	Weekly	Weekly	Weekly

DOMESTIC WASTEWATER AND OTHER FACILITIES DISCHARGING PRIMARILY DOMESTIC
MINIMUM REQUIREMENTS FOR SIC 4952
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	2/month	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	I,E	2/month	Weekly	3/week	Daily
4.	TSS	I,E	2/month	Weekly	3/week	Daily
5.	Ammonia Nitrogen	E	Monthly	2/month	Weekly	3/week
6.	Fecal Coliform	E	2/month	Weekly	3/week	Daily
7.	Total Nitrogen	E	*	*	*	*
8.	Total Phosphorus	E	*	*	*	*
9.	Toxics and Toxicity		**	**	**	**
	WATER QUALITY LIMITED					
1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	2/month	Weekly	3/week	Daily
4.	Temperature, °C	E	Daily	Daily	Daily	Daily
5.	Temperature, °5	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E,I	2/month	Weekly	3/week	Daily
7.	TSS	E,I	2/month	Weekly	3/week	Daily
8.	Ammonia Nitrogen	E	2/month	Weekly	3/week	Daily

9.	Residual Chlorine	E	2/week	2/week	3/week	Daily
10.	Fecal Coliform	E	2/month	Weekly	3/week	Daily
11.	Fecal Coliform	U,D	2/month	Weekly	3/week+	3/week+
12.	Conductivity	E	Weekly	Weekly	3/week	Daily
13.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+
14.	Total Nitrogen	E	*	*	*	*
15.	Total Phosphorus	E	*	*	*	*
16.	Toxics and Toxicity		**	**	**	**

SERVICES
MINIMUM REQUIREMENTS FOR SIC 7000-8999
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	TSS	E	2/month	Weekly	3/week	Daily
5.	Ammonia Nitrogen	E	Monthly	2/month	Weekly	3/week
6.	Detergents (MBAS)	E	2/month	Weekly	3/week	Daily
7.	Fecal Coliform	E	2/month	Weekly	3/week	Daily
8.	Total Nitrogen	E	*	*	*	*
9.	Total Phosphorus	E	Monthly	2/month	Weekly	3/week
10.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily
8.	Ammonia Nitrogen	E	Monthly	2/month	Weekly	3/week
9.	Detergents (MBAS)	E	2/month	Weekly	3/week	Daily
10.	Fecal Coliform	E	2/month	Weekly	3/week	Daily
11.	Total Nitrogen	E	*	*	*	*
12.	Total Phosphorus	E	*	*	*	*
13.	Toxics and Toxicity		**	**	**	**
14.	Conductivity	E	Weekly	Weekly	3/week	Daily
15.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

+ Upstream and Downstream monitoring in water quality limited waters is to be conducted three times per week during June, July, August, and September, and once per week during the rest of the year.

* Total Nitrogen and Phosphorus Monitoring

(1) Monitoring Requirements

(A) All facilities equal to or greater than 50,000 gpd, shall monitor for total N and P.

(B) Facilities less than 50,000 gpd shall monitor for total N and P when discharging into nutrient sensitive waters as designated by the Division.

(2) Monitoring frequency for total N and P is based on river subbasins in two separate areas of the state as follows:

(A) Western area includes the French Broad, Broad, Savannah, New, Watauga, Little Tennessee, and Hiwassee:

	Facility Design Capacity:	Frequency
(i)	50,000 gpd or higher	Semi-annually
(ii)	1,000,000 gpd or higher	Quarterly.

(B) Piedmont and Eastern area includes the Catawba, Lumber, Yadkin, Cape Fear, Chowan, Neuse, Pasquotank, Roanoke, Tar-Pamlico, and White Oak:

	Facility Design Capacity	Frequency
(i)	50,000 gpd or higher	Quarterly
(ii)	1,000,000 gpd or higher	Monthly.

(3) Definition for Total Nitrogen and Total Phosphorus:

(A) Total Nitrogen shall be the sum of total kjeldahl nitrogen, nitrate nitrogen, and nitrite nitrogen expressed as "N" in milligrams per liter (mg/l).

(B) Total Phosphorus shall include all orthophosphates and condensed phosphates, both dissolved and particulate, organic and inorganic, expressed as "P" in milligrams per liter (mg/l).

** Specific test type, conditions, and limitations will be defined by permit. Toxicity limits will be applied to all major discharges and all discharges of complex wastewater. Toxicity limitations and monitoring requirements may be applied to permits for other discharges when, in the opinion of the Director, such discharge may impair the best use of the receiving water by the discharge of toxic substances in toxic amounts.
Specific frequency will be defined by individual permit conditions. For most facilities with continuous and regularly occurring discharges, frequency will be defined as a minimum of quarterly.

History Note: *Authority G.S. 143-215.65; 143-215.66; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. April 1, 1993; December 1, 1984; November 1, 1978.

15A NCAC 02B .0509 PENALTIES
15A NCAC 02B .0510 SEVERABILITY

History Note: *Authority G.S. 143-215.68; 143-215.69;*
Eff. February 1, 1976;
Repealed Eff. December 1, 1984.

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 (NH_3-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 controls 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 Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer		X X*	
Archaeological activities	X		
Bridges		X	
Dam maintenance activities	X		
Drainage ditches, roadside ditches and stormwater outfalls through riparian buffers: • 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 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		
Driveway crossings of streams and other surface waters subject to this Rule: • Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet in width and are perpendicular [3] • Driveway crossings on single family residential lots that disturb greater than 25 linear feet in width and are perpendicular[3] • In a subdivision that cumulatively disturbs equal to or less than 150 linear feet in width and are perpendicular	X	X X	

• In a subdivision that cumulatively disturbs greaterthan 150 linear feet in width and are perpendicular		X*	
Fences provided that disturbance is minimized and installation does not result in removal of forest vegetation	X		
Forest harvesting – see Rule .0608			
Fertilizer application: • 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
Mining activities: • 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] • 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.]		 X* X X* X*	

Non-electric utility line perpendicular crossing of streams and other surface waters subject to this Rule that are not collection systems[3]:			
• 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	X		
• 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		X	
• 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		X	
• 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 greaterthan 10 feet in width		X*	
• Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer		X*	
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):			
• 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.		X	
• That does not minimize the sediment, nutrient and other pollution through the riparian buffer by the most appropriate exempt method.			X
On-site sanitary sewage systems - new ones that use ground absorption			X
Overhead electric utility lines[1,2,3]:			
• Stream crossings that disturb equal to or less than 150 linear feet of riparian buffer	X		
• Stream crossings that disturb greater than 150 linear feet of riparian buffer		X*	
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.		X	
Playground equipment:			
• Playground equipment on single family lots provided that installation and use does not result in removal of vegetation	X		
• Playground equipment installed on lands other than single-family lots or that requires removal of vegetation		X	
Ponds in natural drainage ways, excluding dry ponds:			
• New ponds provided that a riparian buffer that meets the diffuse flow requirements of this Rule is established adjacent to the pond		X	

• New ponds where a riparian buffer that meets the diffuse flow requirements of this Rule is NOT established adjacent to the pond			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: • 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: • 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: • 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: • 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 • Temporary roads used for bridge construction or replacement provided that restoration activities, such as soil stabilization and revegetation, are conducted immediately after construction	X	X X	
Temporary sediment and erosion control devices: • To control impacts associated with uses approved by		X	

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		
Underground electric utility lines: • Impacts other than perpendicular crossings [3,4]	X		
Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule: • 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: • 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, Cherri 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 Division of Water Quality, Wetlands Restoration Program, MAIL SERVICE CENTER 1619, RALEIGH, NC 27699-1619 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.