

**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 drainage way (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: <ul style="list-style-type: none"> <li>• Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer</li> <li>• Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer</li> </ul>		X	X	
Archaeological activities	X			
Bridges		X		
Dam maintenance activities	X			
Drainage ditches, roadside ditches and stormwater outfalls through riparian buffers: <ul style="list-style-type: none"> <li>• 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</li> <li>• New drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility</li> </ul>	X	X		

<p>is installed to control nitrogen and attenuate flow before the conveyance discharges through the riparian buffer</p> <ul style="list-style-type: none"> <li>• New drainage ditches, roadside ditches and stormwater outfalls that do not provide control for nitrogen before discharging through the riparian buffer</li> <li>• Excavation of the streambed in order to bring it to the same elevation as the invert of a ditch</li> </ul>				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: <ul style="list-style-type: none"> <li>• 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</li> <li>• Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer</li> <li>• In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer</li> <li>• In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer</li> </ul>	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: <ul style="list-style-type: none"> <li>• One-time fertilizer application to establish replanted vegetation</li> <li>• Ongoing fertilizer application</li> </ul>	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: <ul style="list-style-type: none"> <li>• 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</li> <li>• 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</li> <li>• Wastewater or mining dewatering wells with approved NPDES permit</li> </ul>	X	X	X	
Non-electric utility lines: <ul style="list-style-type: none"> <li>• Impacts other than perpendicular crossings in Zone 2 only<sup>3</sup></li> </ul>		X		

• Impacts other than perpendicular crossings in Zone 1 <sup>3</sup>			X	
Non-electric utility line perpendicular crossing of streams and other surface waters subject to this Rule <sup>3</sup> : • 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 <sup>3</sup> • Impacts other than perpendicular crossings in Zone 1 <sup>1,2,3</sup>	X X			
Overhead electric utility line perpendicular crossings of streams and other surface waters subject to this Rule <sup>3</sup> • Perpendicular crossings that disturb equal to or less than 150 linear feet of riparian buffer <sup>1</sup> • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer <sup>1,2</sup>	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		

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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: <ul style="list-style-type: none"> <li>• Playground equipment on single family lots provided that installation and use does not result in removal of vegetation</li> <li>• Playground equipment installed on lands other than single-family lots or that requires removal of vegetation</li> </ul>	X	X		
Ponds in natural drainage ways, excluding dry ponds: <ul style="list-style-type: none"> <li>• 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</li> <li>• 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</li> </ul>		X	X	
Protection of existing structures, facilities and streambanks when this requires additional disturbance of the riparian buffer or the stream channel		X		
Railroad impacts other than crossings of streams and other surface waters subject to this Rule			X	
Railroad crossings of streams and other surface waters subject to this Rule: <ul style="list-style-type: none"> <li>• Railroad crossings that impact equal to or less than 40 linear feet of riparian buffer</li> <li>• 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</li> <li>• Railroad crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer</li> </ul>	X	X	X	
Removal of previous fill or debris provided that diffuse flow is maintained and any vegetation removed is restored	X			
Road impacts other than crossings of streams and other surface waters subject to this Rule			X	
Road crossings of streams and other surface waters subject to this Rule: <ul style="list-style-type: none"> <li>• Road crossings that impact equal to or less than 40 linear feet of riparian buffer</li> <li>• 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</li> <li>• Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer</li> </ul>	X	X	X	
Scientific studies and stream gauging	X			
Stormwater management ponds excluding dry ponds: <ul style="list-style-type: none"> <li>• 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</li> <li>• New stormwater management ponds where a riparian</li> </ul>		X	X	

buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the pond				
Stream restoration	X			
Streambank stabilization		X		
Temporary roads: <ul style="list-style-type: none"> <li>• Temporary roads that disturb less than or equal to 2,500 square feet provided that vegetation is restored within six months of initial disturbance</li> <li>• Temporary roads that disturb greater than 2,500 square feet provided that vegetation is restored within six months of initial disturbance</li> <li>• Temporary roads used for bridge construction or replacement provided that restoration activities, such as soil stabilization and revegetation, are conducted immediately after construction</li> </ul>	X	X  X		
Temporary sediment and erosion control devices: <ul style="list-style-type: none"> <li>• 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</li> <li>• 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</li> <li>• In-stream temporary erosion and sediment control measures for work within a stream channel</li> </ul>	X  X	X		
Underground electric utility lines: <ul style="list-style-type: none"> <li>• Impacts other than perpendicular crossings in Zone 2 only<sup>3</sup></li> <li>• Impacts other than perpendicular crossings in Zone 1<sup>3,4</sup></li> </ul>	X X			
Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule: <sup>3</sup> <ul style="list-style-type: none"> <li>• Perpendicular crossings that disturb less than or equal to 40 linear feet of riparian buffer<sup>3,4</sup></li> <li>• Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer<sup>3,4</sup></li> </ul>	X	X		

<sup>4</sup> 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	Prohibited
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			Mitigation	
Vegetation management: <ul style="list-style-type: none"> <li>• Emergency fire control measures provided that topography is restored</li> <li>• Periodic mowing and harvesting of plant products in Zone 2 only</li> <li>• Planting vegetation to enhance the riparian buffer</li> <li>• Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised</li> <li>• Removal of individual trees which are in danger of causing damage to dwellings, other structures or human life</li> <li>• Removal of poison ivy</li> <li>• 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</li> </ul>	X X X X X X X			
Water dependent structures as defined in 15A NCAC 02B .0202		X		
Water supply reservoirs: <ul style="list-style-type: none"> <li>• 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</li> <li>• 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</li> </ul>		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.*