## 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 2B .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 1I .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 (4)(a)(iii), 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 2H .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 Paragraph. 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 2B .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 Paragraph. 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 Paragraph.

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Airport facilities:				
• Airport facilities that impact equal to or less than 150		X		
linear feet or one-third of an acre of riparian buffer				
• Airport facilities that impact greater than 150 linear feet			X	
or one-third of an acre of riparian buffer				
Archaeological activities	X			
Bridges		X		
Dam maintenance activities	X			

	Exempt	Allowable	Allowable with Mitigation	Prohibited
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	X			
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		X		
<ul> <li>New drainage ditches, roadside ditches and stormwater outfalls that do not provide control for nitrogen before discharging through the riparian buffer</li> </ul>				X
• Excavation of the streambed in order to bring it to the same elevation as the invert of a ditch				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) 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	X			
<ul> <li>Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer</li> </ul>		X		
• In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer		X		
In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer			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

	Exempt	Allowable	Allowable with Mitigation	Prohibited
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) are established adjacent to the relocated channels		X		
• Mining activities that are not covered by the Mining Act OR where new riparian buffers that meet the requirements or Items (4) and (5) are not established adjacent to the relocated channels			X	
Wastewater or mining dewatering wells with approved NPDES permit	X			
Non-electric utility lines:  • Impacts other than perpendicular crossings in Zone 2 only <sup>3</sup>		X		
• Impacts other than perpendicular crossings in Zone 1 <sup>3</sup>			X	
Non-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     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		X		
<ul> <li>corridor greater than 10 feet in width</li> <li>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</li> </ul>		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			X	
On-site sanitary sewage systems - new ones that use ground				X
absorption				
Overhead electric utility lines:  • Impacts other than perpendicular crossings in Zone 2 only <sup>3</sup>	X			
• Impacts other than perpendicular crossings in Zone 1 <sup>1,2,3</sup>	X			

	Exempt	Allowable	Allowable with Mitigation	Prohibited
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</sup> , <sup>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		
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 requirements of Items (4) and (5) is established adjacent to the pond		X		
• New ponds where a riparian buffer that meets the requirements of Items (4) and (5) 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	X	X		
<ul> <li>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	
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	

	Exempt	Allowable	Allowable with Mitigation	Prohibited
<ul> <li>Road crossings of streams and other surface waters subject to this Rule:</li> <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:  New stormwater management ponds provided that a riparian buffer that meets the requirements of Items (4) and (5) is established adjacent to the pond  New stormwater management ponds where a riparian buffer that meets the requirements of Items (4) and (5) 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	X	X		
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		
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)  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	X	X		
In-stream temporary erosion and sediment control measures for work within a stream channel	X			
<ul> <li>Underground electric utility lines:</li> <li>Impacts other than perpendicular crossings in Zone 2 only</li> </ul>	X			
• Impacts other than perpendicular crossings in Zone 1 <sup>4</sup>	X			

	Exempt	Allowable	Allowable with Mitigation	Prohibited
<ul> <li>Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule:</li> <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		
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 of poison ivy	X			
<ul> <li>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</li> </ul>	X			
Water dependent structures as defined in 15A NCAC 2B .0202		X		
<ul> <li>Water supply reservoirs:</li> <li>New reservoirs provided that a riparian buffer that meets the requirements of Items (4) and (5) is established adjacent to the reservoir</li> </ul>		X		
• New reservoirs where a riparian buffer that meets the requirements of Items (4) and (5) is NOT established adjacent to the reservoir			X	
Water wells	X			
Wetland restoration	X			

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.
- 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.

<sup>3</sup> Perpendicular crossings are those that intersect the surface water at an angle between 75° and 105°.

- 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.
  - (7) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated as exempt, allowable, allowable with mitigation and prohibited in Item (6) of this Paragraph 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 Paragraph 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 Paragraph. 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 Paragraph and an appropriate mitigation strategy has been approved pursuant to Item (10) of this Paragraph. 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 Paragraph. 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 Paragraph 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.

<sup>&</sup>lt;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 alternative evaluation.

<sup>&</sup>lt;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 alternative evaluation by the Division.

- (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 Paragraph 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 Paragraph 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 Paragraph, 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 Paragraph 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 Paragraph.
  - (b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 2B .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 1I .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 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 1I .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 2B .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 Paragraph that surface waters are not present;
- (B) Has received an Authorization Certificate from the Division pursuant to Item (8) of this Paragraph for uses designated as Allowable under this Rule;
- (C) Has received an Authorization Certificate from the Division pursuant to Item (8) of this Paragraph and obtained the Division's approval on a mitigation plan pursuant to Item (10) of this Paragraph 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 Paragraph.
- (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. 1999-329, 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 Paragraph.
- (6) OPTIONS FOR MEETING THE MITIGATION DETERMINATION. The mitigation determination made pursuant to Item (5) of this Paragraph 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 Paragraph.
  - (b) Donation of real property or of an interest in real property pursuant to Item (8) of this Paragraph.
  - (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 Paragraph.
- (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 Paragraph 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 Paragraph.
- (d) The Division of Water Quality shall review the fee outlined in Sub-item (7)(a) of this Paragraph 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 Paragraph 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 Paragraph. The value of the property interest shall be determined by an appraisal performed in accordance with Sub-item (8)(d)(iv) of this Paragraph. 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 Paragraph, 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 Paragraph.
    - (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 Paragraph.
  - (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 Paragraph.
    - (ii) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Item (3) of this Paragraph.
  - (b) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Item (4) of this Paragraph.
  - (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. 1999-329, 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;

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