



**STATE OF NORTH CAROLINA  
OFFICE OF ADMINISTRATIVE HEARINGS**

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June 19, 2013

Jennifer Everett  
1601 Mail Service Center  
Raleigh, NC 27699-1601

Re: 15A NCAC 02B .0295

Dear Ms. Everett:

At its June 19, 2013 meeting the Rules Review Commission objected to the above-captioned rule in accordance with G.S. 150B-21.10.

The Commission objected to Paragraph (c) of this rule based on ambiguity. On its face it requires that an applicant:

“shall submit to the Division a . . . mitigation proposal . . . [that] shall include conservation easements . . . to ensure perpetual maintenance and protection of the site’s . . . functions, a non-wasting endowment or other financial mechanism for perpetual maintenance and protection, and a completion bond . . .”

It would appear that the rule requires an applicant to submit with his proposal a signed conservation easements (if applicable), an endowment, and a completion bond, all of which could be quite costly. This is before the application is acted upon and could be rejected. However, it appears the agency does not intend to require fulfillment of all these conditions until after the application is approved. At the very least this creates some ambiguity in the way the rule reads and the way the agency has indicated that it intends to enforce the rule.

The Commission objected to Paragraph (g) of this rule based on ambiguity. In (g), page 6 line 12, it is unclear what constitutes a “forested riparian buffer.” There is no definition for “forested” and no definition for “riparian buffer.” Since attaining this condition is one of the purposes for or goals of engaging in either “enhancement” or “restoration” it has to be clear if it is attained or at least attainable.

In (g)(6)(B), page 7 lines 16 and 17, it is unclear whether in approving alternative plans the division is permitted to waive the requirements of (c) or merely the requirements in this sub-sub-paragraph. In either case the goal or purpose of this part of the rule, and what the alternative plan is to be measured against, must be made clear.

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The Commission objected to Paragraphs (j) and (k) based on the same ambiguity. In (j) on page 9 of the rule, it is unclear whether an applicant can mix various mitigation possibilities in all cases. Paragraph (c)(1) – (3) (page 3 of the rule) appears to allow an applicant to use any of certain means to mitigate that damage:

- (1) The applicant can take physical steps to repair or replace the damage at that site or another site;
- (2) The applicant can pay money into a fund; or
- (3) The applicant can donate real property to use as a conservation easement.

In (c) lines 19 – 22, the rule states that an applicant can propose “any of [the above] types of mitigation.” This belief that the rule appears to allow a mixture also reappears in (j)(1) lines 3 – 5. That part of the rule states that donation of real property interests may be used to either “partially or fully satisfy” the payment of a compensatory mitigation fee. That same subparagraph, in lines 8 and 9, goes on to say that if the value of the donated property is less than the required fee, the applicant shall “pay the remaining balance due.” However (j)(3)(C) requires that the size of the buffer of donated real property must equal the required mitigation area. That appears to limit the application of (c)(3) and (j)(1). The last line of sub-sub-paragraph (j)(3)(D) in line 1 at the top of page 10 also requires that “[r]estoration of the [donated] property shall be capable of fully offsetting the adverse impacts of the requested use.” (Emphasis added.) This also appears to limit the application of (c)(3) and (j)(1). At any rate both of these provisions certainly make the rule unclear as to whether or not using a mix applies in all cases.

This lack of clarity about exactly what mitigation means are available occurs again in (k)(2)(B) page 13 lines 4 through 6 where precise area requirements for restoration or enhancement projects are set out.

If the applicant is not permitted to use a mix of the allowed mitigations, then the rule needs to be rewritten to state that “the applicant shall use one of the following forms of mitigation” (or similar language) rather than “any of the following.”

Please respond to this letter in accordance with the provisions of G.S. 150B-21.12. If you have any questions regarding the Commission’s action, please let me know.

Sincerely,



Joseph J. DeLuca, Jr.  
Commission Counsel

JJD:jbe

1 15A NCAC 02B .0295 HAS BEEN ADOPTED WITH CHANGES AS PUBLISHED IN 27:14 NCR 1292-1323 AS  
2 FOLLOWS [NOTE: OPTION C WAS ADOPTED IN (e); OPTION 2 IN (g)(10) WAS MOVED TO (k)(2)(E) AND  
3 ADOPTED WITH ADDITIONAL CLARIFYING LANGUAGE; OPTION 2 IN (k)(1)(D) WAS ADOPTED AND  
4 RENUMBERED TO (k)(1)(B); OPTION 2 WAS ADOPTED IN (k)(2)(C) WITH ADDITIONAL CLARIFYING  
5 LANGUAGE; AND OPTION 1 IN (l)(5) WAS ADOPTED WITH ADDITIONAL CLARIFYING LANGUAGE  
6 AND RENUMBERED TO (l)(3)]:

7  
8 **15A NCAC 02B .0295 MITIGATION PROGRAM REQUIREMENTS FOR PROTECTION AND**  
9 **MAINTENANCE OF RIPARIAN BUFFERS**

10  
11 (a) PURPOSE. The purpose of this Rule is to set forth the mitigation requirements that apply to applicants who  
12 wish to impact a riparian buffer and to set forth requirements for buffer mitigation providers. Buffer mitigation is  
13 required when one of the following applies:

- 14 (1) The applicant has received an authorization certificate, for impacts that cannot be avoided or  
15 practicably minimized, pursuant to 15A NCAC 02B .0233, 15A NCAC 02B .0243, 15A NCAC  
16 02B .0250, 15A NCAC 02B .0259, 15A NCAC 02B .0267 and 15A NCAC 02B .0607; ~~protection~~  
17 ~~and maintenance of existing riparian buffers: purpose, applicability, jurisdiction and exemptions.~~  
18 (2) The applicant has received a variance pursuant to 15A NCAC 02B .0233, 15A NCAC 02B .0243,  
19 15A NCAC 02B .0250, 15A NCAC 02B .0259, 15A NCAC 02B .0267 and 15A NCAC 02B  
20 .0607 and is required to perform mitigation as a condition of a variance approval.

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

- 22 (1) "Authority" means either the Division or a local government that has been delegated or designated  
23 to implement the riparian buffer program.  
24 (2) "Division" means the Division of Water Quality of the North Carolina Department of  
25 Environment and Natural Resources.  
26 (3) "Enhancement Site" means riparian zone sites that shall be distinguished from restoration or  
27 preservation sites by being characterized by conditions between restoration and preservation such  
28 that the planting of woody stems (i.e. shrubs or saplings) will maximize nutrient removal and other  
29 buffer functions.  
30 (4) ~~"Government Entity" means the State and its agencies and subdivisions, the federal government,~~  
31 ~~and units of local government.~~  
32 (4) "Hydrologic Area" means the Watershed Boundary Dataset (WBD), located at  
33 <http://datagateway.nrcs.usda.gov> using the eight-digit Hydrologic Unit Code (HUC) prepared by  
34 the United States Geological Survey.  
35 (5) "Locational Ratio" means a mitigation ratio applied to the mitigation requirements based on the  
36 location of the mitigation site relative to the impact site.

- 1 (6) "Monitoring period" means the length of time specified in the approved mitigation plan during  
2 which monitoring of vegetation success, ~~stream stability,~~ and other anticipated benefits to the  
3 adjacent water as listed in the Authorization Certification is done.
- 4 (7) "Non-wasting endowment" means a fund that generates enough interest ~~each year~~ to cover the cost  
5 of the long term monitoring and maintenance.
- 6 (8) "Off-site" means ~~off the property on which the buffer impacts occur but within the most recent~~  
7 ~~version of the Watershed Boundary Dataset (WBD), located at <http://datagateway.nres.usda.gov>~~  
8 ~~using the 12 digit HUC prepared by the United States Geological Survey~~ an area that is not located  
9 on the same parcel of land as the impact site.
- 10 (9) "On-site" means ~~on the property on which the impact occurred and which is owned by the~~  
11 ~~applicant or to which the applicant holds an easement adequate to allow the proposed mitigation~~  
12 an area located on the same parcel of land as the impact site.
- 13 (10) "Outer Coastal Plain" means the portion of the state shown as the Middle Atlantic Coastal Plain  
14 (63) on Griffith, et al (2002) "Ecoregions of North and South Carolina". Reston, VA, United  
15 States Geological Survey.
- 16 (11) "Physiographic province" means one of the four Level III ecoregion shown on Griffith, et al  
17 (2002) "Ecoregions of North and South Carolina". Reston, VA, United States Geological Survey.
- 18 (12) "Preservation Site" means riparian zone sites that are characterized by a ~~closed canopy of tree~~  
19 ~~species of greater than or equal to five inches diameter at breast height (dbh) or characterized by a~~  
20 ~~dense growth of smaller woody stems~~ natural forest consisting of the forest strata and diversity of  
21 species appropriate for the physiographic province.
- 22 (13) "Restoration Site" means riparian zone sites that are characterized by an absence of trees ~~greater~~  
23 ~~than or equal to five inches diameter at breast height (dbh) and,~~ by a lack of dense growth of  
24 smaller woody stems (i.e. shrubs or saplings); or sites that are characterized with scattered  
25 individual trees such that the tree canopy is less than 25% of the cover and by a lack of dense  
26 growth of smaller woody stems (i.e. shrubs or saplings). ~~by open tree canopies such that the~~  
27 ~~planting of woody stems will maximize nutrient removal and other buffer functions. With open~~  
28 ~~tree canopies, the extent of the canopy shall be measured from the outer edge of the drip zone of~~  
29 ~~the tree.~~
- 30 (14) "Riparian wetland" means a wetland that is found in one or more of the following landscape  
31 positions: in a geomorphic floodplain; in a natural topographic crenulation; contiguous with an  
32 open water greater than or equal to 20 acres in size; or subject to tidal flow regimes excluding  
33 salt/brackish marsh wetlands.
- 34 (15) "Urban" means ~~a percent impervious cover of at least 24% in the watershed upstream of the upper~~  
35 ~~end of the mitigation reach~~ an area that is designated as an urbanized area under the most recent  
36 federal decennial census or within the corporate limits of a municipality and areas where post-  
37 construction stormwater requirements apply according to Session Law 2006-246.

1           (15)(16) "Zonal Ratio" means a mitigation ratio applied to impact amounts in the respective zones of the  
2           riparian buffer.

3           (c) APPLICATION REQUIREMENTS, MITIGATION SITE REQUIREMENTS AND MITIGATION OPTIONS.

4           Any applicant who seeks approval to impact riparian buffers covered under this Rule and who has met the  
5           requirements of Paragraph (a) shall submit to the Division a written mitigation proposal that calculates the required  
6           area of mitigation and describes the area and location of each type of proposed mitigation. The applicant may not  
7           impact buffers until the Division has approved the mitigation plan by issuance of written authorization. For all  
8           options except payment of a fee under Paragraph (h) or (i), the proposal shall include conservation easements or  
9           similar legal protection mechanisms to ensure perpetual maintenance and protection of the mitigation site's nutrient  
10          removal and other water quality functions, a non-wasting endowment or other financial mechanism for perpetual  
11          maintenance and protection, and a completion bond(s) that is payable to the Division sufficient to ensure that land  
12          purchase, construction, monitoring and maintenance are completed. ~~An exception would be where the applicant is a~~  
13          ~~local government and has entered a binding intergovernmental agreement with the Division to complete the project~~  
14          ~~and manage and protect the property consistent with the requirements of this rule, such local government shall not~~  
15          ~~be required to provide a non-wasting endowment or a performance bond.~~ For each mitigation site, the Division shall  
16          identify appropriate functional criteria to measure the anticipated benefits of the mitigation to the adjacent water.  
17          The Division shall issue a mitigation determination that specifies the area, type and location of mitigation and the  
18          water quality benefits to be provided by the mitigation site. The mitigation determination issued according to this  
19          rule shall be included as an attachment to the Authorization Certification. The applicant may propose any of the  
20          following types of mitigation and shall provide a written demonstration of practicality that takes into account the  
21          relative cost and availability of potential options, as well as information addressing all requirements associated with  
22          the option proposed:

23           (1)     Applicant provided on-site or off-site riparian buffer restoration, enhancement or preservation  
24           pursuant to Paragraph (g) of this Rule;

25           (2)     Payment of a compensatory mitigation fee to a mitigation bank if buffer credits are available  
26           pursuant to paragraph (h) of this Rule or payment of a compensatory mitigation fee to the Riparian  
27           Buffer Restoration Fund pursuant to Paragraph (i) of this Rule. ~~Payment to the Riparian Buffer~~  
28           ~~Restoration Fund shall be an option for applicants other than Government Entities only when~~  
29           ~~credits are not available from a mitigation bank located within the same 8-digit cataloguing unit as~~  
30           ~~the buffer impact pursuant to Paragraph (h) of this Rule is not available~~ must conform to the  
31           requirements of G.S. 143-214.20;

32           (3)     Donation of real property or of an interest in real property pursuant to Paragraph (j) of this Rule;  
33           and/or,

34           (4) ~~=~~     Alternative buffer mitigation options pursuant to Paragraph (k) of this Rule;

35           (d) AREA OF IMPACT. The Authority shall determine the area of impact in square feet to each zone of the  
36           proposed riparian buffer impact by adding the following:

37           (1)     The area of the footprint of the use ~~causing the impacting to the riparian buffer;~~

- (2) The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use;
- (3) The area of any ongoing maintenance corridors within the riparian buffer associated with the use, and
- (4) The Authority shall deduct from this total the area of any wetlands that are subject to and compliant with riparian wetland mitigation requirements under 15A NCAC 02H .0506 and are located within the proposed riparian buffer impact area.

(e) AREA OF MITIGATION BASED ON ZONAL AND LOCATIONAL MULTIPLIERS MITIGATION RATIOS. The Authority shall determine the required area of mitigation for each zone by applying each of the following ~~multipliers-ratios~~ to the area of impact calculated under paragraph (d) of this Rule with a 3:1 ~~multiplier ratio~~ for Zone 1 and 1.5:1 ~~multiplier-ratio~~ for Zone 2, except that the required area of mitigation for impacts proposed within the Goose Creek watershed ~~as-is~~ 3:1 for the entire buffer and -the Catawba River watershed ~~as-is~~ 2:1 for Zone 1 and 1.5:1 for Zone 2, -and,

- (1) In addition to the ~~multipliers-ratios~~ listed above in paragraph (e), the applicant or mitigation provider must:

Option A: ~~use the following locational multipliers as applicable based on location of the proposed mitigation site relative to that of the proposed impact site. Once the multipliers are determined, an option is to pay for the required mitigation. Payment of a compensatory mitigation fee to a mitigation bank if mitigation credits are available pursuant to Paragraph (h) of this rule or payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Paragraph (i) of this Rule. Payment to the Riparian Buffer Restoration Fund for applicants other than Government Entities shall be available only when payment to a mitigation bank pursuant to Paragraph (h) of this rule is not available. Alternative mitigation options shown in Paragraph (k) of this rule shall be subject to these locational multipliers. Mitigation may be conducted within an adjacent eight digit HUC at a 2:1 ratio if written documentation of the impracticality of conducting mitigation within the appropriate 8 digit HUC is reviewed and approved by the Division,~~

~~Option B: use the following locational multipliers as applicable based on location of the proposed mitigation site relative to that of the proposed impact site. Once the multipliers are determined, an option is to pay for the required mitigation. Payment of a compensatory mitigation fee to a mitigation bank if mitigation credits are available pursuant to Paragraph (h) of this rule or payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Paragraph (i) of this Rule. Payment to the Riparian Buffer Restoration Fund for applicants other than Government Entities shall be available only when payment to a mitigation bank pursuant to Paragraph (h) of this rule is not available. Alternative mitigation options shown in Paragraph (k) of this rule shall be subject to the following locational multipliers. Mitigation may be conducted within an adjacent 8 digit HUC at a 2:1 ratio if written documentation of the impracticality of~~

1 conducting mitigation within the appropriate 8 digit HUC is reviewed and approved by the  
2 Division;

| Adjacent 8 digit<br>HUC | Within 8 digit<br>HUC | Within 12 digit<br>HUC | Mitigation<br>option                      |
|-------------------------|-----------------------|------------------------|---|
| n/a                     | n/a                   | 0.75                   | 1) On site<br>mitigation                  |
| 2.0                     | 1.5                   | 1                      | 2) All other<br>types<br>of<br>mitigation |

3  
4 ~~Option C:~~ use the following locational ~~multipliers~~ ratios as applicable based on location of  
5 the proposed mitigation site relative to that of the proposed impact site. Mitigation options shall be  
6 available to applicants. ~~A written demonstration of practicality shall be submitted to the Division~~  
7 ~~for review and approval and shall take into account the cost and availability of these options with~~  
8 ~~the following conditions:~~

9 (A) On-site mitigation is 0.75:1 except within the Randleman Lake watershed which is 1:1;

10 (B) Within the 12 digit HUC is 0.75:1 except within the Randleman Lake watershed which is 1:1;

11 (C) Within the 8 digit HUC is 1:1 except as provided in sub-item (f) below;

12 (A)(D) In the adjacent 8 digit HUC is 2:1 except as provided in sub-item (f) below.

| Adjacent 8 digit HUC | Within 8 digit HUC | Within 12 digit HUC |  | Mitigation option                   |
|----------------------|--------------------|---------------------|--|-------------------------------------|
| n/a                  | n/a                | 0.75                |  | 1) On site mitigation               |
| 2.0                  | 1.0                | 0.75                |  | 2) All other types of<br>mitigation |

13 For use of paragraph (D) above, the applicant shall describe why buffer mitigation within the 8 digit HUC  
14 is not practical for the project

15 (2) Donation of property shall satisfy all the conditions of Paragraph (-j) of this Rule.

16  
17 -(f) GEOGRAPHIC RESTRICTIONS ON LOCATION OF MITIGATION. Mitigation shall be performed in the  
18 same river basin in which the impact is located with the following additional specifications:

19 (1) In the following cases, mitigation shall be performed in the same watershed in which the impact is  
20 located:

21 (A) Falls Lake Watershed;

- (B) Goose Creek Watershed;  
(C) Randleman Lake Water Supply Watershed; and  
(D) Each subwatershed of the Jordan Lake watershed, as defined in Rule 15A NCAC 02B .0262;  
and  
(E) Other watershed restrictions as specified in riparian buffer protection rules adopted by the Commission.

- (2) Buffer mitigation for impacts within watersheds with riparian buffer rules that also have federally listed threatened or endangered aquatic species may be done within other watersheds with the same federally listed threatened or endangered aquatic species as long as the impacts are in the same river basin and same physiographic province as the mitigation site.

(g) RIPARIAN BUFFER RESTORATION, OR ENHANCEMENT. Enhancement, and restoration shall have the objective of establishing a forested riparian buffer according to the requirements of this paragraph. Division staff shall make an on-site determination as to whether a potential mitigation site qualifies as a restoration or enhancement site based on the applicable definition in Paragraph (b) of this Rule. Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement, shall also meet the following requirements:

- (1) The restoration area is equal to the required area of mitigation determined pursuant to Paragraph (e) of this Rule; and,  
(2) The enhancement area is three times larger than the required area of mitigation determined pursuant to Paragraph (e) of this Rule.  
(3) The location of the restoration or enhancement shall comply with the requirements of Paragraph (e) and (f) of this Rule.

~~(4) The location of restoration or enhancement shall comply with any geographic multiplier as specified under Paragraph (e) of this rule~~

(A) For the Catawba River mainstem below Lake James, the width of the riparian buffer shall begin at the most landward limit of the top of the bank and extend landward a distance of 50 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the top of the bank. For the mainstem lakes located on the Catawba River mainstem, the width of the riparian buffer shall begin at the most landward limit of the full pond level and extend landward a distance of 50 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the full pond level. Buffer mitigation in the Catawba watershed may be done along the lake shoreline as well as along intermittent and perennial stream channels throughout the watershed.

(B) For the Goose Creek Watershed the riparian buffer restoration or enhancement site shall have a minimum width of 50 feet as measured horizontally on a line perpendicular to a vertical line marking the edge of the top of the bank ~~the surface water~~ and may include restoration or enhancement of existing riparian areas, restoration or enhancement of streamside areas along



1 first order ephemeral streams that discharge/outlet into intermittent or perennial streams, and  
2 preservation of the streamside area along first order ephemeral streams that discharge or outlet  
3 into intermittent or perennial stream at a 5:1 ratio as long as there is also an amount of  
4 restoration or enhancement equivalent to the amount of permitted impact.

5 (65) The mitigation site shall provide diffuse flow across the entire buffer width. Any existing  
6 impervious cover or stormwater conveyances such as ditches, ~~or pipes or drain tiles~~ shall be  
7 eliminated and the flow converted to diffuse flow.

8 (76) The applicant or mitigation provider shall submit a restoration or enhancement plan for written  
9 approval by the Division. The restoration or enhancement plan shall demonstrate compliance with  
10 the requirements of Sub-Paragraphs (1) through (4) of this Paragraph and shall contain the  
11 following in addition to elements required in Paragraph (c):

12 (A) A map of the proposed restoration or enhancement site;

13 (B) A vegetation plan which shall include a minimum of five native hardwood tree species and/or  
14 native shrub species, where no one species is greater than 250% of planted stems, planted at a  
15 density sufficient to provide ~~320-260~~ trees per acre at ~~maturity~~ the completion of monitoring.  
16 The Division may approve alternative planting plans upon consideration of factors including  
17 site wetness and plant availability;

18 (C) A grading plan (if applicable). The site shall be graded in a manner to ensure diffuse flow  
19 through the entire riparian buffer;

20 (D) A schedule for implementation including a fertilization and herbicide plan that will include  
21 protective measures to ensure that fertilizer and herbicide is not deposited downstream from  
22 the site and will be applied per manufacturers guidelines. ~~Pesticides~~ Herbicides used must be  
23 certified by EPA for use in or near aquatics sites. ~~Pesticides~~ and must be ~~applied~~ in  
24 accordance with the manufacturers' instructions, ~~and~~;

25 (E) A monitoring plan including monitoring of vegetative success, ~~stream stability~~, and other  
26 anticipated benefits to the adjacent water as listed in the Authorization Certification.

27 ~~(87)~~ Within one year after the Division has approved the restoration or enhancement plan, the applicant  
28 or mitigation provider shall present documentation to the Division that the riparian buffer has been  
29 restored or enhanced unless the Division agrees in writing to a longer time period due to the  
30 necessity for a longer construction period. ~~If documentation is not presented within this timeframe,~~  
31 ~~then the person shall be in violation of the Authority's riparian buffer protection program,~~

32 (98) The mitigation area shall be placed under a perpetual conservation easement or similar legal  
33 protection mechanism to provide for protection of the property's nutrient removal and sediment  
34 other water quality removal functions.

35 ~~(109) Option 1: If the proposed mitigation site contains a sewer easement, the portion of the easement~~  
36 ~~located within Zone 1 or Zone 2 is not suitable for buffer mitigation. However, the applicant may~~  
37 ~~get narrower buffer credit in accordance with Part (k)(2)(D) of this rule,~~

Option 2: If the proposed mitigation site contains a sewer easement, the portion of the easement located within Zone 1 is not suitable for buffer mitigation except that buffer credit for a dedicated sewer easement shall be given to satisfy the Zone 2 buffer requirement if the sewer easement is at least 30 feet wide and it is required to be maintained in a condition which meets the vegetative requirements of the collection system permit, and if the applicant will restore or enhance the forested buffer in Zone 1 adjacent to the sewer easement,

(11109) The applicant or mitigation provider shall submit written annual reports for a period of five years after the restoration or enhancement showing that the trees and/or native shrub species planted ~~have survived~~ are meeting success criteria 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. Additional years of monitoring may be required if the objectives under paragraph (g) have not been achieved at the end of the five-year monitoring period, and

(12140) A completion bond(s) that is payable to the Division sufficient to ensure ~~shall be provided for the mitigation site to account for all that~~ land purchase, construction, -monitoring and maintenance ~~costs are completed.~~ A non-wasting endowment or other financial mechanism for perpetual maintenance and protection must be provided ~~for the site to ensure perpetual, long-term monitoring and maintenance.~~

(h) PURCHASE OF BUFFER MITIGATION CREDITS FROM A PRIVATE OR PUBLIC MITIGATION BANK. Applicants who choose to satisfy some or all of their mitigation determination by purchasing mitigation credits from a private or public mitigation bank shall meet the following requirements:

(1) The mitigation bank from which credits are purchased ~~is has been approved by the Division and shall have available riparian buffer credits (a list is available on~~ listed on the Division's webpage (<http://portal.ncdenr.org/web/wq/swp/ws/401/certsandpermits/mitigation>) and shall have available riparian buffer credits;

(2) The mitigation bank from which credits are purchased shall be appropriately located as described in Paragraphs (e) and (f) of this Rule; and,

(3) After receiving a mitigation acceptance letter from the mitigation provider, proof of payment for the credits shall be provided to the Department prior to any activity that results in the removal or degradation of the protected riparian buffer.

(i) PAYMENT TO THE RIPARIAN BUFFER RESTORATION FUND. Applicants who choose to satisfy some or all of their mitigation determination by paying a compensatory mitigation fee to the Riparian Buffer Restoration Fund shall meet the requirements of 15A NCAC 02B .0269 (Riparian Buffer Mitigation Fees to the NC Ecosystem Enhancement Program). Payment made to the NC Ecosystem Enhancement Program (the Program) shall be contingent upon acceptance of the payment to the Program. The financial, temporal and technical ability of the Program to satisfy the mitigation request will be considered to determine whether the Program will accept or deny the request.

(j) DONATION OF PROPERTY. Applicants who choose to satisfy their mitigation determination by donating real property or an interest in real property in lieu of payment shall meet the following requirements:

(1) The donation of real property interests may be used to either partially or fully satisfy the payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Paragraph (hi) of this Rule. The value of the property interest shall be determined by an appraisal performed in accordance with Part (ij)(4)(D) of this Rule. The donation shall satisfy the mitigation determination if the appraised value of the donated property interest is equal to or greater than the required fee. If the appraised value of the donated property interest is less than the required fee calculated pursuant to 15A NCAC 02B .0269, the applicant shall pay the remaining balance due.

(2) The donation of a conservation easements or similar legal protection mechanism that includes a non-wasting endowment or other financial mechanism for perpetual maintenance and protection to satisfy compensatory mitigation requirements shall be accepted only if ~~the conservation easement or similar legal mechanism that includes a non-wasting endowment it is~~ granted in perpetuity.

(3) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:

(A) The property shall contain riparian areas ~~not currently protected by the State's riparian buffer protection program~~ that are in need of restoration or enhancement rather than preservation;

(B) For the Neuse ~~and~~, Tar-Pamlico, Randleman basins, the Catawba River mainstem below Lake James, and the Randleman and Jordan Reservoir Watersheds, the restorable riparian buffer on the property shall ~~have a collective minimum length of 1,000 linear feet per 2,500 linear feet along a surface water and a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water.~~ For the Catawba River mainstem below Lake James, the ~~width of the riparian buffer shall begin at the most landward limit of the top of the bank and extend landward a minimum distance of 50 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the top of the bank.~~ For the mainstem lakes located on the Catawba River mainstem, the width of the riparian buffer shall begin at the most landward limit of the full pond level and extend landward a minimum distance of 50 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the full pond level. A minimum distance of less than 50 feet may only be allowed for projects in accordance with paragraph (k)(2)(D) below;

~~(C)~~ The size of the restorable riparian buffer on the property to be donated shall equal or exceed the acreage of riparian buffer required to be mitigated under the mitigation responsibility determined pursuant to Paragraph (e) of this Rule;

(D) The property shall ~~not require excessive measures for successful restoration, such as removal of structures or infrastructure~~ have any impervious cover or stormwater conveyances such as ditches, pipes or drain tiles. If impervious cover or stormwater conveyances exist, they shall

1 be eliminated and the flow converted to diffuse flow. Restoration of the property shall be  
2 capable of fully offsetting the adverse impacts of the requested use;

3 (E) The property shall be suitable to be successfully restored, based on existing hydrology, soils,  
4 and vegetation;

5 (F) The estimated cost of restoring and maintaining the property shall not exceed the value of the  
6 property minus site identification and land acquisition costs unless the applicant supplies  
7 financial assurance acceptable to the Division for restoration and maintenance of the buffer;

8 (G) The property shall not contain any building, structure, object, site, or district that is listed in  
9 the National Register of Historic Places established pursuant to Public Law 89-665, 16 U.S.C.  
10 470 as amended;

11 (H) The property shall not contain any hazardous substance or solid waste such that water quality  
12 could be adversely impacted, unless the hazardous substance or solid waste can be properly  
13 remediated before the interest is transferred;

14 (I) The property shall not contain structures or materials that present health or safety problems to  
15 the general public. If wells, septic, water or sewer connections exist, they shall be filled,  
16 remediated or closed at owner's expense in accordance with state and local health and safety  
17 regulations before the interest is transferred. Sewer connections in Zone 2 may be allowed for  
18 projects in accordance with paragraph (k)(2)(E) below;

19 (J) The property and adjacent properties shall not have prior, current, or known future land use  
20 that would inhibit the function of the restoration effort;

21 (K) The property shall not have any encumbrances or conditions that are inconsistent with the  
22 requirements of this rule or purposes of the buffer rules.

23 (L) Fee simple title to the property or a conservation easement in the property shall be donated to  
24 the NC Ecosystem Enhancement Program or a similar organization approved by the Division  
25 to conduct the restoration or enhancement state of North Carolina; and

26 (M) Upon completion of the buffer restoration or enhancement-, the property or the easement shall  
27 be donated to a local land trust or to a local government or other state organization that is  
28 willing to accept the property or easement will hold and enforce the conservation easement  
29 and the interests. The donation shall be accompanied by a non-wasting endowment or other  
30 financial mechanism for perpetual maintenance and protection sufficient to ensure perpetual  
31 long-term monitoring and maintenance-, except that where a local government has donated a  
32 conservation easement and has entered into a binding intergovernmental agreement with the  
33 Division to manage and protect the property consistent with the terms of the conservation  
34 easement-, such local government shall not be required to provide a non-wasting endowment.

35 (4) At the expense of the applicant or donor, the following information shall be submitted to the  
36 Division with any proposal for donations or dedications of interest in real property:

37 (A) Documentation that the property meets the requirements laid out in Paragraph (j)(3) of this  
38 Rule;

(B) US Geological Survey 1:24,000 (7.5 minute) scale topographic map, county tax map, USDA Natural Resource Conservation Service County Soil Survey Map, and county road map showing the location of the property to be donated along with information on existing site conditions, vegetation types, presence of existing structures and easements;

(C) A current property survey performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the State Board of Registration for Professional Engineers and Land Surveyors in "Standards of Practice for Land Surveying in North Carolina." Copies may be obtained from the North Carolina State Board of Registration for Professional Engineers and Land Surveyors, 3620 Six Forks Road, Suite 300, Raleigh, North Carolina 27609;

(D) A current appraisal of the value of the property performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the Appraisal Board in the "Uniform Standards of Professional North Carolina Appraisal Practice." Copies may be obtained from the Appraisal Foundation, Publications Department, P.O. Box 96734, Washington, D.C. 20090-6734; and,

(E) A title certificate.

(k) Alternative Buffer Mitigation OPTIONS. Some or all of a buffer mitigation requirement may be met through any of the alternative mitigation options described in this Paragraph. Any proposal for alternative mitigation shall meet, in addition to the requirements of Paragraphs (c), (e) and (f), the requirements set out in the sub-paragraph addressing that option as well as the following requirements:

(1) Any proposal for alternative mitigation shall be provided in writing to the Division and shall meet the following content and procedural requirements for approval by the Division:

(A) Demonstration of no practical alternative. The application shall describe why traditional buffer mitigation options are not practical for the project;

~~(B) The application shall demonstrate that the proposed alternative removes an equal or greater annual mass load of nutrients to surface waters as the buffer that is approved by the Division for impact following the calculation of impact and mitigation areas pursuant to Paragraphs (d) and (e) of this Rule. To estimate the rate of nutrient removal of the impacted buffer, the applicant shall either propose a method acceptable to the Division or use a method previously approved by the Division. Prior to approval, both methods shall be subject to public notice through the 401 Certification Mailing List and public comment in accordance with 15A NCAC 2H .0503;~~

~~(C) Public Notice and Comment. All proposals shall be reviewed by the Division for completeness and then be subject to public comment through 60 day notice on the 401 Certification Mailing List in accordance with 15A NCAC 2H .0503;~~

~~(D) Option 1: Projects that have been constructed and are within the required monitoring period as of the effective date of this Rule are eligible for use as alternative buffer mitigation.~~

Projects that have completed monitoring and have been released by the Division as of the effective date of this Rule are not eligible for use as alternative buffer mitigation,

Option 2: ——— Projects that have been constructed and are within the required monitoring period on the effective date of this Rule are eligible for use as alternative buffer mitigation. Projects that have completed monitoring and have been released by the Division on or before the effective date of this Rule are eligible for use as alternative buffer mitigation for a period of ten years from the effective date of this Rule; and

~~(E) Buffer mitigation ratios shall be applied to these alternative buffer mitigation options, and~~

~~(FC) The mitigation area shall be placed under a perpetual conservation easement or similar legal protection mechanism to provide for protection of the property's nutrient removal and other water quality functions. The mitigation area shall be placed under a perpetual conservation easement or similar legal mechanism to provide for protection of the property's buffer functions;~~

~~(GD) A completion bond(s) that is payable to the Division sufficient to ensure that land purchase, construction, monitoring and maintenance are completed. A non-wasting endowment or other financial mechanism for perpetual maintenance and protection must be provided. A completion bond shall be provided for the mitigation site to account for all land purchase, construction, monitoring and maintenance costs. A non-wasting endowment must be provided for the site to ensure perpetual, long-term monitoring and maintenance.~~

-(2) ALTERNATIVE Buffer Mitigation – NON-STRUCTURAL, VEGETATIVE options.

(A) Coastal Headwater Stream Mitigation. Wooded buffers planted along Outer Coastal Plain headwater stream mitigation sites can be approved as riparian buffer mitigation as long as the site meets all applicable requirements of Paragraph (g) of this Rule. In addition, all success criteria including tree species, tree density, diffuse flow and stream success criteria specified by the Division in any required written approval of the site must be met. The area of the buffer shall be measured perpendicular to the length of the valley being restored. The area within the proposed buffer mitigation shall not also be used as wetland mitigation. Monitoring of the site must be for at least five years from the date of planting by providing annual reports for written DWQ approval.

(B) ~~Unmapped Stream Buffer Mitigation on Non-Subject Streams.~~ Restoration or enhancement of buffers may be conducted on intermittent or perennial streams that are ~~exempt not subject to from riparian buffer rules by virtue of not being shown on maps as further specified in individual rules referenced in Paragraph (f).~~ These streams shall be confirmed as intermittent or perennial streams by Division staff or staff from a local delegated program using the 2010 or later version of the Division's stream identification manual the Division publication, Methodology for Identification of Intermittent and Perennial Streams and Their Origins

(v.4.11, 2010), or more recent version. Preservation of these stream buffers that meet the definition of a preservation site may also be proposed in order to permanently protect the buffer from cutting, clearing, filling and grading and similar activities that would affect the functioning of the buffer. Restoration or enhancement is required with an area at least equal to the footprint of the buffer impact, and the remaining mitigation requirement provided may be provided by preservation at a 5:1 buffer credit ratio. ~~that the preservation site area is five times larger than the mitigation area required under Paragraph (e) of this Rule, and restoration or enhancement is proposed with an area equal to the mitigation area required under Paragraph (e) of this Rule.~~ The preservation site shall protect at least a 50 foot wide wooded forested riparian buffer and shall meet the requirements of Subparagraph (j)(2) and Parts (j)(3)(D), (G), (H), (I), (K) and (M) of this Rule. The proposal shall meet all applicable requirements of Paragraph (g) of this Rule. ~~Applicant shall provide a written description for the Division's approval of the demonstrable threat to the buffer mitigation site and its functioning to provide nutrient removal and other water quality benefits. No existing or new stormwater discharges are allowed thru through the buffer.~~

(C) ~~Option 1: Preservation of mapped stream buffers. Buffer preservation may be proposed in order to permanently protect the buffer from cutting, clearing, filling and grading and similar activities that would affect the functioning of the buffer above and beyond the protection afforded by the existing buffer rules on sites that meet the definition of a preservation site along streams, estuaries or ponds that are subject to buffer rules as long as the proposed preservation site area is ten times larger than the mitigation area required under Paragraph (e) of this Rule, and buffer restoration or enhancement is also proposed with an area equal to the mitigation area required under Paragraph (e) of this Rule. Applicant shall provide a written description for the Division's approval of the demonstrable threat to the buffer mitigation site and its functioning to provide nutrient removal and other water quality benefits. No existing or new stormwater discharges are allowed thru the buffer.~~

~~Option 2: Preservation of Buffers on mapped Subject streamStreams buffers.~~ Buffer preservation may be proposed in order to permanently protect the buffer from cutting, clearing, filling and grading and similar activities that would affect the functioning of the buffer above and beyond the protection afforded by the existing buffer rules on sites that meet the definition of a preservation site along streams, estuaries or ponds that are subject to buffer rules. Restoration or enhancement is required with an area at least equal to the footprint of the buffer impact. The remaining mitigation requirement may be provided by preservation at a 10:1 buffer credit ratio as long as the proposed preservation site area is ten times larger than the mitigation area required under Paragraph (e) of this Rule in non-urban areas and a 3:1 buffer credit ratiothree times larger than the mitigation area required under Paragraph (e) of this Rule in urban areas. ~~In addition, buffer restoration or enhancement is also proposed with~~

1 an area equal to the mitigation area required under Paragraph (e) of this Rule. Reduced buffer  
2 mitigation credit can be given per Part (k)(2)(D) of this Rule in urban areas. The preservation  
3 site shall meet the requirements of Subparagraph (j)(2) and Parts (j) (3)(D), (G), (H), (I), (K)  
4 and (M) of this Rule. Applicant shall provide a written description for the Division's  
5 approval of the demonstrable threat to the buffer mitigation site and its functioning to provide  
6 nutrient removal and other water quality benefits. No existing or new stormwater discharges  
7 are allowed thru through the buffer.

8 (D) Narrower buffers on urban streams. Buffer restoration or enhancement mitigation with widths  
9 less than 50 feet may be proposed along urban streams. If buffers greater than or equal to 31  
10 feet in width are proposed and on-site stormwater management is provided to control local  
11 sources of nutrients and other pollutants, then full buffer credit shall be awarded for the  
12 mitigation area required under Paragraph (e) of this Rule area of buffer restored or enhanced.  
13 A total of 75% of full credit shall be awarded for buffers between 20 and 30 feet wide if on-  
14 site stormwater management is provided to control local sources of nutrients and other  
15 pollutants. If on-site stormwater management is not provided, then 50% of full credit shall be  
16 provided for buffers between 31 and 50 feet wide and 25% of full credit for buffers between  
17 20 and 30 feet wide. Buffers less than 20 feet wide shall receive no buffer credit regardless  
18 of whether on-site stormwater management is provided. Any remaining mitigation  
19 requirements must be provided at additional mitigation sites.

20 (E) Sewer easement within the buffer. If the proposed mitigation site contains a sewer easement  
21 in Zone 1, that portion of the sewer easement is not suitable for buffer mitigation. If the  
22 proposed mitigation site contains a sewer easement in Zone 2, the portion of the sewer  
23 easement in Zone 2 may be suitable for buffer mitigation if the applicant restores or enhances  
24 the forested buffer in Zone 1 adjacent to the sewer easement, the sewer easement is at least 30  
25 feet wide, the sewer easement is required to be maintained in a condition which meets the  
26 vegetative requirements of the collection system permit, and diffuse flow is provided across  
27 the entire buffer width.

28 (EF) Enhancement of grazing areas adjacent to streams. Buffer credit at a 2:1 ratio shall be  
29 available for an applicant who proposes permanent exclusion of grazing livestock that  
30 otherwise degrade the stream and riparian zone through trampling, grazing or waste  
31 deposition by fencing the livestock out of the stream and its adjacent buffer. The riparian  
32 buffer area contained by fencing shall be two times greater than the mitigation area required  
33 under Paragraph (e) of this Rule. The applicant shall document the condition and aerial  
34 coverage of canopy and woody understory, and shall propose planting of understory trees and  
35 shrubs as well as young canopy tree species as necessary to achieve buffer restoration provide  
36 an enhancement plan to the standards identified in Paragraph (g). The applicant shall  
37 demonstrate that grazing was the predominant land use for at least the past 20 years since the  
38 effective date of the applicable buffer rule and that woody understory is absent as a result of



1 ~~grazing history. Conservation easements or other similar legal mechanism shall ensure~~  
2 ~~perpetual maintenance of permanent fencing.~~

3  
4 (3) ALTERNATIVE Buffer Mitigation Structural STORMWATER TREATMENT options.

5 (A) For all structural options: Riparian buffer restoration or enhancement is required with an area  
6 at least equal to the footprint of the buffer impact, and the remaining mitigation resulting from  
7 the multipliers can be met through structural options;

8 -(B) Structural measures already required by other local, state or federal rule or permit cannot be  
9 used as alternative buffer mitigation, except to the extent such measure(s) exceed the  
10 requirements of such rule. Stormwater Best Management Practices (BMPs) - bioretention  
11 facilities, constructed wetlands, infiltration devices and sand filter are all potentially  
12 approvable Best Management Practices for alternative buffer mitigation. Other Best  
13 Management Practices may be approved only if they meet the nutrient removal levels outlined  
14 in Part (3)(C) of this Subparagraph. Existing or planned BMPs for a local, state or federal  
15 rule or permit may be retrofitted or expanded to improve their nutrient removal if this level of  
16 treatment would not be required by other local, state or federal rules. In this case, the  
17 predicted increase in nutrient removal may be counted toward alternative buffer mitigation;

18 -(C) Minimum treatment levels: Any structural BMP shall provide at least 30% total nitrogen and  
19 35% total phosphorus removal as demonstrated by a scientific and engineering literature  
20 review as approved by the Division. ~~The total load reduction from structural BMPs shall be at~~  
21 ~~least equivalent to the original load reduction provided by the existing square feet of buffer~~  
22 ~~being impacted~~ The application shall demonstrate that the proposed alternative removes an  
23 equal or greater annual mass load of nutrients to surface waters as the buffer that is approved  
24 by the Division for impact following the calculation of impact and mitigation areas pursuant  
25 to Paragraphs (d) and (e) of this Rule. To estimate the rate of nutrient removal of the  
26 impacted buffer, the applicant shall either propose a method acceptable to the Division or use  
27 a method previously approved by the Division;

28 (D) All proposed structural Best Management Practices shall follow the- Division's current or a  
29 later version of the 2009 Stormwater Best Management Practice Design Manual. If a specific  
30 proposed structural Best Management Practice is not addressed in this Manual, ~~then a~~  
31 ~~scientific and engineering literature review shall be submitted with the designs for written~~  
32 ~~approval by the Division~~ follow Chapter 20 in this Manual for approval. The design shall be  
33 as effective as the practices described in the Division's stormwater manual;

34 -(E) An operation and maintenance plan is required to be approved by the Division for all  
35 structural options;

36 (F) Continuous and perpetual maintenance is required for all structural options and shall follow  
37 the Division's current or more recent version of the 2009 Stormwater Best Management  
38 Practice Design Manual;

- 1 (G) Annual reports shall be sent in writing to the Division of Water Quality concerning operation
- 2 and maintenance of all structural options approved under this rule.
- 3 (H) Removal and replacement of structural options: If a structural option is proposed to be
- 4 removed and cannot be replaced on site, then a structural or non-structural measure of equal
- 5 or better nutrient removal capacity shall be constructed as a replacement with the location as
- 6 specified by Paragraph (e) of this Rule;
- 7 (I) Renovation or repair of structural options: If a structural option must be renovated or
- 8 repaired, it shall be renovated to provide ~~similar~~ equal or better nutrient removal capacity as
- 9 originally designed;
- 10 (J) Structural options as well as their operation and maintenance are the responsibility of the
- 11 landowner or easement holder unless the Division agrees in writing to operation and
- 12 maintenance by another responsible party. Structural options shall be ~~shown on the property~~
- 13 ~~deed or another document constituting an encumbrance on the property~~ located in recorded
- 14 drainage easements for the purposes of operation and maintenance and shall have recorded
- 15 access easements to the nearest public right-of-way. These easements shall be granted in
- 16 favor of the party responsible for operating and maintaining the structure, with a note that
- 17 operation and maintenance is the responsibility of the landowner, easement holder or other
- 18 responsible party; and-
- 19 (K) Bonding and endowment. A completion bond(s) that is payable to the Division sufficient to
- 20 ensure that land purchase, construction, monitoring and maintenance are completed and a
- 21 non-wasting endowment or other financial mechanism for perpetual maintenance and
- 22 protection must be provided. ~~Provisions for bonding for construction, monitoring and~~
- 23 ~~maintenance as well as provision for a long term, non-wasting endowment for monitoring and~~
- 24 ~~maintenance shall be provided in the submittal to the Division.~~

25 ———(4) OTHER ALTERNATIVE BUFFER MITIGATION OPTIONS. Other riparian buffer

26 mitigation options may be considered by the Division on a case-by-case basis after 30-day public

27 notice through the Division's 401-Water Quality Certification Mailing List in accordance with

28 15A NCAC 02H .0503 and opportunity for comment as long as the options otherwise meet the

29 requirements of this Rule. Division staff shall present recommendations to the Environmental

30 Management Commission for a final decision with respect to any proposal for alternative buffer

31 mitigation options not specified in this Rule.

32 (I) ACCOUNTING FOR BUFFER CREDIT, NUTRIENT OFFSET CREDIT AND STREAM MITIGATION

33 CREDIT. Buffer- mitigation credit, nutrient offset credit, wetland mitigation credit and stream mitigation credit

34 shall be accounted for in accordance with the following:

- 35 (1) ~~Riparian buffers required for Water Supply Watershed rules shall not generate credit for buffer~~
- 36 ~~mitigation, nutrient offset mitigation or stream mitigation projects;~~
- 37 (2) ~~Nutrient offset credits can be generated outside of the stream buffer width required for stream~~
- 38 ~~mitigation;~~

(3) ~~Buffer mitigation that is used for buffer mitigation credit cannot be used for and nutrient offset credits cannot be counted in the same square footage for mitigation credit;~~

(32) ~~Buffer mitigation or nutrient offset credit cannot be provided-generated within wetlands which provide wetland mitigation credit required by 15A NCAC 02H .0506, as long as riparian wetland mitigation is implemented; and~~

(3) ~~Option 1: Buffer- Either buffer mitigation or nutrient offset credit can be generated on stream mitigation sites as long as the width of the restored or enhanced riparian buffer is at least 50 feet.~~

(4) ~~Option 2: Buffer mitigation or nutrient offset credit can be generated and approved on stream mitigation sites for impacts to streams and buffers as long as the restored or enhanced riparian buffer is at least 50 feet wide and is not providing wetland mitigation credit required by 15A NCAC 2H .0506. If impacts are to buffers only, then mitigation can be done on a buffer only mitigation site. In this case, stream credits will be no longer be available from that stream mitigation site once the buffer credits are subtracted.~~

(5) ~~Option 3: Buffer mitigation or nutrient offset credit cannot be generated on stream mitigation sites.~~

History Note: Authority 143-214.1; 143-214.5; 143-214.7; 143-214.20; 143-215.3(a)(1); S.L. 1998, c. 221; 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8A; 143-215.8B; 143-282(c); 143B-282(d); S.L. 1999, c. 329, s. 7.1; S.B. 824-2003; S.L. 2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486.  
Eff. July 1, 2013.