



# NOTICE OF TEXT

[Authority G.S. 150B-21.2(c)]

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CHECK APPROPRIATE BOX:

- Notice with a scheduled hearing
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- Republication of text. Complete the following cite for the volume, issue, and date of previous publication, as well as blocks 1 - 5 and 8 - 15. If a hearing is scheduled, complete block 6.  
Previous publication of text was published in Volume:            Issue:

1. Rule-Making Agency: Environmental Management Commission
2. Agency obtained G.S. 150B-19.1 certification: <input checked="" type="checkbox"/> OSBM certified on: October 12, 2012 <input type="checkbox"/> RRC certified on: <input type="checkbox"/> Not Required
3. Agency website postings: <ul style="list-style-type: none"><li>• Text of proposed rule posted at: <a href="http://portal.ncdenr.org/web/wq/rules">http://portal.ncdenr.org/web/wq/rules</a></li><li>• Explanation and reason for proposed rule posted at:</li><li>• Federal Certification posted at:</li><li>• Instructions for oral and written comments posted at: <a href="http://portal.ncdenr.org/web/wq/event-calendar">http://portal.ncdenr.org/web/wq/event-calendar</a></li><li>• Fiscal Note if prepared posted at: <a href="http://portal.ncdenr.org/web/wq/rules">http://portal.ncdenr.org/web/wq/rules</a></li></ul>
4. Proposed Action -- Check the appropriate box(es) and list <u>rule citation(s)</u> beside proposed action: <input checked="" type="checkbox"/> ADOPTION: 15A NCAC 02B .0295  <input type="checkbox"/> AMENDMENT:  <input checked="" type="checkbox"/> REPEAL: 15A NCAC .02B .0242, 15A NCAC .02B .0244, 15A NCAC .02B .0252, 15A NCAC .02B .0260, 15A NCAC .02B .0609, and 15A NCAC 02B .0268
5. Proposed effective date: January 1, 2014
6. Is a public hearing planned? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  If yes: <b>Public Hearing date:</b> 2/6/13 (Raleigh); 2/12/13 (Winterville) <b>Public Hearing time:</b> 7:00 PM (Both) <b>Public Hearing Location:</b> Ground Floor Hearing Room, Archdale Building, 512 N. Salisbury St., Raleigh 27604 Goess Multi-Purpose Room, Rm # 137-139, Pitt Community College Goess Student Center, 169 Bulldog Run, Winterville, NC 28590
7. If no public hearing is scheduled, provide instructions on how to demand a public hearing: There will be two public hearings. They will be posted on the DWQ website located at: <a href="http://portal.ncdenr.org/web/wq/event-calendar">http://portal.ncdenr.org/web/wq/event-calendar</a> , on the DWQ listserv and in the applicable local newspapers.
8. Explain Reason For Proposed Rule(s): This proposed rule is required per General Statute 143-214.20. Per this statute, the Environmental Management Commission was to adopt rules concerning construction of alternative measures of buffer mitigation that reduces nutrient loading as well as or better than the riparian buffer that is lost.  This proposed rule will provide mitigation options not currently available to DOT, developers, industry and private individuals. In addition to providing greater regulatory flexibility, the proposed changes incorporate contemporary technical and operational techniques into the rules. This proposed rule adheres to the Principles of Executive Order 70 Rules and were developed through a public stakeholder process. The new rule advances the public interest and are designed to achieve their objectives in a cost-effective and timely manner.  The rules being repealed will be replaced with this new rule (15A NCAC .02B .0295).

9. The procedure by which a person can object to the agency on a proposed rule: Written comments or by email

**Procedure for Subjecting a Proposed Rule to Legislative Review:** If an objection is not resolved prior to the adoption of the rule, a person may also submit written objections to the Rules Review Commission. If the Rules Review Commission receives written and signed objections in accordance with G.S. 150B-21.3(b2) from 10 or more persons clearly requesting review by the legislature and the Rules Review Commission approves the rule, the rule will become effective as provided in G.S. 150B-21.3(b1). The Commission will receive written objections until 5:00 p.m. on the day following the day the Commission approves the rule. The Commission will receive those objections by mail, delivery service, hand delivery, or facsimile transmission. If you have any further questions concerning the submission of objections to the Commission, please call a Commission staff attorney at 919-431-3000.

10. The person to whom written comments may be submitted on the proposed rule:

Name: Eric Kulz

Address: NCDENR

Division of Water Quality, 1650 MSC

Raleigh, NC 27699-1650

Phone (optional):

Fax (optional): (919) 807-6494

E-Mail (optional): eric.kulz@ncdenr.gov

11. Comment Period Ends: March 18, 2013

12. Fiscal impact (check all that apply).

If this form contains rules that have different fiscal impacts, list the rule citations beside the appropriate impact.

- State funds affected
- Environmental permitting of DOT affected  
Analysis submitted to Board of Transportation
- Local funds affected  
Date submitted to OSBM:
- Substantial economic impact ( $\geq$ \$500,000)
- Approved by OSBM
- No fiscal note required by G.S. 150B-21.4

13. Rule-making Coordinator: Jennifer Everett

Address: 1601 MSC  
Raleigh, NC 27699-1601

Phone:

E-Mail: Jennifer.Everett@ncdenr.gov

Agency contact, if any: Eric.Kulz@ncdenr.gov

Phone:

E-mail: eric.kulz@ncdenr.gov

14. The Agency formally proposed the text of this rule(s) on  
Date: November 13, 2012

15. Signature of Agency Head\* or Rule-making Coordinator:



\*If this function has been delegated (reassigned) pursuant to G.S. 143B-10(a), submit a copy of the delegation with this form.

Typed Name: Jennifer Everett

Title: Rulemaking Coordinator

1 15A NCAC 02B .0295 is proposed for adoption as follows:

2  
3 15A NCAC 02B .0295 MITIGATION PROGRAM REQUIREMENTS FOR PROTECTION AND  
4 MAINTENANCE OF RIPARIAN BUFFERS

5  
6 (a) PURPOSE. The purpose of this Rule is to set forth the mitigation requirements that apply to applicants who  
7 wish to impact a riparian buffer when one of the following applies:

- 8 (1) The applicant has received an authorization certificate, for impacts that cannot be avoided or  
9 practicably minimized, pursuant to 15A NCAC 02B .0233, 15A NCAC 02B .0243, 15A NCAC  
10 02B .0250, 15A NCAC 02B .0259, 15A NCAC 02B .0267 and 15A NCAC 02B .0607 protection  
11 and maintenance of existing riparian buffers: purpose, applicability, jurisdiction and exemptions.  
12 (2) The applicant has received a variance pursuant to 15A NCAC 02B .0233, 15A NCAC 02B .0243,  
13 15A NCAC 02B .0250, 15A NCAC 02B .0259, 15A NCAC 02B .0267 and 15A NCAC 02B  
14 .0607 and is required to perform mitigation as a condition of a variance approval.

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

- 16 (1) “Authority” means either the Division or a local government that has been delegated or designated  
17 to implement the riparian buffer program.  
18 (2) “Division” means the Division of Water Quality of the North Carolina Department of  
19 Environment and Natural Resources.  
20 (3) “Enhancement Site” means riparian zone sites that shall be distinguished from restoration or  
21 preservation sites by being characterized by conditions between restoration and preservation.  
22 (4) “Government Entity” means the State and its agencies and subdivisions, the federal government,  
23 and units of local government.  
24 (5) “Hydrologic Area” means the Watershed Boundary Dataset (WBD), located at  
25 <http://datagateway.nrcs.usda.gov> using the eight-digit Hydrologic Unit Code (HUC) prepared by  
26 the United States Geological Survey.  
27 (6) “Monitoring period” means the length of time specified in the approved mitigation plan during  
28 which monitoring of vegetation success, stream stability, and other anticipated benefits to the  
29 adjacent water as listed in the Authorization Certification is done.  
30 (7) “Non-wasting endowment” means a fund that generates enough interest each year to cover the cost  
31 of the long term monitoring and maintenance.  
32 (8) “Off-site” means off the property on which the buffer impacts occur but within the most recent  
33 version of the Watershed Boundary Dataset (WBD), located at <http://datagateway.nrcs.usda.gov>  
34 using the 12 digit HUC prepared by the United States Geological Survey  
35 (9) “On-site” means on the property on which the impact occurred and which is owned by the  
36 applicant or to which the applicant holds an easement adequate to allow the proposed mitigation.

- 1 (10) “Outer Coastal Plain” means the portion of the state shown as the Middle Atlantic Coastal Plain  
2 (63) on Griffith, et al (2002) “Ecoregions of North and South Carolina”. Reston, VA, United  
3 States Geological Survey.
- 4 (11) “Physiographic province” means one of the four Level III ecoregion shown on Griffith, et al  
5 (2002) “Ecoregions of North and South Carolina”. Reston, VA, United States Geological Survey.
- 6 (12) “Preservation Site” means riparian zone sites that are characterized by a closed canopy of tree  
7 species of greater than or equal to five inches diameter at breast height (dbh) or characterized by a  
8 dense growth of smaller woody stems.
- 9 (13) “Restoration Site” means riparian zone sites that are characterized by an absence of trees greater  
10 than or equal to five inches diameter at breast height (dbh), by a lack of dense growth of smaller  
11 woody stems, or by open tree canopies such that the planting of woody stems will maximize  
12 nutrient removal and other buffer functions. With open tree canopies, the extent of the canopy  
13 shall be measured from the outer edge of the drip zone of the tree.
- 14 (14) “Riparian wetland” means a wetland that is found in one or more of the following landscape  
15 positions: in a geomorphic floodplain; in a natural topographic crenulation; contiguous with an  
16 open water greater than or equal to 20 acres in size; or subject to tidal flow regimes excluding  
17 salt/brackish marsh wetlands.
- 18 (15) “Urban” means a percent impervious cover of at least 24% in the watershed upstream of the upper  
19 end of the mitigation reach and areas where post-construction stormwater requirements apply  
20 according to Session Law 2006-246.

21 (c) APPLICATION REQUIREMENTS AND MITIGATION OPTIONS. Any applicant who seeks approval to  
22 impact riparian buffers covered under this Rule and who has met the requirements of Paragraph (a) shall submit to  
23 the Division a written mitigation proposal that calculates the required area of mitigation and describes the area and  
24 location of each type of proposed mitigation. The applicant may not impact buffers until the Division has approved  
25 the mitigation plan by issuance of written authorization. For all options except payment of a fee under Paragraph (h)  
26 or (i), the proposal shall include conservation easements or similar legal mechanisms to ensure perpetual  
27 maintenance and protection of the mitigation site’s nutrient removal and other water quality functions, a non-  
28 wasting endowment, and a completion bond that is payable to the Division sufficient to ensure that land purchase,  
29 construction, monitoring and maintenance are completed. An exception would be where the applicant is a local  
30 government and has entered a binding intergovernmental agreement with the Division to complete the project and  
31 manage and protect the property consistent with the requirements of this rule, such local government shall not be  
32 required to provide a non-wasting endowment or a performance bond. For each mitigation site, the Division shall  
33 identify appropriate functional criteria to measure the anticipated benefits of the mitigation to the adjacent water.  
34 The Division shall issue a mitigation determination that specifies the area, type and location of mitigation and the  
35 water quality benefits to be provided by the mitigation site. The mitigation determination issued according to this  
36 rule shall be included as an attachment to the Authorization Certification. The applicant may propose any of the  
37 following types of mitigation and shall provide a written demonstration of practicality that takes into account the

1 relative cost and availability of potential options, as well as information addressing all requirements associated with  
2 the option proposed:

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

5 (2) Payment of a compensatory mitigation fee to a mitigation bank if buffer credits are available  
6 pursuant to paragraph (h) of this Rule or payment of a compensatory mitigation fee to the Riparian  
7 Buffer Restoration Fund pursuant to Paragraph (i) of this Rule. Payment to the Riparian Buffer  
8 Restoration Fund shall be an option for applicants other than Government Entities only when  
9 credits are not available from a mitigation bank located within the same 8-digit cataloguing unit as  
10 the buffer impact pursuant to Paragraph (h) of this Rule is not available;

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

13 (4) Alternative buffer mitigation options pursuant to Paragraph (k) of this Rule;

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

16 (1) The area of the footprint of the use causing the impact to the riparian buffer;

17 (2) The area of the boundary of any clearing and grading activities within the riparian buffer  
18 necessary to accommodate the use;

19 (3) The area of any ongoing maintenance corridors within the riparian buffer associated with the use,  
20 and

21 (4) The Authority shall deduct from this total the area of any wetlands that are subject to and  
22 compliant with riparian wetland mitigation requirements under 15A NCAC 2H .0506 and are  
23 located within the proposed riparian buffer impact area.

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

29 (A) In addition to the multipliers listed above in paragraph (e), the applicant must:

30  
31 Option A: use the following locational multipliers as applicable based on location  
32 of the proposed mitigation site relative to that of the proposed impact site. Once the  
33 multipliers are determined, an option is to pay for the required mitigation. Payment of a  
34 compensatory mitigation fee to a mitigation bank if mitigation credits are available  
35 pursuant to Paragraph (h) of this rule or payment of a compensatory mitigation fee to the  
36 Riparian Buffer Restoration Fund pursuant to Paragraph (i) of this Rule. Payment to the  
37 Riparian Buffer Restoration Fund for applicants other than Government Entities shall be

1 available only when payment to a mitigation bank pursuant to Paragraph (h) of this rule is  
 2 not available. Alternative mitigation options shown in Paragraph (k) of this rule shall be  
 3 subject to these locational multipliers. Mitigation may be conducted within an adjacent  
 4 eight digit HUC at a 2:1 ratio if written documentation of the impracticality of conducting  
 5 mitigation within the appropriate 8 digit HUC is reviewed and approved by the Division.  
 6

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

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

20  
 21 Option C: use the following locational multipliers as applicable based on location  
 22 of the proposed mitigation site relative to that of the proposed impact site. Mitigation  
 23 options shall be available to applicants. A written demonstration of practicality shall be  
 24 submitted to the Division for review and approval and shall take into account the cost and  
 25 availability of these options with the following conditions:

<u>Adjacent 8 digit HUC</u>	<u>Within 8 digit HUC</u>	<u>Within 12 digit HUC</u>	<u>Mitigation option</u>
<u>n/a</u>	<u>n/a</u>	<u>0.75</u>	<u>1) On site mitigation</u>

<u>2.0</u>	<u>1.0</u>	<u>0.75</u>	<u>2) All other types of mitigation</u>
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(B) Donation of property shall satisfy all the conditions of Paragraph (j) of this Rule.

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

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

(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 2B .0262.

(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 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 (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

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

7 (B) For the Goose Creek Watershed the riparian buffer restoration or enhancement site shall  
8 have a minimum width of 50 feet as measured horizontally on a line perpendicular to the  
9 surface water and may include restoration or enhancement of existing riparian areas,  
10 restoration or enhancement of streamside areas along first order ephemeral streams that  
11 discharge/outlet into intermittent or perennial streams, and preservation of the streamside  
12 area along first order ephemeral streams that discharge or outlet into intermittent or  
13 perennial stream at a 5:1 ratio as long as there is also an amount of restoration or  
14 enhancement equivalent to the amount of permitted impact.

15 (6) The mitigation site shall provide diffuse flow across the entire buffer width. Any existing  
16 impervious cover or stormwater conveyances such as ditches or pipes shall be eliminated and the  
17 flow converted to diffuse flow.

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

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

23 (B) A vegetation plan which shall include a minimum of five native hardwood tree species,  
24 where no one species is greater than 25% of planted stems, planted at a density sufficient  
25 to provide 320 trees per acre at maturity. The Division may approve alternative planting  
26 plans upon consideration of factors including site wetness and plant availability;

27 (C) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the  
28 entire riparian buffer, and,

29 (D) A schedule for implementation including a fertilization and herbicide plan that will  
30 include protective measures to ensure that fertilizer and herbicide is not deposited  
31 downstream from the site and will be applied per manufacturers guidelines. Pesticides  
32 used must be certified by EPA for use in or near aquatics sites. Pesticides must be  
33 applied in accordance with the manufacturers' instructions, and

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

36 (8) Within one year after the Division has approved the restoration or enhancement plan, the applicant  
37 or mitigation provider shall present documentation to the Division that the riparian buffer has been  
38 restored or enhanced unless the Division agrees in writing to a longer time period due to the

necessity for a longer construction period. If documentation is not presented within this timeframe, then the person shall be in violation of the Authority's riparian buffer protection program.

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

(10) Option 1: If the proposed mitigation site contains a sewer easement, the portion of the easement located within Zone 1 or Zone 2 is not suitable for buffer mitigation. However, the applicant may get narrower buffer credit in accordance with (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.

(11) 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 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, and

(12) 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.

(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 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).

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

3 (1) The donation of real property interests may be used to either partially or fully satisfy the payment  
4 of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Paragraph  
5 (h) of this Rule. The value of the property interest shall be determined by an appraisal performed  
6 in accordance with Part (i)(4)(D) of this Rule. The donation shall satisfy the mitigation  
7 determination if the appraised value of the donated property interest is equal to or greater than the  
8 required fee. If the appraised value of the donated property interest is less than the required fee  
9 calculated pursuant to 15A NCAC 2B .0269, the applicant shall pay the remaining balance due.

10 (2) The donation of conservation easements or similar legal mechanism that includes a non-wasting  
11 endowment to satisfy compensatory mitigation requirements shall be accepted only if the  
12 conservation easement or similar legal mechanism that includes a non-wasting endowment is  
13 granted in perpetuity.

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

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

19 (B) For the Neuse, Tar-Pamlico, Randleman basins and the Jordan Reservoir Watershed, the  
20 restorable riparian buffer on the property shall have a collective minimum length of 1,000  
21 linear feet per 2,500 linear feet along a surface water and a minimum width of 50 feet as  
22 measured horizontally on a line perpendicular to the surface water. For the Catawba  
23 River mainstem below Lake James, the width of the riparian buffer shall begin at the  
24 most landward limit of the top of the bank and extend landward a distance of 50 feet,  
25 measured horizontally on a line perpendicular to a vertical line marking the edge of the  
26 top of the bank. For the mainstem lakes located on the Catawba River mainstem, the  
27 width of the riparian buffer shall begin at the most landward limit of the full pond level  
28 and extend landward a distance of 50 feet, measured horizontally on a line perpendicular  
29 to a vertical line marking the edge of the full pond level;

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

33 (D) The property shall not require excessive measures for successful restoration, such as  
34 removal of structures or infrastructure. Restoration of the property shall be capable of  
35 fully offsetting the adverse impacts of the requested use;

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

- 1           (F) The estimated cost of restoring and maintaining the property shall not exceed the value of  
2           the property minus site identification and land acquisition costs unless the applicant  
3           supplies financial assurance acceptable to the Division for restoration and maintenance of  
4           the buffer;
- 5           (G) The property shall not contain any building, structure, object, site, or district that is listed  
6           in the National Register of Historic Places established pursuant to Public Law 89-665, 16  
7           U.S.C. 470 as amended;
- 8           (H) The property shall not contain any hazardous substance or solid waste such that water  
9           quality could be adversely impacted, unless the hazardous substance or solid waste can be  
10           properly remediated before the interest is transferred;
- 11           (I) The property shall not contain structures or materials that present health or safety  
12           problems to the general public. If wells, septic, water or sewer connections exist, they  
13           shall be filled, remediated or closed at owner's expense in accordance with state and local  
14           health and safety regulations before the interest is transferred;
- 15           (J) The property and adjacent properties shall not have prior, current, or known future land  
16           use that would inhibit the function of the restoration effort;
- 17           (K) The property shall not have any encumbrances or conditions that are inconsistent with the  
18           requirements of this rule or purposes of the buffer rules.
- 19           (L) Fee simple title to the property or a conservation easement in the property shall be  
20           donated to the NC Ecosystem Enhancement Program or a similar organization approved  
21           by the Division to conduct the restoration or enhancement; and
- 22           (M) Upon completion of the buffer restoration or enhancement , the property or the easement  
23           shall be donated to a local land trust or to a local government or other state organization  
24           that is willing to accept the property or easement. The donation shall be accompanied by  
25           a non-wasting endowment sufficient to ensure perpetual long-term monitoring and  
26           maintenance , except that where a local government has donated a conservation easement  
27           and has entered into a binding intergovernmental agreement with the Division to manage  
28           and protect the property consistent with the terms of the conservation easement , such  
29           local government shall not be required to provide a non-wasting endowment.
- 30           (4) At the expense of the applicant or donor, the following information shall be submitted to the  
31           Division with any proposal for donations or dedications of interest in real property:
- 32           (A) Documentation that the property meets the requirements laid out in Subparagraph (i)(3)  
33           of this Rule;
- 34           (B) US Geological Survey 1:24,000 (7.5 minute) scale topographic map, county tax map,  
35           USDA Natural Resource Conservation Service County Soil Survey Map, and county road  
36           map showing the location of the property to be donated along with information on  
37           existing site conditions, vegetation types, presence of existing structures and easements;

1           (C) A current property survey performed in accordance with the procedures of the North  
2           Carolina Department of Administration, State Property Office as identified by the State  
3           Board of Registration for Professional Engineers and Land Surveyors in "Standards of  
4           Practice for Land Surveying in North Carolina." Copies may be obtained from the North  
5           Carolina State Board of Registration for Professional Engineers and Land Surveyors,  
6           3620 Six Forks Road, Suite 300, Raleigh, North Carolina 27609;

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

12           (E) A title certificate.

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

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

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

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

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

32           (D) Option 1: Projects that have been constructed and are within the required monitoring  
33           period as of the effective date of this Rule are eligible for use as alternative buffer  
34           mitigation. Projects that have completed monitoring and have been released by the  
35           Division as of the effective date of this Rule are not eligible for use as alternative buffer  
36           mitigation.

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

6  
7 (E) Buffer mitigation ratios shall be applied to these alternative buffer mitigation options, and

8 (F) The mitigation area shall be placed under a perpetual conservation easement or similar  
9 legal mechanism to provide for protection of the property's buffer functions.

10 (G) A completion bond shall be provided for the mitigation site to account for all land  
11 purchase, construction, monitoring and maintenance costs. A non-wasting endowment  
12 must be provided for the site to ensure perpetual, long term monitoring and maintenance.

13 (2) ALTERNATIVE BUFFER MITIGATION – NON-STRUCTURAL, VEGETATIVE OPTIONS.

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

23 (B) Unmapped Stream Buffer Mitigation. Restoration or enhancement of buffers may be  
24 conducted on intermittent or perennial streams that are exempt from riparian buffer rules  
25 by virtue of not being shown on maps as further specified in individual rules referenced  
26 in Paragraph (f). These streams shall be confirmed as intermittent or perennial streams by  
27 Division staff or staff from a local delegated program using the 2010 or later version of  
28 the Division's stream identification manual. Preservation of these stream buffers that  
29 meet the definition of a preservation site may also be proposed in order to permanently  
30 protect the buffer from cutting, clearing, filling and grading and similar activities that  
31 would affect the functioning of the buffer, provided that the preservation site area is five  
32 times larger than the mitigation area required under Paragraph (e) of this Rule, and  
33 restoration or enhancement is proposed with an area equal to the mitigation area required  
34 under Paragraph (e) of this Rule. The preservation site shall protect at least a 50 foot  
35 wide wooded riparian buffer. The proposal shall meet all applicable requirements of  
36 Paragraph (g) of this Rule. Applicant shall provide a written description for the  
37 Division's approval of the demonstrable threat to the buffer mitigation site and its

1 functioning to provide nutrient removal and other water quality benefits. No existing or  
2 new stormwater discharges are allowed thru the buffer.

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

15  
16 Option 2: Preservation of mapped stream buffers. Buffer preservation may be proposed  
17 in order to permanently protect the buffer from cutting, clearing, filling and grading and  
18 similar activities that would affect the functioning of the buffer above and beyond the  
19 protection afforded by the existing buffer rules on sites that meet the definition of a  
20 preservation site along streams, estuaries or ponds that are subject to buffer rules as long  
21 as the proposed preservation site area is ten times larger than the mitigation area required  
22 under Paragraph (e) of this Rule in non-urban areas and three times larger than the  
23 mitigation area required under Paragraph (e) of this Rule in urban areas. In addition,  
24 buffer restoration or enhancement is also proposed with an area equal to the mitigation  
25 area required under Paragraph (e) of this Rule. Reduced buffer mitigation credit can be  
26 given per Paragraph (D) of this Rule in urban areas. Applicant shall provide a written  
27 description for the Division's approval of the demonstrable threat to the buffer mitigation  
28 site and its functioning to provide nutrient removal and other water quality benefits. No  
29 existing or new stormwater discharges are allowed thru the buffer.

30 (D) Narrower buffers on urban streams. Buffer mitigation with widths less than 50 feet may  
31 be proposed along urban streams. If buffers greater than or equal to 31 feet in width are  
32 proposed and on-site stormwater management is provided to control local sources of  
33 nutrients and other pollutants, then full buffer credit shall be awarded for the mitigation  
34 area required under Paragraph (e) of this Rule. A total of 75% of full credit shall be  
35 awarded for buffers between 20 and 30 feet wide if on-site stormwater management is  
36 provided to control local sources of nutrients and other pollutants. If on-site stormwater  
37 management is not provided, then 50% of full credit shall be provided for buffers

1 between 31 and 50 feet wide and 25% of full credit for buffers between 20 and 30 feet  
2 wide. Buffers less than 20 feet wide shall receive no buffer credit regardless of whether  
3 on-site stormwater management is provided. Any remaining mitigation requirements  
4 must be provided at additional mitigation sites.

5 (E) Enhancement of grazing areas adjacent to streams. Buffer credit at a 2:1 ratio shall be  
6 available for an applicant who proposes permanent exclusion of grazing livestock that  
7 otherwise degrade the stream and riparian zone through trampling, grazing or waste  
8 deposition by fencing the livestock out of the stream and its adjacent buffer. The riparian  
9 buffer area contained by fencing shall be two times greater than the mitigation area  
10 required under Paragraph (e) of this Rule. The applicant shall document the condition  
11 and aerial coverage of canopy and woody understory, and shall propose planting of  
12 understory trees and shrubs as well as young canopy tree species as necessary to achieve  
13 buffer restoration to the standards identified in Paragraph (g). The applicant shall  
14 demonstrate that grazing was the predominant land use for at least the past 20 years and  
15 that woody understory is absent as a result of grazing history. Conservation easements or  
16 other similar legal mechanism shall ensure perpetual maintenance of permanent fencing.

17 (3) ALTERNATIVE BUFFER MITIGATION STRUCTURAL STORMWATER TREATMENT  
18 OPTIONS.

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

22 (B) Structural measures already required by other local, state or federal rule cannot be used as  
23 alternative buffer mitigation, except to the extent such measure(s) exceed the  
24 requirements of such rule. Stormwater Best Management Practices (BMPs) -bioretention  
25 facilities, constructed wetlands, infiltration devices and sand filter are all potentially  
26 approvable Best Management Practices for alternative buffer mitigation. Other Best  
27 Management Practices may be approved only if they meet the nutrient removal levels  
28 outlined in (3)(C) below. Existing or planned BMPs for a local, state or federal permit  
29 may be retrofitted or expanded to improve their nutrient removal if this level of treatment  
30 would not be required by other local, state or federal rules. In this case, the predicted  
31 increase in nutrient removal may be counted toward alternative buffer mitigation;

32 (C) Minimum treatment levels: Any structural BMP shall provide at least 30% total nitrogen  
33 and 35% total phosphorus removal as demonstrated by a scientific and engineering  
34 literature review as approved by the Division. The total load reduction from structural  
35 BMPs shall be at least equivalent to the original load reduction provided by the existing  
36 square feet of buffer being impacted;

37 (D) All proposed structural Best Management Practices shall follow the Division's current or  
38 a later version of the 2009 Stormwater Best Management Practice Design Manual. If a

1 proposed structural Best Management Practice is not addressed in this Manual, then a  
2 scientific and engineering literature review shall be submitted with the designs for written  
3 approval by the Division. The design shall be as effective as the practices described in  
4 the Division's stormwater manual;

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

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

10 (G) Annual reports shall be sent in writing to the Division of Water Quality concerning  
11 operation and maintenance of all structural options approved under this rule.

12 (H) Removal and replacement of structural options: If a structural option is proposed to be  
13 removed and cannot be replaced on site, then a structural measure of equal or better  
14 nutrient removal capacity shall be constructed as a replacement with the location as  
15 specified by Section (e) of this Rule;

16 (I) Renovation or repair of structural options: If a structural option must be renovated or  
17 repaired, it shall be renovated to provide similar or better nutrient removal capacity as  
18 originally designed;

19 (J) Structural options as well as their operation and maintenance are the responsibility of the  
20 landowner or easement holder unless the Division agrees in writing to operation and  
21 maintenance by another responsible party. Structural options shall be shown on the  
22 property deed or another document constituting an encumbrance on the property, with a  
23 note that operation and maintenance is the responsibility of the landowner, easement  
24 holder or other responsible party; and.

25 (K) Bonding and endowment. Provisions for bonding for construction, monitoring and  
26 maintenance as well as provision for a long term, non-wasting endowment for monitoring  
27 and maintenance shall be provided in the submittal to the Division.

28 (4) OTHER ALTERNATIVE BUFFER MITIGATION OPTIONS. Other riparian buffer mitigation  
29 options may be considered by the Division on a case-by-case basis after public notice  
30 through the Division's 401 Certification Mailing List and opportunity for comment as  
31 long as the options otherwise meet the requirements of this Rule. Division staff shall  
32 present recommendations to the Environmental Management Commission for a final  
33 decision with respect to any proposal for alternative buffer mitigation options not  
34 specified in this Rule.

35 (I) ACCOUNTING FOR BUFFER CREDIT, NUTRIENT OFFSET CREDIT AND STREAM MITIGATION  
36 CREDIT. Buffer mitigation credit, nutrient offset credit, wetland mitigation credit and stream mitigation credit  
37 shall be accounted for in accordance with the following:

- 1           (1) Riparian buffers required for Water Supply Watershed rules shall not generate credit for buffer  
2           mitigation, nutrient offset mitigation or stream mitigation projects.  
3           (2) Nutrient offset credits can be generated outside of the stream buffer width required for stream  
4           mitigation.  
5           (3) Buffer and nutrient offset credits cannot be counted in the same square footage for mitigation credit.  
6           (4) Buffer mitigation or nutrient offset credit cannot be provided within wetlands which provide  
7           wetland mitigation credit required by 15A NCAC 2H .0506, as long as riparian wetland mitigation is  
8           implemented and  
9           (5) Option 1: Buffer mitigation or nutrient offset credit can be generated on stream mitigation sites as  
10           long as the restored or enhanced riparian buffer is at least 50 feet.

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

17           Option 3: Buffer mitigation or nutrient offset credit cannot be generated on stream mitigation sites.

18  
19           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-  
20           215.6A; 143-215.6B; 143-215.6C; 143-215.8A; 143-215.8B; 143-282(c); 143B-282(d); S.L. 1999,  
21           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.  
22           Eff. date January 1, 2014.

1 15A NCAC 02B .0242 is proposed for repeal as follows:

2

3 **15A NCAC 02B .0242 NEUSE RIVER BASIN: NUTRIENT SENSITIVE WATERS MANAGEMENT**  
4 **STRATEGY: MITIGATION PROGRAM FOR PROTECTION AND MAINTENANCE OF EXISTING**  
5 **RIPARIAN BUFFERS**

6

7 *History Note: Authority 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1998, c. 221;*

8 *Temporary Adoption Eff. June 22, 1999;*

9 *Eff. August 1, 2000.*

10 *Repealed Eff. January 1, 2014*

1 15A NCAC 02B .0244 is proposed for repeal as follows:

2

3 **15A NCAC 02B .0244 CATAWBA RIVER BASIN: MITIGATION PROGRAM FOR PROTECTION AND**  
4 **MAINTENANCE OF EXISTING RIPARIAN BUFFERS IN THE CATAWBA RIVER BASIN**

5

6 *History Note:* Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1999, c. 329, s. 7.1; S.B. 824-2003;  
7 Temporary Adoption Eff. June 30, 2001 (exempt from 270 day requirement - S.L. 2001-418 & S.L.  
8 2003-340);

9 Eff. August 1, 2004.

10 Repealed Eff. January 1, 2014

1 15A NCAC 02B .0252 is proposed for repeal as follows:

2

3 15A NCAC 02B .0252 RANDLEMAN LAKE WATER SUPPLY WATERSHED: MITIGATION PROGRAM  
4 FOR PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

5

6 *History Note:* Authority 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1998, c. 221;

7 Eff. June 1, 2010.

8 Repealed Eff. January 1, 2014

1 15A NCAC 02B .0260 is proposed for repeal as follows:

2

3 **15A NCAC 02B .0260 TAR-PAMLICO RIVER BASIN - NUTRIENT SENSITIVE WATERS**  
4 **MANAGEMENT STRATEGY: MITIGATION PROGRAM FOR PROTECTION AND MAINTENANCE**  
5 **OF RIPARIAN BUFFERS**

6

7 *History Note: Authority 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143B-*  
8 *282(d); S.L. 1999, c. 329, s. 7.1;*

9

*Temporary Adoption Eff. January 1, 2000;*

10

*Eff. August 1, 2000.*

11

*Repealed Eff. January 1, 2014*

1 15A NCAC 02B .0268 is proposed for repeal as follows:

2

3 **15A NCAC 02B .0268 JORDAN WATER SUPPLY NUTRIENT STRATEGY: MITIGATION FOR**  
4 **RIPARIAN BUFFERS**

5

6 *History Note: Authority 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-*  
7 *215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 1999-329, s. 7.1.; S.L. 2005-190; S.L. 2006-*  
8 *259;*

9 *Eff. August 11, 2009;*

10 *Amended Eff. September 1, 2011.*

11 *Repealed Eff. January 1, 2014*

1 15A NCAC 02B .0609 is proposed for repeal as follows:

2

3 15A NCAC 02B .0609 SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN FOR THE GOOSE  
4 CREEK WATERSHED (YADKIN PEE-DEE RIVER BASIN): MANAGE ACTIVITIES WITHIN  
5 RIPARIAN BUFFERS: MITIGATION REQUIREMENTS FOR BUFFER IMPACTS

6

7 *History Note:* Authority G.S. 143-214.1; 143-215.3(a)(1); 143-215.8A;

8 *Eff. February 1, 2009*

9 *Repealed Eff. January 1, 2014*