

1 15A NCAC 02B .0295 is adopted with changes as published in 29:16 NCR 1939-1950 as follows:

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

(a) PURPOSE. The purpose of this Rule is to set forth the mitigation requirements that apply to applicants listed in ~~Subparagraphs (1) and (2) of this Paragraph (c) of this Rule~~ and to set forth requirements for buffer mitigation providers. ~~Buffer mitigation is required when one of the following applies:~~

- ~~(1) The applicant has received an authorization certificate for impacts that cannot be avoided or practicably minimized pursuant to Rules .0233, .0243, .0250, .0259, .0267 or .0607 of this Subchapter; or~~
- ~~(2) The applicant has received a variance pursuant to Rules .0233, .0243, .0250, .0259, .0267 or .0607 of this Subchapter and is required to perform mitigation as a condition of a variance approval.~~

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

- (1) "Authority" means either the Division or a local government that has been delegated or designated pursuant to Rules .0233, .0243, .0250, .0259, **.0267 .0267** or .0607 of this Subchapter to implement the riparian buffer program.
- ~~(2)~~ "Compensatory Buffer Mitigation Bank" means a buffer mitigation site created by a mitigation provider and approved for mitigation credit by the Division through execution of a mitigation banking instrument.
- ~~(2)(3)~~ "Division" means the Division of Water Resources of the North Carolina Department of Environment and Natural Resources.
- ~~(3)(4)~~ "Enhancement Site" means a riparian zone site characterized by conditions between that of a restoration site and a preservation site such that the establishment of woody stems (i.e., tree or shrub species) will maximize nutrient removal and other buffer functions.
- ~~(4)(5)~~ "Hydrologic Area" means the Watershed Boundary Dataset (WBD), located at no cost at <http://data.nconemap.com/geoportal/catalog/search/resource/details.page?uuid={16A42F31-6DC7-4EC3-88A9-03E6B7D55653}> using the eight-digit Hydrologic Unit Code (HUC) prepared by the United States Geological Survey.
- ~~(5)(6)~~ "Locational Ratio" means the mitigation ratio applied to the mitigation requirements based on the location of the mitigation site relative to the impact site as set forth in Paragraph (f).
- ~~(7)~~ "Mitigation banking instrument" means the legal document for the establishment, operation, and use of a mitigation bank.
- ~~(6)(8)~~ "Monitoring period" means the length of time specified in the approved mitigation plan during which monitoring of vegetation success and other anticipated benefits to the adjacent water as listed in the ~~authorization certificate~~ mitigation approval is done.
- ~~(7)(9)~~ "Non-wasting endowment" means a fund that generates enough interest to cover the cost of the long term monitoring and maintenance.

1 ~~(8)~~(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 available at no cost at
 4 http://www.epa.gov/wed/pages/ecoregions/ncsc_eco.htm.

5 ~~(9)~~(11) "Preservation Site" means riparian zone sites ~~that that, as determined by a site visit conducted by~~
 6 ~~the Authority,~~ are characterized by a ~~natural~~ forest consisting of the forest strata and diversity of
 7 species appropriate for the ~~location, Omernik Level III~~ ecoregion. ~~[ecoregion available at no cost~~
 8 ~~at http://www.epa.gov/wed/pages/ecoregions/level_iii_iv.htm]~~

9 ~~(10)~~(12) "Restoration Site" means riparian zone sites that are characterized by an absence of trees and by a
 10 lack of dense growth of smaller woody stems (i.e., shrubs or saplings) or sites that are
 11 characterized by scattered individual trees such that the tree canopy is less than 25 percent of the
 12 cover and by a lack of dense growth of smaller woody stems (i.e., shrubs or saplings).

13 ~~(11)~~(13) "Riparian buffer mitigation unit" means a unit representing a credit of riparian buffer mitigation
 14 ~~that offsets one square foot of riparian buffer impact, as set forth in Paragraph (m).~~

15 ~~(12)~~(14) "Riparian wetland" means a wetland that is found in one or more of the following landscape
 16 positions:

- 17 (A) in a geomorphic floodplain;
- 18 (B) in a natural topographic crenulation;
- 19 (C) contiguous with an open water equal to or greater than 20 acres in size; or
- 20 (D) subject to tidal flow regimes excluding salt/brackish marsh wetlands.

21 ~~(15)~~ "Stem" means a woody seedling, sapling, ~~shrub~~ shrub, or tree, no less than 10 cm in height.

22 ~~(13)~~~~(15)~~(16) "Urban" means an area that is ~~either~~ designated as an urbanized area under the most
 23 recent federal decennial census available at no cost at <http://www.census.gov/> or ~~is located~~ within
 24 the corporate limits of a municipality.

25 ~~(14)~~~~(16)~~(17) "Zonal Ratio" means the mitigation ratio applied to impact amounts in the respective
 26 zones of the riparian buffer as set forth in Paragraph (e) of this Rule.

27 (c) ~~MITIGATION REQUIREMENTS. APPLICATION REQUIREMENTS, MITIGATION SITE~~
 28 ~~REQUIREMENTS AND MITIGATION OPTIONS.~~ Buffer mitigation is required when one of the following
 29 applies:

30 (1) The applicant has received an authorization certificate for impacts pursuant to ~~[Rules] Rule~~ .0233,
 31 .0243, .0250, .0259, ~~[.0267] .0267~~ or .0607 of this Subchapter and is required to perform
 32 mitigation as a condition of the authorization certificate; or

33 (2) The applicant has received a variance pursuant to ~~[Rules] Rule~~ .0233, .0243, .0250, .0259, ~~[.0267]~~
 34 ~~.0267~~ or .0607 of this Subchapter and is required to perform mitigation as a condition of a
 35 variance approval.

36 Any applicant ~~who seeks approval to impact riparian buffers covered under this Rule who is required by Paragraph~~
 37 ~~(a)~~ shall submit to the ~~Division~~ Authority a written mitigation proposal that calculates the required area of mitigation

1 and describes the area and location of each type of proposed mitigation. The applicant shall not impact buffers until
2 the ~~Division~~ Authority approves the mitigation plan and issues written ~~authorization~~ approval. For all options
3 except payment of a fee under Paragraphs (j) or (k) of this Rule, the proposal shall include a commitment to provide:

- 4 (1) ~~a perpetual conservation easement or similar legal protection mechanism to ensure perpetual~~
5 ~~stewardship that protects the mitigation site's nutrient removal and other water quality functions;~~
- 6 (2) ~~a commitment to provide a non-wasting endowment or other financial mechanism for perpetual~~
7 ~~stewardship and protection; and~~
- 8 (3) ~~a commitment to provide a completion bond that is payable to the Division sufficient to ensure~~
9 ~~that land or easement purchase, construction, monitoring, and maintenance are completed.~~

10 For each mitigation site, the ~~Division~~ shall identify functional criteria to measure the anticipated benefits of the
11 mitigation to the adjacent water. The ~~Division~~ shall issue a mitigation determination that specifies the area, type,
12 and location of mitigation and the water quality benefits to be provided by the mitigation site. The mitigation
13 determination issued according to this Rule shall be included as an attachment to the authorization certification. The
14 applicant may propose any of the following types of mitigation and shall provide a written demonstration of
15 practicality that takes into account the relative cost and availability of potential options, as well as information
16 addressing all requirements associated with the option proposed:

- 17 (1) ~~Applicant provided riparian buffer restoration or enhancement pursuant to Paragraph (i) of this~~
18 ~~Rule;~~
- 19 (2) ~~Payment of a compensatory mitigation fee to a mitigation bank if buffer credits are available~~
20 ~~pursuant to Paragraph (j) of this Rule or payment of a compensatory mitigation fee to the Riparian~~
21 ~~Buffer Restoration Fund pursuant to Paragraph (k) of this Rule. Payment shall conform to the~~
22 ~~requirements of G.S. 143-214.20;~~
- 23 (3) ~~Donation of real property or of an interest in real property pursuant to Paragraph (l) of this Rule;~~
24 ~~or~~
- 25 (4) ~~Alternative buffer mitigation options pursuant to Paragraph (m) of this Rule.~~

26 (d) AREA OF IMPACT. The ~~authority~~ Authority shall determine the area of impact in square feet to each ~~zone~~
27 Zone as defined by the applicable ~~[Riparian buffer Rules]~~ Rule .0233, .0243, .0250, .0259, .0267, or .0607 of this
28 Subchapter of the proposed riparian buffer ~~impact~~ by adding the following:

- 29 (1) The area of the footprint of the use impacting the riparian buffer;
- 30 (2) The area of the boundary of any clearing and grading activities within the riparian buffer
31 necessary to accommodate the use; and
- 32 (3) The area of any ongoing maintenance corridors within the riparian buffer associated with the use.

33 The ~~authority~~ Authority shall deduct from this total the area of any wetlands that are subject to and compliant with
34 riparian wetland mitigation requirements under 15A NCAC 02H .0506 and are located within the proposed riparian
35 buffer impact area.

1 (e) AREA OF MITIGATION REQUIRED ON ZONAL MITIGATION RATIOS. The ~~authority~~ Authority shall
2 determine the required area of mitigation for each ~~zone~~ Zone by applying each of the following ratios to the area of
3 impact calculated under Paragraph (d) of this Rule:

Basin/Watershed	Zone 1 Ratio	Zone 2 Ratio
Neuse River Basin (15A NCAC 02B .0233)	3:1	1.5:1
Catawba River Basin (15A NCAC 02B .0243)	2:1	1.5:1
Randleman Lake Watershed (15A NCAC 02B .0250)	3:1	1.5:1
Tar-Pamlico River Basin (15A NCAC 02B .0259)	3:1	1.5:1
Jordan Lake Watershed (15A NCAC 02B .0267)	3:1	1.5:1
Goose Creek Watershed (15A NCAC 02B .0607)	3:1 ^A	

4 ^A The Goose Creek Watershed does not have a Zone 1 and Zone 2. The mitigation ratio in the Goose
5 Creek Watershed is 3:1 for the entire buffer.
6

7 (f) AREA OF MITIGATION REQUIRED ON LOCATIONAL MITIGATION RATIOS. The applicant or
8 mitigation provider shall use the following locational ratios as applicable based on location of the proposed
9 mitigation site relative to that of the proposed impact site. Locational ratios shall be as follows:

Location	Ratio
Within the 12-digit HUC ^A	0.75:1
Within the eight-digit HUC ^B	1:1
In the adjacent Outside of the eight-digit HUC ^{B,C} HUC ^B	2:1

10 ^A Except within the Randleman Lake Watershed. Within the Randleman Lake Watershed
11 the ratio is 1:1.

12 ^B Except as provided in Paragraph (g) of this Rule.

13 ^C ~~To use mitigation in the adjacent eight digit HUC, the applicant shall describe why buffer~~
14 ~~mitigation within the eight digit HUC is not practical for the project.~~
15

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

- 18 (1) In the following cases, mitigation shall be performed in the same watershed ~~in which~~ where the
19 impact is located:
 - 20 (A) Falls Lake Watershed, as defined in Rule .0275 of this Section;
 - 21 (B) Goose Creek Watershed, as defined in Rule .0601 of this Subchapter;
 - 22 (C) Randleman Lake Water Supply Watershed, as defined in Rule .0248 of this Section;
 - 23 (D) Each subwatershed of the Jordan Lake watershed, as defined in Rule .0262 of this
24 Section; and
 - 25 (E) Other watersheds as specified in riparian buffer protection rules adopted by the
26 Commission.
- 27 (2) Buffer mitigation for impacts within watersheds with riparian buffer rules that also have federally
28 listed threatened or endangered aquatic species may be done within other watersheds with the
29 same federally listed threatened or endangered aquatic species as long as the impacts are in the
30 same river basin ~~and same Omernik Level III ecoregion~~ available at no cost at
31 ~~http://www.epa.gov/wed/pages/ecoregions/level_iii_iv.htm~~ as the mitigation site.

(h) MITIGATION OPTIONS FOR APPLICANTS. The applicant may propose any of the following types of mitigation: ~~mitigation and shall provide a written demonstration of practicality that takes into account the relative cost and availability of potential options, as well as information addressing all requirements associated with the option proposed.~~

- (1) ~~[Applicant provided riparian]~~ Riparian buffer restoration or enhancement pursuant to Paragraph (n) of this Rule;
- (2) Payment of a compensatory mitigation fee to a compensatory buffer mitigation bank ~~[if buffer credits are available]~~ pursuant to Paragraph (i) of this Rule or payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Paragraph (j) of this Rule. Payment shall conform to the requirements of G.S. 143-214.20;
- (3) Donation ~~of real property or of an interest in real property~~ pursuant to Paragraph (k) of this Rule;
- (4) Alternative buffer mitigation ~~[options]~~ pursuant to Paragraph (o) of this Rule; or
- (5) Other buffer mitigation ~~[options when]~~ as approved by the Environmental Management Commission as a condition of a variance approval.

~~[Riparian buffer restoration or enhancement is required with an area at least equal to the footprint of the buffer impact, and the remaining mitigation resulting from the application of the zonal mitigation ratios in Paragraph (e) and locational mitigation ratios in Paragraph (f) may be met through other mitigation options.]~~

~~(h) RIPARIAN BUFFER MITIGATION UNITS. Mitigation activities shall generate riparian buffer mitigation units as follows:~~

Mitigation Activity	Square Feet of Mitigation Buffer	Riparian Buffer Mitigation Units Generated
Restoration	1	1
Enhancement	2	1
Preservation on Non Subject Urban Streams	3	1
Preservation on Subject Urban Streams	3	1
Preservation on Non Subject Rural Streams	5	1
Preservation on Subject Rural Streams	10	1

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

- (1) The compensatory buffer mitigation bank from which credits are purchased shall have available riparian buffer credits approved by the Division;
- (2) The compensatory buffer mitigation bank from which credits are purchased shall be located as described in Paragraphs (e), (f), and (g) of this Rule; and
- (3) After receiving a mitigation acceptance letter from the compensatory buffer mitigation bank, proof of payment for the credits shall be provided to the Authority prior to any activity that results in the removal or degradation of the protected riparian buffer.

1 (j) PAYMENT TO THE RIPARIAN BUFFER RESTORATION FUND. Applicants who choose to satisfy some or
 2 all of their mitigation requirement by paying a compensatory mitigation fee to the Riparian Buffer Restoration Fund
 3 shall meet the requirements of Rule .0269 of this Section. Payment made to the NC Division of Mitigation Services
 4 (DMS) [Ecosystem Enhancement Program (the Program)] shall be contingent upon acceptance of the payment by
 5 the DMS. [Program.] The DMS [Program] shall consider their financial, temporal, and technical ability to satisfy the
 6 mitigation request to determine whether they shall accept or deny the request.

7 (k) DONATION OF PROPERTY. Applicants who choose to satisfy their mitigation requirement by donating real
 8 property or an interest in real property to fully or partially offset an approved payment into the Riparian Buffer
 9 Restoration Fund pursuant to Paragraph (j) of this Rule shall do so in accordance with 15A NCAC 02R .0403.

10 (l) MITIGATION SITE REQUIREMENTS FOR APPLICANTS AND MITIGATION PROVIDERS. For each
 11 mitigation site proposed by an applicant or mitigation provider under Paragraphs (n) or (o), the Authority shall
 12 identify functional criteria to measure the anticipated benefits of the mitigation to the adjacent water. The Authority
 13 shall issue a mitigation determination that specifies the area, type, and location of mitigation and the water quality
 14 benefits to be provided by the mitigation site. All mitigation proposals shall meet the following criteria:

15 (1) The location of the buffer mitigation site shall comply with the requirements of Paragraphs ~~(e),~~
 16 ~~(f),~~ (f) and (g) of this Rule. In the Catawba watershed, buffer mitigation may be done along the
 17 lake shoreline as well as along intermittent and perennial stream channels throughout the
 18 watershed.

19 (2) The mitigation proposal shall include a commitment to provide:

20 (A) a perpetual conservation easement or similar preservation mechanism to ensure perpetual
 21 stewardship that protects the mitigation site's nutrient removal and other water quality
 22 functions;

23 (B) a non-wasting endowment or other dedicated financial surety to provide for the perpetual
 24 land management and hydrological maintenance of lands ~~or~~ and maintenance of
 25 structures as ~~appropriate,~~ applicable, ~~structures;~~ and

26 (C) financial assurance in the form of a completion bond, credit insurance, letter of credit,
 27 escrow, or other vehicle acceptable to the Authority payable to, or for the benefit of, the
 28 Authority in an amount sufficient to ensure that the property is secured in fee title or by
 29 easement, and that planting or construction, monitoring and maintenance are completed
 30 as necessary to meet success criteria as specified in the approved mitigation plan. This
 31 financial assurance obligation shall not apply to the NC DMS [Division of Mitigation
 32 Services.] [Ecosystem Enhancement Program.]

33 (3) Diffuse flow of runoff shall be maintained in the riparian buffer. Any existing impervious cover
 34 or stormwater conveyances such as ditches, pipes, or drain tiles shall be eliminated and the flow
 35 converted to diffuse flow. If the applicant or mitigation provider determines that elimination of
 36 existing stormwater conveyances is not feasible, then they shall include a justification and shall
 37 provide a delineation of the watershed draining to the stormwater outfall and the percentage of the

total drainage by area treated by the riparian buffer with the mitigation plan specified in Paragraph (n) or Paragraph (o) for Authority approval. During mitigation plan review and ~~approval~~ approval, the ~~Division~~ Authority may reduce credit proportionally.

(4) Sewer easement within the buffer. If the proposed mitigation site contains a sewer easement in Zone 1, that portion of the sewer easement within Zone 1 ~~is not~~ shall not be suitable for buffer mitigation credit. If the proposed mitigation site contains a sewer easement in Zone 2, the portion of the sewer easement in Zone 2 may be suitable for buffer mitigation credit if:

- (A) the applicant or mitigation provider restores or enhances the forested buffer in Zone 1 adjacent to the sewer easement;
- (B) the sewer easement is required to be maintained in a condition that meets the vegetative requirements of the collection system permit; and
- (C) diffuse flow is provided across the entire buffer width.

(5) The ~~applicant or~~ mitigation provider shall provide a site specific credit/debit ledger to the Authority at regular intervals as specified in the mitigation plan approval or ~~Mitigation Banking Instrument~~ mitigation banking instrument once credits are established and until they are exhausted.

~~(6) — Projects that have been constructed and are within the required monitoring period on the effective date of this Rule are eligible for use as buffer mitigation sites. Projects that have completed monitoring and released by the Division on or before the effective date of this Rule are eligible for use as buffer mitigation for a period of 10 years from the effective date of this Rule.~~

~~(7)~~(6) Buffer mitigation credit, nutrient offset credit, wetland mitigation credit, and stream mitigation credit shall be accounted for in accordance with the following:

- (A) Buffer mitigation used for buffer mitigation credit shall not be used for nutrient offset credits;
- (B) Buffer mitigation credit shall not be generated within wetlands that provide wetland mitigation credit required by 15A NCAC 02H .0506; and
- (C) Buffer mitigation credit may be generated on stream mitigation sites as long as the width of the restored or enhanced riparian buffer meets the requirements of Subparagraph (n)(1).

(m) RIPARIAN BUFFER MITIGATION UNITS. Mitigation activities shall generate riparian buffer mitigation units as follows:

Mitigation Activity	Square Feet of Mitigation Buffer	Riparian Buffer Mitigation Units Generated
Restoration Site	1	1
Enhancement Site	2	1
Preservation Site on Non-Subject Urban Streams	3	1
Preservation Site on Subject Urban Streams	3	1
Preservation Site on Non-Subject Rural Streams	5	1
Preservation Site on Subject Rural Streams	10	1

1 ~~(n)~~ RIPARIAN BUFFER RESTORATION SITE OR ENHANCEMENT SITE, ENHANCEMENT. Division
 2 Authority staff shall make an on-site determination as to whether a potential mitigation site qualifies as a restoration
 3 site or enhancement site as defined in Paragraph (b) of this Rule. Riparian buffer restoration sites or enhancement
 4 sites shall meet the following requirements:

5 (1) Buffer restoration sites or enhancement sites may be proposed as follows:

Urban Areas		Non Urban Areas	
Buffer width (ft)	Proposed Percentage of Full Credit	Buffer width (ft)	Proposed Percentage of Full Credit
Less than 20	0 %	Less than 20	0 %
20-29	75 %	20-29	0 %
30-100	100 %	30-100	100 %
101-200 ^A 101-200	50 % ^A 33%	101-200 ^A	50 % ^A

6 ^A—The area of the [buffer] mitigation site beyond 100 linear feet from the top of bank shall comprise no
 7 more than 10 percent of the total area of [buffer] mitigation.
 8

9 ~~(2)~~ — The location of the restoration or enhancement shall comply with the requirements of Paragraphs
 10 (e), (f), and (g) of this Rule. In the Catawba watershed, buffer mitigation may be done along the
 11 lake shoreline as well as along intermittent and perennial stream channels throughout the
 12 watershed.

13 ~~(3)~~ — Diffuse flow of runoff shall be maintained in the riparian buffer. Any existing impervious cover
 14 or stormwater conveyances such as ditches, pipes, or drain tiles shall be eliminated and the flow
 15 converted to diffuse flow. If elimination of existing stormwater conveyances is not feasible, then
 16 the applicant or mitigation provider shall provide a delineation of the watershed draining to the
 17 stormwater outfall and the percentage of the total drainage treated by the riparian buffer for
 18 Division approval; the Division may reduce credit proportionally.

19 ~~(4)~~(2) The applicant or mitigation provider shall submit ~~to the Authority~~ a restoration or enhancement
 20 mitigation plan ~~to the Authority~~ for written ~~approval approval~~ by the Division. The restoration or
 21 enhancement plan shall demonstrate compliance with the requirements of ~~Subparagraphs (1)~~
 22 ~~through (3)~~ of this Paragraph and Paragraphs (l) and (m) and shall also contain the following;
 23 following in addition to the elements required in Paragraph (e) of this Rule:

- 24 (A) A map of the proposed restoration or enhancement site;
- 25 (B) A vegetation plan that shall detail the activities proposed to ensure a final performance
 26 standard of 260 stems per acre at the completion of monitoring. The final performance
 27 standard shall include a minimum of four native hardwood tree species or four native
 28 hardwood tree and native shrub species, where no one species is greater than 50 percent
 29 of stems, established stems, established [planted] at a density sufficient to provide 260
 30 stems per acre at the completion of monitoring. Native hardwood and native shrub
 31 volunteer species may be included to meet the final performance ~~standards.~~ standard of
 32 260 stems per acre. The ~~Division~~ Authority may approve alternative vegetation plans

1 upon consideration of factors, including site wetness and plant availability to meet the
2 requirements of this Part;

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

5 (D) A schedule for implementation, including a fertilization and herbicide plan if applicable;
6 and

7 (E) A monitoring ~~plan~~ plan, including monitoring of vegetative success to document whether
8 the site is expected to meet the final performance standards as defined in Part (n)(2)(B)
9 and other anticipated benefits to the adjacent ~~water~~ water, as listed in the authorization
10 certification. The plan shall include a proposed schedule and method for monitoring the
11 vegetative status of the restoration or enhancement site for five years, including the health
12 and average stem densities of native hardwood tree or tree and shrub species that are to
13 be counted toward the final performance standard.

14 ~~(5)(3)~~ Within one year after ~~the~~ the Division has approved the restoration or enhancement Authority
15 approval of the mitigation plan, the applicant or mitigation provider shall present documentation
16 to the ~~Division~~ Authority that the riparian buffer has been restored or enhanced unless the ~~Division~~
17 applicant or mitigation provider requests, and the Authority agrees in writing, prior to that date to
18 a longer time ~~period~~, period due to the necessity for a longer construction period.

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

22 ~~(7)(4)~~ The applicant or mitigation provider shall submit written annual ~~reports~~ reports, unless an
23 alternative schedule has been approved by the Authority during the mitigation plan approval, for a
24 period of five years after completion of the activities identified in Part (n)(2)(B) at the restoration
25 site or enhancement site has been conducted ~~showing~~ showing:

26 (A) ~~that [the survival of] the trees or tree and shrub species planted;~~ compliance with the
27 monitoring plan approved pursuant to Part (n)(2)(E) of this Rule; and

28 ~~[(B) whether the vegetation of the site is expected to meet] are meeting success criteria; and~~

29 ~~[(C)](B)~~ that diffuse flow through the riparian buffer has been maintained.

30 ~~The~~ If the Authority determines that the native hardwood tree or tree and shrub species at the site are not
31 expected to meet the final performance standards listed in Part (n)(2)(B), then the Authority may require
32 that the applicant or mitigation provider ~~shall~~ shall replace trees or trees and shrubs ~~and restore diffuse flow if as~~
33 ~~needed during that five-year period.~~ If the Authority determines that diffuse flow through the buffer is not
34 being maintained, then the Authority may require that the applicant or mitigation provider restore diffuse
35 flow. If the Authority determines that the ~~[objectives]~~ final performance standards listed in Part (n)(2)(B)
36 [identified in this Paragraph] have not been achieved at the end of the five-year monitoring ~~[period]~~ period,
37 the Authority may require additional ~~Additional~~ years of monitoring. The Authority shall make

determinations referenced in this Subparagraph on a site specific basis based on the annual reports, any supplemental information submitted by the applicant or mitigation provider, or a site evaluation by the Authority. monitoring may be required if the objectives under Paragraph (i) have not been achieved at the end of the five year monitoring period.

(8) — The mitigation provider shall provide a site specific credit/debit ledger to the Division at regular intervals once credits are established and until they are exhausted.

(9) — The mitigation provider shall provide a completion bond 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 shall be provided.

~~(j) PURCHASE OF BUFFER MITIGATION CREDITS FROM A PRIVATE OR PUBLIC MITIGATION BANK.~~

~~Applicants who choose to satisfy some or all of their mitigation 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.ncednr.org/web/wq/swp/ws/401>) and has available riparian buffer credits;~~

~~(2) — The mitigation bank from which credits are purchased shall be located as described in Paragraphs (e), (f), and (g) 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 Division prior to any activity that results in the removal or degradation of the protected riparian buffer.~~

~~(k) 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 Rule .0269 of this Section. Payment made to the NC Ecosystem Enhancement Program (the Program) shall be contingent upon acceptance of the payment by the Program. The Program shall consider their financial, temporal, and technical ability to satisfy the mitigation request to determine whether they shall accept or deny the request.~~

~~(l) DONATION OF PROPERTY. Applicants who choose to satisfy their mitigation determination by donating real property or an interest in real property to fully or partially offset an approved payment into the Riparian Buffer Restoration Fund pursuant to Paragraph (k) of this Rule shall meet the following requirements:~~

~~(1) — The value of the property interest shall be determined by an appraisal performed in accordance with Part (1)(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 Rule .0269 of this Section, the applicant shall pay the remaining balance due.~~

~~(2) — The donation of real property interests shall be granted in perpetuity.~~

~~(3) — Donation of real property interests to satisfy the full or partial payments under Paragraph (k) shall be accepted only if such property meets the following requirements:~~

- 1 ~~(A) — The property shall be suitable for restoration or enhancement to successfully produce~~
2 ~~viable riparian buffer compensatory mitigation credits in accordance with Paragraph (i)~~
3 ~~of this Rule or the property shall be suitable for preservation to successfully produce~~
4 ~~viable riparian buffer compensatory mitigation credits in accordance with Part (m)(2)(C)~~
5 ~~of this Rule;~~
- 6 ~~(B) — The property shall be located in an area where the Program may reasonably utilize the~~
7 ~~credits, based on historical or projected use, to offset compensatory mitigation~~
8 ~~requirements;~~
- 9 ~~(C) — The estimated cost of restoring or enhancing and maintaining the property shall not~~
10 ~~exceed the projected mitigation credit value of the property minus land acquisition costs,~~
11 ~~except where the applicant supplies additional funds acceptable to the Program for~~
12 ~~restoration or enhancement and maintenance of the buffer;~~
- 13 ~~(D) — The property shall not contain any building, structure, object, site, or district that is listed~~
14 ~~in the National Register of Historic Places established pursuant to Public Law 89-665, 16~~
15 ~~U.S.C. 470 as amended;~~
- 16 ~~(E) — The property shall not contain any hazardous substance or solid waste such that water~~
17 ~~quality may be adversely impacted, unless the hazardous substance or solid waste can be~~
18 ~~properly remediated before the interest is transferred;~~
- 19 ~~(F) — The property shall not contain structures or materials that present health or safety~~
20 ~~concerns to the general public. If wells, septic, water, or sewer connections exist, they~~
21 ~~shall be filled, remediated or closed at owner's expense in accordance with state and local~~
22 ~~health and safety regulations before the interest is transferred. Sewer connections in Zone~~
23 ~~2 may be allowed for projects in accordance with Part (m)(2)(E) of this Rule;~~
- 24 ~~(G) — The property and adjacent properties shall not have prior, current, or known future land~~
25 ~~use that may jeopardize the functions of the compensatory mitigation;~~
- 26 ~~(H) — The property shall not have any encumbrances or conditions that are inconsistent with the~~
27 ~~requirements of this Rule or purposes of Rules .0233, .0243, .0250, .0259, .0267 or .0607~~
28 ~~of this Subchapter;~~
- 29 ~~(I) — Fee simple title to the property or a perpetual conservation easement on the property shall~~
30 ~~be donated to the State of North Carolina, a local government, or a qualified holder under~~
31 ~~N.C. General Statute 121-34 et seq. and 26 USC 170(h) of the Internal Revenue Code as~~
32 ~~approved by the Department and the donee; and~~
- 33 ~~(J) — The donation shall be accompanied by a non-wasting endowment or other financial~~
34 ~~mechanism for perpetual maintenance and protection sufficient to ensure perpetual long-~~
35 ~~term monitoring and maintenance. However, when a local government has donated a~~
36 ~~perpetual conservation easement and entered into a binding intergovernmental agreement~~
37 ~~with the Program to manage and protect the property consistent with the terms of the~~

perpetual conservation easement, that local government shall not be required to provide a non-wasting endowment.

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

(A) ~~Documentation that the property meets the requirements of Subparagraph (1)(3) of this Rule;~~

(B) ~~A 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 as set forth in 21 NCAC 56 .1600.~~

(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 as set forth in 21 NCAC 57A .0501; and~~

(E) ~~A complete attorney's report on title with a title commitment for policy in the name of the State of North Carolina in the dollar amount of the appraised value.~~

(m)(o) 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. Alternative buffer mitigation options are detailed below.~~ Any proposal for alternative ~~buffer~~ mitigation shall ~~be provided in writing to the Division, shall meet the content and procedural requirements for approval by the Division, and shall~~ meet the requirements ~~of set out in~~ Paragraphs ~~(e), (e), (f), (l) and (g)(m)~~ of this Rule, ~~Rule and~~ the requirements set out in the named Subparagraph ~~below~~ addressing that ~~applicable alternative buffer mitigation~~ option, ~~option,~~ and the following requirements:

(1) ~~Retroactive Credit. Alternative buffer mitigation sites constructed and within the required monitoring period on the effective date of this Rule shall be eligible for use as alternative buffer mitigation sites. Alternative buffer mitigation sites that have completed monitoring and were released by the Division on or within the past ten years of the effective date of this Rule shall be eligible for use as alternative buffer mitigation sites. All alternative buffer mitigation site proposals submitted under this Subparagraph shall meet the following:~~

(A) ~~A map or maps of the proposed alternative buffer mitigation site;~~

(B) ~~Documentation of pre-existing conditions showing that the proposed alternative buffer mitigation site met the criteria to qualify for the applicable alternative buffer mitigation type identified in the applicable Subparagraph below;~~

(C) Documentation of the activities that were conducted at the proposed alternative buffer mitigation site to meet success criteria identified in the applicable Subparagraph below; and

(D) Documentation that the proposed alternative buffer mitigation site met the success criteria identified in the applicable Subparagraph below.

These alternative buffer mitigation sites shall receive credit in accordance with the criteria set forth in Paragraph (m) and Subparagraph (n)(1).

(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) 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 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 10 years from the effective date of this Rule;

(B) 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; and

(C) A completion bond payable to the Division sufficient to ensure that land purchase, construction, monitoring, and maintenance are completed.

(D) A non-wasting endowment or other financial mechanism for perpetual maintenance and protection shall be provided.

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

(A)(1)(2) Coastal Headwater Stream Mitigation. Wooded buffers planted along Outer Coastal Plain headwater stream mitigation sites may also be approved as riparian buffer mitigation credit as long as if the site meets all applicable requirements of Paragraph (i)(n) of this Rule. In addition, all success criteria including woody species, stem density, diffuse flow, and stream success criteria specified in the approval of the stream mitigation site by the Division in any required written approval of the site shall 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 site shall not also be used as wetland mitigation. The [applicant] or mitigation provider shall monitor the site for at least five years from the date of planting by providing [and provide] annual reports for written Division approval.

(B)(2)(3) Buffer Restoration and Enhancement on Non-Subject Streams. Restoration or enhancement of buffers may be conducted on intermittent or perennial streams that are not subject to the applicable riparian buffer rules [Rules] Rule .0233, .0243, .0250, .0259, .0267, or .0607 of this Subchapter. These streams shall be confirmed as intermittent or perennial streams by Division staff certified per G.S. 143-214.25A using the Division publication, Methodology

1 ~~“Methodology~~ for Identification of Intermittent and Perennial Streams and Their Origins ~~(v.4.11,~~
 2 ~~2010) ——— (v.4.11, 2010)”~~ available at no cost at
 3 <http://portal.ncdenr.org/web/wq/swp/ws/401/waterresources/streamdeterminations>. The proposal
 4 shall meet all applicable requirements of Paragraph ~~(i)(n)~~ of this Rule.

5 ~~(C)(3)(4)~~ Preservation of Buffer on Non-subject streams. Preservation of buffers on intermittent or
 6 perennial streams that are not subject to the applicable ~~riparian buffer~~ rules ~~[Rules] Rule~~ .0233,
 7 .0243, .0250, .0259, .0267, ~~or~~ .0607 of this Subchapter may be proposed in order to permanently
 8 protect the buffer from cutting, clearing, filling, grading, and similar activities that would affect
 9 the functioning of the buffer. These streams shall be confirmed as intermittent or perennial
 10 streams by Division staff certified per G.S. 143-214.25A using the Division publication,
 11 ~~Methodology “Methodology~~ for Identification of Intermittent and Perennial Streams and Their
 12 ~~Origins (v.4.11, 2010), (v4.11, 2010).”~~ The preservation site shall meet the requirements of
 13 Subparagraph (n)(1) and the requirements set forth in 15A NCAC 02R .0403(c)(7), (8), and (11).
 14 Subparagraphs (i)(1), (i)(3), (i)(6) and Parts (1)(3)(D), (E), (F), (H) and (J) of this Rule.
 15 ~~Preservation shall be proposed only when restoration or enhancement with an area at least equal to~~
 16 ~~the footprint of the buffer impact has been proposed. The area of preservation credit within a~~
 17 ~~buffer mitigation site shall comprise of no more than 25 percent of the total area of buffer~~
 18 ~~mitigation.~~

19 ~~(D)(4)(5)~~ Preservation of Buffers on Subject Streams. Buffer preservation may be proposed on
 20 streams that are subject to the applicable ~~[riparian buffer] [Rules] Rule~~ .0233, .0243, .0250, .0259,
 21 .0267, ~~or~~ .0607 of this Subchapter in order to permanently protect the buffer from cutting,
 22 clearing, filling, grading, and similar activities that would affect the functioning of the buffer
 23 beyond the protection afforded by the existing buffer rules on sites that meet the definition of a
 24 preservation site. ~~site along streams, estuaries, or ponds that are subject to buffer rules.~~ The
 25 preservation site shall meet the requirements of Subparagraph (n)(1) and the requirements set forth
 26 in 15A NCAC 02R .0403(c)(7), (8), and (11). Subparagraphs (i)(1), (i)(3), (i)(6) and Parts
 27 (1)(3)(D), (E), (F), (H) and (J) of this Rule. ~~Preservation shall be proposed only when restoration~~
 28 ~~or enhancement of an area at least equal to the footprint of the buffer impact has been proposed.~~
 29 ~~The area of preservation credit within a buffer mitigation site shall comprise of no more than 25~~
 30 ~~percent of the total area of buffer mitigation.~~

31 ~~(E) —~~ Sewer easement within the buffer. If the proposed mitigation site contains a sewer easement in
 32 Zone 1, that portion of the sewer easement within Zone 1 is not suitable for buffer mitigation. If
 33 the proposed mitigation site contains a sewer easement in Zone 2, the portion of the sewer
 34 easement in Zone 2 may be suitable for buffer mitigation if:

- 35 (i) — the applicant or mitigation provider restores or enhances the forested buffer in
 36 Zone 1 adjacent to the sewer easement;
- 37 (ii) — the sewer easement is at least 30 feet wide;

1 ~~(iii) — the sewer easement is required to be maintained in a condition that meets the~~
 2 ~~vegetative requirements of the collection system permit; and~~

3 ~~(iv) — diffuse flow is provided across the entire buffer width.~~

4 ~~The proposal shall meet all applicable requirements of Paragraph (i) of this Rule for~~
 5 ~~restoration or enhancement. The proposal shall meet all applicable requirements of Part~~
 6 ~~(m)(2)(C) of this Rule for preservation.~~

7 ~~(F)(5)(6)~~ Enhancement of grazing areas adjacent to streams. Buffer credit at a 2:1 ratio shall be
 8 available for an applicant or mitigation provider who proposes permanent exclusion of grazing
 9 livestock that otherwise degrade the stream and riparian zone through trampling, grazing, or waste
 10 deposition by fencing the livestock out of the stream and its adjacent buffer. The applicant or
 11 mitigation provider shall provide an enhancement plan as set forth in Paragraph ~~(i)(n)~~. The
 12 applicant or mitigation provider shall demonstrate that grazing was the predominant land use since
 13 the effective date of the applicable buffer rule.

14 ~~(G)(6)(7)~~ Mitigation on ephemeral channels. For purposes of riparian buffer mitigation as
 15 described in this Part, an "ephemeral channel" is defined as a natural channel exhibiting
 16 discernible banks within a topographic crenulation (V-shaped contour lines) indicative of natural
 17 drainage on the 1:24,000 scale (7.5 minute) quadrangle topographic map prepared by the U.S.
 18 Geologic Survey, or as seen on digital elevation models with contours developed from the most
 19 recent available LiDAR ~~data.~~ [data] data available at no cost at
 20 <http://www.ncfloodmaps.com/lidar.com>. Ephemeral channels only flow for a short period of time
 21 after precipitation in the immediate drainage area and do not have periods of base flow sustained
 22 by groundwater discharge. The applicant or mitigation provider shall provide a delineation of the
 23 watershed draining to the ephemeral channel. The entire area proposed for mitigation shall be
 24 within the contributing drainage area to the ephemeral channel. The ephemeral channel shall be
 25 directly connected to an intermittent or perennial stream and contiguous with the rest of the
 26 mitigation site protected under a perpetual conservation easement. The area of the mitigation site
 27 on ephemeral channels shall comprise no more than 25 percent of the total area of buffer
 28 mitigation. The proposal shall meet all applicable requirements of Paragraph ~~(i)(n)~~ of this Rule for
 29 restoration or enhancement. The proposal shall meet all applicable requirements of Part ~~(m)(2)(C)~~
 30 ~~(o)(3)(4)~~ or ~~(o)(4)(5)~~ of this Rule for preservation.

31 ~~(H)(7)(8)~~ Restoration and Enhancement on Ditches. For purposes of riparian buffer mitigation as
 32 described in this Part, a "ditch" is defined as a man-made channel other than a modified natural
 33 stream that was constructed for drainage purposes. To be used for mitigation, a ditch shall meet
 34 all of the following criteria:
 35 ~~(i)(A)~~ be directly connected with and draining towards an intermittent or perennial stream;
 36 ~~(i)(B)~~ be contiguous with the rest of the mitigation site protected under a perpetual conservation
 37 easement;

1 ~~(iii)~~(C) stormwater runoff from overland flow shall drain towards the ditch;

2 ~~(iv)~~(D) be between one and three feet in depth; and

3 ~~(v)~~(E) the entire length of the ditch shall have been in place prior to the effective date of the
4 applicable buffer rule.

5 The width of the restored or enhanced area shall not be less than 30 feet and shall not exceed 50
6 feet for crediting purposes. The applicant or mitigation provider shall provide a delineation of the
7 watershed draining to the ditch. The watershed draining to the ditch shall be at least four times
8 larger than the restored or enhanced area along the ditch. The perpetual conservation easement
9 shall include the ditch and the confluence of the ditch with the intermittent or perennial stream,
10 and provide language that prohibits future maintenance of the ditch. The proposal shall meet all
11 applicable requirements of Paragraph ~~(i)~~(n) of this Rule for restoration or enhancement.

12 ~~(3)~~(8)(9) ALTERNATIVE BUFFER STORMWATER TREATMENT OPTIONS Stormwater
13 Treatment Options. All stormwater treatment options shall meet the following requirements:

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

17 ~~(B)~~(A) Structural ~~measures options~~ already required by other local, ~~state state~~, or federal rule or
18 permit cannot be used as alternative buffer ~~mitigation~~, mitigation credit, except to the
19 extent such measure(s) exceed the requirements of such rule or permit. Stormwater Best
20 Management Practices (BMPs), including bioretention facilities, constructed wetlands,
21 infiltration devices and sand ~~filter filters~~ are all potentially approvable ~~(BMPs) BMPs~~ by
22 the Division for alternative buffer ~~mitigation~~, mitigation credit. Other BMPs may be
23 approved only if they meet the nutrient removal levels outlined in Part ~~(3)(C)~~(8)(9)(B)
24 of this Subparagraph. Existing or planned BMPs for a local, state, or federal rule or
25 permit may be retrofitted or expanded to improve their nutrient removal if this level of
26 treatment ~~would is not be~~ required by other local, state, or federal rules. In this case, the
27 predicted increase in nutrient removal may be counted toward alternative buffer
28 ~~mitigation~~, mitigation credit.

29 ~~(C)~~(B) Minimum treatment levels: Any structural BMP shall provide at least 30 percent total
30 nitrogen and 35 percent total phosphorus removal as demonstrated by a scientific and
31 engineering literature review as approved by the Division. The mitigation proposal shall
32 demonstrate that the proposed alternative removes an equal or greater annual mass load
33 of nutrients to surface waters as the buffer impact authorized in the authorization
34 certificate or variance, following the calculation of impact and mitigation areas pursuant
35 to Paragraphs (d), (e), and (f) of this Rule. To estimate the rate of nutrient removal of the
36 impacted buffer, the applicant or mitigation provider ~~shall~~ may use ~~the~~ the NC
37 Division of Water Quality – Methodology and Calculation for determining nutrient

1 reductions associated with Riparian Buffer ~~Establishment~~ Establishment available at
 2 no cost at [http://portal.ncdenr.org/c/document_library/get_file?uuid=55c3758f-5e27-](http://portal.ncdenr.org/c/document_library/get_file?uuid=55c3758f-5e27-46cf-8237-47f890d9329a&groupId=38364)
 3 [46cf-8237-47f890d9329a&groupId=38364](http://portal.ncdenr.org/c/document_library/get_file?uuid=55c3758f-5e27-46cf-8237-47f890d9329a&groupId=38364). ~~a method previously approved by the~~
 4 ~~Division.~~ The applicant or mitigation provider may propose an alternative method of
 5 estimating the rate of nutrient removal for consideration and review by the Division;

6 ~~(D)~~(C) All proposed structural BMPs shall follow the Division's ~~2009~~ 2009 Stormwater Best
 7 Management Practice Design ~~Manual~~ Manual available at no cost at
 8 <http://portal.ncdenr.org/web/lr/bmp-manual>. If a specific proposed structural BMP is not
 9 addressed in this Manual, the applicant or mitigation provider shall follow Chapter 20 in
 10 this Manual for approval;

11 ~~(E)~~(D) All structural options are required to have Division approved operation and maintenance
 12 plans;

13 ~~(F)~~(E) All structural options are required to have continuous and perpetual maintenance and
 14 shall follow the Division's 2009 Stormwater Best Management Practice Design Manual;

15 ~~(G)~~(F) Upon completion of construction, the designer for the type of BMP installed shall certify
 16 that the system was inspected during construction and that the BMP was constructed in
 17 ~~substantial~~ conformity with plans and specifications approved by the Division;

18 ~~(H)~~(G) Removal and replacement of structural options: If a structural option is proposed to be
 19 removed and cannot be replaced on-site, then a structural or non-structural measure of
 20 equal or better nutrient removal ~~capacity~~ capacity, as determined by calculations
 21 ~~submitted to and approved by the Division,~~ in a location as specified by Paragraph
 22 Paragraphs (f) and (g) of this Rule shall be constructed as a replacement;

23 ~~(I)~~(H) Renovation or repair of structural options: If ~~the applicant, mitigation provider, or~~
 24 ~~Division determines that~~ a structural option must be renovated or repaired, it shall be
 25 renovated to provide equal or better nutrient removal capacity than as originally
 26 designed; ~~and~~

27 ~~(J)~~(I) Structural ~~options~~ options, as well as their operation and ~~maintenance~~ maintenance, are
 28 the responsibility of the landowner or easement holder unless the Division gives written
 29 approval for another responsible party to operate and maintain them. Structural options
 30 shall be located in recorded drainage easements for the purposes of operation and
 31 maintenance and shall have recorded access easements to the nearest public right-of-way.
 32 These easements shall be granted in favor of the party responsible for operating and
 33 maintaining the structure, with a note that operation and maintenance is the responsibility
 34 of the landowner, easement ~~holder~~ holder, or other responsible party; ~~and~~

35 ~~(K)~~ — Bonding and endowment. ~~A completion bond payable to the Division sufficient to~~
 36 ~~ensure that land purchase, construction, monitoring, and maintenance are completed and~~

1 a non-wasting endowment or other financial mechanism for perpetual maintenance and
 2 protection shall be provided.

3 ~~(4)(9)(10)~~ ~~[CASE-BY-CASE]~~ ~~APPROVAL FOR OTHER ALTERNATIVE BUFFER~~
 4 ~~MITIGATION OPTIONS.~~ ~~Approval for other alternative buffer mitigation options.~~ Other
 5 alternative riparian buffer mitigation options ~~[that have] not [been]~~ specified within this Rule may
 6 be ~~considered by~~ submitted to the Division for review and recommendation to the Environmental
 7 Management Commission on a case-by-case ~~basis.~~ ~~basis~~ ~~[as long as the options otherwise meet the~~
 8 ~~requirements of this Rule.]~~ ~~Any proposal submitted under this [paragraph] Paragraph shall~~
 9 ~~provide documentation or calculations to demonstrate that the proposed alternative mitigation~~
 10 ~~option removes an equal or greater annual mass load of nutrients to surface waters as a riparian~~
 11 ~~buffer. [Prior] Upon completion of the Division's review, and prior~~ to recommendation to the
 12 Environmental Management ~~[Commission] Commission,~~ the Division shall issue a ~~after~~ 30-
 13 calendar day public notice through the Division's Water Quality Certification Mailing List in
 14 accordance with 15A NCAC 02H .0503 ~~website and the DWRwetlands [Listserve] Listserve,~~ as
 15 long as the options otherwise meet the requirements of this Rule. Division staff shall present ~~their~~
 16 ~~recommendations~~ ~~recommendations,~~ including comments received during the public notice
 17 ~~[period] period,~~ to the Environmental Management Commission for a final ~~decision.~~ ~~decision with~~
 18 ~~respect to any proposal for [other] alternative buffer mitigation options not specified [described] in~~
 19 ~~this Rule.~~ ~~If approved by the Environmental Management Commission, the alternative buffer~~
 20 ~~mitigation option may be proposed by other applicants and mitigation providers.~~

21 ~~(n) ACCOUNTING FOR BUFFER CREDIT, NUTRIENT OFFSET CREDIT AND STREAM MITIGATION~~
 22 ~~CREDIT.~~ Buffer mitigation credit, nutrient offset credit, wetland mitigation credit, and stream mitigation credit shall
 23 be accounted for in accordance with the following:

- 24 (1) ~~Buffer mitigation used for buffer mitigation credit shall not be used for nutrient offset credits;~~
 25 (2) ~~Buffer mitigation or nutrient offset credit shall not be generated within wetlands that provide~~
 26 ~~wetland mitigation credit required by 15A NCAC 02H .0506; and~~
 27 (3) ~~Either buffer mitigation or nutrient offset credit may be generated on stream mitigation sites as~~
 28 ~~long as the width of the restored or enhanced riparian buffer meets the requirements of~~
 29 ~~Subparagraph (i)(1).~~

31 *History Note:* Authority 143-214.1; 143-214.5; 143-214.7; 143-214.20; 143-215.3(a)(1); 143-215.6A; 143-
 32 215.6B; 143-215.6C; 143-215.8A; 143-215.8B; 143-282(c); 143B-282(d); S.L. 1998-221; S.L.
 33 1999-329, s. 7.1; S.L. 2001-418, s. 4.(a); S.L. 2003-340, s. 5; S.L. 2005-190; S.L. 2006-259; S.L.
 34 2009-337; S.L. 2009-486; S.L. 2014-95;
 35 ~~Temporary Adoption Eff. October 24, 2014;~~
 36 ~~Amended Eff. September 1, 2015~~