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**Town of Butner**

**City of Creedmoor**

**City of Durham**

**Durham County**

**Franklin County**

**Granville County**

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**Orange County**

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**Town of Stem**

**Wake County**

**Town of Wake Forest**

**South Granville Water  
and Sewer Authority**

**Soil and Water  
Conservation Districts**

November 19, 2015

Mr. S. Jay Zimmerman, P.G.  
Director, Division of Water Resources  
Department of Environmental Quality  
1617 Mail Service Center  
Raleigh, NC 27699-1617

Dear Mr. Zimmerman,

The Upper Neuse River Basin Association (UNRBA) would like to provide comments on DWR's Draft Re-adoption of the Falls Lake Rules. The members of the UNRBA are greatly impacted by the Falls Lake Nutrient Management Strategy and our comments are provided as recommendations unanimously approved at our Board of Directors meeting on November 18, 2015. Attached please find evaluations of the Falls Lake draft rules with specific wording changes proposed to address the unanimous recommendations of the UNRBA. The UNRBA respectfully requests that DWR incorporate the changes we have recommended into the proposed rules it will present to the Environmental Management Commission's Water Quality Committee in January, 2016. It is our belief that incorporation of the UNRBA's recommendations will greatly improve the composition of the rules that will go to public notice.

The UNRBA has embraced the adaptive management provision provided in the Falls Lake Rules for the supplemental nutrient response modeling of Falls Reservoir based on additional data. It is the UNRBA's goal to provide a detailed re-evaluation of the Stage II Rules before these requirements go into effect.

As part of this effort the UNRBA has submitted our plans and the supporting quality assurance project plan for this work. These submittals have been approved by DWR. The UNRBA is spending \$800,000 during each of the next 4 to 5 years on monitoring to support this effort. Further, the UNRBA is working with DWR on a \$350,000 Nutrient Credits Project (\$300,000 UNRBA and \$50,000 DEQ) to greatly expand the BMP toolbox for stormwater nutrient reduction practices. Compliance with the Falls Lake Stage II rules as it currently exists represent a level of regulation that by the State's own estimates will result in over a billion dollars of local government funds.

The UNRBA and its member governmental entities have been closely following DWR's efforts to readopt rules under the legislatively mandated process. We appreciate the Department of Environmental Quality and DWR efforts to solicit comments prior to a formal public review.

Mr. Jay Zimmerman  
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Our comments address the following points in the rules:

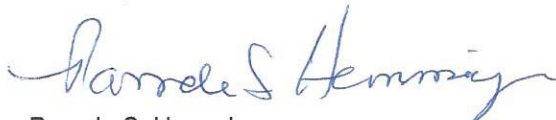
- Definitions
- The use of regional BMPs serving multiple project sites for compliance with new and existing development projects
- Threshold requirements triggering a formal stormwater impact review of single family resident development lots
- Stage I, Existing Development implementation related dates and processes
- Post Stage I and Stage II implementation dates and processes

Please consider that the schedule dates and processes addressed in these comments are particularly important to the local government jurisdictions since specific, expensive, and comprehensive actions are triggered by the dates contained in the rules. We have carefully evaluated the work and decisions that must be completed, as well as the time to accomplish these steps before being able to move forward with both Stage I and Stage II rules. Our recommended timeline reflects these considerations and provides a schedule that will allow for a more effective and realistic implementation effort. Edits offered for the changes recommended have been provided using either the previously issued draft or the version issued on November 9<sup>th</sup>. If the November 9<sup>th</sup> version was used, this will be noted.

Once the rules go to public notice, additional public comment will likely be offered. Thus, the UNRBA and its member entities reserve their rights to provide additional comments on the rules that the EMC ultimately authorizes for public hearing.

Thank you for your consideration of our comments. We would welcome the opportunity to meet with you and your staff to discuss our comments. We request that the Division notify the UNRBA concerning its intentions relative to incorporation of our comments prior to the EMC formal submittal. The UNRBA greatly appreciates the time, participation, cooperation, and assistance your staff have given to the work of the UNRBA, particularly Mr. John Huisman, Mr. Rich Gannon, Mr. Jason Green, and Ms. Cyndi Karoly. If you have any questions, please contact our Executive Director, Mr. Forrest Westall, using the contact information provided in our letterhead.

Sincerely,



Pamela S. Hemminger  
UNRBA Chair

Cc: Mr. Tom Reeder  
Mr. Tom Fransen  
Mr. Jeff Manning  
Mr. Rich Gannon  
Mr. John Huisman  
Mr. Steve Tedder  
Attachments

1 15A NCAC 02B .0275 is proposed for amendment as follows:

2  
3 **15A NCAC 02B .0275 .0750 FALLS WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE**

4 PURPOSE. The purpose of this Rule and Rules 15A NCAC 02B .0276 .0751 through .0282.0755, .0702 and .0315(q)  
5 shall be to attain the classified uses of Falls of the Neuse Reservoir set out in 15A NCAC 02B .0211 from current impaired  
6 conditions related to excess nutrient inputs; protect its classified uses as set out in 15A NCAC 02B .0216, including use as a  
7 source of water supply for drinking water; and maintain and enhance protections currently implemented by local governments  
8 in existing water supply watersheds encompassed by the watershed of Falls of the Neuse Reservoir. The reservoir, and all  
9 waters draining to it, have been supplementally classified as Nutrient Sensitive waters (NSW) pursuant to 15A NCAC 02B  
10 .0101(e)(3) and 15A NCAC 02B .0223. ~~These Rules, as The rules~~ enumerated in Item (6) of this Rule, together shall  
11 constitute the Falls water supply nutrient strategy, or Falls nutrient strategy, and shall be implemented in accordance with  
12 15A NCAC 02B .0223. The following items establish the framework of the Falls nutrient strategy:

13 (1) SCOPE AND LIMITATION. Falls of the Neuse Reservoir is hereafter referred to as Falls Reservoir. All  
14 lands and waters draining to Falls Reservoir are hereafter referred to as the Falls watershed. The Falls  
15 nutrient strategy rules require controls that reduce nitrogen and phosphorus loads from significant sources  
16 of these nutrients throughout the Falls watershed. These Rules do not address atmospheric emission  
17 sources of nitrogen that is deposited into the watershed but do include provisions to account for reductions  
18 in such deposition as the water quality benefits of air quality regulations are quantified. Neither do these  
19 Rules address sources on which there is insufficient scientific knowledge to base regulation, other sources  
20 deemed adequately addressed by existing regulations, sources currently considered minor, or nutrient  
21 contributions from lake sediments, which are considered outside the scope of these Rules. The  
22 Commission may undertake additional rulemaking in the future or make recommendations to other  
23 rulemaking bodies as deemed appropriate to more fully address nutrient sources to Falls Reservoir.  
24 While the scope of these Rules is limited to the reduction of nutrient loads to surface waters, practitioners  
25 are encouraged to maximize opportunities for concurrently benefiting other ecosystem services where  
26 feasible in the course of achieving the nutrient objectives.

27 (2) ~~DEFINITIONS. For the purposes of this Rule the definitions the following definition apply: Definitions~~  
28 ~~for terms that share coming meanings across nutrient strategies may be found in Rule .0701 of this~~  
29 ~~Section. Terms that apply to only the Falls nutrient strategy follow below. Terms applicable to an~~  
30 ~~individual rule of the Falls nutrient strategy may be found in that rule:~~

31 (a) ~~Falls nutrient strategy, or Falls water supply nutrient strategy means the set of rules 15A NCAC~~  
32 ~~02B .0750 through .0755 and .0315(p).~~

33 (b) ~~Falls Reservoir means the surface water impoundment operated by the US Army Corps of~~  
34 ~~Engineers and named Falls of Neuse Reservoir.~~

35 (c) ~~Upper Falls Reservoir means that portion of the reservoir upstream of State Route 50.~~

36 (d) ~~Upper Falls Watershed means that area of Falls watershed draining to Upper Falls Reservoir.~~

1 (e) Lower Falls Reservoir means that portion of the reservoir downstream of State Route 50.

2 (f) Lower Falls Watershed means that are of Falls watershed draining to lower falls Reservoir  
3 without first passing through Upper Falls Reservoir.

4 ~~(2)~~(3) CRITICAL WATER SUPPLY WATERSHED DESIGNATION. Water supply waters designated WS-II,  
5 WS-III, and WS-IV within the Falls watershed shall retain their classifications. The remaining waters in  
6 the Falls watershed shall be classified ~~WS-V. WS-V, and the requirements of water supply Rule 15A~~  
7 ~~NCAC 02B .0218 shall apply.~~ The requirements of all of these water supply classifications shall be  
8 retained and applied in concert with the requirements of the Falls nutrient strategy except as specifically  
9 noted elsewhere within the Falls nutrient strategy. In addition, pursuant to G.S. 143-214.5(b), the entire  
10 Falls watershed shall be designated a critical water supply watershed and through the Falls nutrient  
11 strategy given additional, more stringent requirements than the state minimum water supply watershed  
12 management requirements. Water supply requirements of 15A NCAC 02B .0104 apply except to the  
13 extent that requirements of the Falls nutrient strategy are more stringent than provisions addressing  
14 agriculture, forestry, and existing development. These requirements The requirements of this strategy  
15 supplement the water quality standards applicable to Class C waters, as described in Rule .0211 of this  
16 Section, which apply throughout the Falls watershed. Water supply watershed requirements shall be as  
17 follows:

18 (a) For WS II, WS III, and WS IV waters, the retained requirements of Rules 15A NCAC 02B  
19 .0214 through .0216 are characterized as follows:

20 (i) Item (1) addressing best usages;

21 (ii) Item (2) addressing predominant watershed development conditions, discharges  
22 expressly allowed watershed-wide, general prohibitions on and allowances for  
23 domestic and industrial discharges, Maximum Contaminant Levels following  
24 treatment, and the local option to seek more protective classifications for portions of  
25 existing water supply watersheds;

26 (iii) Sub Item (3)(a) addressing wastewater discharge limitations;

27 (iv) Sub Item (3)(b) addressing nonpoint source and stormwater controls; and

28 (v) Sub Items (3)(c) through (3)(h) addressing aesthetic and human health standards.

29 (b) For waters classified WS V, the requirements of water supply Rule 15A NCAC 02B .0218 shall  
30 be applied.

31 ~~(3)~~(4) GOAL AND OBJECTIVES. To achieve the purpose of the Falls nutrient strategy, the Commission  
32 establishes the goal of attaining and maintaining nutrient-related water quality standards identified in 15A  
33 NCAC 02B .0211 throughout Falls Reservoir pursuant to G.S. 143-215.8B and 143B-282(c) and (d) of  
34 the Clean Water Responsibility Act of 1997. The Commission establishes a staged and adaptive  
35 implementation plan, outlined hereafter, to achieve the following objectives. The objective of Stage I is  
36 to, at minimum, achieve and maintain nutrient-related water quality standards in the Lower Falls

1 Reservoir as soon as possible but no later than January 15, ~~2021~~2026 and to improve water quality in the  
2 Upper Falls Reservoir.

3 The objective of Stage II is to achieve and maintain nutrient-related water quality standards throughout  
4 Falls Reservoir. This is estimated to require a reduction of 40 and 77 percent in average annual mass  
5 loads of nitrogen and phosphorus respectively, delivered from the sources named in Item (6) in the Upper  
6 Falls Watershed from a baseline of 2006. The resulting Stage II allowable loads to Falls Reservoir from  
7 the watersheds of Ellerbe Creek, Eno River, Little River, Flat River, and Knap of Reeds Creek shall be  
8 658,000 pounds of nitrogen per year and 35,000 pounds of phosphorus per year.

9 ~~(4)~~(5) STAGED IMPLEMENTATION. The Commission shall employ the staged implementation plan set forth  
10 below to achieve the goal of the Falls nutrient strategy:

11 (a) STAGE I. Stage I requires intermediate or currently achievable controls throughout the Falls  
12 watershed with the objective of reducing nitrogen and phosphorus loading, and attaining  
13 nutrient-related water quality standards in the Lower Falls Reservoir as soon as possible but no  
14 later than January 15, ~~2021~~2026, while also improving water quality in the Upper Falls  
15 Reservoir as described in this Item. Implementation timeframes are described in individual  
16 ~~rules, rules, with full implementation occurring no later than January 15, 2021;~~

17 (b) STAGE II. Stage II requires implementation of additional controls in the Upper Falls  
18 Watershed beginning no later than January 15, ~~2021~~2025, ~~with the exception of the~~  
19 ~~implementation of Stage II existing development controls beginning no later than January 2031,~~  
20 to achieve nutrient-related water quality standards throughout Falls Reservoir by ~~2041~~20452046  
21 to the maximum extent technically and economically feasible, with progress toward this overall  
22 objective as described in Sub-Item (5)(a); and

23 (c) MAINTENANCE OF ALLOCATIONS. Sources shall maintain the load reductions required  
24 under these Rules beyond the implementation stages.

25 ~~(5)~~(6) ADAPTIVE IMPLEMENTATION. The Commission shall employ the following adaptive  
26 implementation plan in concert with the staged implementation approach described in this Rule:

27 (a) The Division shall perform water quality monitoring throughout Falls Reservoir and shall accept  
28 reservoir water quality monitoring data provided by other parties that meet Division standards  
29 and quality assurance protocols. The Division shall utilize this data to estimate load reduction  
30 achieved and to perform periodic use support assessments pursuant to 40 CFR 130.7(b). It  
31 shall evaluate use support determinations to judge progress on and compliance with the goal of  
32 the Falls nutrient strategy, including the following assessments:

33 ~~(i) Attainment of nutrient-related water quality standards downstream of Highway NC 98~~  
34 ~~crossing of Falls Reservoir no later than January 15, 2016;~~

35 ~~(ii)~~(i) Attainment of nutrient-related water quality standards in the Lower Falls Reservoir no  
36 later than January 15, 2021;

- 1                   ~~(iii)~~(ii) Attainment of nutrient-related water quality standards in the Lick Creek arm of Falls  
2                   Reservoir and points downstream no later than January 15, 2026;
- 3                   ~~(iv)~~(iii) Attainment of nutrient-related water quality standards in the Ledge and Little Lick  
4                   Creek arms of Falls Reservoir and points downstream no later than January 15, 2031;
- 5                   ~~(v)~~(iv) Attainment of nutrient-related water quality standards at points downstream of the  
6                   Interstate 85 crossing of Falls Reservoir no later than January 15, 2036;
- 7                   ~~(vi)~~(v) Attainment of nutrient-related water quality standards throughout Falls Reservoir no  
8                   later than ~~2041;2045~~2046;
- 9                   ~~(vii)~~(vi) Where the Division finds that acceptable progress has not been made towards  
10                  achieving nutrient-related water quality standards throughout Falls Reservoir defined  
11                  in Sub-Items (i) through (vi) of this Item or that conditions have deteriorated in a  
12                  segment of Falls Reservoir as described in this Item, at any time, it shall evaluate  
13                  compliance with the Falls nutrient strategy rules, and may request Commission  
14                  approval to initiate additional rulemaking;
- 15                  ~~(viii)~~(vii) Where the Division finds, based on reservoir monitoring, that nutrient-related water  
16                  quality standards are attained in a previously impaired segment of Falls Reservoir, as  
17                  described in this Item, and are met for sufficient time to demonstrate sustained  
18                  maintenance of standards, as specified in individual rules of this strategy, it shall notify  
19                  affected parties in that segment's watershed that further load reductions are not  
20                  required and of requirements for maintenance of measures to prevent loading  
21                  increases. Sufficient For a given segment, sufficient time is defined as at least two  
22                  consecutive use support assessments in the Lower Falls Reservoir, and at least four  
23                  consecutive use support assessments in the Upper Falls Reservoir, that demonstrate  
24                  demonstrating compliance with nutrient-related water quality standards in a given  
25                  segment of Falls Reservoir. standards.
- 26                  (viii) Where the Division finds, based on reservoir monitoring, that nutrient-related water  
27                  quality standards are no longer being met in a previously unimpaired segment of Falls  
28                  Reservoir for at least three consecutive use support assessments, it shall evaluate  
29                  compliance with the Falls nutrient strategy rules, and notify affected parties in that  
30                  segment's watershed that further load reductions are required in accordance with rules  
31                  of the Falls nutrient strategy.
- 32                  (b) The Division, to address resulting uncertainties including those related to technological  
33                  advancement, scientific understanding, actions chosen by affected parties, loading effects, and  
34                  loading effects of other regulations, shall continue to report to the Commission and provide  
35                  information to the public ~~in January 2016 and every five years thereafter~~ as necessary.

1                   necessary, making its next report in January 2021. The reports shall address all of the following  
2 subjects:

- 3                   (i)       Changes in nutrient loading to Falls Reservoir and progress in attaining nutrient-  
4 related water quality standards as described in Sub-Items (5)(a)(i) through (vi) of this  
5 Rule;
- 6                   (ii)       The state of wastewater and stormwater nitrogen and phosphorus control technology,  
7 including technological and economic feasibility;
- 8                   (iii)      Use and projected use of wastewater reuse and land application opportunities;
- 9                   (iv)      The utilization and nature of nutrient offsets and projected changes. This shall include  
10 an assessment of any load reduction value derived from preservation of existing  
11 forested land cover;
- 12                  (v)       Results of any studies evaluating instream loading changes resulting from  
13 implementation of rules;
- 14                  (vi)      Results of any studies evaluating nutrient loading from conventional septic systems  
15 and discharging sand filter systems;
- 16                  (vii)     Assessment of the instream benefits of local programmatic management measures  
17 such as fertilizer or pet waste ordinances, improved street sweeping and the extent to  
18 which local governments have implemented these controls;
- 19                  (viii)    Results of applicable studies, monitoring, and modeling from which a baseline will be  
20 established to address changes in atmospheric deposition of nitrogen;
- 21                  (ix)      Recent or anticipated changes in regulations affecting atmospheric nitrogen emissions  
22 and their projected effect on nitrogen deposition;
- 23                  (x)      Results of any studies evaluating nutrient loading from groundwater;
- 24                  (xi)      Updates to nutrient loading accounting tools; and

25           (c)       The Division shall submit a report to the Commission in July 2025 by October 1, 2023 that  
26 shall address the following subjects in addition to the content required elsewhere under this  
27 Item:

- 28                  (i)       The physical, chemical, and biological conditions of the Upper Falls Reservoir  
29 including nutrient loading impacts;
- 30                  (ii)      Whether alternative regulatory action pursuant to Sub-Item (5)(g) would be sufficient  
31 to protect existing uses as required under the Clean Water Act;
- 32                  (iii)     The impact of management of the Falls Reservoir on water quality in the Upper Falls  
33 Reservoir;
- 34                  (iv)      The methodology used to establish compliance with nutrient-related water quality  
35 standards in Falls Reservoir and the potential for using alternative methods;
- 36                  (v)      The feasibility of achieving the Stage II objective; and

- 1 (vi) The estimated costs and benefits of achieving the Stage II objective;
- 2 (d) The Division shall make recommendations, if any, on rule revisions based on the information
- 3 reported pursuant to Sub-Items (b) and (c) of this Rule;
- 4 (e) In developing the reports required under Sub-Items (b) and (c) of this Rule, the Division shall
- 5 consult with and consider information submitted by local governments and other persons with an
- 6 interest in Falls Reservoir. Following receipt of a report, the Commission shall consider
- 7 whether revisions to the requirements of Stage II are needed and may initiate rulemaking or any
- 8 other action allowed by law;
- 9 (f) Recognizing the uncertainty associated with model-based load reduction targets, to ensure that
- 10 allowable loads to Falls Reservoir remain appropriate as implementation proceeds, a person
- 11 may at any time during implementation of the Falls nutrient strategy develop and submit for
- 12 Commission approval supplemental nutrient response modeling of Falls Reservoir based on
- 13 additional data collected after a period of implementation. Any such submission must be made
- 14 to the Commission by May 1, 2023. The Commission may consider revisions to the
- 15 requirements of Stage II based on the results of such modeling as follows:
- 16 (i) A person shall obtain Division review and approval of any monitoring study plan and
- 17 description of the modeling framework to be used prior to commencement of such a
- 18 study. The study plan and modeling framework shall meet any Division requirements
- 19 for data quality and model support or design in place at that time. Within 180 days of
- 20 receipt, the division shall either approve the plan and modeling framework or notify
- 21 the person seeking to perform the supplemental modeling of changes to the plan and
- 22 modeling framework required by the Division;
- 23 (ii) Supplemental modeling shall include a minimum of three years of lake water quality
- 24 data unless the person performing the modeling can provide information to the
- 25 Division demonstrating that a shorter time span is sufficient;
- 26 (iii) The Commission may accept modeling products and results that estimate a range of
- 27 combinations of nitrogen and phosphorus percentage load reductions needed to meet
- 28 the goal of the Falls nutrient strategy strategy, along with associated allowable loads to
- 29 Falls Reservoir, from the watersheds of Ellerbe Creek, Eno River, Little River, Flat
- 30 River, and Knap of Reeds Creek and that otherwise comply with the requirements of
- 31 this Item. Such modeling may incorporate the results of studies that provide new data
- 32 on various nutrient sources such as atmospheric deposition, internal loading, and
- 33 loading from tributaries other than those identified in this Sub-item. The Division
- 34 shall assure that the supplemental modeling is conducted in accordance with the
- 35 quality assurance requirements of the Division;



(iv) The Division shall submit recommendations to the Commission of any revisions to the Stage II requirements by October 1, 2023. The Division shall consider the recommendations made by the submitting party, the monitoring data gathered pursuant to this rule, the results of any modelling performed pursuant to this rule, and any other information submitted by such party in preparing the Division's recommended revisions to the Stage II requirements.

(iv) The Commission shall review Stage II requirements if a party submits supplemental modeling data, products and results acceptable to the Commission for this purpose. Where supplemental modeling is accepted by the Commission, and results indicate allowable loads of nitrogen and phosphorus reduction goals ~~to for loading to the Falls Reservoir from the watersheds of Ellerbe Creek, Eno River, Little River, Flat River, and Knap of Reeds Creek~~ that are substantially different than those identified in Item (3), then the Commission may initiate rulemaking to establish ~~those allowable loads as the revised reduction goals for Stage II; objective of Stage II relative to their associated baseline values;~~

(g) Nothing in this strategy shall be construed to limit, expand, or modify the authority of the Commission to undertake alternative regulatory actions otherwise authorized by state or federal law, including the reclassification of waters of the State pursuant to G.S. 143-214.1, the revision of water quality standards pursuant to G.S. 143-214.3, and the granting of variances pursuant to G.S. 143-215.3.

~~(6)~~(7) RULES ENUMERATED. The rules of the Falls nutrient strategy ~~rules consists of the following rules are~~ titled as follows:

(a) Rule .0275.0750 Purpose and Scope;

~~(b) Rule .0276 .0263 Definitions. An individual rule may contain additional definitions for terms that are used in that rule only;~~

(c) Rule .0277.0751 Stormwater Management for New Development;

(d) Rule .0278.0752 ~~Agriculture; Stormwater Management for Existing Development;~~

(e) Rule .0279.0753 Wastewater Discharge Requirements;

(f) Rule .0280.0754 ~~Stormwater Management for Existing Development Agriculture;~~

(g) Rule .0281.0755 Stormwater Requirements for State and Federal Entities;

~~(h) Rule .0282 Options for Offsetting Nutrient Loads; and~~

(i) Rule .0315 Neuse River Basin.

~~(7)~~(8) APPLICABILITY. Categories of parties required to implement the Falls nutrient strategy rules and, as applicable, their geographic scope of responsibility, are identified in each rule. The specific local governments responsible for implementing Rules .0277, .0278, .0751, .0754 and .0282.0702 shall be as follows:

- 1 (a) All incorporated municipalities, as identified by the Office of the Secretary of State, with  
2 planning jurisdiction within or partially within the Falls watershed. Those municipalities are  
3 currently:
- 4 (i) Butner;
  - 5 (ii) Creedmoor;
  - 6 (iii) Durham;
  - 7 (iv) Hillsborough;
  - 8 (v) Raleigh;
  - 9 (vi) Roxboro;
  - 10 (vii) Stem; and
  - 11 (viii) Wake Forest;
- 12 (b) All counties with jurisdiction in Falls watershed and for land where municipalities listed in Sub-  
13 Item (7)(a) do not have an implementation requirement:
- 14 (i) Durham;
  - 15 (ii) Franklin;
  - 16 (iii) Granville;
  - 17 (iv) Orange;
  - 18 (v) Person; and
  - 19 (vi) Wake;
- 20 (c) A unit of government may arrange through interlocal agreement or other instrument of mutual  
21 agreement for another unit of government to implement portions or the entirety of a program  
22 required or allowed under any rule of this strategy to the extent that such an arrangement is  
23 otherwise allowed by statute. The governments involved shall submit documentation of any  
24 such agreement to the Division. No such agreement shall relieve a unit of government from its  
25 responsibilities under these Rules.

26 ~~(8)(9)~~ ENFORCEMENT. Failure to meet requirements of Rules ~~.0275, .0277, .0278, .0279, .0280, .0281, or~~  
27 ~~.0282-.0750, .0751, .0752, .0753, .0754, .0755, or .0702~~ of this Section may result in imposition of  
28 enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal  
29 penalties), and G.S. 143-215.6C (injunctive relief).

30  
31 *History Note:* Authority G.S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-215.3(a)(1);  
32 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L.  
33 2006-259; S.L. 2009-337; S.L. 2009-486;  
34 Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on  
35 December 16, 2010).  
36 Amended Eff. August 1, 2017.

1 15A NCAC 02B .0278 is proposed for amendment as follows:

2

3 **15A NCAC 02B .0278 .0754 FALLS RESERVOIR WATER SUPPLY NUTRIENT STRATEGY:**  
4 **STORMWATER MANAGEMENT FOR EXISTING DEVELOPMENT**  
5 **STORMWATER**

6 This Rule establishes a staged, adaptive approach by which municipalities and counties shall contribute to achieving the  
7 nonpoint source loading objectives of the Falls Reservoir nutrient strategy by reducing or otherwise offsetting nutrient  
8 contributions from existing development. It provides local governments **6 years** ~~three years~~ to develop programs that  
9 propose Stage I load reduction actions to the Division and requires local governments to begin and track measures to reduce  
10 nutrient loads from existing developed lands within their jurisdiction by ~~January 15, 2014,~~ **November 2017,** as specified in  
11 Item ~~(7),(8).~~ Local governments shall ~~submit for approval and begin~~ **submit for approval and begin** implementation of Stage II load reduction programs by  
12 **January 2025/2031** ~~January 15, 2021~~ and submit revised load reductions programs every five years thereafter. The following  
13 is the watershed stormwater strategy, as prefaced in Rule 15A NCAC 02B ~~.0275;.0750,~~ for existing development in the Falls  
14 watershed:

15 (1) PURPOSE. The purposes of this Rule are as follows:

16 (a) To achieve and maintain the nonpoint source nitrogen and phosphorus percentage reduction  
17 objectives established for Falls Reservoir in Rule 15A NCAC 02B **.0275;.0750** on nutrient  
18 loading from existing development in the Falls watershed relative to the baseline period defined  
19 in that rule. ~~Existing development is defined in Rule 15A NCAC 02B .0276; rule; and~~

20 (b) To protect the water supply, aquatic life, and recreational uses of Falls Reservoir.

21 (2) APPLICABILITY. This Rule shall apply to municipalities and counties in the Falls watershed as  
22 identified in Rule 15A NCAC 02B **.0275;.0750.**

23 (3) ~~STAGED AND ADAPTIVE IMPLEMENTATION REQUIREMENTS. LOCAL PROGRAM~~  
24 ~~OBJECTIVES. Local governments shall employ the following staged and adaptive implementation~~  
25 ~~program. All local governments subject to this Rule shall develop load-reducing programs for~~  
26 ~~submission to and approval by the Commission that include the following staged elements and meet the~~  
27 associated minimum ~~standards objectives~~ for each stage of implementation:

28 (a) In Stage I, a local government ~~subject to this Rule~~ shall implement a load reduction program that  
29 provides estimates of, and plans for offsetting by calendar year ~~2020, 2024/2026~~ nutrient loading  
30 increases from lands developed subsequent to the baseline period ~~of 2006~~ and not subject to the  
31 requirements of the local government's Falls Lake new development stormwater ~~program.~~  
32 ~~program per Rule .0751 of this Section.~~ For these post-baseline ~~existing~~ developed lands, the  
33 current loading rate shall be compared to ~~the loading rate for these lands that~~ prior to  
34 ~~development for the acres involved, development,~~ and the ~~difference~~ **difference, stated in annual**  
35 **mass load,** shall constitute the load reduction ~~need in annual mass load, in pounds per~~  
36 ~~year requirement.~~ Alternatively, a local government may assume uniform pre-development

1 loading rates of 2.89 pounds/acre/year N and 0.63 pounds/acre/year P for these lands. The local  
2 government shall achieve this Stage I load reduction by calendar year ~~2020-2024~~2026. This  
3 Stage I program shall meet the criteria defined in Item (4) of this Rule;

4 (b) By ~~January 15, 2024~~ January ~~2025~~2031 and every five years thereafter until 2046, a local  
5 government located in the Upper Falls Watershed shall ~~submit and~~ begin implementing an  
6 approved Stage II load reduction program that meets the following requirements:

7 (i) If a local government achieves the Stage I reduction objectives described in this Item,  
8 a local government's initial Stage II load reduction program shall, at the local  
9 government's election, either (A) achieve additional annual reductions in nitrogen and  
10 phosphorus loads from existing development greater than or equal to the average  
11 annual additional reductions achieved in the last seven years of Stage I or (B) provide  
12 for an annual expenditure that equals or exceeds the average annual amount the local  
13 government has spent to achieve nutrient reductions from existing development during  
14 the last seven years of Stage I. A local government's expenditures shall include all  
15 local government funds, including any state and federal grant funds used to achieve  
16 nutrient reductions from existing developed lands. The cost of achieving reductions  
17 from municipal wastewater treatment plants shall not be included in calculating a local  
18 government's expenditures. Notwithstanding this requirement, the EMC may approve  
19 an initial Stage II load reduction program based on a lower annual level of reduction or  
20 a lower annual level of expenditure if the local government demonstrates that  
21 continuing the prior annual level of reduction or annual level of expenditure is not  
22 reasonable or cost-effective given the reductions that will be achieved, or the  
23 expenditure would cause serious financial hardship to the local government;

24 (ii) If Stage I reduction objectives are not achieved, a local government's initial Stage II  
25 load reduction program shall, at the local government's election, either (A) achieve  
26 additional annual reductions in nitrogen and phosphorus loads from existing  
27 development greater than or equal to the ~~average annual additional~~ average annual  
28 reductions achieved in the highest three years of implementation of Stage I or (B)  
29 provide for an annual expenditure that equals or exceeds the average annual amount  
30 the local government has spent to achieve nutrient reductions from existing  
31 development during the highest three years of implementation of Stage I. Annual  
32 expenditures shall be calculated in accordance with Sub-Item (3)(b)(i) of this Item;

33 (iii) Subsequent five year programs shall be designed to achieve the Stage II percent load  
34 reduction goals from existing developed lands in a local government's jurisdiction by  
35 2046, shall include timeframes for achieving these goals and shall meet the  
36 requirements of Item (4) of this Rule;

- 1           (4)     ELEMENTS OF LOAD REDUCTION PROGRAMS. A local government's Stage I and Stage II load  
2           reduction program shall address the following elements:
- 3           (a)     Jurisdictions in the Eno River and Little River subwatersheds shall, as a part of their Stage I load  
4           reduction programs, begin and continuously implement a program to reduce loading from  
5           discharging sand filters and malfunctioning septic systems discharging into waters of the State  
6           within those jurisdictions and subwatersheds;
- 7           (b)     Jurisdictions within any Falls subwatershed in which chlorophyll a levels have exceeded 40  
8           micrograms/liter in more than seventy-five percent of the monitoring events in any calendar year  
9           shall, as part of their Stage I load reduction programs, begin and continuously implement a  
10          program to reduce nutrient loading into the waters of the State within those jurisdictions and that  
11          ~~subwatersheds; subwatershed;~~
- 12          ~~(c)     The total amount of nutrient loading reductions in Stage I is not increased for local jurisdictions~~  
13          ~~by the requirements to add specific program components to address loading from~~  
14          ~~malfunctioning septic systems and discharging sand filters or high nutrient loading levels~~  
15          ~~pursuant to Sub Items (4)(a) and (b) of this Item;~~
- 16          ~~(d)     In preparation for implementation of their Stage I and Stage II load reduction programs, local~~  
17          ~~governments shall develop inventories and characterize load reduction potential to the extent~~  
18          ~~that accounting methods allow of the following by January 2013:~~
- 19                 ~~(i)     Wastewater collection systems;~~  
20                 ~~(ii)    Discharging sand filter systems, including availability of or potential for central sewer~~  
21                 ~~connection;~~  
22                 ~~(iii)   Properly functioning and malfunctioning septic systems;~~  
23                 ~~(iv)    Restoration opportunities in utility corridors;~~  
24                 ~~(v)     Fertilizer management plans for local government owned lands;~~  
25                 ~~(vi)    Structural stormwater practices, including intended purpose, condition, potential for~~  
26                 ~~greater nutrient control; and~~  
27                 ~~(vii)   Wetlands and riparian buffers including potential for restoration opportunities;~~
- 28          ~~(e)(c)~~    A local government's load reduction need shall be based on the existing development developed  
29          lands that fall falls within its general police powers and within the Falls watershed;
- 30          ~~(f)(d)~~    The load reduction need shall not include lands under state or federal control, and a county shall  
31          not include lands within its jurisdictional boundaries that are under municipal police powers;
- 32          ~~(g)(e)~~    Nitrogen and phosphorus loading from existing development, including loading from onsite  
33          wastewater treatment systems to the extent that accounting methods allow, shall be calculated by  
34          applying the accounting tool described in Sub-Item ~~(7)(a)(8)(a)~~ or an equivalent or more  
35          accurate method acceptable to the Division. ~~and A local government~~ shall quantify baseline  
36          loads of nitrogen and phosphorus to surface waters in the local government's its jurisdiction as

1 well as loading changes ~~post-baseline~~post-baseline, and shall convert these loads to loads  
2 delivered to Falls Lake accounting for instream losses. This conversion shall use transport  
3 factors established in the document titled Watershed Trapping Analysis produced by the Upper  
4 Neuse River Basin Association and dated December 15, 2014, or an equivalent or more  
5 accurate method acceptable to the Division. It shall also calculate target nitrogen and  
6 phosphorus loads and corresponding load reduction needs;

7 (h)(f) The Commission shall recognize reduction credit for early implementation of policies and  
8 practices implemented after January 1, 2007 and before timeframes required by this Rule, to  
9 reduce runoff and discharge of nitrogen and phosphorus per Session Law 2009-486. The load  
10 reduction program shall identify specific load-reducing practices implemented ~~to date~~  
11 subsequent to the baseline period and for which the local government ~~is seeking credit.~~ seeks  
12 credit pursuant to Item (5) of this Rule. It shall estimate load reductions for these practices and  
13 their anticipated duration using methods provided for in Sub-Item ~~(5)(a);(8)(a):~~

14 **Note:** The Division seeks public comment on the following potential options for crediting early implementation of  
15 policies and practices per Sub-Item (4)(f) of this rule:

16 **Option 1:** “Nutrient reducing policies and practices implemented before November 2022 shall receive an additional 25  
17 percent reduction credit beyond that estimated through Division-approved methods. Such extra credit will apply for the  
18 life of the practice.”

19 **Option 2:** “Nutrient reducing policies and practices implemented before November 2018 shall receive an additional 50  
20 percent reduction credit beyond that estimated through Division-approved methods. Policies and practices implemented  
21 after November 2018 but before November 2021 shall receive an additional 25 percent reduction credit. Such extra  
22 credit will apply for the life of the practice.”

23 Nutrient reducing policies and practices implemented beyond those required to achieve Stage I goals and implemented before  
24 January 1, 2031 shall receive an additional 50 percent reduction credit beyond that estimated through Division-approved  
25 methods. Such extra credit will apply until January 1, 2041 unless the practice ends sooner.

26 (i) ~~The program shall include a proposed implementation schedule that includes annual~~  
27 ~~implementation expectations. The load reduction program shall identify the types of activities~~  
28 ~~the local government intends to implement and types of existing development affected, a~~  
29 ~~prioritization of practices, magnitude of reductions it expects to achieve from each, and the costs~~  
30 ~~and efficiencies of each activity to the extent information is available. The program shall~~  
31 ~~identify the duration of anticipated loading reductions, and may seek activities that provide long-~~  
32 ~~term reductions;~~

33 (g) The program shall, pursuant to Item (5) of this Rule, identify the types of activities the local  
34 government intends to implement, shall prioritize those practices, and shall estimate magnitude  
35 of projected reductions and costs and efficiencies of each activity to the extent information is  
36 available. Reduction projections shall be in the form of both at-source reductions and delivered

1 reductions to Jordan Lake, using transport factors identified elsewhere in this Item. The program  
2 shall identify the duration of anticipated loading reductions, and should seek activities that  
3 provide long-term reductions;

4 (h) The program shall include a proposed implementation schedule that includes both short-range  
5 and long-range annual implementation expectations. Given the inherent uncertainty of long-  
6 range planning, site-level specificity including number and type of BMP retrofits planned,  
7 geographic locations, and estimated reductions is required for only the first three years of  
8 implementation. A less detailed watershed-level assessment may be provided for succeeding  
9 five year intervals, and may project the extent, locations, and types of potential practices based  
10 on available information such as land use and on preliminary site assessment.

11 ~~(i)~~ (i) The load reduction program shall identify anticipated funding mechanisms or sources and  
12 discuss steps take or planned to secure such funding;

13 ~~(i)~~ (i) The program shall address the extent of load reduction opportunities intended from the  
14 following types of lands:

15 ~~(i)~~ (i) Lands owned or otherwise controlled by the local government;

16 ~~(ii)~~ (ii) Each land use type of privately owned existing development including projected  
17 redevelopment, on which the local government's load reduction need is based as  
18 described in this Item; and

19 ~~(iii)~~ (iii) Lands other than those on which the local government's load reduction need is based  
20 as described in this Item, including lands both within and outside its jurisdiction and  
21 including the use of interlocal agreements and public or private third party sellers;

22 ~~(l)~~ (l) The program shall address the extent of load reduction proposed from the following ~~from~~  
23 stormwater and ecosystem restoration activities:

24 ~~(i)~~ (i) Bioretention;

25 ~~(ii)~~ (ii) Constructed wetland;

26 ~~(iii)~~ (iii) Sand filter;

27 ~~(iv)~~ (iv) Filter strip;

28 ~~(v)~~ (v) Grassed swale;

29 ~~(vi)~~ (vi) Infiltration device;

30 ~~(vii)~~ (vii) Extended dry detention;

31 ~~(viii)~~ (viii) Rainwater harvesting system;

32 ~~(ix)~~ (ix) Treatment of redevelopment;

33 ~~(x)~~ (x) Overtreatment of new development;

34 ~~(xi)~~ (xi) Removal of impervious surface;

35 ~~(xii)~~ (xii) Retrofitting treatment into existing stormwater ponds;

36 ~~(xiii)~~ (xiii) Off-line regional treatment systems;





1 practice for nutrient credit approval. Division approval of a practice type shall involve a nutrient crediting  
2 element tied to design conditions, either by reference to existing design standards or by providing new  
3 design standards relevant to sustained annual nutrient reduction for a stated practice credit life. The  
4 Division shall review practices for approval based on the following procedural and content specifications,  
5 as further elaborated in the Division publication, DWR Approval Framework for Nutrient Load-Reducing  
6 Measures.

7 (a) The following content shall be provided for a candidate practice type:

8 (i) Practice description with characterization of load reduction value ranges and nutrient  
9 reduction estimation method tied to practice design conditions;

10 (ii) Installation, implementation, operation and maintenance minimums and recommended  
11 actions to ensure intended level and duration of function;

12 (iii) Process for verifying and reporting continued function of practice; and

13 (iv) Supporting scientific information and references.

14 (b) The Division shall include the following procedural elements in its review and approval of a  
15 practice type:

16 (i) Use of state or independent subject matter experts in development or review of draft  
17 products;

18 (ii) Review of draft products by the Nutrient Scientific Advisor Board established pursuant  
19 to SL 2009-216;

20 (iii) An informal public review and comment period;

21 (iv) Approval by signature of the Director, and posting to the Division's website; and

22 (v) Ability for any party to appeal an approval through written request to the Director.

23 (c) **INDIVIDUAL PRACTICE CREDIT.** Where research on a practice type is lacking or  
24 insufficiently documented to satisfy review under this Item, a party may monitor the performance  
25 of an individual installation of the practice as a basis for both receiving annual reduction credit  
26 and for Division evaluation of presumptive lifetime credit potential, as follows:

27 (i) To ensure Division acceptance of monitoring results for an individual practice, parties  
28 are encouraged to consult with the Division prior to initiating monitoring, and to  
29 provide a monitoring plan and quality assurance plan acceptable to the Division;

30 (ii) During the monitoring period, credit award shall be annual and retroactive based on  
31 the Division's acceptance of monitoring results for the preceding year, until the  
32 Division determines that monitoring is sufficient to establish with acceptable levels of  
33 uncertainty an estimate of sustained achievement of a specified annual credit amount  
34 that is tied to specifications satisfying Sub-Item (a) of this Item. The Division may  
35 allow reduced monitoring intensity as an intermediate step to a final, presumptive  
36 credit assignment;

1 (iii) As the Division receives annual monitoring reports, it shall evaluate the adequacy of  
2 results to establish presumptive credit based on the reliability and variability of the  
3 practice in achieving specific nutrient removals, considering factors including overall  
4 monitoring timespan, monitoring frequency, practice complexity, state of knowledge  
5 on removal processes, and the level of human operation required; and

6 (iv) Where the Division determines that monitoring results are adequate to establish  
7 presumptive credit, and that the content requirements of Sub-Item (a) of this Item are  
8 in place, it shall follow the process outlined in Sub-Item (b) of this Item to approve the  
9 candidate practice.

10 ~~(5)~~(6) **LOAD REDUCTION PROGRAM APPROVAL.** The Commission shall approve a **Stage I** load reduction  
11 program if it is consistent with Items (3) and (4) of this Rule. ~~The However, the Commission shall~~  
12 ~~Approve not approve a Stage II load reduction program if it is consistent with Items (3) and (4) of this~~  
13 ~~Rule unless the Commission if it finds that the local governments government can, through the~~  
14 ~~implementation of reasonable and cost effective measures not included in the proposed program, meet~~  
15 ~~the Stage II nutrient load reductions required by this Rule by a date earlier than that proposed by the~~  
16 ~~local government. proposed.~~ If the Commission finds that there are additional or alternative reasonable  
17 and cost-effective measures, the Commission may require the local government to modify its proposed  
18 program to include such measures to achieve the required reductions by the earlier date. If the  
19 Commission requires such modifications, the local government shall submit a modified program within  
20 two months. The Division shall recommend that the Commission approve or disapprove the modified  
21 program within three months after receiving the modified program. In determining whether additional or  
22 alternative load reduction measures are reasonable and cost effective, the Commission shall consider  
23 factors identified in Sub-Item ~~(4)(e)~~(4)(j) of this **Rule. The Commission Rule.** and shall not require  
24 additional or alternative measures that would require a local government to:

- 25 (a) Install or require installation of a new stormwater collection system in an area of existing  
26 development unless the area is being redeveloped;
- 27 (b) Acquire developed private property; or
- 28 (c) Reduce or require the reduction of impervious surfaces within an area of existing **development.**  
29 **development unless the area is being redeveloped.**

30 ~~(6) A municipality shall have the option of working with the county or counties in which it falls, or with~~  
31 ~~another municipality or municipalities within the same subwatershed, to jointly meet the loading targets~~  
32 ~~from all lands within their combined jurisdictions within a subwatershed. A local government may utilize~~  
33 ~~private or third party sellers. All reductions involving trading with other parties shall meet the~~  
34 ~~requirements of Rule 15A NCAC 02B .0282.~~

- 1           (7) JOINT REDUCTIONS. In addition to implementation of practices on lands within its jurisdiction, a local  
2           government may credit reductions obtained through other means toward compliance with this Rule,  
3           pursuant to the geographic restrictions defined in Rule .0702 of this Section. Other means include:  
4           (a) A municipality or county may work with other municipalities or counties to jointly meet the  
5           loading targets from all lands within their combined jurisdiction;  
6           (b) A local government may use nutrient load reductions achieved through wastewater discharge  
7           improvements;  
8           (c) Purchase of nutrient offset credits pursuant to G.S. 143-214.26 and Rules .0703 of this Section;  
9           and  
10          (d) Other forms of trading pursuant to Rule .0702 of this Section.

11       ~~(7)~~(8) RULE IMPLEMENTATION. This Rule shall be implemented as follows:

- 12           (a) By ~~July 2013~~, November 2016 the Division shall submit a Stage I model local program to the  
13           Commission for approval that embodies the criteria described in Items (3)(a) and (4) of this  
14           Rule. The Division shall work in cooperation with subject local governments and other  
15           watershed interests in developing this model program, which shall include the following:  
16           (i) Model local ordinances as applicable;  
17           (ii) Specification of the Jordan / Falls Lake Stormwater Load Accounting Tool, or  
18           equivalent or more accurate method approved by the Division. Methods to quantify  
19           load reduction ~~requirements and resulting load reduction assignments for individual~~  
20           local governments; requirements; and  
21           (iii) Methods to account for discharging sand filters, malfunctioning septic systems, and  
22           illicit discharges. ~~systems, and leaking collection systems; and~~  
23           ~~(iv) Methods to account for load reduction credits from various activities;~~  
24           (b) The Division shall include with the model program supporting information for local  
25           governments, which shall include:  
26           (i) Identification of the set of nutrient-reducing practices currently approved by the  
27           division for use toward compliance with this rule, along with identification of relevant  
28           documents establishing design standards and credit methods; and  
29           (ii) Explanation of the process to be used for adjusting load allocations and reduction  
30           needs to account for existing practices and changes in jurisdictional limits since  
31           baseline and into the future, as well as the process used by the Division for approving  
32           additional measures for use under this Rule.  
33           ~~(b)~~(c) Within ~~six~~ twelve months after the Commission's approval of the Stage I model local program,  
34           subject local governments shall submit load reduction programs that meet or exceed the  
35           requirements of Items (3) and (4) of this Rule to the Division for review and preliminary

1 approval and shall begin implementation and tracking of measures to reduce nutrient loads from  
2 existing developed lands within their jurisdictions;

3 ~~(e)~~(d) Within 20 months of the Commission's approval of the Stage I model local program, the  
4 Division shall provide recommendations to the Commission on existing development load  
5 reduction programs. The Commission shall either approve the programs or require changes  
6 based on the standards set out in Item (4) of this Rule. Should the Commission require changes,  
7 the applicable local government shall have two months to submit revisions, and the Division  
8 shall provide follow-up recommendations to the Commission within two months after receiving  
9 revisions;

10 ~~(d)~~(e) Within three months after the Commission's approval of a Stage I local existing development  
11 load reduction program, the local government shall complete adoption of and begin  
12 implementation of its approved existing development Stage I load reduction program;

13 ~~(e)~~ Upon implementation of the programs required under Item (4) of this Rule, local governments  
14 shall provide annual reports to the Division documenting their progress in implementing those  
15 requirements within three months following each anniversary of program implementation date  
16 until such time the Commission determines they are no longer needed to ensure maintenance of  
17 reductions or that standards are protected. Annual reports shall include accounting of total  
18 annual expenditures, including local government funds and any state and federal grants used  
19 toward load reductions achieved from existing developed lands. Local governments shall  
20 indefinitely maintain and ensure performance of implemented load-reducing measures;

21 (f) ~~By~~Beginning in January 15, 2021~~January 2021-2025~~2031 and every five years thereafter until  
22 ~~accounting determines that assigned load reductions have been achieved~~, standards are met in  
23 the lake, or the Commission takes other actions per Rule 15A NCAC 02B ~~.0275-.0750~~ local  
24 governments located in the upper Falls watershed as defined in Item (3) of Rule 15A NCAC  
25 02B ~~.0275.0750 shall submit and~~ begin implementation of approved Stage II load reduction  
26 programs ~~or program revision to the Division~~. Local governments located in the upper Falls  
27 watershed shall submit its Stage II load reduction program by January 1, 2029. Within nine  
28 months after submittal, the Division shall make recommendations to the Commission on  
29 approval of these programs. The Commission shall either approve the programs or require  
30 changes based on the standards set out in this Rule. If the Commission require changes, the  
31 applicable local governments shall submit revisions within two three months, and the Division  
32 shall provide follow-up recommendations to the Commission within three months after  
33 receiving revisions. Upon program approval, local governments shall revise implementation as  
34 necessary based on the approved program;

- 1 (g) A local government may, at any time after commencing implementation of its load reduction  
2 program, submit program revisions to the Division for approval based on identification of  
3 more cost-effective strategies or other factors not originally recognized;
- 4 (h) Once either load reductions are achieved per annual reporting or water quality standards are met  
5 in the lake per Rule 15A NCAC 02B .0275-.0750 local governments shall submit programs to  
6 ensure no load increases and shall report annually per ~~Sub-Item (e)~~ Item (9) on compliance with  
7 no increases and take additional actions as necessary;
- 8 (i) At least every five years after the effective date, the Division shall review the accounting  
9 methods stipulated under Sub-Item ~~(7)(a)(8)(a)~~ to determine the need for revisions to those  
10 methods and to loading reductions assigned using those methods. Its review shall include values  
11 subject to change over time independent of changes resulting from implementation of this Rule,  
12 such as untreated export rates that may change with changes in atmospheric deposition. It shall  
13 also review values subject to refinement, such as nutrient removal efficiencies.

14 (9) ANNUAL REPORTS. Upon Implementation of programs required under Item (3) of this Rule, local  
15 governments shall provide annual reports to the Division documenting their progress in implementing  
16 those requirements within three months following each anniversary of program implementation date until  
17 such time as the Commission determines they are no longer needed to ensure maintenance of reductions  
18 or that standards are protected. The following items shall be addressed in a local government's annual  
19 report:

- 20 (a) Summary of existing development load reducing activities implemented and terminated  
21 including:
- 22 (i) Types and number of new activities implemented and any terminated for that reporting  
23 cycle;
  - 24 (ii) Basic characterization and quantification of each practice;
  - 25 (iii) Estimated annual reductions or increases from each activity (lb/yr);
  - 26 (iv) Duration of anticipated loading reductions for new practices (yrs);
  - 27 (v) Type and number of measures due and proposed for credit renewal, and annual  
28 reductions affected (lb/yr);
  - 29 (vi) Costs/efficiencies of each activity to maximum extent practicable; and
  - 30 (vii) Total annual expenditures including local government funds and state & federal grants.
- 31 (b) Accounting / Tracking Progress:
- 32 (i) Reductions achieved by new measures, load increases from terminated measures, and  
33 resulting net change in loading from actions taken in that reporting cycle (lb/yr);
  - 34 (ii) Adjustments to allocations & load reduction needs via annexation; and
  - 35 (iii) Summary of load reduction progress and comparison to that proposed in approved  
36 program (lb/yr).

1                    (c) Summary of inspection and maintenance activities; and

2                    (d) Summary of anticipated activities for the next reporting period.

3

4    *History Note:*    *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1); 143-*  
5                    *215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-*  
6                    *259; S.L. 2009-337;*

7                    *Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on*  
8                    *December 16, 2010).*

9                    *Amended Eff. August 1, 2017.*

## Draft UNRBA Comment on allowing regional treatment to satisfy new development runoff treatment

### 1. Proposed UNRBA Comment:

The Association advocates for a provision or provisions that allow loading to be treated via regional BMPs. The goal is to allow for and promote infill development by allowing for a regional solution and to maximize the efficiency of local treatment dollars by allowing new and existing development loading to be treated by common structures. The original idea for this change was driven by a proposal from Creedmoor that the City design, build, and maintain regional treatment in its downtown core that could provide treatment for new development in that area. The proposed language (section 3) has been written more broadly to accommodate other regional treatment arrangements contemplated by both Durham and Orange County.

### 2. Relevant Jurisdictional Comments

All jurisdictions that commented made a comment or proposal in agreement with this idea. Please see below for the comments on this idea.

Revised rules section(s)	Comment	Jurisdiction
<b>.0277 (4)(a)</b>	.0240 (b) Under the Falls Rules, new development or redevelopment of each parcel of land, whether under common ownership with neighboring properties or held in separate ownership, requires at least 30 percent of stormwater runoff nutrients to be treated onsite [15A NCAC 02B .0277 (4)(a)] prior to purchasing credits from a compensatory mitigation bank (privately owned) [15A NCAC 02B .0240 (b)]. Owning neighboring parcels with existing BMPs doesn't negate the requirement to install onsite nutrient treatment unless the proposed development is part of a Larger Common Plan of Development. There is no provision that allows regional treatment as an alternative to onsite treatment prior to compensatory credit buy downs for offsite treatment in either case or in lieu of offsite nutrient management.	Creedmoor
<b>.0277 (4)(a)</b>	In municipalities combating historic "sprawl" patterns, infill is encouraged over greenfield development. Opportunities to develop smaller vacant infill parcels are often impractical when there isn't sufficient land available onsite for required nutrient management in addition to the proposed development project.	Creedmoor
<b>.0277(4).</b>	Amend the rules to allow the Creedmoor concept of urbanized cores served by a large local government-owned <del>bmp</del> <u>BMP</u> that serves both new development and existing development in the urban core with no requirement for	Raleigh

Revised rules section(s)	Comment	Jurisdiction
	onsite reductions for the new development areas.	
<b>.0277(4).</b>	Remove the requirement for onsite reductions for dense urbanized areas when combined with existing development retrofits to cover a defined area so long as the new <b>BMP</b> <del>bmps</del> are owned and maintained by the local government as part of its stormwater utility	Raleigh
<b>.0277</b>	Add new additional subsection to enable a jurisdiction to develop and maintain off-site stormwater treatment for 100% of a development's nutrient load that would serve as an alternative, if available, to developers treating 30 or 50% onsite and the remainder offsite.	Utilities
<b>.0277</b>	include opportunities for Regional BMPs to address stormwater runoff from new and existing development, especially for densely developed areas	Orange County
<b>.0278</b>	<b>.0277</b> In a similar fashion, an existing privately-owned BMP couldn't be expanded to take on newly created runoff from new development or redevelopment of adjacent or neighboring parcels unless included in a Larger Common Plan of Development. Existing BMP's can potentially be upgraded or converted to higher efficiencies if existing development on a single parcel is expanded (thereby becoming new development) by ½ acre for residential or 12,000 square feet for commercial, institutional, industrial or multifamily structures; but, improved efficiencies cannot be shared with neighboring parcels of land undergoing new development. This is a disincentive to upgrading existing inefficient devices and improving their capacity.	Creedmoor
<b>.0277 (4)(c)</b>	Delete this requirement—allow regional bmps. Suggested text: <i>Developers shall have the option of meeting the percent load reduction through a regional stormwater treatment BMP that is dedicated to serving a contiguous area of new or existing development.</i>	Durham
<b>.0277 (4)(c)(i)</b>	delete this requirement and allow regional bmps.	Durham
<b>.0277 (4)(c)(iii)</b>	Onsite is acceptable as long as it includes regional bmps.	Durham
<b>.0277 (4)(c)(iv)</b>	Onsite is acceptable as long as it includes regional bmps.	Durham



### 3. Proposed UNRBA Revision

Proposed modifications to the rule related to this comment are below.

**Please note that (c) (i) –(iv) are modified only as needed to accommodate the proposed regional BMP treatment change. This means that other comments on these subsections (such as ones that advise against the use of the new term “development product”, are not addressed in this language.**

.0277 (4)

- ~~b)(c)~~ The developer shall have the option of offsetting part of the nitrogen and phosphorus load by implementing or funding offsite offset measures. Before using an offsite offset option, a development shall implement onsite structural stormwater controls that achieve one of the following levels of reductions:
- (i) Proposed new development ~~activity products~~ disturbing at least one-half acre but less than one acre of land for single family and duplex residential property and recreational facilities, except as stated in Sub-Item ~~(4)(b)(iv), (4)(c)(iv) or (v)~~ shall achieve 30 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item ~~(4)(e)(4)(f)~~ of this Rule;
  - (ii) Proposed new development ~~activity products~~ disturbing at least 12,000 but less than one acre of land for commercial, industrial, institutional, multifamily residential, or local government property, except as stated in Sub-Item ~~(4)(b)(iv), (4)(c)(iv) or (v)~~ shall achieve 30 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item (4)(e) of this Rule;
  - (iii) Except as stated in Sub-Item ~~(4)(b)(iv), (4)(c)(iv) or (v)~~ proposed new development ~~activity products~~ that disturbs one acre of land or more shall achieve 50 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item ~~(4)(e)(4)(f)~~ of this Rule; or
  - (iv) Except as stated in Sub-Item (4)(c)(v), proposed development that would replace or expand structures or improvements that existed as of December 2006 and that increases impervious surface within a local government's designated downtown area, regardless of area disturbed, shall achieve 30 percent of the needed load reduction in both nitrogen and phosphorus onsite, and shall meet any requirements for engineered stormwater controls described in Sub-Item ~~(4)(e)(4)(f)~~ of this Rule;

- (v) Proposed developments shall have the option of using a regional stormwater treatment BMP that serves a contiguous area of new or existing development to meet up to 100% of load reduction.

## Draft UNRBA Comment on new development disturbance thresholds

### 1. Proposed UNRBA Comment

The Association advocates that the single family residential threshold be extended from one half acre to one acre. All but one comment advocates for this position. Though the Association considered the state's preferred revision carefully and attempted to draft language that was mutually acceptable to the members the exemption's expansion appears to be the only provision that can be agreed upon. The state's option imposes administrative requirements, namely a judgement that the proposed development has met "specific minimization of impact" criteria that are burdensome on the local governments. Specifically, some local governments do not have engineering staff and would incur additional costs for compliance to hire engineering review under a nebulous standard requiring engineering judgement. Second, the Association does not believe that from ½ acre to 3 acres should be treated differently than lots greater than 3 acres, as is stated in the DWR preferred option..

### 2. Relevant Jurisdictional Comments

All jurisdictions that commented made a comment or proposal related to the threshold. Please see below for the comments on this idea.

Rule Section	Comment	Jurisdiction
<b>.0277 (3)(a)</b>	Change these thresholds so they are consistent with the Jordan and the Neuse rules: 1 acre and 0.5 acres respectively.	Durham
<b>.0277 (3)(a)</b>	Jordan, Neuse and Tar-Pam all use 1 ac and ½ acre thresholds. I agree this should be changed. The 12,000 threshold tends to promote sprawl by discouraging certain types of infill development. For non-residential development, the one-half acre threshold is still more stringent than the one acre threshold included in the Senate version of HB 765 for coastal areas.	Durham
<b>.0277 (4)(c)(i)</b>	Change these thresholds so they are consistent with the Jordan and the Neuse rules: 1 acre and 0.5 acres respectively.	Durham
<b>.0277</b>	Jurisdictions need greater flexibility with regard to disturbance thresholds for residential development. Consider changing the disturbance threshold for residential development such that it increases with an increased lot size and allows for a maximum allowable disturbance that is greater than the current ½ acre. We recommend that this based on a non-linear scale and is capped at a certain land disturbance.	Utilities
<b>.0277 (3)(a)</b>	Change these thresholds so they are consistent with the Jordan and the Neuse rules: 1 acre and 0.5 acres respectively.	Durham

Rule Section	Comment	Jurisdiction
.0277 (3)(a)	Jordan, Neuse and Tar-Pam all use 1 ac and ½ acre thresholds. I agree this should be changed. The 12,000 threshold tends to promote sprawl by discouraging certain types of infill development. For non-residential development, the one-half acre threshold is still more stringent than the one acre threshold included in the Senate version of HB 765 for coastal areas.	Durham
.0277 4 (c) i	Do not require that land disturbance for residential developments of less than one acre be subject to the rule	Person County
.0277 4 (c) i	The rewrite and the current version of the Falls Rules set a land disturbance threshold far below the typical “one acre of disturbance” found in most of the State’s environmental regulations. Even after several years of applicability, City staff constantly has to remind developers of the lower land disturbance threshold. The lack of a required Soil Erosion and Sedimentation Control plan for land disturbing activities below the one acre of disturbance threshold creates confusion and requires stormwater personnel to enforce land disturbing activity requirements without the benefit of the State’s backing where violations occur. Either the threshold for land disturbance needs to be increased to match the uniform one-acre standard, or other State environmental standards need to be lowered to match the Falls and Jordan Rules.	Creedmoor
.0277 4 (c) i	new development disturbance thresholds should increase the further a site is from Falls Lake. This seems reasonable given the findings to date of the UNRBAs Path Forward process concerning transport factors and nutrient trapping in the watershed.	Orange County
.0277(c)(3).	Enlarge the minimum lot size that triggers the New Development rule to conform to that in the Jordan Basin, i.e. one acre of disturbed land.	Raleigh
.0277(c)(3).	<b>New Development.</b> Change the minimum square footage of disturbed lands as a trigger for this rule to one acre from 12,00 square feet.	Raleigh

### 3. Revision Proposed by DWR

DWR proposed a revision to this language to the Nutrient Scientific Advisory Board at its September meeting. The text of that proposed revision and the justification for it are as follows:

#### I. Potential New Development Stormwater Rule Revisions & Options

- **Land Disturbance Thresholds & Peak Rate Match**

The suggestion has been made to either increase the Falls land disturbance threshold to 1 acre (similar to Neuse, Tar-Pam and Jordan) or include a provision in the rule new development rule allowing large acreage low density single lot low density projects to be considered compliant with the nutrient targets. This would prevent unnecessary expense of requiring the development of a stormwater management plan for these projects. Eliminating the requirement

of a stormwater plan in for these large acreage low density residential projects would also eliminate the requirement for meeting peak rate match requirements on sites where BMPs are otherwise not necessary.

- **Land Disturbance Rule Options**

- *Option #1 (Recommended): Add provision to all the NSW Dew Development Stormwater rules (Neuse, Tar-Pam, Falls, Jordan) that a single family residential project on a lot of record of 3 acres or more in size meeting specific impact minimization criteria is considered in compliance with the nutrient targets and no stormwater management plan is needed.*
- *Option #2 (Not recommended): Raise Falls New D. land disturbance threshold for residential Raise the land disturbance threshold from ½ acre to 1 acre to be consistent with Neuse, Tar-Pam, and Jordan New Development rules.*

- **Draft Proposed Land Disturbance Rule language**

The following rule language (underlined) is proposed to be inserted in the “Requirements” section of Falls and Jordan New Development Rule as Sub-Item (3)(b) immediately after the land disturbance language in the current rule Sub-Item(3)(a).

(3)(b) A stormwater management plan is not required for a single family residential project that demonstrates it meets the following criteria:

- (i) Development is located on a single lot of record at least 3 acres in size;
- (ii) Site design minimizes concentrated stormwater runoff and maximizes sheet flow through vegetated areas; and
- (iii) Impervious area is minimized and located away from surface waters and drainage ways to the maximum extent practicable.

### Land Disturbance Example Calculations Using JFSAT V. 3.1

Lot Size (Acres)	Roof Area (sq/ft)	Driveway Area (sq/ft)	Patio Area (sq/ft)	Lawn Area (sq/ft)	TN (lbs/ac/yr)	TP (lbs/ac/yr)	% Impervious
2	1,000	500	200	85,420	<b>1.57</b>	0.44	2.0
2	1,500	1,000	200	84,420	<b>1.70</b>	0.46	3.1
2	1,500	2,000	200	83,420	<b>1.84</b>	0.50	4.2

Lot Size (Acres)	Roof Area (sq/ft)	Driveway Area (sq/ft)	Patio Area (sq/ft)	Lawn Area (sq/ft)	TN (lbs/ac/yr)	TP (lbs/ac/yr)	% Impervious
2	2,000	2,000	200	82,920	<b>1.90</b>	0.51	4.8
2	2,000	2,000	500	82,620	<b>1.94</b>	0.55	5.2
2	2,000	2,000	750	82,370	<b>1.97</b>	0.55	5.5
2	3,000	2,000	750	81,370	<b>2.08</b>	0.59	6.6
3	1,000	500	200	128,980	<b>1.50</b>	0.44	1.3
3	1,500	500	200	128,480	<b>1.54</b>	0.42	1.7
3	1,500	3,000	200	125,980	<b>1.77</b>	0.48	3.6
3	2,000	1,000	500	127,180	<b>1.65</b>	0.46	2.7
3	3,000	2,000	500	125,180	<b>1.82</b>	0.50	4.2
3	4,000	3,000	750	122,930	<b>2.01</b>	0.55	5.9

#### 4. Proposed UNRBA Revision

Proposed modifications to the rule related to this comment are below.

**Please note that .0277 (4) is modified only as needed to accommodate the proposed threshold change. This means that other comments on this section are not addressed in this language.**

.0277 (4)

REQUIREMENTS. ~~All local governments subject to this Rule shall develop stormwater management programs for submission to and approval by the Commission, to be implemented in areas described in Item (2) of this Rule. Local governments shall implement stormwater management programs according to their plans approved by the Commission in January 2012 that include the following elements and standards contained in Item (4) of this Rule: Nothing in this Rule preempts local governments from establishing requirements that are more restrictive than those set forth in this Rule. Local government stormwater management programs shall include the following elements and the standards contained in Item (4):~~

- (a) The requirement that a stormwater management plan shall be submitted for local government approval based on the standards in Item (4) for all proposed new development disturbing one acre or more for single family and duplex residential property, and recreational facilities, and 12,000 square feet or more for commercial, industrial, institutional, multifamily residential, or local government property
- (b) A plan to ensure maintenance of best management practices (BMPs) implemented to comply with this rule for the life of the ~~development; and~~ development;
- (d) A plan to ensure enforcement and compliance with the provisions in Item (4) of this Rule for the life of the new ~~development.~~ development; and
- (e) Nothing in this Rule preempts local governments from implementing requirements that are more restrictive than those set forth in this Rule.

## Draft UNRBA Comment on the implementation schedule of the Stage 1 Existing Development rule

### 1. Proposed UNRBA Comment:

When the Falls Lake Rules were initially passed, implementation timeframes were fairly aggressive. However, various constraints have caused delays in the implementation of the Falls Lake, Stage 1 Existing Development Rule. One constraint centers on development of additional nutrient crediting practices, which has delayed finalization of the Stage 1 Existing Development model program by the NC Department of Environmental Quality, Division of Water Resources (DWR). Very limited funding was available to DWR to develop additional nutrient crediting practices. In order to assist, the UNRBA has collaborated with DWR and is currently funding a nutrient credit project. Knowing that DWR needs this project to be completed in order to finalize a model program, the UNRBA is providing a proposed implementation schedule to be consider in the re-adoption of the Falls Lake Rules. Another factor that has impacted implementation of the Stage 1 rules is the determination of jurisdictional loads. The rules state that as part of the model program DWR will include “load reduction assignments for individual local governments.” The UNRBA believes that establishing “jurisdictional loads” is a key step in determining Stage 1 nutrient reduction strategies and will assist subject local governments in developing early strategies. Finally, the UNRBA is suggesting that additional credit be given to local governments that implement nutrient reduction projects or programmatic practices as an incentive to meet Stage 1 reductions prior to their approved plans. With the delay in implementing Stage 1, providing incentive now seems logical.

### 2. Relevant Jurisdictional Comments

Given the time that has elapsed since the initial rules were enacted and the delays that have resulted, all jurisdictions that commented on the proposed rule changes are in favor of updating the implementation dates for the Stage 1, existing development rule. Comments from jurisdictions pertaining to the implementation schedule are included below.

Revised rules section(s)	Comment	Jurisdiction
<b>.0278</b>	Why is the new start date to track measures June 2017 when the schedule under (8) does not require a local program to be in place until no earlier than approximately December 2017 [March submission to EMC + 2 months for EMC decision + 6 months to submit local program]	Raleigh
<b>.0278 (4)</b>	"(4) Now that we are 4 years into implementation, has DWR determined how to establish the 2006 jurisdictional base load and the 2012 reduction load in	Raleigh



Revised rules section(s)	Comment	Jurisdiction
	<p>the absences of data showing the loading for each jurisdiction? If not, why maintain this system for reducing the loading for Existing Development? Is it time to switch to another means of establishing reduction responsibilities that can be more easily established and measured such as reductions based on a percentage of the inventories previously submitted pursuant to .0278(4)(d) or a percentage increase of the stormwater utility budget of the jurisdiction? [(8)(b) suggests that this information will not be available to local governments any earlier than March 2017 as a part of the model program. This is simply an inadequate time for making this critical determination.]"</p>	
<b>.0278 (4)(b)</b>	<p>Delay until reexamination review is completed by DWR and EMC or just have EMC initiate State II rulemaking after the reexamination?</p>	Durham
<b>.0278 (8)(a)</b>	<p>Dates for local government submissions should be twelve months after approval of the Model Program by the Commission</p>	Durham
<b>.0278 (8)(c)</b>	<p>Note that we are submitting and implementing instantaneously without approval of the preliminary program. Actual approval with changes will not come back to us for 12-14 months.</p>	Durham
<b>.0278 (8)(d)</b>	<p>"(8)(d) Two months for local governments to make changes to their programs, which are contemplated to be adopted by ordinances, is simply unworkable. Local governments using their planning powers have to provide more than 2 months' notice alone. Why is only two months provided for these adjustments when DWR will have by then taken more than 6 years to construct the model program?"</p>	Durham
<b>.0278(4)</b>	<p>Because there has been an extended delay prior to Stage I implementation, the deadline for achieving Stage I load reductions should be shifted back similarly. Rather than maintain the calendar year 2020 deadline, the deadline should be stated as "five years from the date of local load reduction program implementation" to keep with the original Stage I timeframe.</p>	Utilities
<b>0278(8)(d)</b>	<p>Provide more time for local governments to adopt ordinances to implement as two months is not feasible in light of other statutory restrictions on land use and development ordinance adoption</p>	Raleigh

### 3. Proposed UNRBA Revision

Proposed modifications to the rule related to this comment are below. Proposed time frames are primarily to take into consideration that local programs may require ordinance changes or at the very minimum, local board approval. Similarly, local jurisdictions do not want to begin implementing a program until it has been approved in order to avoid making expenditures unnecessarily. It also seems logical to remove a hard date for DWR to take a model program to the EMC for approval since additional nutrient credit practices may not be developed by March 2017 or the rules re-adoption process may experience delays.

.0278 (6)

~~(5)~~ (6) The Commission shall approve a Stage I load reduction program if it is consistent with Items ~~(3)~~ (4) and ~~(4)~~ (5) of this Rule. The Commission shall Approve a Stage II load reduction program if it is consistent with Items ~~(3)~~ (4) and ~~(4)~~ (5) of this Rule unless the Commission finds that the local governments can, through the implementation of reasonable and cost-effective measures not included in the proposed program, meet the Stage II nutrient load reductions required by this Rule by a date earlier than that proposed by the local government. If the Commission finds that there are additional or alternative reasonable and cost-effective measures, the Commission may require the local government to modify its proposed program to include such measures to achieve the required reductions by the earlier date. If the Commission requires such modifications, the local government shall submit a modified program within ~~two~~ six months. The Division shall recommend that the Commission approve or disapprove the modified program within ~~three~~ four months after receiving the modified program. In determining whether additional or ~~35~~ alternative load reduction measures are reasonable and cost effective, the Commission shall consider factors identified in Sub-Item ~~(4)(e)~~ (5)(k) of this Rule. The Commission shall not require additional or alternative measures that would require a local government to:

- (a) Install or require installation of a new stormwater collection system in an area of existing development unless the area is being redeveloped;
- (b) Acquire developed private property; or
- (c) Reduce or require the reduction of impervious surfaces within an area of existing development unless the area is being redeveloped.

.0278 (8)

~~(7)~~ (8) RULE IMPLEMENTATION. This Rule shall be implemented as follows:

(a) By March 30, 2017, the Division shall, in cooperation with subject local governments, determine Stage I load reduction assignments.

(b) ~~(a)~~ By July 2013, ~~March 2017~~ + T The Division shall submit a Stage I model local program to the Commission for approval that embodies the criteria described in Items ~~(3)(a)~~(4)(a) and ~~(4)~~(5) of this Rule. The Division shall work in cooperation with subject local governments and other watershed interests in developing this model program, which shall include the following:

(i) Model local ordinances as applicable;

~~(ii) Methods to quantify load reduction requirements and resulting load reduction assignments for individual local governments;~~

~~(ii) ~~(iii)~~ Methods to account for discharging sand filters, malfunctioning septic systems, and leaking collection systems; and systems.~~

~~(iii) ~~(iv)~~ Methods to account for load reduction credits from various activities;~~

(c) ~~(b)~~ The Division shall include with the model program supporting information for local governments, which shall include:

(i) Identification of the set of nutrient-reducing practices currently approved by the division for use toward compliance with this rule, along with identification of relevant documents establishing design standards and credit methods; and

(ii) Explanation of the process to be used for adjusting load allocations and reduction needs to account for existing practices and changes in jurisdictional limits since baseline and into the future, as well as the process used by the Division for approving additional measures for use under this Rule.

~~(d) ~~(b)~~(e)~~ Within six months after the Commission's approval of the Stage I model local program and formal notification of this approval to each jurisdiction, subject local governments shall submit load reduction programs that meet or exceed the requirements of Items ~~(3)~~(4) and ~~(4)~~(5) of this Rule to the Division for review and preliminary approval. ~~and shall begin implementation and tracking of measures to reduce nutrient loads from existing developed lands within their jurisdictions;~~

~~(e) ~~(e)~~(d)~~ Within ~~20~~ 12 ~~four~~ months of the submittal of the local load reduction programs, the Division shall submit comments to the local jurisdictions relating any agency issues that need to be addressed in the submitted programs. Within three months of the receiving these comments, the jurisdiction shall submit a revised program for review by the Division. Commission's approval of the Stage I model local program, ~~t~~ The Division shall provide recommendations to the Commission on the final submitted existing development load reduction programs. The Commission shall either approve the programs or require changes based on the standards set out in Item ~~(4)~~(5) of this Rule. Should the Commission require changes, the applicable local government shall have ~~two~~ three months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;

~~(f) ~~(d)~~(e)~~ Within ~~three~~ six months after the Commission's approval of a Stage I local existing development load reduction program, the local government shall complete adoption of and begin implementation of its approved existing development Stage I load reduction program;

~~(g)~~ Subject local governments that voluntarily implement nutrient reduction projects or programmatic practices prior to the approval of their required Stage I nutrient reduction program will be credited at 1.5 times the amount of the nutrient reduction, provided project or programmatic reduction is approved by the Division.

## Draft UNRBA Comment regarding Definitions

### 1. Proposed UNRBA Comment:

The Association recognizes that incorporating definitions from other rules by reference is a good practice to achieve internal consistency within the administrative code and to avoid the interpretation issues that can result from inconsistent definitions or the unclear applicability of definitions. However, we think it would be clearer to restore a section that is specifically for definitions applicable to the Falls Rules which is currently 15A NCAC 02B, .0276 but to modify it for clarity. The Association proposes a revised § .0276 within the Falls rules as well as revisions to definitions located outside the Falls Rules that are applicable to the Falls Rules by reference. We believe that the Association’s suggested revisions and additions of definitions will help avoid interpretation issues regarding the Falls Rules as the rules are implemented.

We further request that, if definitions for multiple rules are contained in the same section, as proposed, that the Division of Water Resources ensure that use of the definitions within the Falls Rules is carefully reviewed since the Nutrient Management Strategies were written at different times and potentially reflect nuances of meaning. We further recommend that specific definitions not be pulled into individual rules since it provides the potential for interpretation and applicability issues.

### 2. Relevant Jurisdictional Comments

The relevant comments regarding revised definitions are included here for ease of reference in reviewing the proposed UNRBA revisions to definitions.

Section	Comment	Jurisdiction
.0263	Renumber this rule so it is clearly applicable to Jordan, and Falls, and so that any other new NSW rules may reference them.	Durham
.0263	The intent is to apply these definitions to all NSW rules.	Durham
.0275	.0276 (deleted) Why omit .0276? Should .0276 be amended instead of deleted so that it directs users of the rules to the definitions in .0263?	Raleigh
.0277	Why is there no definition for “development”?	Raleigh
.0278	Revert to the previous interpretation of development. As written, “structures and other land modifications” is more nebulous than the current definition, incorporated by reference.	Utilities

Section	Comment	Jurisdiction
<b>.0280</b>	Land clearing for an agricultural use that does not meet the definition of an “agricultural application” under the Agriculture Rule seems to meet the definition of “development” in that it removing trees or other leafy vegetation and removing roots and/or stumps “otherwise decreases the infiltration of precipitation into the soil.” 15A NCAC 02B .0202(23). This type of activity is often undertaken in conjunction with low density residential development. Further, there seems to be no other category into which this type of land clearing activity falls under the Falls Lake Rules.	Utilities
<b>.0240 (b)</b>	(b) Definitions. Should the definitions be applicable for all .0200 Section rules instead of only for .02040? Should the definitions cross reference expressly reference the definitions in GS 143- 5 214.11 as many users may not recall to search for those definitions in addition to those in -212 and -213?	Raleigh
<b>.0240 (f)</b>	(f) What is the definition of a “non-governmental entity”? Does “government entity” have the same meaning as provided in GS 143-216.11?	Raleigh
<b>.0240(b)</b>	Expand the scope of rules to which the definitions are applied	Raleigh
<b>.0262 (6) (a)(i)</b>	The terms Point source and nonpoint source are not defined in the NSW rules. The use of the term nonpoint in these rules is different than the definition included in 2B. Any reporting of separate allocations for point and nonpoint would be require a definition in order to have any utility.	Durham
<b>.0263 (10)</b>	The definition referenced in .0202 is not appropriate for any of the NSW rules.	Durham
<b>.0263 (14)</b>	"Nutrient" Why is the term to this section when it is applied in the Falls Lake rules? Should the definition be revised to delete "of this section"?	Raleigh
<b>.0263 (2)</b>	It would be better to refer to reactive atmospheric nitrogen to distinguish that from N2 gas is stable and not reactive. The Falls rules reference studies and data related to emissions and/or deposition of reactive nitrogen, but they have not regulatory impact. The list includes oxidized and reduced forms of nitrogen and mixes them. If you are going to list all of the reactive forms, the definition provided should include organic nitrogen.	Durham
<b>.0263 (5)</b>	"Discharge" is defined in GS 143-213. In light of the introductory sentence, which definition is applicable to the rules? Should the term that is defined be "discharge	Raleigh

Section	Comment	Jurisdiction
	allocation" instead?	
.0263 (6)	"Development." Why is this definition deleted as it does not appear in the statute and its definition in 2B.0202 does not apply here, but the term is key to two primary rules?	Raleigh
.0263 (6)	This is a key term used in the NSW rules. There needs to be a definition of development.	Durham
.0263	<b>Definitions.</b> Retain a definition for "development." Change the term "discharge" to "discharge allocation". Discharge is already defined in GS 143-213 and this different definition will confuse the rules and application of the permits. Revise the definition of "transport factor" so that it applies to NSW such as Falls Lake as well to TMDL waters.	Raleigh
.0266 (3)	Consider consolidating definitions for all NSW rules in one location. Changing the development threshold eliminates the need for custom definitions for each watershed.	Durham
.0273 (1)	(1) Definitions. The term "Trading" is limited to sales. Under the Falls rules, local governments can enter into agreements to combine their activities or to internally move credits between point source and nonpoint source reduction programs. Should the definition of a "trade" be written more broadly to include those programs, or is DWR agreeable to no more oversight for that form of off-site compliance by another on behalf of the person responsible for the reductions?	Raleigh
.0273 (3)(b)	(3)(b) Does the term "Falls watershed" need to be defined? Can it be defined by the definitions at .0275(2)(d) and (f)?	Raleigh
.0273(1)	Expand the definition of "trading" from sales only	Raleigh
.0275 (2)	.0282 (2) Should the definitions apply to .0275 to .0282 and .0315 instead of just to rule .0275?	Raleigh
.0276 (deleted)	Reconsolidate definitions in a single section . If definitions for multiple rules are contained in the same section, as proposed, please ensure that use of the definitions within the Falls Rules is carefully reviewed since the Nutrient Management Strategies were written at different times and potentially reflect nuances of meaning. We recommend that specific definitions not be pulled into individual rules since it provides the potential for interpretation issues.	Utilities

Section	Comment	Jurisdiction
<b>.0276 (deleted)</b>	The terms “development activities” and “development” are used in the current rule. “Development activities” has been replaced in the new development rule by “development products.” Either revert back to the use of “development activities,” which is a clearer and more widely understood term or include a definition for “development products,” which is a new phrase introduced in this proposed version of the Rules	Utilities
<b>.0276 (deleted)</b>	If “development activities” is abandoned as a term, revise the definition of “existing development,” which still includes the term “development activities,” 2 to be consistent with the rest of the document.	Utilities
<b>.0276 (deleted)</b>	Define “development” (previously defined in the rule) and “subwatershed”.	Utilities
<b>.0276 (deleted)</b>	The definition section (15A NCAC 02B .0276) should be restored. Definitions of terms used relating to the Falls Rules should not be scattered throughout the various rules.	Creedmoor
<b>.0276 (deleted)</b>	At least one term, “development product” is not defined anywhere in the Falls Rules rewrite and is not a term previously used in the Nutrient Management Strategy. Leaving terms open to interpretation creates uneven enforcement and calls the legitimacy of the rules into question on a regular basis when discussing any interpretation of the Rules.	Creedmoor
<b>.0276 (deleted)</b>	.0263 Why not amend this to become a cross reference to the definitions in .0263? The caption cannot be removed and thus the rule will engender confusion as to whether there are any definitions applicable to the Falls rules?	Raleigh
<b>.0276</b>	<b>Definitions.</b> Do not delete the definitions rule. If nothing else, use it for a cross reference to the new definitions rule in .0263 so there is a cross reference to Jordan definitions instead of no definitions in Falls rules. Add definitions to .0263 for “development”, “ new development product”, “discharge allocation”, and “nutrient.” Amend definition of “transport factor” so it is applicable in Falls instead of limited to TMDL situations	Raleigh
<b>.0277 (4)</b>	(4)(a) and (c) Does the new term “new development product” require a definition? Was the term meant to be “new development project”?	Raleigh
<b>.0278 (3)(b)</b>	(3)(b) What is the meaning of “development” in the term “new development” as the term in not defined in the Falls rules?	Raleigh

Section	Comment	Jurisdiction
<b>.0278 (7)(a)</b>	(7)(a) What is the definition of a “subwatershed” ? If a jurisdiction is in more than one subwatershed, can it work with the county that is also in the same two subwatersheds?	Raleigh

### 3. Proposed UNRBA Revision

The proposed modifications to definitions applicable to the Falls Rules are attached.



PROPOSED UNRBA COMMENTS ON LOCAL GOVERNMENT NUTRIENT REDUCTION OBLIGATIONS BETWEEN THE PROPOSED END OF STAGE I IN 2026 AND THE INITIAL IMPLEMENTATION OF POTENTIAL REVISED STAGE II RULES IN 2031:

1. An appropriate end date for Stage I is 2026. However, the Stage I nutrient reduction requirements shall remain in full force and effect perpetually. If a jurisdiction or other regulated person has not completed the implementation of the Stage I measures by 2026, it shall continue to move forward expeditiously with its implementation of the Stage I rules and Nutrient Management Strategy.
2. The Division of Water Resources (“DWR”) shall recommend revisions to the Stage II requirements to the EMC by November 1, 2023. DWR shall consider the recommendations, the monitoring data, the modeling results, and other information submitted by the Upper Neuse River Basin Association and its member jurisdictions in preparing its recommended revisions to the Stage II requirements. Regulated entities shall develop proposed Stage II programs and seek approval of their proposed programs on a timetable that will allow Stage II implementation to begin in 2031.
3. During the years 2026 through 2031, local governments and other regulated persons will continue the operation of the nutrient load reduction measures implemented to achieve their respective Stage I goals, and each local government acknowledges that it must continue to meet its Stage I goals indefinitely. In addition, local governments will continue to evaluate new nutrient reduction technologies during this time period. The local governments regulated by these rules will continue to work toward revised Stage II rules and each acknowledges that the revised Stage II rules will likely require the implementation of additional nutrient removal measures. If a local government achieves nutrient reductions in excess of those required to achieve its Stage I requirements, then the local government will receive a credit of 1.5 times the value of the excess nutrient reduction achieved for the first 10 years of Stage II implementation period.
4. Beginning in 2031, and every five years thereafter, each local government shall implement a plan for how it will comply with the Stage II goals, as the same may be revised or otherwise changed based upon the relook and any associated rulemaking, variance, use attainability analysis, site specific standards, etc., by 2046. Subsequent five year programs shall be designed to achieve the Stage II goals (as revised) from existing developed lands in a local government's jurisdiction, shall include timeframes for achieving these goals and shall meet such other requirements as may be discussed and agreed upon at a later date.
5. As is currently being conducted by individual UNRBA members within their respective jurisdictions, effort should be made on a watershed-wide basis or in sub-watersheds to implement effective nutrient reduction methods that maximize water quality improvements to Falls Lake. This effort may require structural changes in the Stage II

rules in order to allow greater cooperation and coordination between the various entities regulated by the rules.

6. Local governments shall have the option of working with other local governments within the watershed to meet loading targets within their jurisdictions provided that reductions required in the Upper Falls Lake watershed may not be made in the Lower Falls Lake watershed.

Note: UNRBA's proposed insertions are double-underlined and its proposed deletions are italicized with a strikethrough.

## 15A NCAC 02B .0240 NUTRIENT OFFSET PAYMENTS

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(b) DEFINITIONS. Unless context indicates otherwise, the following words and phrases, which are not defined in G.S. 143 Article 21, shall be interpreted as follows for purposes of this Subchapter ~~Rule~~:

- (1) "Load reduction credit" or "credit" means annual mass load reduction of nitrogen or phosphorus, expressed in pounds per year for perpetual credits and in pounds for finite-duration credits;
- (2) "Non-governmental entity" means all entities that are not a governmental entity as that term is defined at N.C. Gen. Stat. §143-214.11(a)(2).
- (~~23~~) "Non-wasting endowment" means . . . .

## 15A NCAC 02B .0263 JORDAN WATER SUPPLY NUTRIENT STRATEGY: DEFINITIONS

The following words and phrases, which are not defined in G.S. 143, Article 21, shall be interpreted as follows for the purposes of the Jordan nutrient strategy: Unless the context indicates otherwise, the following words and phrases, which are not defined in G.S. 143, Article 21, shall be interpreted as follows for the purposes of the Jordan and Falls lake nutrient strategies:

- (1) ~~"Allocation" means the mass quantity of nitrogen or phosphorus that a discharger, group of dischargers, nonpoint source, or collection of nonpoint sources is assigned as part of a TMDL. For point sources, possession of allocation does not authorize the discharge of nutrients but is prerequisite to such authorization through a NPDES permit.~~
- (~~2~~)(1) "Applicator" means the same as defined in 15A NCAC 02B .0202(4).
- (2) "Atmospheric nitrogen" means reactive forms of nitrogen and excludes stable nitrogen gas (N<sub>2</sub>); reactive forms of nitrogen include total oxidized nitrogen (NO<sub>x</sub>) which includes all nitrogen oxides (including NO<sub>2</sub>, NO, ~~N<sub>2</sub>~~, nitrogen trioxide [N<sub>2</sub>O<sub>3</sub>], nitrogen tetroxide [N<sub>2</sub>O<sub>4</sub>], dinitrogen pentoxide [N<sub>2</sub>O<sub>5</sub>], nitric acide (HNO<sub>3</sub>), and peroxyacil nitrates (PAN)), ~~the sum of which is referred to as reduced nitrogen (NH<sub>x</sub>).~~ Reactive nitrogen also includes reduced forms, NH<sub>x</sub>.
- (3) "Channel" means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water.
- (4) "DBH" means diameter at breast height of a tree measured at 4.5 feet above ground surface level.
- (5) ~~"Delivered," as in delivered allocation, load, or limit, means the allocation, load, or limit that is measured or predicted at Jordan Reservoir. A delivered value is equivalent to a discharge value multiplied by the transport factor for that discharge location.~~
- (6) ~~"Development" means the same as defined in 15A NCAC 02B .0202(23).~~ ~~(5)~~ "Development" means the same as defined in North Carolina General Statutes §143-214.7(a1).

~~(7)(56)~~ "Discharge," as in discharge allocation, discharge load, or discharge limit means the allocation, load, or limit that is measured at the point of discharge into surface waters. ~~waters in the Jordan watershed~~. A discharge value is equivalent to a delivered value divided by the transport factor for that discharge location.

~~(7)~~ "Discharge allocation" means the pounds of nutrient loading available to the regulated entity in the rule applicable to the regulated entity.

~~(8)(8)~~ "Ditch or canal" means a man-made channel other than a modified natural stream constructed for drainage purposes that is typically dug through inter-stream divide areas. A ditch or canal may have flows that are perennial, intermittent, or ephemeral and may exhibit hydrological and biological characteristics similar to perennial or intermittent streams.

~~(9)(79)~~ "Ephemeral stream" means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.

~~(10)~~ "Existing development" means development, other than that associated with agricultural or forest management activities, that meets one of the following criteria:



(a) It either is built or has established a vested right based on statutory or common law as interpreted by the courts, for projects that do not require a state permit, as of the effective date of either local new development stormwater programs implemented under 15A NCAC 02B .0265 or, for projects requiring a state permit, as of the applicable compliance date established in 15A NCAC 02B .0271(5) and (6); or


(b) It occurs after the compliance date set out in Sub-Item (4)(d) of Rule .0265 but does not result in a net increase in built-upon area.

~~(11)(811)~~ "Intermittent stream" means a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the continuous conveyance of water.

~~(12)~~ "Jordan nutrient strategy," or "Jordan water supply nutrient strategy" means the set of 15A NCAC 02B .0262 through .0273 and .0311(p).

~~(13)~~ "Jordan Reservoir" means the surface water impoundment operated by the US Army Corps of Engineers and named B. Everett Jordan Reservoir, as further delineated for purposes of the Jordan nutrient strategy in 15A NCAC 02B .0262(4).

~~(14)~~ "Jordan watershed" means all lands and waters draining to B. Everett Jordan Reservoir.

- ~~(15)~~(913) "Load" means the mass quantity of a nutrient or pollutant released into surface waters over a given time period. Loads may be expressed in terms of pounds per year and may be expressed as "delivered load" or an equivalent "discharge load."
- ~~(16)~~ "Load allocation" means the same as set forth in federal regulations 40 CFR 130.2(g), which is incorporated herein by reference, including subsequent amendments and editions. These regulations may be obtained at no cost from <http://www.epa.gov/lawsregs/search/40cfr.html> or from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.
- ~~(10)~~14 Load allocation means the same as set forth in federal regulations 40 CFR 130.2(g), which is incorporated herein by reference, including subsequent amendments and editions. A copy of the most current version of the regulations is available free of charge on the internet at <http://www.gpo.gov/fdsys/>.
- ~~(17)~~(11)15 "Modified natural stream" means an on-site channelization or relocation of a stream channel and subsequent relocation of the intermittent or perennial flow as evidenced by topographic alterations in the immediate watershed. A modified natural stream must have the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.
- ~~(18)~~ "New development" means any development project that does not meet the definition of existing development set out in this Rule. ~~(16)~~ "New development" means any development project that does not  the definition of existing development set out in this Rule.
- ~~(19)~~(12)17 "Nitrogen" means total nitrogen unless specified otherwise. ~~"Nitrogen" or "total nitrogen" means the sum of the organic, nitrate, nitrite, and ammonia forms of nitrogen in a water or wastewater.~~
- ~~(20)~~(13)18 "NPDES" means National Pollutant Discharge Elimination System, and connotes the permitting process required for the operation of point source discharges in accordance with the requirements of Section 402 of the Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq.
- ~~(21)~~(14)19 "Nutrients" means the combination of total nitrogen and total phosphorus for the purpose of the ~~nutrient rules of this section~~ Jordan and Falls Lake nutrient strategies. ~~"Nutrients" means total nitrogen and total phosphorus.~~
- ~~(22)~~(15) "Perennial stream" means a well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.
- ~~(23)~~(16) "Perennial waterbody" means a natural or man-made basin, including lakes, ponds, and reservoirs, that stores surface water permanently at depths sufficient to preclude growth of rooted plants. For the purpose of the State's riparian buffer protection program, the waterbody must be part of a natural drainage way (i.e., connected by surface flow to a stream).

- ~~(24)~~(17) "Phosphorus" means total phosphorus unless specified otherwise. ~~"Phosphorus" or "total phosphorus" means the sum of the orthophosphate, polyphosphate, and organic forms of phosphorus in a water or wastewater.~~
- ~~(25)~~(18) "Stream" means a body of concentrated flowing water in a natural low area or natural channel on the land surface.
- ~~(26)~~(19) "Surface waters" means all waters of the state as defined in G.S. 143-212 except underground waters.
- ~~(27)~~(20) "Technical specialist" means the same as defined in 15A NCAC 06H .0102(9).
- ~~(28)~~(21) "Total Maximum Daily Load," or "TMDL," means the same as set forth in federal regulations 40 CFR 130.2(i) and 130.7(c)(1), which are incorporated herein by reference, including subsequent amendments and editions. These regulations may be obtained at no cost from <http://www.epa.gov/lawsregs/search/40cfr.html> or from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.
- ~~(29)~~(22) "Total nitrogen" or "nitrogen" means the sum of the organic, nitrate, nitrite, and ammonia forms of nitrogen in a water or wastewater.
- ~~(30)~~(23) "Total phosphorus" or "phosphorus" means the sum of the orthophosphate, polyphosphate, and organic forms of phosphorus in a water or wastewater.
- ~~(31)~~(24) "Transport factor" means the fraction of a discharged nitrogen or phosphorus load that is delivered from the discharge point to ~~Jordan Reservoir, a waterbody~~ as determined in an approved TMDL.
- ~~(32)~~(25) "Tree" means a woody plant with a DBH equal to or exceeding five inches or a stump diameter exceeding six inches.
- ~~(33)~~(26) "Wasteload" means the mass quantity of a nutrient or pollutant released into surface waters by a wastewater discharge over a given time period. Wasteloads may be expressed in terms of pounds per year and may be expressed as "delivered wasteload" or an equivalent "discharge wasteload."
- ~~(34)~~(27) "Wasteload allocation" means the same as set forth in federal regulations 40 CFR 130.2(h), which is incorporated herein by reference, including subsequent amendments and editions. These regulations may be obtained at no cost from <http://www.epa.gov/lawsregs/search/40cfr.html> or from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.

**15A NCAC 02B .0273 ~~JORDAN WATER SUPPLY NUTRIENT STRATEGY: OPTIONS FOR OFFSETTING NUTRIENT LOADS~~ NUTRIENT TRADING**

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- (1) DEFINITIONS. Unless context indicates otherwise, the following words and phrases, which are not defined in G.S. 143 Article 21, shall be interpreted as follows for purposes of this Rule:
- (a) The terms "load reduction credit", "credit", "non-wasting endowment", "nutrient offset" and "nutrient offset bank" shall have the meanings ascribed in Rule .0240 of this Section;

(b) “Trading” means the sale of qualifying nutrient load reduction credit by a party that achieves such reductions to a buyer. Trading that involves payment of nutrient offset fees to the Ecosystem Enhancement Program or to a nutrient offset bank shall conform to Rule .0240 of this Section. Trading involving the sale of all credits generated by a load-reducing practice to a person who is subject to nutrient control requirements or to the Program shall comply with this Rule. Trading does not include reallocation of credits between or among local governments which have entered into an interlocal agreement, or other contract, by which they agree to jointly achieve reductions for existing development loading from their respective jurisdictions.

(+) (2) BUYER QUALIFICATIONS AND PREREQUISITES. The following buyers shall meet applicable criteria identified here and in rules imposing reduction requirements on them Persons subject to nutrient control requirements under Rules of this Section and the Program may use the option to purchase load reduction credit pursuant to the limitations and requirements of this Rule. These buyers may in turn sell load reduction credit obtained pursuant to this Rule that subsequently becomes unnecessary for rule compliance to other persons meeting these specifications. Buyers shall meet any prerequisite conditions established in the nutrient rules to which they are subject before utilizing the option outlined in this Rule: Rule.

(a) — Agriculture Rule .0264: Agricultural producers shall receive approval from the Watershed Oversight Committee to obtain offsite credit pursuant to the conditions of Sub Item (5)(b);

(b) — New Development Rule .0265: Developers shall meet onsite reduction requirements enumerated in Sub Item (3)(a)(vii) before obtaining offsite credit;

(c) — Wastewater Rule .0270: New and expanding dischargers shall first make all reasonable efforts to obtain allocation from existing dischargers as stated in Sub Items (7)(a)(ii) and (8)(a)(ii), respectively; and

(d) — State and Federal Entities Stormwater Rule .0271:

(i) — Non-DOT entities shall meet onsite new development reduction requirements enumerated in Sub Item (3)(a)(vi); and

(ii) — NC DOT shall meet onsite non road new development reduction requirements enumerated in Sub Item (4)(c)(iii) before obtaining offsite credit.

(-) (3) GEOGRAPHIC RESTRICTIONS. Buyers and sellers of credit shall adhere to the following watershed-specific geographic constraints on credit use:

(a) For activities subject to the Falls Water Supply Nutrient Strategy described in Rule .0275 of this Section:

(i) Load reduction needs in the upper Falls watershed as defined in Rule .0275 of this Section may be satisfied only by load reductions achieved in the upper Falls watershed; and

(ii) Load reduction needs in the lower Falls watershed as defined in Rule .0275 of this Section may be satisfied by load reductions achieved anywhere within the Falls watershed.

(b) For activities subject to the Neuse nutrient strategy described in Rule .0232 of this Section, load reduction needs in the Neuse 01 8-digit cataloguing unit, as designated by the US Geological Survey, below the Falls watershed may be satisfied only by load reductions achieved in that same subwatershed or in a lower watershed above the Neuse estuary; and

(c) For activities subject to the Jordan nutrient strategy, load reduction needs may be satisfied only by load reductions achieved in the same subwatershed of the Jordan watershed, as defined in Rule .0262 of this Section.

### **15A NCAC 02B .0275 FALLS WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE**

PURPOSE. The purpose of this Rule and Rules 15A NCAC 02B ~~.0276~~ .0277 through .0282 and .0315(q) shall be to attain the classified uses of Falls of the Neuse Reservoir set out in 15A NCAC 02B .0211 from current impaired conditions related to excess nutrient inputs; protect its classified uses as set out in 15A NCAC 02B .0216, including use as a source of water supply for drinking water; and maintain and enhance protections currently implemented by local governments in existing water supply watersheds encompassed by the watershed of Falls of the Neuse Reservoir. The reservoir, and all waters draining to it, have been supplementally classified as Nutrient Sensitive waters (NSW) pursuant to 15A NCAC 02B .0101(e)(3) and 15A NCAC 02B .0223. These Rules, as enumerated in Item (6) of this Rule, together shall constitute the Falls water supply nutrient strategy, or Falls nutrient strategy, and shall be implemented in accordance with 15A NCAC 02B .0223. The following items establish the framework of the Falls nutrient strategy:

- (1) SCOPE AND LIMITATION. Falls of the Neuse Reservoir is hereafter referred to as Falls Reservoir. All lands and waters draining to Falls Reservoir are hereafter referred to as the Falls watershed. The Falls nutrient strategy rules require controls that reduce nitrogen and phosphorus loads from significant sources of these nutrients throughout the Falls watershed. These Rules do not address atmospheric emission sources of nitrogen that is deposited into the watershed but do include provisions to account for reductions in such deposition as the water quality benefits of air quality regulations are quantified. Neither do these Rules address sources on which there is insufficient scientific knowledge to base regulation, other sources deemed adequately addressed by existing regulations, sources currently considered minor, or nutrient contributions from lake sediments, which are considered outside the scope of these Rules. The Commission may undertake additional rulemaking in the future or make recommendations to other rulemaking bodies as deemed appropriate to more fully address nutrient sources to Falls Reservoir. While the scope of these Rules is limited to the reduction of nutrient loads to surface waters, practitioners are encouraged to maximize opportunities for concurrently benefiting other ecosystem services where feasible in the course of achieving the nutrient objectives.



*DEFINITIONS. For the purposes of this Rule the definitions the following definition apply:*



- ~~(a) Falls nutrient strategy, or Falls water supply nutrient strategy means the set of 15A NCAC 02B .0275 through .0282 and .0315(p).~~
- ~~(b) Falls Reservoir means the surface water impoundment operated by the US Army Corps of Engineers and named Falls of Neuse Reservoir.~~
- ~~(c) Upper Falls Reservoir means that portion of the reservoir upstream of State Route 50.~~
- ~~(d) Upper Falls Watershed means that area of Falls watershed draining to Upper Falls Reservoir.~~
- ~~(e) Lower Falls Reservoir means that portion of the reservoir downstream of State Route 50.~~
- ~~(f) Lower Falls Watershed means that are of Falls watershed draining to lower falls Reservoir without first passing through Upper Falls Reservoir.~~

**15A NCAC 02B .0276 FALLS WATER SUPPLY NUTRIENT STRATEGY: DEFINITIONS**

~~(a) Unless the context indicates otherwise, the following words and phrases, which are not defined in G.S. 143, Article 21, shall be interpreted as follows for the purposes of the Falls nutrient strategy:~~

- (1) "Falls nutrient strategy," or "Falls water supply nutrient strategy" means the set of 15A NCAC 02B .0275 through .0282 and .0315(p);
- (2) "Falls Reservoir" means the surface water impoundment operated by the US Army Corps of Engineers and named Falls of Neuse Reservoir;
- (3) "Falls Watershed" means the area of land draining to the Falls Reservoir.
- (4) "Upper Falls Reservoir" means that portion of the reservoir upstream of State Route 50;
- (5) "Upper Falls Watershed" means that area of Falls watershed draining to Upper Falls Reservoir;
- (6) "Lower Falls Reservoir" means that portion of the reservoir downstream of State Route 50;
- (7) "Lower Falls Watershed" means that are of Falls watershed draining to lower falls Reservoir without first passing through Upper Falls Reservoir.

~~(b) The definitions in Rules .0263 and .0279 shall also apply throughout these Falls Water Supply Nutrient Strategy rules, except that any reference to the Jordan watershed or the Jordan Reservoir shall be interpreted to mean the Falls Reservoir or the Falls Watershed, as the context may require.~~

**15A NCAC 02B .0277 FALLS RESERVOIR WATER SUPPLY NUTRIENT STRATEGY: STORMWATER MANAGEMENT FOR NEW DEVELOPMENT**

The following is the stormwater strategy, as prefaced in 15A NCAC 02B .0275, for new development ~~activities products projects and land clearing projects (except land clearing for the purposes of agriculture)~~ within the Falls watershed:

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- (4) PLAN APPROVAL REQUIREMENTS. A developer's stormwater plan shall not be approved by a subject local government unless the requirements of Item (3) and the following criteria are met:
  - (a) Nitrogen and phosphorus loads contributed by the proposed new development activity products project or land clearing project shall not exceed the following unit-area mass loading rates for

nitrogen and phosphorus, respectively, expressed in units of pounds/acre/year: 2.2 and 0.33. Proposed development that would replace or expand structures ~~or improvements~~ that existed as of December 2006, the end of the baseline period, and that would not result in a net increase in built-upon area shall not be required to meet the nutrient loading targets or high-density requirements except to the extent that the developer shall provide stormwater control at least equal to the previous development. ~~Proposed development that would replace or expand existing structures or improvements and would result in a net increase in built-upon area shall have the option either to achieve at least the percentage loading reduction objectives stated in 15A NCAC 02B .0275 as applied to nitrogen and phosphorus loading from the previous development for the entire project site, or to meet the loading rate targets described in this Item. These requirements shall supersede those identified in 15A NCAC 02B .0104(q). The developer shall determine the load reductions needed to meet these loading rate targets by using the loading calculation method called for in Sub-Item (5)(a) or other equivalent method acceptable to the Division;~~

(b) Proposed development that would replace or expand existing structures and would result in a net increase in built-upon area shall treat the net increase and shall have the option to achieve either the percentage loading reduction objectives stated in 15A NCAC 02B .0275 or to meet the loading rate targets described in this Item. These requirements shall supersede those identified in 15A NCAC 02B .0104(q). The developer shall determine the load reductions needed to meet these loading rate targets by using the loading calculation method called for in Sub-Item (5)(a) or other equivalent method acceptable to the Division;

~~(b)(c)~~ The developer shall have the option of offsetting part of the nitrogen and phosphorus load by implementing or funding offsite offset measures. Before using an offsite offset option, a development shall implement onsite structural stormwater controls that achieve one of the following levels of reductions:

- (i) Proposed new development ~~activity~~ products projects or land clearing ~~disturbing projects that disturb~~ at least one-half acre but less than one acre of land for single family and duplex residential property and recreational facilities, except as stated in Sub-Item ~~(4)(b)(iv);(4)(c)(iv)~~ shall achieve 30 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item ~~(4)(e)(4)(f)~~ of this Rule;
- (ii) Proposed new development ~~activity~~ products projects or land clearing projects that ~~disturb~~ at least 12,000 but less than one acre of land for commercial, industrial, institutional, multifamily residential, or local government property, except as stated in Sub-Item ~~(4)(b)(iv);(4)(c)(iv)~~ shall achieve 30 percent or more of the needed load

reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item (4)(e) of this Rule;

- (iii) Except as stated in Sub-Item ~~(4)(b)(iv)~~, ~~(4)(c)(iv)~~ proposed new development ~~activity~~projects or land clearing projects that disturbs one acre of land or more shall achieve 50 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item ~~(4)(e)~~(4)(f) of this Rule; or
- (iv) Proposed development that would replace or expand structures or improvements that existed as of December 2006 and that increases impervious surface within a local government's designated downtown area, regardless of area disturbed, shall achieve 30 percent of the needed load reduction in both nitrogen and phosphorus onsite, and shall meet any requirements for engineered stormwater controls described in Sub-Item ~~(4)(e)~~(4)(f) of this Rule;