

1 15A NCAC 02B .0262 is adopted with changes as published in 21:24 NCR 2258-2262 as follows:

2  
3 15A NCAC 02B .0262 JORDAN WATER SUPPLY NUTRIENT STRATEGY: **WATERSHED**  
4 **NUTRIENT REDUCTION GOALS-PURPOSE AND SCOPE**

5 PURPOSE. The purpose of B. Everett Jordan Reservoir and all lands and waters within its watershed, hereafter  
6 referred to as Jordan watershed, have been supplementally classified as Nutrient Sensitive Waters (NSW) pursuant  
7 to 15A NCAC 2B .0223. The following requirements this rule, rules 15A NCAC 2B .0263 through .0273 and  
8 .0311(p) shall be intended to restore and maintain nutrient-related water quality standards in the B. Everett  
9 Jordan Reservoir; protect its classified uses, uses as set out in Rule 15A NCAC 2B .0216, including use as a source  
10 of water supply for drinking water, culinary and food processing purposes; and maintain or enhance protections  
11 currently implemented by local governments in existing water supply watersheds. Water supply waters designated  
12 WS II, WS III, and WS IV within the Jordan watershed shall retain their classifications. The remaining waters in  
13 the Jordan watershed shall be classified WS V. The requirements of all of these water supply classifications shall  
14 be retained and applied except as specifically noted within this Rule and Rules 02B .0263 through 02B .0272 and  
15 02B .0311. The entire Jordan watershed is hereby designated a critical water supply watershed and given  
16 additional, more stringent requirements than the state minimum water supply watershed management requirements  
17 pursuant to G.S. 143-214.5(b). Local governments throughout Jordan watershed shall amend existing ordinances  
18 and programs as needed or adopt ordinances and programs to comply with these requirements. The following  
19 requirements shall constitute the Jordan water supply nutrient strategy and the more stringent requirements for the  
20 Jordan watershed as a critical water supply watershed: These rules, as further enumerated in Item (3) of this Rule,  
21 together shall constitute the Jordan water supply nutrient strategy, or Jordan nutrient strategy. Additional  
22 provisions of this Rule include establishing the geographic and regulatory scope of the Jordan nutrient strategy,  
23 defining its relationship to existing water quality regulations, setting specific nutrient mass load goals for Jordan  
24 Reservoir, providing for the use of adaptive management to restore Jordan Reservoir, and citing general  
25 enforcement authorities. The following provisions further establish the framework of the Jordan water supply  
26 nutrient strategy:

- 27 (1) SCOPE. B. Everett Jordan Reservoir is hereafter referred to as Jordan Reservoir. All lands and  
28 waters draining to Jordan Reservoir are hereafter referred to as the Jordan watershed. Jordan  
29 Reservoir and all waters draining to it have been supplementally classified as Nutrient Sensitive  
30 Waters (NSW) pursuant to Rules 15A NCAC 2B .0101(e)(3) and 15A NCAC 2B .0223. Water  
31 supply waters designated WS-II, WS-III, and WS-IV within the Jordan watershed shall retain their  
32 classifications. The remaining waters in the Jordan watershed shall be classified WS-V. The  
33 requirements of all of these water supply classifications shall be retained and applied except as  
34 specifically noted in Item (6) of this Rule and elsewhere within the Jordan nutrient strategy.  
35 Pursuant to G.S. 143-214.5(b), the entire Jordan watershed shall be designated a critical water  
36 supply watershed and through the Jordan nutrient strategy given additional, more stringent  
37 requirements than the state minimum water supply watershed management requirements. These

1 [requirements supplement the water quality standards applicable to Class C waters, as described in](#)  
2 [Rule .0211 of this Section, which apply throughout the Jordan watershed.](#)

3 ~~(1)(2)~~ STRATEGY GOAL. Pursuant to [G.S. 143-215.1\(c5\), 143-215.8B, and 143B-282\(c\) and \(d\) of](#)  
4 [the Clean Water Responsibility Act of 1997, ~~G.S. 143-215.1\(e5\)~~, the Environmental Management](#)  
5 [Commission hereby](#) establishes the ~~initial~~ goal of reducing the average annual loads of nitrogen  
6 and phosphorus delivered to Jordan Reservoir from all point and nonpoint sources of these  
7 nutrients located within its watershed, as ~~further~~ specified in ~~Item (3)~~[Item \(5\)](#) of this ~~Rule~~[Rule](#),  
8 and ~~providing~~[provides](#) for ~~an~~ adaptive management of the ~~initial strategy and~~ goal, as ~~further~~  
9 specified in ~~Item (7)~~[Item 8](#) of this Rule.

10 ~~(3)~~ RULES ENUMERATED. [The second rule in the following list provides definitions for terms that](#)  
11 [are used in more than one rule of the Jordan nutrient strategy. An individual rule may contain](#)  
12 [additional definitions that are specific to that rule. The rules of the Jordan nutrient strategy shall](#)  
13 [be titled as follows:](#)

14 [\(a\) Rule .0262 Purpose and Scope;](#)

15 [\(b\) Rule .0263 Definitions;](#)

16 [\(c\) Rule .0264 Agriculture;](#)

17 [\(d\) Rule .0265 Stormwater Management for New Development;](#)

18 [\(e\) Rule .0266 Stormwater Management for Existing Development;](#)

19 [\(f\) Rule .0267 Protection of Existing Riparian Buffers;](#)

20 [\(g\) Rule .0268 Mitigation for Riparian Buffers;](#)

21 [\(h\) Rule .0269 Riparian Buffer Mitigation Fees to the NC Ecosystem Enhancement Program;](#)

22 [\(i\) Rule .0270 Wastewater Discharge Requirements;](#)

23 [\(j\) Rule .0271 Stormwater Requirements for State and Federal Entities;](#)

24 [\(k\) Rule .0272 Fertilizer Management;](#)

25 [\(l\) Rule .0273 Options for Offsetting Nutrient Loads; and](#)

26 [\(m\) Rule .0311 Cape Fear River Basin.](#)

27 ~~(2)(4)~~ RESERVOIR ARMS AND SUBWATERSHEDS. ~~This Rule divides~~[For the purpose of the Jordan](#)  
28 [nutrient strategy, Jordan Reservoir is divided into three arms and its entire the Jordan](#) watershed  
29 [into three arms and their respective is divided into three tributary](#) subwatersheds as follows:

30 (a) The Upper New Hope arm of the reservoir, identified by index numbers 16-41-1-(14),  
31 16-41-2-(9.5), and 16-41-(0.5) in the Schedule of Classifications for the Cape Fear River  
32 Basin, Rule 15A NCAC 02B .0311, encompasses the upper end of the reservoir upstream  
33 of SR 1008, and its subwatershed encompasses all lands and waters draining into it.

34 (b) The Lower New Hope arm of the reservoir, identified by index number 16-41-(3.5) in the  
35 Schedule of Classifications for the Cape Fear River Basin, Rule 15A NCAC 02B .0311,  
36 lies downstream of SR 1008 and upstream of the Jordan Lake Dam, excluding the Haw  
37 River arm of the reservoir, and its subwatershed encompasses all lands and waters

1 draining into the Lower New Hope arm of the reservoir excluding those that drain ~~first~~ to  
2 the Upper New Hope arm of the reservoir and ~~the~~ Haw River arm of the reservoir.

- 3 (c) The Haw River arm of the reservoir, identified by index number 16-(37.5) in the  
4 Schedule of Classifications for the Cape Fear River Basin, Rule 15A NCAC 02B .0311,  
5 lies immediately upstream of Jordan Lake Dam, and its subwatershed includes all lands  
6 and waters draining into the Haw River arm of the reservoir excluding those ~~first~~ draining  
7 into the Upper and Lower New Hope arms.

8 ~~(3)(5)~~ NUTRIENT REDUCTION GOALS. Each arm of the lake has ~~initial~~ reduction goals, ~~and initial~~  
9 ~~total allowable loads~~, point source ~~wasteload allocations~~, and nonpoint source ~~loading targets~~~~load~~  
10 ~~allocations~~ for both nitrogen and phosphorus based on a field-calibrated nutrient response model  
11 developed pursuant to provisions of the Clean Water Responsibility Act of 1997, G.S. 143-  
12 215.1(c5). The ~~initial~~ reduction goals and ~~loading targets~~ ~~allocations~~ are to be met collectively by  
13 the sources regulated under the ~~Rules listed in Item (6)~~ ~~Jordan nutrient strategy~~. The ~~initial~~  
14 reduction goals are expressed in terms of a percentage reduction in delivered loads from the  
15 baseline years, 1997-2001, while ~~initial loading targets~~ ~~allocations~~ are expressed in pounds per year  
16 of ~~allowable~~ delivered load. Each arm and subwatershed shall conform to its respective ~~initial~~  
17 allocations for nitrogen and phosphorus as follows:

- 18 (a) The ~~initial~~ at-lake nitrogen ~~loading~~ ~~load~~ reduction goals for the arms of Jordan ~~Reservoir~~  
19 ~~Reservoir, which may be modified periodically by Item (7) of this Rule, regarding~~  
20 ~~adaptive management~~, are as follows:

21 (i) The Upper New Hope arm has a 1997-2001 baseline nitrogen load of 986,186  
22 pounds per ~~year, year and a Total Mass Maximum Daily Load (TMDL)~~ TMDL  
23 reduction goal of 35 ~~percent, and a~~ percent. The resulting TMDL ~~includes a total~~  
24 ~~allowable load~~ of 641,021 pounds of nitrogen per ~~year. The year: a initial~~ point  
25 source mass ~~load target~~ ~~wasteload allocation of is~~ 336,079 pounds of nitrogen per  
26 year, and ~~the~~ ~~initial~~ nonpoint source mass load ~~target~~ ~~allocation is of~~ 304,942  
27 pounds of nitrogen per year.

28 (ii) The Lower New Hope arm has a 1997-2001 baseline nitrogen load of 221,929  
29 pounds per ~~year, the year and a~~ nitrogen TMDL ~~is~~ capped at the baseline  
30 nitrogen ~~load, and the~~ load. The resulting TMDL ~~is~~ ~~includes a total allowable~~  
31 ~~load of~~ 221,929 pounds of nitrogen per ~~year. The year: a initial~~ point source  
32 mass ~~load target~~ ~~wasteload allocation of is~~ 6,836 pounds of nitrogen per year,  
33 and ~~the~~ ~~initial~~ nonpoint source mass load ~~target~~ ~~allocation of is~~ 215,093 pounds  
34 of nitrogen per year.

35 (iii) The Haw River arm has a 1997-2001 baseline nitrogen load of 2,790,217 pounds  
36 per ~~year, year and a~~ TMDL percentage reduction of 8 ~~percent, and a~~ percent. The  
37 resulting TMDL ~~includes a total allowable load~~ of 2,567,000 pounds of nitrogen

1 per ~~year. The year: a initial~~ point source mass ~~load targetwasteload allocation of~~  
2 ~~is~~ 895,127 pounds of nitrogen per year, and ~~thea initial~~ nonpoint source mass  
3 load ~~targetallocation of is~~ 1,671,873 pounds of nitrogen per year.

4 (b) The ~~initial~~ at-lake phosphorus ~~loadingload~~ reduction goals for the arms of Jordan  
5 ~~Reservoir Reservoir, which may be modified periodically by Item (7) of this Rule,~~  
6 ~~regarding adaptive management,~~ are as follows:

7 (i) The Upper New Hope arm has a 1997-2001 baseline phosphorus load of 87,245  
8 pounds per ~~year, year and~~ a TMDL percentage reduction of 5 ~~percent, and~~  
9 ~~a percent. The~~ resulting TMDL ~~includes a total allowable load~~ of 82,883 pounds  
10 of phosphorus per ~~year. The year: a initial~~ point source mass ~~load~~  
11 ~~targetwasteload allocation of is~~ 23,108 pounds of phosphorus per year, and ~~thea~~  
12 ~~initial~~ nonpoint source mass load ~~targetallocation~~ of 59,775 pounds of  
13 phosphorus per year.

14 (ii) The Lower New Hope arm has a 1997-2001 baseline phosphorus load of 26,574  
15 pounds per ~~year, the year and a~~ phosphorus TMDL ~~is~~ capped at the baseline  
16 phosphorus ~~load, and the load. The~~ resulting TMDL ~~is includes a total allowable~~  
17 ~~load of~~ 26,574 pounds of phosphorus per ~~year. The year: a initial~~ point source  
18 mass ~~load targetwasteload allocation of is~~ 498 pounds of phosphorus per year,  
19 and ~~thea initial~~ nonpoint source mass load ~~targetallocation~~ of 26,078 pounds of  
20 phosphorus per year.

21 (iii) The Haw River arm has a 1997-2001 baseline phosphorus load of 378,569  
22 pounds per ~~year, year and~~ a TMDL percentage reduction of 5 ~~percent, and~~  
23 ~~a percent. The~~ resulting TMDL ~~includes a total allowable load~~ of 359,641  
24 pounds of phosphorus per ~~year. The year: a initial~~ point source mass ~~load~~  
25 ~~targetwasteload allocation of is~~ 106,001 pounds of phosphorus per year, and  
26 ~~thea initial~~ nonpoint source mass load ~~targetallocation~~ of 253,640 pounds of  
27 phosphorus per year.

28 (c) The allocations established in this Item may change as a result of allocation transfer  
29 between point and nonpoint sources to the extent provided for in rules of the Jordan  
30 nutrient strategy and pursuant to requirements on the sale and purchase of load reduction  
31 credit set out in Rule 15A NCAC 2B .0273.

32 (4)(6) RELATION TO WATER SUPPLY REQUIREMENTS. For all waters designated as WS-II, WS-  
33 III, or WS-IV within the Jordan watershed, the requirements of water supply rules 15A NCAC  
34 02B .0214 through .0216 shall remain in effect with the exception of Sub-Item (3)(b) of those  
35 rules addressing nonpoint sources. The nonpoint source requirements of Sub-Item (3)(b) of those  
36 rules are superseded by the requirements of this Rule and rules 15A NCAC 02B .0263 through  
37 .0269, and .0271 through .0273, .0271, and .0272, except as specifically stated in any of these

1 rules. For the remaining waters of Jordan watershed, ~~hereby designated WS V,~~ the requirements  
2 of water supply rule 15A NCAC 02B .0218 and rules 15A NCAC 02B .0263 through ~~.0272,0273~~  
3 and .0311 shall be applied. For WS-II, WS-III, and WS-IV waters, the retained requirements of  
4 rules 15A NCAC 02B .0214 through .0216 ~~include~~ are the following:

- 5 (a) Item (1) of Rules 15A NCAC 02B .0214 through .0216 addressing best usages;
- 6 (b) Item (2) of Rules 15A NCAC 02B .0214 through .0216 addressing predominant  
7 watershed development conditions, discharges expressly allowed watershed-wide,  
8 general prohibitions on and allowances for domestic and industrial discharges, Maximum  
9 Contaminant Levels following treatment, and the local option to seek more protective  
10 classifications for portions of existing water supply watersheds;
- 11 (c) Sub-Item (3)(a) of Rules 15A NCAC 02B .0214 through .0216 addressing waste  
12 discharge limitations; and
- 13 (d) Sub-Items (3)(c) through (3)(h) of Rules 15A NCAC 02B .0214 through .0216 addressing  
14 aesthetic and human health standards.

15 ~~(5) RULES ENUMERATED. The additional requirements set out in this Rule and Rules 02B .0263~~  
16 ~~through .0272 and .0311 address both point sources and nonpoint sources, and shall be implemented~~  
17 ~~with throughout the Jordan watershed unless otherwise specified in order to achieve the nutrient reduction~~  
18 ~~goals stated herein and to protect water supplies in the Jordan watershed. The requirements set out in the~~  
19 ~~rules listed below supplement the water quality standards applicable to Class C waters, as described in Rule~~  
20 ~~.0211 of this Section, that apply to all waters of the Jordan watershed. The following rules shall be~~  
21 ~~implemented within the Jordan watershed:~~

- 22 ~~(a) Rule .0262 Watershed Nutrient Reduction Goals~~
- 23 ~~(b) Rule .0263 Nutrient Management~~
- 24 ~~(c) Rule .0264 Agriculture~~
- 25 ~~(d) Rule .0265 Stormwater Management for New Development~~
- 26 ~~(e) Rule .0266 Stormwater Management for Existing Development~~
- 27 ~~(f) Rule .0267 Protection of Existing Riparian Buffers~~
- 28 ~~(g) Rule .0268 Mitigation for Riparian Buffers~~
- 29 ~~(h) Rule .0269 Options for Offsetting Nutrient Loads~~
- 30 ~~(i) Rule .0270 Wastewater Discharge Requirements~~
- 31 ~~(j) Rule .0271 Stormwater Requirements for State and Federal Entities~~
- 32 ~~(k) Rule .0272 Riparian Buffer Mitigation Fees~~
- 33 ~~(l) Rule .0311 Cape Fear River Basin~~

34 ~~(6)(7) APPLICABILITY. Although this Rule and Rules 02B .0263 through 02B .0272 and .0311 apply~~  
35 ~~throughout the Jordan watershed unless otherwise specified, Types of parties responsible for~~  
36 ~~implementing rules within the Jordan nutrient strategy and, as applicable, their geographic scope~~  
37 ~~of responsibility, are identified in each rule. The specific local governments responsible for~~

1 implementing rules ~~Rules~~.0265, .0266, .0267, .0268, and ~~.0269,0273~~ shall ~~apply to be local~~  
2 ~~governments in the Jordan watershed~~ as follows:

3 (a) Rules .0265, .0266, .0267, .0268, and ~~.0269,0273~~ shall ~~apply to be implemented by~~ all  
4 incorporated municipalities, ~~as identified by the Office of the Secretary of State, with~~  
5 ~~planning jurisdiction~~ within ~~or partially within~~ the Jordan ~~watershed.~~ ~~watershed as~~  
6 ~~identified by the Office of the Secretary of State.~~ Those municipalities ~~shall currently~~  
7 ~~include:are:~~

- 8 (i) ~~Alamance~~Alamance;
- 9 (ii) ~~Apex~~Apex;
- 10 (iii) ~~Burlington~~Burlington;
- 11 (iv) ~~Carrboro~~Carrboro;
- 12 (v) ~~Cary~~Cary;
- 13 (vi) ~~Chapel Hill~~Chapel Hill;
- 14 (vii) ~~Durham~~Durham;
- 15 (viii) ~~Elon~~Elon;
- 16 (ix) ~~Gibsonville~~Gibsonville;
- 17 (x) ~~Graham~~Graham;
- 18 (xi) ~~Green Level~~Green Level;
- 19 (xii) ~~Greensboro~~Greensboro
- 20 (xiii) ~~Haw River~~Haw River;
- 21 (xiv) ~~Kernersville~~Kernersville;
- 22 (xv) ~~Mebane~~Mebane;
- 23 (xvi) ~~Morrisville~~Morrisville;
- 24 (xvii) ~~Oak Ridge~~Oak Ridge;
- 25 (xviii) ~~Ossipee~~Ossipee;
- 26 (xix) ~~Pittsboro~~Pittsboro;
- 27 (xx) ~~Pleasant Garden~~Pleasant Garden;
- 28 (xxi) ~~Reidsville~~Reidsville;
- 29 (xxii) ~~Sedalia~~Sedalia;
- 30 (xxiii) ~~Stokesdale~~Stokesdale;
- 31 (xxiv) ~~Summerfield~~Summerfield;
- 32 (xxv) ~~Wilsonville~~Wilsonville; and
- 33 (xxvi) ~~Whitsett~~Whitsett;

34 (b) Rules .0265, .0266, .0267, .0268, and ~~.0269,0273~~ shall ~~apply to be implemented by~~ the  
35 following ~~counties;~~ ~~counties for the portions of the counties where the municipalities~~  
36 ~~listed in Sub-Item (7)(a) do not have an implementation requirement:~~

- 37 (i) ~~Alamance~~Alamance;

- (ii) ~~Caswell~~Caswell;
- (iii) ~~Chatham~~Chatham;
- (iv) ~~Durham~~Durham;
- (v) ~~Guilford~~Guilford;
- (vi) ~~Orange~~Orange;
- (vii) ~~Roekingham~~Rockingham; and
- (viii) ~~Wake~~Wake.

(c) A unit of government may arrange through interlocal agreement or other instrument of mutual agreement for another unit of government to implement portions or the entirety of a program required or allowed under any of the rules listed in Item (3) of this Rule to the extent that such an arrangement is otherwise allowed by statute. The governments involved shall submit documentation of any such agreement to the Division. No such agreement shall relieve a unit of government from its responsibilities under these rules.

~~(7)~~(8) ADAPTIVE MANAGEMENT. The ~~initial loading goals defined in Item (3) of this Rule may be adjusted based on an evaluation of~~ Division shall evaluate the effectiveness of the Jordan nutrient ~~reduction~~ strategy after at least ~~five-ten~~ years ~~of implementation following the effective date~~ and periodically thereafter as part of the review of the *Cape Fear River Basinwide Water Quality Plan*. The Division shall base ~~any adjustment on its~~ evaluation on, at a minimum, of additional water quality data. Such evaluation shall include, but shall not be limited to, the results of a calibrated lake nutrient response model, trend analyses as described in the monitoring section of the *B. Everett Jordan Reservoir, North Carolina Nutrient Management Strategy and Total Maximum Daily Load*, and lake use support ~~assessment~~ assessments. The Division may also develop additional watershed modeling or other source characterization work as conducted every five years for the Cape Fear River Basinwide Water Quality Plan. The Any nutrient response modeling and monitoring on which ~~an~~ any recommendation for adjustment to strategy goals may be based shall meet the criteria set forth in the Clean Water Act, G.S. 143-215.1(c5), and meet or exceed criteria used by the Division for the monitoring and modeling used to establish the goals in ~~Item (3)~~Item (5) of this Rule. ~~Loading goals adjusted as described here shall apply to the rules identified in Item (5) of this Rule upon approval by the Commission.~~ Any modification to these rules as a result of such evaluations would require additional rulemaking.

~~(8)~~(9) LIMITATION: ~~15A NCAC 02B .0262 through .0272~~The Jordan nutrient strategy may not fully address significant nutrient sources in the Jordan ~~Watershed~~ watershed in that the rules do not directly address atmospheric sources of nitrogen to the watershed from sources located both within and outside of the watershed. As better information becomes available from ongoing research on atmospheric nitrogen loading to the watershed from these sources, and on measures to control this loading, the Commission may undertake separate rule making to require such measures it deems

1 necessary from these sources to support the goals of the Jordan ~~Reservoir Nutrient~~  
2 ~~Strategy~~ nutrient strategy.

3 ~~(9)(10)~~ ENFORCEMENT. Failure to meet requirements of Rules .0262, ~~-.0263-~~.0264, .0265, .0266,  
4 .0267, .0268, .0269, .0270, ~~.0271,0271,~~ and .0272 and .0273 of this Section may result in  
5 imposition of enforcement measures as authorized by G. S. 143-215.6A (civil penalties), G.S. 143-  
6 215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

7  
8 *History Note:* Authority G. S. 143-214.1; 143-214.5; 143-214.7; 143-215.1; 143-215.3(a)(1); 143-215.6A; 143-  
9 215.6A; 143-215.6B; 143 215.6C; ~~143-215.8B(b);~~ 143-215.8B; 143B-282(c); 143B-282(d); S.L.  
10 2005-190; S.L. 2006-259;  
11 *Eff. July 1, 2008.*