15A NCAC 02B .0262 JORDAN WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE

PURPOSE. The purpose of this Rule, 15A NCAC 02B .0263 through .0273 and .0311(p) shall be to restore and maintain nutrient-related water quality standards in B. Everett Jordan Reservoir; protect its classified uses as set out in 15A NCAC 02B .0216, including use as a source of water supply for drinking water, culinary and food processing purposes; and maintain or enhance protections currently implemented by local governments in existing water supply watersheds. These Rules, as further enumerated in Item (3) of this Rule, together shall constitute the Jordan water supply nutrient strategy, or Jordan nutrient strategy. Additional provisions of this Rule include establishing the geographic and regulatory scope of the Jordan nutrient strategy, defining its relationship to existing water quality regulations, setting specific nutrient mass load goals for Jordan Reservoir, providing for the use of adaptive management to restore Jordan Reservoir, and citing general enforcement authorities. The following provisions further establish the framework of the Jordan water supply nutrient strategy:

(1) SCOPE. B. Everett Jordan Reservoir is hereafter referred to as Jordan Reservoir. All lands and waters draining to Jordan Reservoir are hereafter referred to as the Jordan watershed. Jordan 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. Water supply waters designated WS-II, WS-III, and WS-IV within the Jordan watershed shall retain their classifications. The remaining waters in the Jordan watershed are classified WS-V as of the initial effective date of this Rule, August 11, 2009. The requirements of all of these water supply classifications shall be retained and applied except as specifically noted in Item (6) of this Rule and elsewhere within the Jordan nutrient strategy. Pursuant to G.S. 143-214.5(b), the entire Jordan watershed shall be designated a critical water supply watershed and through the Jordan nutrient strategy given additional, more stringent requirements than the state minimum water supply watershed management requirements. These requirements supplement the water quality standards applicable to Class C waters, as described in Rule .0211 of this Section, which apply throughout the Jordan watershed.

(2) STRATEGY GOAL. Pursuant to G.S. 143-215.1(c5), 143-215.8B, and 143B-282(c) and (d) of the Clean Water Responsibility Act of 1997, the Environmental Management Commission establishes the goal of reducing the average annual loads of nitrogen and phosphorus delivered to Jordan Reservoir from all point and nonpoint sources of these nutrients located within its watershed, as specified in Item (5) of this Rule, and provides for adaptive management of the strategy and goal, as specified in Item (8) of this Rule.

(3) RULES ENUMERATED. The second rule in the following list provides definitions for terms that are used in more than one rule of the Jordan nutrient strategy. An individual rule may contain additional definitions that are specific to that Rule. The rules of the Jordan nutrient strategy are titled as follows:

(a) Rule. 0262 - Purpose and Scope;
(b) Rule. 0263 - Definitions;
(c) Rule. 0264 - Agriculture;
(d) Rule. 0265 - Stormwater Management for New Development;
(e) Rule. 0266 - Stormwater Management for Existing Development;
(f) Rule. 0267 - Protection of Existing Riparian Buffers;
(g) Rule. 0268 - Mitigation for Riparian Buffers;
(h) Rule. 0269 - Riparian Buffer Mitigation Fees to the NC Ecosystem Enhancement Program;
(i) Rule. 0270 - Wastewater Discharge Requirements;
(j) Rule. 0271 - Stormwater Requirements for State and Federal Entities;
(k) Rule. 0272 - Fertilizer Management;
(l) Rule. 0273 - Options for Offsetting Nutrient Loads; and
(m) Rule. 0311 - Cape Fear River Basin.

(4) RESERVOIR ARMS AND SUBWATERSHEDS. For the purpose of the Jordan nutrient strategy, Jordan Reservoir is divided into three arms and the Jordan watershed is divided into three tributary subwatersheds as follows:

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

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

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

(5) NUTRIENT REDUCTION GOALS. Each arm of the lake has reduction goals, total allowable loads, point source wasteload allocations, and nonpoint source load allocations for both nitrogen and phosphorus based on a field-calibrated nutrient response model developed pursuant to provisions of G.S. 143-215.1(c5). The reduction goals and allocations shall be met collectively by the sources regulated under the Jordan nutrient strategy. The reduction goals are expressed in terms of a percentage reduction in delivered loads from the baseline years, 1997-2001, while allocations are expressed in pounds per year of allowable delivered load. Each arm and subwatershed shall conform to its respective allocations for nitrogen and phosphorus as follows:

(a) The at-lake nitrogen goals for the arms of Jordan Reservoir are as follows:

(i) The Upper New Hope arm has a 1997-2001 baseline nitrogen load of 986,186 pounds per year and a nitrogen Total Maximum Daily Load (TMDL) reduction goal of 35 percent. The resulting TMDL includes a total allowable load of 641,021 pounds of nitrogen per year: a point source mass wasteload allocation of 336,079 pounds of nitrogen per year, and a nonpoint source mass load allocation of 304,942 pounds of nitrogen per year.

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

(iii) The Haw River arm has a 1997-2001 baseline nitrogen load of 2,790,217 pounds per year and a nitrogen TMDL reduction goal of eight percent. The resulting TMDL includes a total allowable load of 2,567,000 pounds of nitrogen per year: a point source mass wasteload allocation of 895,127 pounds of nitrogen per year, and a nonpoint source mass load allocation of 1,671,873 pounds of nitrogen per year.

(b) The at-lake phosphorus goals for the arms of Jordan Reservoir are as follows:

(i) The Upper New Hope arm has a 1997-2001 baseline phosphorus load of 87,245 pounds per year and a phosphorus TMDL reduction goal of five percent. The resulting TMDL includes a total allowable load of 82,883 pounds of phosphorus per year: a point source mass wasteload allocation of 23,108 pounds of phosphorus per year, and a nonpoint source mass load allocation of 59,775 pounds of phosphorus per year.

(ii) The Lower New Hope arm has a 1997-2001 baseline phosphorus load of 26,574 pounds per year and a phosphorus TMDL capped at the baseline phosphorus load. The resulting TMDL includes a total allowable load of 26,574 pounds of phosphorus per year: a point source mass wasteload allocation of 498 pounds of phosphorus per year, and a nonpoint source mass load allocation of 26,078 pounds of phosphorus per year.

(iii) The Haw River arm has a 1997-2001 baseline phosphorus load of 378,569 pounds per year and a phosphorus TMDL reduction goal of five percent. The resulting TMDL includes a total allowable load of 359,641 pounds of phosphorus per year: a point source mass wasteload allocation of 106,001 pounds of phosphorus per year, and a nonpoint source mass load allocation of 253,640 pounds of phosphorus per year.

(c) The allocations established in this Item may change as a result of allocation transfer between point and nonpoint sources to the extent provided for in rules of the Jordan nutrient strategy and pursuant to requirements on the sale and purchase of load reduction credit set out in 15A NCAC 02B .0273.

(6) RELATION TO WATER SUPPLY REQUIREMENTS. The following water supply requirements shall apply:

(a) For all waters designated as WS-II, WS-III, or WS-IV within the Jordan watershed, the requirements of water supply 15A NCAC 02B .0214 through .0216 shall remain in effect with the exception of Sub-Item (3)(b) of those Rules addressing nonpoint sources. The nonpoint source requirements of Sub-Item (3)(b) of those Rules are superseded by the requirements of this Rule and 15A NCAC 02B .0263 through .0269, and .0271 through .0273, except as specifically stated in any of these Rules. For WS-II, WS-III, and WS-IV waters, the retained requirements of 15A NCAC 02B .0214 through .0216 are the following:

(i) Item (1) of 15A NCAC 02B .0214 through .0216 addressing best usages;

(ii) Item (2) of 15A NCAC 02B .0214 through .0216 addressing predominant watershed development conditions, discharges expressly allowed watershed-wide, general prohibitions on and allowances for domestic and industrial discharges, Maximum Contaminant Levels following treatment, and the local option to seek more protective classifications for portions of existing water supply watersheds;

(iii) Sub-Item (3)(a) of 15A NCAC 02B .0214 through .0216 addressing waste discharge limitations; and

(iv) Sub-Items (3)(c) through (3)(h) of 15A NCAC 02B .0214 through .0216 addressing aesthetic and human health standards.

(b) For waters designated WS-V in the Jordan Watershed, the requirements of Rules .0263 through .0273 and .0311 of this Subchapter shall apply. The requirements of 15A NCAC 02B .0218 shall also apply except for Sub-Items (3)(e) through (3)(h) of that Rule, which shall only apply where:

(i) The designation of WS-V is associated with a water supply intake used by an industry to supply drinking water for their employees; or

(ii) Standards set out in 15A NCAC 02B .0218(3)(e) through (3)(h) are violated at the upstream boundary of waters within those watersheds that are classified as WS-II, WS-III, or WS-IV. This Sub-Item shall not be construed to alter the nutrient reduction requirements set out in 15A NCAC 02B .0262(5) or 15A NCAC 2B .0275(3).

(7) APPLICABILITY. Types of parties responsible for implementing rules within the Jordan nutrient strategy and, as applicable, their geographic scope of responsibility, are identified in each rule. The specific local governments responsible for implementing Rules .0265, .0266, .0267, .0268, and .0273 of this Subchapter shall be as follows:

(a) Rules .0265, .0266, .0267, .0268, and .0273 of this Subchapter shall be implemented by all incorporated municipalities, as identified by the Office of the Secretary of State, with planning jurisdiction within or partially within the Jordan watershed. As of August 11, 2009, those municipalities are:

(i) Alamance;

(ii) Apex;

(iii) Burlington;

(iv) Carrboro;

(v) Cary;

(vi) Chapel Hill;

(vii) Durham;

(viii) Elon;

(ix) Gibsonville;

(x) Graham;

(xi) Green Level;

(xii) Greensboro;

(xiii) Haw River;

(xiv) Kernersville;
(xv) Mebane;
(xvi) Morrisville;
(xvii) Oak Ridge;
(xviii) Ossipee;
(xix) Pittsboro;
(xx) Pleasant Garden;
(xxi) Reidsville;
(xxii) Sedalia;
(xxiii) Stokesdale;
(xxiv) Summerfield; and
(xxv) Whitsett.

(b) Rules .0265, .0266, .0267, .0268, and .0273 of this Subchapter shall be implemented by the following counties for the portions of the counties where the municipalities listed in Sub-Item (7)(a) do not have an implementation requirement:
(i) Alamance;
(ii) Caswell;
(iii) Chatham;
(iv) Durham;
(v) Guilford;
(vi) Orange;
(vii) Rockingham; and
(viii) 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.

(8) ADAPTIVE MANAGEMENT. The Division shall evaluate the effectiveness of the Jordan nutrient strategy no sooner than ten years 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 its evaluation on, at a minimum, 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 assessments. Both of these documents can be found on the Division's website at www.ncwater.org. The Division may also develop additional watershed modeling or other source characterization work. Any nutrient response modeling and monitoring on which any recommendation for adjustment to strategy goals may be based shall meet the criteria set forth in 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 (5) of this Rule. Any modification to these Rules as a result of such evaluations would require additional rulemaking.

(9) LIMITATION. The Jordan nutrient strategy may not fully address significant nutrient sources in the Jordan watershed in that these 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 necessary from these sources to support the goals of the Jordan nutrient strategy.

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

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; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2012-187;*
Eff. August 11, 2009;
Amended Eff. January 1, 2014; September 1, 2011.