

GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2009

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HOUSE BILL 239  
Committee Substitute Favorable 5/5/09  
Committee Substitute #2 Favorable 5/11/09

Short Title: Restore Water Quality in Jordan Reservoir.

(Public)

Sponsors:

Referred to:

February 23, 2009

A BILL TO BE ENTITLED

AN ACT TO PROVIDE FOR IMPROVEMENTS IN THE MANAGEMENT OF THE  
JORDAN WATERSHED IN ORDER TO RESTORE WATER QUALITY IN THE  
JORDAN RESERVOIR.

The General Assembly of North Carolina enacts:

**SECTION 1.** Definitions. – The following definitions apply to this act and its implementation:

- (1) The definitions set out in G.S. 143-212 and G.S. 143-213.
- (2) The definitions set out in 15A NCAC 02B .0262 (Jordan Water Supply Nutrient Strategy: Purpose and Scope) and 15A NCAC 02B .0263 (Jordan Water Supply Nutrient Strategy: Definitions).
- (3) "Division" means the Division of Water Quality in the Department of Environment and Natural Resources.
- (4) "Existing Development Rule 15A NCAC 02B .0266" means 15A NCAC 02B .0266 (Jordan Water Supply Nutrient Strategy: Stormwater Management for Existing Development), adopted by the Commission on May 8, 2008, and approved by the Rules Review Commission on November 20, 2008.
- (5) "Wastewater Discharge Rule 15A NCAC 02B .0270" means 15A NCAC 02B .0270 (Jordan Water Supply Nutrient Strategy: Wastewater Discharge Requirements) adopted by the Commission on May 8, 2008, and approved by the Rules Review Commission on October 16, 2008.

**SECTION 2.(a)** Wastewater Discharge Rule 15A NCAC 02B .0270. – Until the effective date of the revised permanent rule that the Commission is required to adopt pursuant to Section 2(c) of this act, the Commission and the Department shall implement the Wastewater Discharge Rule 15A NCAC 02B .0270, as provided in Section 2(b) of this act.

**SECTION 2.(b)** Implementation. – Notwithstanding sub-subdivision (c) of subdivision (6) of Wastewater Discharge Rule 15A NCAC 02B .0270, each existing discharger with a permitted flow greater than or equal to 0.1 million gallons per day (MGD) shall limit its total nitrogen discharge to its active individual discharge allocation as defined or modified pursuant to Wastewater Discharge Rule 15A NCAC 02B .0270 no later than calendar year 2016.

**SECTION 2.(c)** Additional Rule-Making Authority. – The Commission shall adopt a rule to replace Wastewater Discharge Rule 15A NCAC 02B .0270. Notwithstanding G.S. 150B-19(4), the rule adopted by the Commission pursuant to this section shall be substantively identical to the provisions of Section 2(b) of this act. Rules adopted pursuant to



1 this section are not subject to G.S. 150B-21.9 through G.S. 150B-21.14. Rules adopted  
2 pursuant to this section shall become effective as provided in G.S. 150B-21.3(b1) as though 10  
3 or more written objections had been received as provided by G.S. 150B-21.3(b2).

4 **SECTION 3.(a)** Existing Development Rule 15A NCAC 02B .0266 Disapproved.  
5 – Pursuant to G.S. 150B-21.3(b1), Existing Development Rule 15A NCAC 02B .0266, as  
6 adopted by the Environmental Management Commission on May 8, 2008, and approved by the  
7 Rules Review Commission on November 20, 2008, is disapproved.

8 **SECTION 3.(b)** References in the North Carolina Administrative Code to the rule  
9 cited in Section 3(a) of this act shall be deemed to refer to the equivalent provisions of this act.

10 **SECTION 3.(c)** Nutrient Monitoring. – The Department shall maintain an ongoing  
11 program to monitor water quality in each arm of Jordan Reservoir. The Department shall also  
12 accept water quality sampling data from a monitoring program implemented by a local  
13 government or nonprofit organization if the data meets quality assurance standards established  
14 by the Department. On March 1, 2014, the Department shall report the results of monitoring in  
15 each arm of Jordan Reservoir to the Environmental Review Commission. The Department shall  
16 submit an updated monitoring report under this section every three years thereafter until such  
17 time as the lake is no longer impaired by nutrient pollution.

18 **SECTION 3.(d)** Control of Nutrient Loading From Existing Development. – The  
19 Department shall require implementation of reasonable nutrient load reduction measures for  
20 existing development in each arm of the Jordan Reservoir, as provided in this act. The  
21 Department shall determine whether nutrient load reduction measures for existing development  
22 are necessary in each subwatershed of Jordan Reservoir and require implementation of  
23 reasonable nutrient reduction measures in accordance with an adaptive management program as  
24 follows:

- 25 (1) Stage 1 Adaptive Management Program to Control Nutrient Loading From  
26 Existing Development. –  
27 a. Municipalities and counties located in whole or in part in the Jordan  
28 watershed shall implement a Stage 1 adaptive management program  
29 to control nutrient loading from existing development in the Jordan  
30 watershed. The Stage 1 adaptive management program shall meet the  
31 requirements set out in 40 C.F.R. § 122.34 as applied by the  
32 Department in the NPDES General Permit for municipal separate  
33 storm sewer systems in effect on July 1, 2009. The Stage 1 adaptive  
34 management program shall include all of the following measures:  
35 1. A public education program to inform the public of the  
36 impacts of nutrient loading and measures that can be  
37 implemented to reduce nutrient loading from stormwater  
38 runoff from existing development.  
39 2. A mapping program that includes major components of the  
40 municipal separate storm sewer system, including the location  
41 of major outfalls, as defined in 40 Code of Federal  
42 Regulations §122.26(b)(5) (July 1, 2008) and the names and  
43 location of all waters of the United States that receive  
44 discharges from those outfalls, land use types, and location of  
45 sanitary sewers.  
46 3. A program to identify and remove illegal discharges.  
47 4. A program to identify opportunities for retrofits and other  
48 projects to reduce nutrient loading from existing developed  
49 lands.  
50 5. A program to ensure maintenance of best management  
51 practices implemented by the local government.

- 1                   b.     The Department shall accept local government implementation of  
2                   another stormwater program or programs meeting the standards set  
3                   out in this section as satisfying one or more of the requirements set  
4                   forth in sub-subdivision a. of this subdivision. The local government  
5                   shall provide technical information sufficient to demonstrate the  
6                   adequacy of the alternative program or program elements.
- 7                   c.     A Stage 1 adaptive management program to control nutrient loading  
8                   from existing development shall be implemented as follows:
- 9                   1.     No later than December 31, 2009, each local government  
10                  shall submit its Stage 1 adaptive management program to the  
11                  Commission for review and approval.
- 12                  2.     Within six months following submission of a Stage 1  
13                  adaptive management program, the Division shall  
14                  recommend that the Commission approve or disapprove the  
15                  program. The Commission shall either approve the program  
16                  or require changes based on the standards set out in  
17                  sub-subdivision a. of this subdivision. If the Commission  
18                  requires changes, the local government shall submit revisions  
19                  responding to the required changes within two months and  
20                  the Department shall provide follow-up recommendations to  
21                  the Commission within two months after receiving revisions.
- 22                  3.     Within three months following Commission approval of a  
23                  Stage 1 adaptive management program, the local government  
24                  shall begin implementation of the program. Each local  
25                  government shall report annually to the Department on  
26                  implementation of its program.
- 27           (2)     Stage 2 Adaptive Management Program to Control Nutrient Loading From  
28           Existing Development. –
- 29           a.     If the March 1, 2014 monitoring report or any subsequent monitoring  
30           report for the Upper New Hope Creek Arm of Jordan Reservoir  
31           required under Section 3(c) of this act shows that nutrient-related  
32           water quality standards are not being achieved, a municipality or  
33           county located in whole or in part in the subwatershed of that arm of  
34           Jordan Reservoir shall develop and implement a Stage 2 adaptive  
35           management program to control nutrient loading from existing  
36           development within the subwatershed, as provided in this act. If the  
37           March 1, 2017 monitoring report or any subsequent monitoring  
38           report for the Haw River Arm or the Lower New Hope Creek Arm of  
39           Jordan Reservoir required under Section 3(c) of this act shows that  
40           nutrient-related water quality standards are not being achieved, a  
41           municipality or county located in whole or in part in the  
42           subwatershed of that arm of Jordan Reservoir shall develop and  
43           implement a Stage 2 adaptive management program to control  
44           nutrient loading from existing development within the subwatershed,  
45           as provided in this act. The Department shall defer development and  
46           implementation of Stage 2 adaptive management programs to control  
47           nutrient loading from existing development required in an arm of  
48           Jordan Reservoir by this subdivision if it determines that additional  
49           reductions in nutrient loading from existing development in that arm  
50           will not be necessary to achieve nutrient-related water quality  
51           standards. In making this determination, the Department shall

1 consider the anticipated effect of measures implemented or scheduled  
2 to be implemented to reduce nutrient loading from sources in the arm  
3 other than existing development. If any subsequent monitoring report  
4 for an arm of Jordan Reservoir required under Section 3(c) of this act  
5 shows that nutrient-related water quality standards have not been  
6 achieved, the Department shall notify the municipalities and counties  
7 located in whole or in part in the subwatershed of that arm of Jordan  
8 Reservoir and the municipalities and counties shall develop and  
9 implement a Stage 2 adaptive management program as provided in  
10 this subdivision.

11 b. The Department shall establish a load reduction goal for existing  
12 development for each municipality and county required to implement  
13 a Stage 2 adaptive management program to control nutrient loading  
14 from existing development. The load reduction goal shall be  
15 designed to achieve an eight percent (8%) reduction in nitrogen  
16 loading of surface water from existing development and a five  
17 percent (5%) reduction in phosphorus loading of surface water from  
18 existing development relative to the baseline period 1997 through  
19 2001 and reaching Jordan Reservoir from existing developed lands  
20 within the municipal limits or county boundary. The baseline load  
21 shall be calculated by applying the Tar-Pamlico Nutrient Export  
22 Calculation Worksheet, Piedmont Version, dated October 2004, to  
23 acreages of different types of existing development within the local  
24 government planning jurisdiction during the baseline period. The  
25 baseline load may also be calculated using an equivalent or more  
26 accurate method acceptable to the Division and recommended by the  
27 Scientific Advisory Board established pursuant to Section 4(a) of this  
28 act. The baseline load for a municipality or county shall not include  
29 nutrient loading from lands under State or federal control or lands in  
30 agriculture or forestry. The load reduction goal shall be adjusted to  
31 account for nutrient loading increases from lands developed  
32 subsequent to the baseline period but prior to implementation of new  
33 development stormwater programs.

34 c. Based on findings under sub-subdivisions a. and b. of this  
35 subdivision, the Department shall notify the local governments in  
36 each subwatershed that either:

37 1. Implementation of a Stage 2 adaptive management program  
38 to control nutrient loading from existing development will be  
39 necessary to achieve water quality standards in an arm of the  
40 reservoir and direct the municipalities and counties in the  
41 subwatershed to develop a load reduction program in  
42 compliance with this section.

43 2. Implementation of a Stage 2 adaptive management program  
44 to control nutrient loading from existing development is not  
45 necessary at that time but will be reevaluated in three years  
46 based on the most recent water quality monitoring  
47 information.

48 d. A local government receiving notice of the requirement to develop  
49 and implement a Stage 2 adaptive management program to control  
50 nutrient loading from existing development under this section shall  
51 not be required to submit a program if the local government

- 1 demonstrates that it has already achieved the reductions in nutrient  
2 loadings required by sub-subdivision b. of this subdivision.
- 3 e. Within six months after receiving notice to develop and implement a  
4 Stage 2 adaptive management program to control nutrient loading  
5 from existing development, each local government shall submit to  
6 the Commission a program that is designed to achieve the reductions  
7 in nutrient loadings established by the Division pursuant to  
8 sub-subdivision b. of this subdivision. A local government program  
9 may include nutrient management strategies that are not included in  
10 the model program developed pursuant to Section 3(c) of this act in  
11 addition to or in place of any component of the model program. In  
12 addition, a local government may satisfy the requirements of this  
13 subdivision through reductions in nutrient loadings from other  
14 sources in the same subwatershed to the extent those reductions go  
15 beyond measures otherwise required by statute or rule. A local  
16 government may also work with other local governments within the  
17 same subwatershed to collectively meet the required reductions in  
18 nutrient loadings from existing development within their combined  
19 jurisdictions. Any credit for reductions achieved or obtained outside  
20 of a local government's planning jurisdiction shall be adjusted based  
21 on transport factors established by the Department document  
22 Nitrogen and Phosphorus Delivery from Small Watersheds to Jordan  
23 Lake, dated June 30, 2002.
- 24 f. Within six months following submission of a local government's  
25 Stage 2 adaptive management program to control nutrient loading  
26 from existing development, the Department shall recommend that the  
27 Commission approve or disapprove the program. The Commission  
28 shall approve the program if it meets the requirements of this  
29 subdivision, unless the Commission finds that the local government  
30 can, through the implementation of reasonable and cost-effective  
31 measures not included in the proposed program, meet the reductions  
32 in nutrient loading established by the Department pursuant to  
33 sub-subdivision b. of this subdivision by a date earlier than that  
34 proposed by the local government. If the Commission finds that there  
35 are additional or alternative reasonable and cost-effective measures,  
36 the Commission may require the local government to modify its  
37 proposed program to include such measures to achieve the required  
38 reductions by the earlier date. If the Commission requires such  
39 modifications, the local government shall submit a modified program  
40 within two months. The Department shall recommend that the  
41 Commission approve or disapprove the modified program within  
42 three months after receiving the local government's modified  
43 program. In determining whether additional or alternative load  
44 reduction measures are reasonable and cost effective, the  
45 Commission shall consider factors including, but not limited to, the  
46 increase in the per capita cost of a local government's stormwater  
47 management program that would be required to implement such  
48 measures and the cost per pound of nitrogen and phosphorus  
49 removed by such measures. The Commission shall not require  
50 additional or alternative measures that would require a local  
51 government to:

- 1 1. Install or require installation of a new stormwater collection
- 2 system in an area of existing development unless the area is
- 3 being redeveloped.
- 4 2. Acquire developed private property.
- 5 3. Reduce or require the reduction of impervious surfaces within
- 6 an area of existing development unless the area is being
- 7 redeveloped.
- 8 g. Within three months after the Commission's approval of a Stage 2
- 9 adaptive management program to control nutrient loading from
- 10 existing development, the local government shall complete adoption
- 11 and begin implementation of its program.
- 12 h. Each local government implementing a Stage 2 adaptive
- 13 management program to control nutrient loading from existing
- 14 development shall submit an annual report to the Division
- 15 summarizing its activities in implementing its program.
- 16 i. If at any time the Department finds, based on water quality
- 17 monitoring, that an arm of the Jordan Reservoir has achieved
- 18 compliance with water quality standards, the Department shall notify
- 19 the local governments in the subwatershed. Subject to the approval of
- 20 the Commission, a local government may modify its Stage 2 adaptive
- 21 management program to control nutrient loading from existing
- 22 development to maintain only those measures necessary to prevent
- 23 increases in nutrient loading from existing development.

24 **SECTION 3.(e)** Model Stage 2 Adaptive Management Program to Control  
25 Nutrient Loading From Existing Development. – No later than July 1, 2013, the Department  
26 shall submit a model Stage 2 adaptive management program to control nutrient loading from  
27 existing development to the Commission for approval. The model program shall identify  
28 specific load reduction practices and programs and reduction credits associated with each  
29 practice or program. In developing the model program, the Department shall consider the  
30 findings and recommendations of the Scientific Advisory Board established pursuant to Section  
31 4(a) of this act and comments submitted by municipalities and counties identified in 15A  
32 NCAC 02B .0262(7) (Jordan Water Supply Nutrient Strategy: Purpose and Scope). The  
33 Commission shall review the model program and either approve the program or return it to the  
34 Department with requested changes. The Department shall revise the model program to address  
35 changes requested by the Commission. The Commission shall approve a final model program  
36 no later than December 31, 2013.

37 **SECTION 3.(f)** Additional Measures to Reduce Nitrogen Loading From Existing  
38 Development in the Upper New Hope Creek Arm of the Jordan Reservoir. – If the March 1,  
39 2023, monitoring report or any subsequent monitoring report for the Upper New Hope Creek  
40 Arm of Jordan Reservoir shows that nutrient-related water quality standards are not being  
41 achieved, a municipality or county located in whole or in part in the Upper New Hope Creek  
42 Subwatershed shall modify its Stage 2 adaptive management program to control nutrient  
43 loading from existing development to achieve additional reductions in nitrogen loading from  
44 existing development. The modified Stage 2 adaptive management program shall be designed  
45 to achieve a total reduction in nitrogen loading from existing development of thirty-five percent  
46 (35%) relative to the baseline period 1997 through 2001. The Department shall notify local  
47 governments of the requirement to submit a modified Stage 2 adaptive management program.  
48 Submission, review and approval, and implementation of a modified Stage 2 adaptive  
49 management program shall follow the process, timeline, and standards set out in  
50 sub-subdivisions e. through g. of subdivision (2) of Section 3(d) of this act.

1           **SECTION 3.(g)** Enforcement. – The Department shall enforce the provisions of  
2 this act as provided in G.S. 143-215.6A, 143-215.6B, and 143-215.6C.

3           **SECTION 3.(h)** Collective Compliance. – Local governments that are subject to  
4 regulation under this act may establish collective programs to comply with the requirements of  
5 this act.

6           **SECTION 3.(i)** Report. – The Division shall report annually to the Commission  
7 regarding the implementation of adaptive management programs to control nutrient loading  
8 from existing development in the Jordan watershed.

9           **SECTION 3.(j)** Additional Rule-Making Authority. – The Commission shall adopt  
10 a rule to replace Sections 3(c) through 3(i) of this act. Notwithstanding G.S. 150B-19(4), the  
11 rule adopted by the Commission pursuant to this section shall be substantively identical to the  
12 provisions of Sections 3(c) through 3(f) of this act. Rules adopted pursuant to this section are  
13 not subject to G.S. 150B-21.9 through G.S. 150B-21.14. Rules adopted pursuant to this section  
14 shall become effective as provided in G.S. 150B-21.3(b1) as though 10 or more written  
15 objections had been received as provided by G.S. 150B-21.3(b2).

16           **SECTION 3.(k)** No Change to Existing Regulatory Authority. – Nothing in this act  
17 shall be construed to limit, expand, or modify the authority of the Commission to undertake  
18 alternative regulatory actions otherwise authorized by State or federal law, including, but not  
19 limited to, the reclassification of waters of the State pursuant to G.S. 143-214.1, the revision of  
20 water quality standards pursuant to G.S. 143-214.3, and the granting of variances pursuant to  
21 G.S. 143-215.3.

22           **SECTION 4.(a)** Scientific Advisory Board for Nutrient-Impaired Waters  
23 Established. – No later than July 1, 2010, the Secretary shall establish a Nutrient Sensitive  
24 Waters Scientific Advisory Board. The Scientific Advisory Board shall consist of no fewer than  
25 five and no more than 10 members with the following expertise or experience:

- 26           (1) Representatives of one or more local governments in the Jordan Reservoir  
27 watershed. Local government representatives shall have experience in  
28 stormwater management, flood control, or management of a water or  
29 wastewater utility.
- 30           (2) One member with at least 10 years of professional or academic experience  
31 relevant to the management of nutrients in impaired water bodies and  
32 possessing a graduate degree in a related scientific discipline, such as aquatic  
33 science, biology, chemistry, geology, hydrology, environmental science,  
34 engineering, economics, or limnology.
- 35           (3) One professional engineer with expertise in stormwater management,  
36 hydrology, or flood control.
- 37           (4) One representative of the Department of Transportation with expertise in  
38 stormwater management.
- 39           (5) One representative of a conservation organization with expertise in  
40 stormwater management, urban landscape design, nutrient reduction, or  
41 water quality.

42           **SECTION 4.(b)** Duties. – No later than July 1, 2012, the Scientific Advisory  
43 Board shall do all of the following:

- 44           (1) Identify management strategies that can be used by local governments to  
45 reduce nutrient loading from existing development.
- 46           (2) Evaluate the feasibility, costs, and benefits of implementing the identified  
47 management strategies.
- 48           (3) Develop an accounting system for assignment of nutrient reduction credits  
49 for the identified management strategies.

- 1 (4) Identify the need for any improvements or refinements to modeling and  
2 other analytical tools used to evaluate water quality in nutrient-impaired  
3 waters and nutrient management strategies.

4 **SECTION 4.(c)** Report; Miscellaneous Provisions. – The Scientific Advisory  
5 Board shall also advise the Secretary on any other issue related to management and restoration  
6 of nutrient-impaired water bodies. The Scientific Advisory Board shall submit an annual report  
7 to the Secretary no later than July 1 of each year concerning its activities, findings, and  
8 recommendations. Members of the Scientific Advisory Board shall be reimbursed for  
9 reasonable travel expenses to attend meetings convened by the Department for the purposes set  
10 out in this section.

11 **SECTION 5.** No Preemption. – A local government may adopt and implement a  
12 stormwater management program that contains provisions that are more restrictive than the  
13 standards set forth in Sections 2 and 3 of this act or in any rules concerning stormwater  
14 management in the Jordan watershed adopted by the Commission. This section shall not be  
15 construed to authorize a local government to impose stormwater management requirements on  
16 lands in agriculture or forestry.

17 **SECTION 6.** Construction of Act. –

- 18 (1) Except as specifically provided in Sections 2(c) and 3(j) of this act, nothing  
19 in this act shall be construed to limit, expand, or otherwise alter the authority  
20 of the Commission or any unit of local government.  
21 (2) This act shall not be construed to affect any delegation of any power or duty  
22 by the Commission to the Department or subunit of the Department.

23 **SECTION 7.** Note to Revisor of Statutes. – Notwithstanding G.S. 164-10, the  
24 Revisor of Statutes shall not codify any of the provisions of this act. The Revisor of Statutes  
25 shall set out the text of Section 2 of this act as a note to G.S. 143-215.1 and may make notes  
26 concerning this act to other sections of the General Statutes as the Revisor of Statutes deems  
27 appropriate. The Revisor of Statutes shall set out the text of Section 3 of this act as a note to  
28 G.S. 143-214.7 and may make notes concerning this act to other sections of the General  
29 Statutes as the Revisor of Statutes deems appropriate.

30 **SECTION 8.** Effective Date. – This act is effective when it becomes law.