

GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2009

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HOUSE BILL 239  
PROPOSED COMMITTEE SUBSTITUTE H239-PCS50641-SB-25

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



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1 G.S. 150B-19(4), the rule adopted by the Commission pursuant to this section shall be  
2 substantively identical to the provisions of Section 2(b) of this act. Rules adopted pursuant to  
3 this section are not subject to G.S. 150B-21.9 through G.S. 150B-21.14. Rules adopted  
4 pursuant to this section shall become effective as provided in G.S. 150B-21.3(b1) as though 10  
5 or more written objections had been received as provided by G.S. 150B-21.3(b2).

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

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

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

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

27 (1) Stage 1 Adaptive Management Program to Control Nutrient Loading From  
28 Existing Development. –

29 a. Municipalities and counties located in whole or in part in the Jordan  
30 watershed shall implement a Stage 1 adaptive management program  
31 to control nutrient loading from existing development in the Jordan  
32 watershed. The Stage 1 adaptive management program shall meet the  
33 requirements set out in 40 C.F.R. § 122.34 as applied by the  
34 Department in the NPDES General Permit for municipal separate  
35 storm sewer systems in effect on July 1, 2009. The Stage 1 adaptive  
36 management program shall include all of the following measures:

- 37 1. A public education program to inform the public of the  
38 impacts of nutrient loading and measures that can be  
39 implemented to reduce nutrient loading from stormwater  
40 runoff from existing development.
- 41 2. A mapping program that includes major components of the  
42 municipal separate storm sewer system, including the location  
43 of major outfalls, as defined in 40 Code of Federal  
44 Regulations §122.26(b)(5) (July 1, 2008) and the names and  
45 location of all waters of the United States that receive  
46 discharges from those outfalls, land use types, and location of  
47 sanitary sewers.
- 48 3. A program to identify and remove illegal discharges.
- 49 4. A program to identify opportunities for retrofits and other  
50 projects to reduce nutrient loading from existing developed  
51 lands.

5. A program to ensure maintenance of best management practices implemented by the local government.
- b. The Department shall accept local government implementation of another stormwater program or programs meeting the standards set out in this section as satisfying one or more of the requirements set forth in sub-subdivision a. of this subdivision. The local government shall provide technical information sufficient to demonstrate the adequacy of the alternative program or program elements.
- c. A Stage 1 adaptive management program to control nutrient loading from existing development shall be implemented as follows:
1. No later than December 31, 2009, each local government shall submit its Stage 1 adaptive management program to the Commission for review and approval.
  2. Within six months following submission of a Stage 1 adaptive management program, the Division shall recommend that the Commission approve or disapprove the program. The Commission shall either approve the program or require changes based on the standards set out in sub-subdivision a. of this subdivision. If the Commission requires changes, the local government shall submit revisions responding to the required changes within two months and the Department shall provide follow-up recommendations to the Commission within two months after receiving revisions.
  3. Within three months following Commission approval of a Stage 1 adaptive management program, the local government shall begin implementation of the program. Each local government shall report annually to the Department on implementation of its program.
- (2) Stage 2 Adaptive Management Program to Control Nutrient Loading From Existing Development. –
- a. If the March 1, 2017, report or any subsequent monitoring report for an arm of Jordan Reservoir required under Section 3(c) of this act shows that nutrient-related water quality standards are not being achieved, a municipality or county located in whole or in part in the subwatershed of that arm of Jordan Reservoir shall develop and implement a Stage 2 adaptive management program to control nutrient loading from existing development in the Jordan watershed, as provided in this act. The Department shall defer development and implementation of Stage 2 adaptive management programs to control nutrient loading from existing development required in an arm of Jordan Reservoir by this subdivision if it determines that additional reductions in nutrient loading from existing development in that arm will not be necessary to achieve nutrient-related water quality standards. In making this determination, the Department shall consider the anticipated effect of measures implemented or scheduled to be implemented to reduce nutrient loading from sources in the arm other than existing development. If any subsequent monitoring report for an arm of Jordan Reservoir required under Section 3(c) of this act shows that nutrient-related water quality standards have not been achieved, the Department shall notify the municipalities and counties located in whole or in part in the subwatershed of that arm of Jordan

- 1 Reservoir and the municipalities and counties shall develop and  
2 implement a Stage 2 adaptive management program as provided in  
3 this subdivision.
- 4 b. The Department shall establish a load reduction goal for existing  
5 development for each municipality and county required to implement  
6 a Stage 2 adaptive management program to control nutrient loading  
7 from existing development. The load reduction goal shall be  
8 designed to achieve an eight percent (8%) reduction in nitrogen  
9 loading of surface water from existing development and a five  
10 percent (5%) reduction in phosphorus loading of surface water from  
11 existing development relative to the baseline period 1997 through  
12 2001 and reaching Jordan Reservoir from existing developed lands  
13 within the municipal limits or county boundary. The baseline load  
14 shall be calculated by applying the Tar-Pamlico Nutrient Export  
15 Calculation Worksheet, Piedmont Version, dated October 2004, to  
16 acreages of different types of existing development within the local  
17 government planning jurisdiction during the baseline period. The  
18 baseline load may also be calculated using an equivalent or more  
19 accurate method acceptable to the Division and recommended by the  
20 Scientific Advisory Board established pursuant to Section 4(a) of this  
21 act. The baseline load for a municipality or county shall not include  
22 nutrient loading from lands under State or federal control or lands in  
23 agriculture or forestry. The load reduction goal shall be adjusted to  
24 account for nutrient loading increases from lands developed  
25 subsequent to the baseline period but prior to implementation of new  
26 development stormwater programs.
- 27 c. Based on findings under sub-subdivisions a. and b. of this  
28 subdivision, the Department shall notify the local governments in  
29 each subwatershed that either:
- 30 1. Implementation of a Stage 2 adaptive management program  
31 to control nutrient loading from existing development will be  
32 necessary to achieve water quality standards in an arm of the  
33 reservoir and direct the municipalities and counties in the  
34 subwatershed to develop a load reduction program in  
35 compliance with this section.
  - 36 2. Implementation of a Stage 2 adaptive management program  
37 to control nutrient loading from existing development is not  
38 necessary at that time but will be reevaluated in three years  
39 based on the most recent water quality monitoring  
40 information.
- 41 d. A local government receiving notice of the requirement to develop  
42 and implement a Stage 2 adaptive management program to control  
43 nutrient loading from existing development under this section shall  
44 not be required to submit a program if the local government  
45 demonstrates that it has already achieved the reductions in nutrient  
46 loadings required by sub-subdivision b. of this subdivision.
- 47 e. Within six months after receiving notice to develop and implement a  
48 Stage 2 adaptive management program to control nutrient loading  
49 from existing development, each local government shall submit to  
50 the Commission a program that is designed to achieve the reductions  
51 in nutrient loadings established by the Division pursuant to

1 sub-subdivision b. of this subdivision. A local government program  
2 may include nutrient management strategies that are not included in  
3 the model program developed pursuant to Section 3(c) of this act in  
4 addition to or in place of any component of the model program. In  
5 addition, a local government may satisfy the requirements of this  
6 subdivision through reductions in nutrient loadings from other  
7 sources in the same subwatershed to the extent those reductions go  
8 beyond measures otherwise required by statute or rule. A local  
9 government may also work with other local governments within the  
10 same subwatershed to collectively meet the required reductions in  
11 nutrient loadings from existing development within their combined  
12 jurisdictions. Any credit for reductions achieved or obtained outside  
13 of a local government's planning jurisdiction shall be adjusted based  
14 on transport factors established by the Department document  
15 Nitrogen and Phosphorus Delivery from Small Watersheds to Jordan  
16 Lake, dated June 30, 2002.

17 f. Within six months following submission of a local government's  
18 Stage 2 adaptive management program to control nutrient loading  
19 from existing development, the Department shall recommend that the  
20 Commission approve or disapprove the program. The Commission  
21 shall approve the program if it meets the requirements of this  
22 subdivision, unless the Commission finds that the local government  
23 can, through the implementation of reasonable and cost-effective  
24 measures not included in the proposed program, meet the reductions  
25 in nutrient loading established by the Department pursuant to  
26 sub-subdivision b. of this subdivision by a date earlier than that  
27 proposed by the local government. If the Commission finds that there  
28 are additional or alternative reasonable and cost-effective measures,  
29 the Commission may require the local government to modify its  
30 proposed program to include such measures to achieve the required  
31 reductions by the earlier date. If the Commission requires such  
32 modifications, the local government shall submit a modified program  
33 within two months. The Department shall recommend that the  
34 Commission approve or disapprove the modified program within  
35 three months after receiving the local government's modified  
36 program. In determining whether additional or alternative load  
37 reduction measures are reasonable and cost effective, the  
38 Commission shall consider factors including, but not limited to, the  
39 increase in the per capita cost of a local government's stormwater  
40 management program that would be required to implement such  
41 measures and the cost per pound of nitrogen and phosphorus  
42 removed by such measures. The Commission shall not require  
43 additional or alternative measures that would require a local  
44 government to:

- 45 1. Install or require installation of a new stormwater collection  
46 system in an area of existing development unless the area is  
47 being redeveloped.
- 48 2. Acquire developed private property.
- 49 3. Reduce or require the reduction of impervious surfaces within  
50 an area of existing development unless the area is being  
51 redeveloped.

- 1 g. Within three months after the Commission's approval of a Stage 2  
2 adaptive management program to control nutrient loading from  
3 existing development, the local government shall complete adoption  
4 and begin implementation of its program.
- 5 h. Each local government implementing a Stage 2 adaptive  
6 management program to control nutrient loading from existing  
7 development shall submit an annual report to the Division  
8 summarizing its activities in implementing its program.
- 9 i. If at any time the Department finds, based on water quality  
10 monitoring, that an arm of the Jordan Reservoir has achieved  
11 compliance with water quality standards, the Department shall notify  
12 the local governments in the subwatershed. Subject to the approval of  
13 the Commission, a local government may modify its Stage 2 adaptive  
14 management program to control nutrient loading from existing  
15 development to maintain only those measures necessary to prevent  
16 increases in nutrient loading from existing development.

17 **SECTION 3.(e)** Model Stage 2 Adaptive Management Program to Control  
18 Nutrient Loading From Existing Development. – No later than December 31, 2014, the  
19 Department shall submit a model Stage 2 adaptive management program to control nutrient  
20 loading from existing development to the Commission for approval. The model program shall  
21 identify specific load reduction practices and programs and reduction credits associated with  
22 each practice or program. In developing the model program, the Department shall consider the  
23 findings and recommendations of the Scientific Advisory Board established pursuant to Section  
24 4(a) of this act and comments submitted by municipalities and counties identified in 15A  
25 NCAC 02B .0262(7) (Jordan Water Supply Nutrient Strategy: Purpose and Scope). The  
26 Commission shall review the model program and either approve the program or return it to the  
27 Department with requested changes. The Department shall revise the model program to address  
28 changes requested by the Commission. The Commission shall approve a final model program  
29 no later than December 31, 2015.

30 **SECTION 3.(f)** Additional Measures to Reduce Nitrogen Loading From Existing  
31 Development in the Upper New Hope Creek Arm of the Jordan Reservoir. –

- 32 (1) If the March 1, 2026, report or any subsequent monitoring report for the  
33 Upper New Hope Creek Arm of Jordan Reservoir shows that nutrient-related  
34 water quality standards are not being achieved, a municipality or county  
35 located in whole or in part in the Upper New Hope Creek Subwatershed  
36 shall modify its Stage 2 adaptive management program to control nutrient  
37 loading from existing development to achieve additional reductions in  
38 nitrogen loading from existing development. The modified Stage 2 adaptive  
39 management program shall be designed to achieve a total reduction in  
40 nitrogen loading from existing development of thirty-five percent (35%)  
41 relative to the baseline period 1997 through 2001. The Department shall  
42 notify local governments of the requirement to submit a modified Stage 2  
43 adaptive management program. Submission, review and approval, and  
44 implementation of a modified Stage 2 adaptive management program shall  
45 follow the process, timeline, and standards set out in sub-subdivisions e.  
46 through g. of subdivision (2) of Section 3(d) of this act.
- 47 (2) At the request of one or more local governments located in whole or in part  
48 in the Upper New Hope Creek Subwatershed, the Commission may initiate  
49 alternative regulatory actions authorized by State or federal law, including,  
50 but not limited to, the granting of a variance and the establishment of

1 alternative water quality standards for the Upper New Hope Creek Arm of  
2 Jordan Reservoir.

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

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

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

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

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

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

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

- 40 (1) Identify management strategies that can be used by local governments to  
41 reduce nutrient loading from existing development.
- 42 (2) Evaluate the feasibility, costs, and benefits of implementing the identified  
43 management strategies.
- 44 (3) Develop an accounting system for assignment of nutrient reduction credits  
45 for the identified management strategies.
- 46 (4) Identify the need for any improvements or refinements to modeling and  
47 other analytical tools used to evaluate water quality in nutrient-impaired  
48 waters and nutrient management strategies.

49 **SECTION 4.(c)** Report; Miscellaneous Provisions. – The Scientific Advisory  
50 Board shall also advise the Secretary on any other issue related to management and restoration  
51 of nutrient-impaired water bodies. The Scientific Advisory Board shall submit an annual report

1 to the Secretary no later than July 1 of each year concerning its activities, findings, and  
2 recommendations. Members of the Scientific Advisory Board shall be reimbursed for  
3 reasonable travel expenses to attend meetings convened by the Department for the purposes set  
4 out in this section.

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

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

12 (1) Except as specifically provided in Sections 2(c) and 3(j) of this act, nothing  
13 in this act shall be construed to limit, expand, or otherwise alter the authority  
14 of the Commission or any unit of local government.

15 (2) This act shall not be construed to affect any delegation of any power or duty  
16 by the Commission to the Department or subunit of the Department.

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

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