APA-1
11/96

TRANSMITTAL SHEET FOR NOTICE OF INTENDED ACTION

Control 335 Department or Agency **Environmental Management**
Rule No. **335-6-10-.11**
Rule Title: **Water Quality Criteria Applicable to Specific Lakes**
X New ____ Amend ____ Repeal ____ Adopt by Reference

Would the absence of the proposed rule significantly harm or endanger the public health, welfare, or safety?	**YES**
Is there a reasonable relationship between the state's police power and the protection of the public health, safety, or welfare?	**YES**
Is there another, less restrictive method of regulation available that could adequately protect the public?	**NO**
Does the proposed rule have the effect of directly or indirectly increasing the costs of any goods or services involved and, if so, to what degree?	**NO**
Is the increase in cost, if any, more harmful to the public than the harm that might result from the absence of the proposed rule?	**NO**
Are all facts of the rulemaking process designed solely for the purpose of, and so they have, as their primary effect, the protection of the public?	**YES**

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Does the proposed rule have an economic impact?	**NO**

If the proposed rule has an economic impact, the proposed rule is required to be accompanied by a fiscal note prepared in accordance with subsection (f) of Section 41-22-23, Code of Alabama 1975.

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Certification of Authorized Official

I certify that the attached proposed rule has been proposed in full compliance with the requirements of Chapter 22, Title 41, Code of Alabama 1975, and that it conforms to all applicable filing requirements of the Administrative Procedure Division of the Legislative Reference Service.

Signature of certifying officer Mindy Elliott

Date **October 21, 2013**

Date Filed Stamp here

APA-2
11/96

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION

NOTICE OF INTENDED ACTION

AGENCY NAME: Alabama Department of Environmental Management

RULE NO. & TITLE: 335-6-10-.11 Water Quality Criteria Applicable to Specific Lakes (New)

INTENDED ACTION: The Alabama Department of Environmental Management proposes to amend rule 335-6-10-.11.

SUBSTANCE OF PROPOSED ACTION:
The Department proposes to amend rule 335-6-10-.11(2)(g) and 335-6-10-.11(2)(i) to add numeric nutrient criteria in the form of growing season mean chlorophyll a criteria to Lake Frank Jackson in the Perdido/Escambia River Basin and Bear Creek and Upper Bear Creek in the Tennessee River Basin, respectively. The proposed additions are consistent with the Clean Water Act and EPA's National Nutrient Strategy. Chlorophyll a criteria serve as the primary tool used by the Department to protect the designated uses of lakes and reservoirs from nutrient over-enrichment.

TIME, PLACE, MANNER OF PRESENTING VIEWS:

Comments may be submitted in writing or orally at a public hearing to be held at 1:00 P.M., December 18, 2013, in the ADEM Main Hearing Room, 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

FINAL DATE FOR COMMENT AND COMPLETION OF NOTICE: December 18, 2013

CONTACT PERSON AT AGENCY: Lynn Sisk (334) 271-7826

Marilyn Elliott

Lance R. LeFleur
Director

335-6-10-.11 Water Quality Criteria Applicable to Specific Lakes.

(1) For certain lakes and reservoirs, waterbody-specific criteria are appropriate to enhance nutrient management. The response to nutrient input may vary significantly lake-to-lake, and for a given lake year-to-year, depending on a number of factors such as rainfall distribution and hydraulic retention time. For this reason, lake nutrient quality targets necessary to maintain and protect existing uses, expressed as chlorophyll *a* criteria, may also vary lake-to-lake. Because the relationship between nutrient input and lake chlorophyll *a* levels is not always well-understood, it may be necessary to revise the criteria as additional water quality data and improved assessment tools become available.

(2) The following lake-specific criteria apply to the waters listed below, in addition to any other applicable criteria commensurate with the designated usage of such waters.

(a) **The Alabama River Basin**

1. Claiborne Lake: those waters impounded by Claiborne Lock and Dam on the Alabama River. The lake has a surface area of 5,930 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 15 µg/l, as measured at the deepest point, main river channel, dam forebay.

2. Dannelly Lake: those waters impounded by Millers Ferry Lock and Dam on the Alabama River. The lake has a surface area of 17,200 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 17 µg/l, as measured at the deepest point, main river channel, dam forebay.

(b) **The Cahaba River Basin**

1. Lake Purdy: those waters impounded by Lake Purdy Dam at the headwaters of the Cahaba River. The lake has a surface area of 1,050 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 16 µg/l, as measured at the deepest point, main river channel, dam forebay; or 18 µg/l, as measured at the deepest point, main river channel, immediately upstream of the Irondale Bridge.

(c) **The Chattahoochee River Basin**

1. Walter F. George Lake: those waters impounded by Walter F. George Lock and Dam on the Chattahoochee River. The lake has a surface area of 45,181 acres at full power pool, 18,672 acres of which are within Alabama. The Alabama-Georgia state line is represented by the west bank of the original river channel, and the points of measurement for the criteria given below are located in Georgia waters.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 15 µg/l, as measured at the deepest point, main river channel, dam forebay; or 18 µg/l, as measured at the deepest point, main river channel, approximately 0.25 miles upstream of U.S. Highway 82.

2. Lake Harding: those waters impounded by Bartletts Ferry Dam on the Chattahoochee River. The lake has a surface area of 5850 acres at full pool, 2,176 acres of which are within Alabama. The point of measurement for the criterion given below is located in Georgia waters.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 15 µg/l, as measured at the deepest point, main river channel, dam forebay.

3. West Point Lake: those waters impounded by West Point Dam on the Chattahoochee River. The lake has a surface area of 25,864 acres at full power pool, 2,765 acres of which are within Alabama. The point of measurement for the criterion given below is located in Georgia waters.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 27 µg/l, as measured at the LaGrange, Georgia Water Intake.

(d) **The Coosa River Basin**

1. Weiss Lake: those waters impounded by Weiss Dam on the Coosa River. The lake has a surface area of 30,200 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 20 µg/l, as measured at the deepest point, main river channel, power dam forebay; or 20 µg/l, as measured at the deepest point, main river channel, immediately upstream of causeway (Alabama Highway 9) at Cedar Bluff. If the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October is significantly less than 20 µg/l for a given year, the Department will re-evaluate the chlorophyll *a* criteria, associated nutrient management strategies, and available data and information, and recommend changes, if appropriate, to maintain and protect existing uses.

2. Neely Henry Lake: those waters impounded by Neely Henry Dam on the Coosa River. The lake has a surface area of 11,235 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 18 µg/l, as measured at the deepest point, main river channel, dam forebay; or 18 µg/l, as measured at the deepest point, main river channel, immediately upstream of Alabama Highway 77 bridge.

3. Logan Martin Lake: those waters impounded by Logan Martin Dam on the Coosa River. The lake has a surface area of 15,263 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 17 µg/l, as measured at the deepest point, main river channel, dam forebay; or 17 µg/l, as measured at the deepest point, main river channel, approximately 1.5 miles downstream of Alabama Highway 34 bridge.

4. Lay Lake: those waters impounded by Lay Dam on the Coosa River. The lake has a surface area of 12,000 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 17 µg/l, as measured at the deepest point, main river channel, dam forebay; or 17 µg/l, as measured at the deepest point, main river channel, immediately downstream of Peckerwood Creek/Coosa River confluence.

5. Mitchell Lake: those waters impounded by Mitchell Dam on the Coosa River. The lake has a surface area of 5,850 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 14 µg/l, as measured at the deepest point, main river channel, dam forebay; or 16 µg/l, as measured at the deepest point, main river channel, downstream of Foshee Islands.

6. Jordan Lake: those waters impounded by Jordan Dam on the Coosa River. The lake has a surface area of 6,800 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 14 µg/l, as measured at the deepest point, main river channel, dam forebay.

(e) **The Escatawpa River Basin**

1. Big Creek Lake (J.B. Converse Lake): those waters impounded on Big Creek. The lake is a tributary-storage reservoir and has a surface area of 3,600 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 11 µg/l, as measured at the deepest point, main river channel, dam forebay.

(f) **The Lower Tombigbee River Basin**

1. Coffeeville Lake: those waters impounded by Coffeeville Dam on the Tombigbee River. The lake has a surface area of 8,500 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 10 µg/l, as measured at the deepest point, main river channel, upstream of the lock canal.

(g) **The Perdido/Escambia River Basin**

1. Lake Jackson: This natural lake, located in Florala, Alabama, has a surface area of 256 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 7 µg/l, as measured at mid-lake.

2. Point A Lake: those waters impounded by Point A Dam on the Conecuh River. The lake has a surface area of 900 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 9 µg/l, as measured at the deepest point, main river channel, dam forebay.

3. Gantt Lake: those waters impounded by Gantt Dam on the Conecuh River. The lake has a surface area of 2,767 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 11 µg/l, as measured at the deepest point, main river channel, dam forebay.

4. Lake Frank Jackson: those waters impounded on Lightwood Knot Creek. The lake has a surface area of 1,000 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone

composite chlorophyll *a* samples collected monthly April through October shall not exceed 12 µg/l, as measured at the deepest point, main creek channel, dam forebay.

(h) **The Tallapoosa River Basin**

1. Thurlow Lake: those waters impounded by Thurlow Dam on the Tallapoosa River. The reservoir has a surface area of 574 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 5 µg/l, as measured at the deepest point, main river channel, dam forebay.

2. Yates Lake: those waters impounded by Yates Dam on the Tallapoosa River. The lake has a surface area of 2,000 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 5 µg/l, as measured at the deepest point, main river channel, dam forebay.

3. Lake Martin: those waters impounded by Martin Dam on the Tallapoosa River. The lake has a surface area of 40,000 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 5 µg/l, as measured at the deepest point, main river channel, dam forebay; or 5 µg/l, as measured at the deepest point main river channel, immediately upstream of Blue Creek embayment; or 5 µg/l as measured at the deepest point, main creek channel, immediately upstream of Alabama Highway 63 (Kowaliga) bridge.

4. R.L. Harris Lake: those waters impounded by R.L. Harris Dam on the Tallapoosa River. The lake has a surface area of 10,660 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 10 µg/l, as measured at the deepest point, main river channel, dam forebay; or 12 µg/l, as measured at the deepest point, main river channel, immediately upstream of the Tallapoosa River - Little Tallapoosa River confluence.

(i) **The Tennessee River Basin**

1. Pickwick Lake: those waters impounded by Pickwick Dam on the Tennessee River. The reservoir has a surface area of 43,100 acres at full pool, 33,700 acres of which are within Alabama. The point of measurement for the criterion given below is located in Tennessee waters.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone

composite chlorophyll *a* samples collected monthly April through September shall not exceed 18 µg/l, as measured at the deepest point, main river channel, dam forebay.

2. Wilson Lake: those waters impounded by Wilson Dam on the Tennessee River. The lake has a surface area of 15,930 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through September shall not exceed 18 µg/l, as measured at the deepest point, main river channel, dam forebay.

3. Wheeler Lake: those waters impounded by Wheeler Dam on the Tennessee River. The lake has a surface area of 67,100 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through September shall not exceed 18 µg/l, as measured at the deepest point, main river channel, dam forebay.

4. Guntersville Lake: those waters impounded by Guntersville Dam on the Tennessee River. The lake has a surface area of 69,700 acres at full pool, 67,900 of which are within Alabama.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through September shall not exceed 18 µg/l, as measured at the deepest point, main river channel, dam forebay.

5. Cedar Creek Lake: those waters impounded by Cedar Creek Dam on Cedar Creek. The reservoir has a surface area of 4,200 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 8 µg/l, as measured at the deepest point, main creek channel, dam forebay.

6. Little Bear Creek Lake: those waters impounded by Little Bear Dam on Little Bear Creek. The reservoir has a surface area of 1,600 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 8 µg/l, as measured at the deepest point, main creek channel, dam forebay.

7. Bear Creek Lake: those waters impounded by Bear Creek Dam on Bear Creek. The reservoir has a surface area of 670 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 16 µg/l, as measured at the deepest point, main creek channel, dam forebay.

6. Upper Bear Creek Lake: those waters impounded by Upper Bear Creek Dam on Upper Bear Creek. The reservoir has a surface area of 1,850 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 16 µg/l, as measured at the deepest point, main creek channel, dam forebay.

(j) **The Upper Tombigbee River Basin**

1. Demopolis Lake: those waters impounded by Demopolis Dam downstream of the confluence of the Tombigbee and the Black Warrior Rivers. The lake has a surface area of 10,000 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 10 µg/l, as measured at the deepest point, main river channel, dam forebay.

2. Gainesville Lake: those waters impounded by Gainesville Dam on the Tombigbee River. The lake has a surface area of 6,400 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 14 µg/l, as measured at the deepest point, main river channel, dam forebay.

3. Aliceville Lake: those waters impounded by Tom Bevill Dam on the Tombigbee River. The lake has a surface area of 8,300 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 18 µg/l, as measured at the deepest point, main river channel, dam forebay.

(k) **The Warrior River Basin**

1. Warrior Lake: those waters impounded by Warrior Lock and Dam on the Black Warrior River. The lake has a surface area of 7,800 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 12 µg/l, as measured at the deepest point, main river channel, dam forebay.

2. Oliver Lake: those waters impounded by William Bacon Oliver Lock and Dam on the Black Warrior River. The lake has a surface area of 800 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 12 µg/l, as measured at the deepest point, main river channel, dam forebay.

3. Holt Lake: those waters impounded by Holt Lock and Dam on the Black Warrior River. The lake has a surface area of 3,200 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 16 µg/l, as measured at the deepest point, main river channel, dam forebay.

4. Lake Tuscaloosa: those waters impounded by Lake Tuscaloosa Dam on the North River. The lake has a surface area of 5,885 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 8 µg/l, as measured at the deepest point, main river channel, dam forebay.

5. Bankhead Lake: those waters impounded by John Hollis Bankhead Lock and Dam on the Black Warrior River. The lake has a surface area of 9,200 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 16 µg/l, as measured at the deepest point, main river channel, dam forebay.

6. Smith Lake: those waters impounded by Lewis M. Smith Dam on the Sipsey Fork River. The lake has a surface area of 21,200 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 5 µg/l, as measured at the deepest point, main river channel, dam forebay; 5 µg/l, as measured at the deepest point, main river channel, at Duncan Creek/Sipsey River confluence (downstream of the Alabama Highway 257 bridge); and 5 µg/l, as measured at the deepest point, main river channel, immediately downstream of Brushy Creek confluence.

7. Inland Lake: those waters impounded by Inland Lake Dam on the Blackburn Fork of the Little Warrior River. The lake has a surface area of 1,095 acres at full pool.

(i) Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 6 µg/l, as measured at the deepest point, main river channel, dam forebay.

Author: James E. McIndoe.
Statutory Authority: Code of Alabama 1975, §§ 22-22-9, 22-22A-5, 22-22A-6, 22-22A-8.
History: January 12, 2001. **Amended:** May 16, 2002; May 27, 2004; September 21, 2005; January 18, 2011; XXXXXX 2014.