

PROPOSED AMENDMENTS TO THE RULES
OF THE DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
RELATING TO WATER QUALITY CONTROL, CHAPTER 391-3-6

The Rules of the Department of the Natural Resources, Chapter 391-3-6, Water Quality Control are hereby amended and revised for specific Rules, or such subdivisions thereof as may be indicated.

[Note: Underlined text is proposed to be added. ~~Lined-through~~ text is proposed to be deleted.]

CHAPTER 391-3-6 WATER QUALITY CONTROL

391-3-6-.03 Water Use Classifications and Water Quality Standards

- (1) **Purpose.** The establishment of water quality standards.
- (2) **Water Quality Enhancement:**
 - (a) The purposes and intent of the State in establishing Water Quality Standards are to provide enhancement of water quality and prevention of pollution; to protect the public health or welfare in accordance with the public interest for drinking water supplies, conservation of fish, wildlife and other beneficial aquatic life, and agricultural, industrial, recreational, and other reasonable and necessary uses and to maintain and improve the biological integrity of the waters of the State.
 - (b) The following paragraphs describe the three tiers of the State's waters.
 - (i) Tier 1 - Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.
 - (ii) Tier 2 - Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the division finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the division's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the division shall assure water quality adequate to protect existing uses fully. Further, the division shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.
 1. The division may identify waters for Tier 2 protections on a parameter-by-parameter basis or on a water body-by-water body basis in accordance with 40 CFR 131.12(a)(2)(i).

standard, must be reviewed every three years, and do not allow for a reduction in treatment efforts. Before a variance to a water quality standard is applied to a permitted discharger or to a waterbody, it must be demonstrated that one of the following factors has been satisfied:

- (i) Naturally occurring pollutant concentrations prevent the attainment of the use; or
- (ii) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating Georgia's water conservation requirements to enable uses to be met; or
- (iii) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place, or
- (iv) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use; or
- (v) Physical conditions related to the natural features of the water body such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses; or
- (vi) Controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act would result in substantial and widespread economic and social impact.
- (f) Removal of a Designated Use. The State may remove a designated use which is not an existing use, as defined in 40 CFR 131.3, or establish sub-categories of a use if the State can demonstrate that attaining the designated use is not feasible. This is done through a use attainability analysis. The use attainability analysis is a scientific assessment of factors affecting the attainment of a use and may include physical, chemical, biological and/or economic factors. A detailed analysis is required demonstrating that certain conditions are met indicating that the designated use cannot be met and should be removed. The use attainability analysis should be conducted in accordance with the US EPA Technical Support Manual: *Waterbody Surveys and Assessments for Conducting Use Attainability Analyses* and /or any State guidance documents. The factors that can be used are as follows:
 - (i) Naturally occurring pollutant concentrations prevent the attainment of the use; or
 - (ii) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating Georgia's water conservation requirements to enable uses to be met; or

multi-parametric probe connected by hard line to a deck display or by measuring electrical conductivity according to one of the methods specified in Title 40, Code of Federal Regulations, Part 136 and applying the guidance for conversion to salinity in the same volume. Collection of salinity samples must consider riverflow, precipitation, tidal influences and other variables of the estuarine environment and must conform to the National Coastal Assessment-Quality Assurance Project Plan 2001-2004 (EPA/620/R-01/002). Measurements at each sampling location must be made in a distribution in the water column according to the Quality Assurance Project Plan, with the minimum observations at each station including surface, mid-depth and near-bottom readings. In situ salinity analysis must comply with the Quality Assurance Project Plan and the manufacturer's guidance for the specific instrument used).

- (ef) "Existing instream water uses" include water uses actually attained in the waterbody on or after November 28, 1975.
- (fg) "Intake temperature" is the natural or background temperature of a particular waterbody unaffected by any man-made discharge or thermal input.
- (gh) "Critical conditions" are the collection of conditions for a particular waterbody used to develop Total Maximum Daily Loads (TMDLs), determine NPDES permit limits, or assess the protection of water quality standards. The Division considers appropriate critical conditions to represent the event that would occur once in ten years on the average or less often, unless otherwise stated.
- (hi) "Natural conditions" are the collection of conditions for a particular waterbody used to develop numeric criteria for water quality standards which are based on natural conditions. This is commonly the case for temperature, pH, and natural dissolved oxygen standards. For this purpose the Division defines "natural conditions" as those that would remain after removal of all point sources and water intakes, would remain after removal of man made or induced nonpoint sources of pollution, but may include irretrievable effects of man's activities, unless otherwise stated. Natural conditions shall be developed by an examination of historic data, comparisons to reference watersheds, application of mathematical models, or any other procedure deemed appropriate by the Director.
- (ij) "Naturally variable parameters." It is recognized that certain parameters including dissolved oxygen, pH, bacteria, turbidity and water temperature, vary through a given period of time (such as daily or seasonally) due to natural conditions. Assessment of State waters may allow for a 10% excursion frequency for these parameters.
- (k) "Practicable alternatives" are alternatives that are technologically possible, able to be put into practice, and economically viable.
- (jl) "Reasonable and necessary uses" means drinking water supplies, conservation, protection, and propagation of fish, shellfish, wildlife and other beneficial aquatic life, agricultural, industrial, recreational, and other legitimate uses.
- (km) "Secondary contact recreation" is incidental contact with the water, wading, and occasional swimming.
- (ln) "Shellfish" refers to clams, oysters, scallops, mussels, and other bivalve mollusks.

- (e) Scenic River
- (f) Coastal Fishing

PLEASE NOTE: Paragraphs 391-3-6-.03(5)(b)&(c) incorporate amendments that were adopted by the Board of Natural Resources on March 27, 2018, filed with the Secretary of State on April 3, 2018, and will become effective on April 23, 2018.

(5) General Criteria for All Waters. The following criteria are deemed to be necessary and applicable to all waters of the State:

- (a) All waters shall be free from materials associated with municipal or domestic sewage, industrial waste or any other waste which will settle to form sludge deposits that become putrescent, unsightly or otherwise objectionable.
- (b) All waters shall be free from oil, scum and floating debris associated with municipal or domestic sewage, industrial waste or other discharges in amounts sufficient to be unsightly or to unreasonably interfere with the designated use of the water body.
- (c) All waters shall be free from material related to municipal, industrial or other discharges which produce turbidity, color, odor or other objectionable conditions which unreasonably interfere with the designated use of the water body.
- (d) Turbidity. The following standard is in addition to the narrative turbidity standard in Paragraph 391-3-6-.03(5)(c) above: All waters shall be free from turbidity which results in a substantial visual contrast in a water body due to a man-made activity. The upstream appearance of a body of water shall be as observed at a point immediately upstream of a turbidity-causing man-made activity. That upstream appearance shall be compared to a point which is located sufficiently downstream from the activity so as to provide an appropriate mixing zone. For land disturbing activities, proper design, installation, and maintenance of best management practices and compliance with issued permits shall constitute compliance with Paragraph 391-3-6-.03(5)(d).
- (e) All waters shall be free from toxic, corrosive, acidic and caustic substances discharged from municipalities, industries or other sources, such as nonpoint sources, in amounts, concentrations or combinations which are harmful to humans, animals or aquatic life.
- (i) Instream concentrations of the following chemical constituents which are considered to be other toxic pollutants of concern in the State of Georgia shall not exceed the criteria indicated below under 7-day, 10-year minimum flow (7Q10) or higher stream flow conditions except within established mixing zones:

1. 2,4-Dichlorophenoxyacetic acid (2,4-D)	70 µg/L
2. Methoxychlor	0.03 µg/L*
3. 2,4,5-Trichlorophenoxy propionic acid (TP Silvex)	50 µg/L
- (ii) Instream concentrations of the following chemical constituents listed by the U.S. Environmental Protection Agency as toxic priority pollutants pursuant to Section 307(a)(1) of the Federal Clean Water Act (as amended) shall not exceed the acute criteria indicated below under 1-day, 10-year minimum flow (1Q10) or higher stream flow conditions and shall not exceed the chronic criteria indicated below under 7-day, 10-year minimum flow (7Q10) or higher stream flow conditions except within established mixing zones or in accordance with site specific effluent limitations developed in accordance with procedures presented in 391-3-6-.06. Unless otherwise specified, the criteria below

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|-----|---|------------------------|------------------------|
| 11. | Zinc | | |
| | (a) Freshwater | 65 µg/L ^{1,3} | 65 µg/L ^{1,3} |
| | (b) Coastal and Marine Estuarine Waters | 90 µg/L ¹ | 81 µg/L ¹ |
| 12. | Lindane [Hexachlorocyclohexane (g-BHC-Gamma)] | | |
| | (a) Freshwater | 0.95 µg/L | |

¹ The in-stream criterion is expressed in terms of the dissolved fraction in the water column. Conversion factors used to calculate dissolved criteria are found in the EPA document – National Recommended Water Quality Criteria – EPA 2006.

² The in-stream criterion is lower than the EPD laboratory detection limits (A “*” indicates that the criterion may be higher than or lower than EPD laboratory detection limits depending upon the hardness of the water).

³ The freshwater aquatic life criteria for these metals are expressed as a function of total hardness (mg/L) in a water body. Values in the table above assume a hardness of 50 mg/L CaCO₃. For other hardness values, the following equations from the EPA document – National Recommended Water Quality Criteria – EPA 2006 should be used.

⁴ This pollutant is addressed in 391-3-6-.06.

Cadmium

$$\text{acute criteria} = (e^{(1.01660.9789[\ln(\text{hardness})] - 3.9243.866)}) (1.136672 - [(\ln \text{hardness})(0.041838)]) \mu\text{g/L}$$

$$\text{chronic criteria} = (e^{(-0.74090.7977[\ln(\text{hardness})] - 4.7193.909)}) (1.101672 - [(\ln \text{hardness})(0.041838)]) \mu\text{g/L}$$

Chromium III

$$\text{acute criteria} = (e^{(0.8190[\ln(\text{hardness})] + 3.7256)}) (0.316) \mu\text{g/L}$$

$$\text{chronic criteria} = (e^{(0.8190[\ln(\text{hardness})] + 0.6848)}) (0.860) \mu\text{g/L}$$

Copper

$$\text{acute criteria} = (e^{(0.9422[\ln(\text{hardness})] - 1.700)}) (0.96) \mu\text{g/L}$$

$$\text{chronic criteria} = (e^{(0.8545[\ln(\text{hardness})] - 1.702)}) (0.96) \mu\text{g/L}$$

Site-specific Copper criteria developed using the biotic ligand model (BLM):

Buffalo Creek (Richards Lake Dam to confluence with Little Tallapoosa River):

$$\text{Acute criteria} = 4.9 \times 10^8 e^{\left(-0.5 \left(\left(\frac{(\ln(pH) - 2.316)}{-0.1816} \right)^2 + \left(\frac{(\ln(DOC) - 32.18)}{-5.453} \right)^2 \right) \right)}$$

(a) Freshwater	0.036 µg/L*
(b) Coastal and Marine -Estuarine Waters	0.0023 µg/L*
8. Heptachlor (CAS RN ¹ 76448)	
(a) Freshwater	0.0038 µg/L*
(b) Coastal and Marine -Estuarine Waters	0.0036 µg/L*
9. Heptachlor Epoxide (CAS RN ¹ 1024573)	
(a) Freshwater	0.0038 µg/L*
(b) Coastal and Marine -Estuarine Waters	0.0036 µg/L*
10. Pentachlorophenol (CAS RN ¹ 87865)	
(a) Freshwater ²	15 µg/L ^{2,*}
(b) Coastal and Marine -Estuarine Waters	7.9 µg/L*
11. PCBs	
(a) Freshwater	0.014 µg/L*
(b) Coastal and Marine -Estuarine Waters	0.03 µg/L*
12. Phenol (CAS RN ¹ 108952)	300 µg/L
13. Toxaphene (CAS RN ¹ 8001352)	0.0002 µg/L*

¹"CAS RN" or the Chemical Abstract Service (CAS) Registry Number is a unique numerical identifier assigned to each chemical and some chemical mixtures.

²The instream freshwater criterion for pentachlorophenol is a function of pH, determined by the formula ($e^{(1.005(\text{pH}) - 5.134)}$). At a pH equal to 7.8 standard units the criterion is 15 µg/L.

*The in-stream criterion is lower than the EPD laboratory detection limits.

(iv) Instream concentrations of the following chemical constituents listed by the U. S. Environmental Protection Agency as toxic priority pollutants pursuant to Section 307(a)(1) of the Federal Clean Water Act (as amended) shall not exceed criteria indicated below under annual average or higher stream flow conditions:

1. Acenaphthene (CAS RN ¹ 83329)	990 µg/L
2. Acenaphthylene (CAS RN ¹ 208968)	**
3. Acrolein (CAS RN ¹ 107028)	9.3 µg/L
4. Acrylonitrile (CAS RN ¹ 107131)	0.25 µg/L
5. Aldrin (CAS RN ¹ 309002)	0.000050 µg/L
6. Anthracene (CAS RN ¹ 120127)	40000 µg/L
7. Antimony	640 µg/L
8. Arsenic (Total)	
(a) Drinking Water Supplies	10 µg/L
(b) All Other Classifications	50 µg/L
9. Benzidine (CAS RN ¹ 92875)	0.0002 µg/L
10. Benzo(a)Anthracene (CAS RN ¹ 56553)	0.018 µg/L
11. Benzo(a)Pyrene (CAS RN ¹ 50328)	0.018 µg/L
12. 3,4-Benzofluoranthene (CAS RN ¹ 205992)	0.018 µg/L
13. Benzene (CAS RN ¹ 71432)	51 µg/L

58. beta – Endosulfan (CAS RN ¹ 33213659)	89 µg/L
59. Endosulfan Sulfate (CAS RN ¹ 1031078)	89 µg/L
60. Ethylbenzene (CAS RN ¹ 100414)	2100 µg/L
61. Fluoranthene (CAS RN ¹ 206440)	140 µg/L
62. Fluorene (CAS RN ¹ 86737)	5300 µg/L
63. Heptachlor (CAS RN ¹ 76448)	0.000079 µg/L
64. Heptachlor Epoxide (CAS RN ¹ 1024573)	0.000039 µg/L
65. Hexachlorobenzene (CAS RN ¹ 118741)	0.00029 µg/L
66. Hexachlorobutadiene (CAS RN ¹ 87683)	18 µg/L
67. Hexachlorocyclopentadiene (CAS RN ¹ 77474)	1100 µg/L
68. Hexachloroethane (CAS RN ¹ 67721)	3.3 µg/L
69. Indeno(1,2,3-cd)Pyrene (CAS RN ¹ 193395)	0.018 µg/L
70. Isophorone (CAS RN ¹ 78591)	960 µg/L
71. Lindane [Hexachlorocyclohexane (g-BHC-Gamma)] (CAS RN ¹ 58899)	1.8 µg/L
72. Methyl Bromide (Bromomethane) (CAS RN ¹ 74839)	1500 µg/L
73. Methyl Chloride (Chloromethane) (CAS RN ¹ 74873)	**
74. Methylene Chloride (CAS RN ¹ 75092)	590 µg/L
75. 2-Methyl-4,6-Dinitrophenol (CAS RN ¹ 534521)	280 µg/L
76. 3-Methyl-4-Chlorophenol (CAS RN ¹ 59507)	**
77. Nitrobenzene (CAS RN ¹ 98953)	690 µg/L
78. N-Nitrosodimethylamine (CAS RN ¹ 62759)	3.0 µg/L
79. N-Nitrosodi-n-Propylamine (CAS RN ¹ 621647)	0.51 µg/L
80. N-Nitrosodiphenylamine (CAS RN ¹ 86306)	6.0 µg/L
81. PCBs	0.000064 µg/L
82. Pentachlorophenol (CAS RN ¹ 87865)	3.0 µg/L
83. Phenanthrene (CAS RN ¹ 85018)	**
84. Phenol (CAS RN ¹ 108952)	857000 µg/L
85. Pyrene (CAS RN ¹ 129000)	4000 µg/L
86. 1,1,2,2-Tetrachloroethane (CAS RN ¹ 79345)	4.0 µg/L
87. Tetrachloroethylene (CAS RN ¹ 127184)	3.3 µg/L
88. Thallium	0.47 µg/L
89. Toluene (CAS RN ¹ 108883)	5980 µg/L
90. Toxaphene (CAS RN ¹ 8001352)	0.00028 µg/L
91. 1,2-Trans-Dichloroethylene (CAS RN ¹ 156605)	10000 µg/L
92. 1,1,2-Trichloroethane (CAS RN ¹ 79005)	16 µg/L
93. Trichloroethylene (CAS RN ¹ 79016)	30 µg/L
94. 2,4,6-Trichlorophenol (CAS RN ¹ 88062)	2.4 µg/L
95. 1,2,4-Trichlorobenzene (CAS RN ¹ 120821)	70 µg/L
96. Vinyl Chloride (CAS RN ¹ 75014)	2.4 µg/L

1. For the months of May through October, when water contact recreation activities are expected to occur, fecal coliform not to exceed a geometric mean of 200 counts per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. Should water quality and sanitary studies show fecal coliform levels from non-human sources exceed 200 counts per 100 mL (geometric mean) occasionally, then the allowable geometric mean fecal coliform shall not exceed 300 counts per 100 mL in lakes and reservoirs and 500 counts per 100 mL in free flowing freshwater streams. For the months of November through April, fecal coliform not to exceed a geometric mean of 1,000 counts per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours and not to exceed a maximum of 4,000 counts per 100 mL for any sample.
2. For the months of May through October, when water contact recreation activities are expected to occur, culturable E. coli not to exceed a geometric mean of 126 counts per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 410 counts per 100 mL in the same 30-day interval. Should water quality and sanitary studies show E. coli levels from non-human sources exceed 126 counts per 100 mL (geometric mean) occasionally, then the allowable geometric mean E. coli shall not exceed 189 counts per 100 mL in lakes and reservoirs and 315 counts per 100 mL in free flowing freshwater streams. For the months of November through April, culturable E. coli not to exceed a geometric mean of 630 counts per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 2050 counts per 100 mL in the same 30-day interval.
3. The State does not encourage swimming in these surface waters since a number of factors which are beyond the control of any State regulatory agency contribute to elevated levels of bacteria.
 - (ii) Dissolved oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for waters designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for water supporting warm water species of fish.
 - (iii) pH: Within the range of 6.0 - 8.5.
 - (iv) No material or substance in such concentration that, after treatment by the public water treatment system, exceeds the maximum contaminant level established for that substance by the Environmental Protection Division pursuant to the Georgia Rules for Safe Drinking Water.
 - (v) Temperature: Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In streams designated as primary trout or smallmouth bass waters by the Wildlife Resources Division, there shall be no elevation of natural

- (iii) Bacteria: The provisions of paragraph 391-3-6-.03(6)(c)(iii)1. shall apply until the effective date of EPA's final approval of the criteria specified in paragraphs 391-3-6-.03(6)(c)(iii)2. and 391-3-6-.03(6)(c)(iii)3.
1. For the months of May through October, when water contact recreation activities are expected to occur, fecal coliform not to exceed a geometric mean of 200 counts per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. Should water quality and sanitary studies show fecal coliform levels from non-human sources exceed 200 counts per 100 mL (geometric mean) occasionally, then the allowable geometric mean fecal coliform shall not exceed 300 counts per 100 mL in lakes and reservoirs and 500 counts per 100 mL in free flowing freshwater streams. For the months of November through April, fecal coliform not to exceed a geometric mean of 1,000 counts per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours and not to exceed a maximum of 4,000 counts per 100 mL for any sample.
 2. Estuarine waters: For the months of May through October, when water contact recreation activities are expected to occur, culturable enterococci not to exceed a geometric mean of 35 counts per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an enterococci statistical threshold value (STV) of 130 counts per 100 mL the same 30-day interval. Should water quality and sanitary studies show enterococci levels from non-human sources exceed 35 counts per 100 mL (geometric mean) occasionally, then the allowable geometric mean enterococci shall not exceed 53 counts per 100 mL in lakes and reservoirs and 88 counts per 100 mL in free flowing freshwater streams. For the months of November through April, culturable enterococci not to exceed a geometric mean of 175 counts per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an enterococci statistical threshold value (STV) of 650 counts per 100 mL the same 30-day interval.
 3. All other fishing waters: For the months of May through October, when water contact recreation activities are expected to occur, culturable E. coli not to exceed a geometric mean of 126 counts per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 410 counts per 100 mL in the same 30-day interval. Should water quality and sanitary studies show E coli levels from non-human sources exceed 126 counts per 100 mL (geometric mean) occasionally, then the allowable geometric mean E. coli shall not exceed 189 counts per 100 mL in lakes and reservoirs and 315 counts per 100 mL in free flowing freshwater streams. For the months of November through April, culturable E. coli not to exceed a geometric mean of 630 counts per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 2050 counts per 100 mL in the same 30-day interval.

- (9) **Streamflows.** Specific criteria or standards set for the various parameters apply to all flows on regulated streams. On unregulated streams, they shall apply to all streamflows equal to or exceeding the 7-day, 10-year minimum flow (7Q10) and/or the 1-day, 10-year minimum flow (1Q10). All references to 7-day, 10-year minimum flow (7Q10) and 1-day, 10-year minimum flow (1Q10) also apply to all flows on regulated streams. All references to annual average stream flow also apply to long-term average stream flow conditions. Numeric criteria exceedences that occur under streamflows lower than 7Q10 or 1Q10, whichever applies, do not constitute violations of water quality standards as long as all current permit conditions are met.
- (10) **Mixing Zone.** Effluents released to streams or impounded waters shall be fully and homogeneously dispersed and mixed insofar as practical with the main flow or water body by appropriate methods at the discharge point. Use of a reasonable and limited mixing zone may be permitted on receipt of satisfactory evidence that such a zone is necessary and that it will not create an objectionable or damaging pollution condition. Protection from acute toxicity shall be provided within any EPD designated mixing zone to ensure a zone of safe passage for aquatic organisms. The procedure is as described in paragraph 391-3-6-.06(4)(d)(5)(vi), except that the numerical pass/fail criteria applies to the end-of-pipe without the benefit of dilution provided by the receiving stream.
- (11) **Toxic Pollutant Monitoring.** The Division will monitor waters of the State for the presence or impact of Section 307 (a)(1) Federal Clean Water Act toxic pollutants, and other priority pollutants. The monitoring shall consist of the collection and assessment of chemical and/or biological data as appropriate from the water column, from stream bed sediments, and/or from fish tissue. Specific stream segments and chemical constituents for monitoring shall be determined by the Director on the basis of the potential for water quality impacts from toxic pollutants from point or nonpoint waste sources. Singularly or in combination, these constituents may cause an adverse effect on fish propagation at levels lower than the criteria. Instream concentrations will be as described in 391-3-6-.03 (5)(e). Additional toxic substances and priority pollutants will be monitored on a case specific basis using Section 304(a) Federal Clean Water Act guidelines or other scientifically appropriate documents.
- (12) **Bacteria Criteria.** The criteria for bacteria provide the regulatory framework to support the USEPA requirement that States protect all waters for recreational use. The bacterial indicators for ~~primary contact~~ recreational waters are *E. coli* and enterococci. The bacterial indicator for secondary contact recreational waters is fecal coliform, *E. coli* or enterococci.
- (a) Fecal coliform, *E. coli* and enterococci bacteria live in the intestinal tract of warm blooded animals including man. These organisms are excreted in extremely high numbers. Pathogenic bacteria also originate in the fecal material of diseased persons. Therefore, waters with high levels of bacteria represent potential problem areas for swimming. Scientific studies indicate there is a positive correlation between *E. coli* and enterococci counts and gastrointestinal illness. However, there is no positive scientific evidence correlating elevated fecal coliform counts with transmission of enteric diseases. In addition, these bacteria can originate from any warm blooded animal or from the soil.

Big Creek	Foe Killer Creek to Chattahoochee River	Drinking Water
Blue Creek	Headwaters to Yellowjacket Creek	Drinking Water
Camp Creek	Headwaters to confluence with Hazel Creek	Drinking Water
Cedar Creek	Headwaters to Alexander Creek	Drinking Water
Centralhatchee Creek	Little Taylor Creek to Chattahoochee River	Drinking Water
Chattahoochee River	Headwaters to confluence with Soque River	Recreation
Chattahoochee River	Soque River to White Creek	Recreation and Drinking Water
Chattahoochee River	White Creek to Mud Creek	Recreation
Chattahoochee River/Lake Lanier	Mud Creek to Buford Dam	Recreation and Drinking Water
Chattahoochee River	Buford Dam to Atlanta (Peachtree Creek)	Recreation and Drinking Water
Chattahoochee River	Atlanta (Peachtree Creek) to Cedar Creek	Fishing
<u>Chattahoochee River</u>	<u>Snake Creek to Yellowdirt Creek</u>	<u>Recreation</u>
Chattahoochee River	Pink Creek to Harris Creek	Drinking Water
Chattahoochee River/West Point Lake	New River to West Point Dam	Recreation and Drinking Water
Chattahoochee River	West Point Dam to Long Cane Creek	Drinking Water
Chattahoochee River	House Creek to North Highland Dam (including Lakes Harding, Goat Rock, Oliver, and North Highlands)	Recreation and Drinking Water
Chattahoochee River	Cowikee Creek to Lake Walter F. George Dam	Recreation
Chattahoochee River/Lake Seminole	Georgia Hwy. 91 to Jim Woodruff Dam	Recreation
Dog River	Mobley Creek to Chattahoochee River	Drinking Water
Flat Creek	Turkey Creek to confluence with Yellowjacket Creek	Drinking Water
Hazel Creek	Law Creek to Camp Creek	Drinking Water
Headwaters of Unnamed Tributary to Bethlehem Creek	Lake Franklin, F.D. Roosevelt State Park Beaches	Recreation
Hillabahatchee Creek	Tolieson Branch to Chattahoochee River	Drinking Water
Little Kolomoki Creek	Lake Kolomoki, Kolomoki Mounds State Park Beach	Recreation
Sandy Creek	Headwaters to Golden Creek	Drinking Water
Smith Creek	Unicoi Lake, Unicoi State Park Beach	Recreation
Snake Creek	Crews Creek to Chattahoochee River	Drinking Water
Soque River	Deep Creek to Sutton Mill Creek	Drinking Water
Sweetwater Creek	Olley Creek to Chattahoochee River	Drinking Water
Turner Creek	Headwaters to confluence with Tesnatee Creek	Drinking Water

Oostanaula River	Confluence with Woodward Creek to Coosa River	Drinking Water
Pettit Creek	Headwaters to confluence with Disharoon Creek (including Lake Pettit)	Drinking Water
Raccoon Creek	Headwaters to confluence with Chattooga River	Drinking Water
Tributaries to Heath Creek	Rocky Mountain Public Fishing Lakes, Rocky Mountain Public Fishing Area	Recreation
Tributary of Dakwa Lake	Headwaters to confluence with Turniptown Creek (including Dakwa Lake)	Drinking Water
Woodward Creek	Headwaters to confluence with Oostanaula River	Drinking Water

FLINT RIVER BASINCLASSIFICATION

Elkins Creek	Headwaters to Powder Creek	Drinking Water
Flat Creek	Headwaters to confluence with Line Creek (including Lake Kedron and Lake Peachtree)	Drinking Water
Flint River	Swamp Creek to Horton Creek	Drinking Water
Flint River	Birch Creek to Red Oak Creek	Drinking Water
Flint River	Georgia Hwy. 27 to Georgia Power Dam at Lake Worth, Albany including Lakes Blackshear, Chehaw, and Worth	Recreation
Flint River	Bainbridge, U.S. Hwy. 84 Bridge to Jim Woodruff Dam, Lake Seminole	Recreation
Heads Creek	Headwaters to Shoal Creek (including Heads Creek Reservoir)	Drinking Water
Horton Creek	Headwaters to Flint River (including Horton Creek Reservoir)	Drinking Water
Keg Creek	Headwaters to Line Creek (including Hutchins Lake)	Drinking Water
Lazer Creek	Rocky Branch to Gin Creek	Drinking Water
Line Creek	Persimmon Creek to Flat Creek (including Lake McIntosh)	Drinking Water
Potato Creek	Fivemile Creek to Hoyle Branch	Drinking Water
Pound Creek	Headwaters to confluence with Cane Creek (including Lake Meriwether)	Drinking Water
Rush Creek	Headwaters to confluence with Lazer Creek (including Rush Creek Reservoir)	Drinking Water
Shoal Creek	Headwaters to Flint River (including Shoal Creek Reservoir)	Drinking Water
Still Branch	Headwaters to confluence with Flint River (including Still Branch Reservoir)	Drinking Water
White Oak Creek	Headwaters to Chandlers Creek	Drinking Water
Whitewater Creek	Tar Creek to Haddock Creek	Drinking Water

Towaliga River	Thompson Creek to Georgia Hwy. 36	Drinking Water
Towaliga River	Georgia Hwy. 36 to High Falls Lake Dam	Recreation
Towaliga River	High Falls Lake, High Falls State Park Beaches	Recreation
Tobesofkee Creek	Reeves Creek to Rock Branch	Drinking Water
Tobesofkee Creek	Georgia Hwy. 74 to Lake Tobesofkee Dam	Recreation
Town Creek	Headwaters to Ocmulgee River	Drinking Water
Tributary to Dried Creek	Headwaters to confluence with Dried Indian Creek (including Covington Reservoir)	Drinking Water
Tussahaw Creek	Headwaters to Baker Branch	Drinking Water
Walnut Creek	Headwaters to Camp Creek (including Walnut Creek Reservoir)	Drinking Water
Yellow River	Georgia Hwy. 124 to Porterdale Water Intake	Drinking Water

OCONEE RIVER BASINCLASSIFICATION

Apalachee River	Shoal Creek to Freeman Creek	Drinking Water
Barber Creek	Headwaters to Parker Branch	Drinking Water
Bear Creek	Headwaters to confluence with Middle Oconee River (including Bear Creek Reservoir)	Drinking Water
Cedar Creek (Hall Co.)	Headwaters to confluence with North Oconee River	Drinking Water
Curry Creek	Headwaters to confluence with Little Curry Creek	Drinking Water
Fort Creek	Headwaters to confluence with Sikes Creek upstream of Lake Sinclair	Drinking Water
Hard Labor Creek	Headwaters to Lake Brantley Dam	Drinking Water
Hard Labor Creek	Lake Rutledge, Hard Labor Creek State Park Beaches	Recreation
Hard Labor Creek	Lake Rutledge Dam to Mile Branch	Drinking Water
Jacks Creek	Headwaters to Grubby Creek	Drinking Water
Lake Oconee	Lake Oconee to Lake Oconee Dam (Wallace Dam)	Recreation and Drinking Water
Lake Sinclair	Lake Oconee Dam downstream to Sinclair Dam	Recreation and Drinking Water
Little River	Big Indian Creek to Gladly Creek	Drinking Water
Lowry Branch	Headwaters to confluence with Pearson Creek	Drinking Water
Marbury Creek	Fort Yargo Lake, Fort Yargo State Park Beaches	Recreation
Middle Oconee River	Beech Creek to McNutt Creek	Drinking Water
Mulberry River	Little Mulberry Creek to Barbers Creek	Drinking Water

Reservoir	Tallulah River	
Cedar Creek	Headwaters to confluence with Little Toccoa Creek (including Toccoa Reservoir)	Drinking Water
Grove Creek	Headwaters to confluence with Hickory Level Creek	Drinking Water
Unnamed Tributary to Lick Creek	Lake Liberty, A.H. Stephens State Park Beach	Recreation
Little Beaverdam Creek	Headwaters to confluence with Beaverdam Creek	Drinking Water
Mountain Creek	Headwaters to Little Nails Creek	Drinking Water
North Fork Broad River	Confluence with Double Branch to confluence with Middle Fork Broad River	Drinking Water
Savannah River/Lake Russell and Clarks Hill Lake	GA Highway 368/SC Highway 184 to Clarks Hill Dam (Mile 238)	Recreation and Drinking Water
Savannah River	Clarks Hill Dam (Mile 238) to Horse Creek including Stevens Creek Reservoir and Augusta Canal	Drinking Water
Savannah River	US Hwy. 301 Bridge (Mile 129) to Seaboard Coastline RR Bridge (Mile 27.4)	Drinking Water
Savannah River	Seaboard Coastline RR Bridge (Mile 27.4) to Fort Pulaski (Mile 0)	Coastal Fishing
Savannah River	Fort Pulaski (Mile 0) to Open Sea and all littoral waters of Tybee Island	Recreation
Sherrills Creek	Headwaters to confluence with South Fork Little River (including Sherrills Reservoir)	Drinking Water
Sweetwater Creek	Headwaters to confluence with Brier Creek (including Usry Lake)	Drinking Water
Tallulah River	Headwaters, including Lakes Burton and Seed, to confluence with Flat Creek	Recreation
Tallulah River/ Lake Rabun	Confluence of Flat Creek, including Lake Rabun, to Rabun Dam	Recreation and Drinking Water
Tallulah River	Lake Rabun Dam to confluence with Chattooga River	Recreation
Town Creek (Tributary to Long Creek)	Headwaters to confluence with Brooks Creek	Drinking Water
Tributary to Crawford Creek	Headwaters to confluence with Crawford Creek (including Water Works Reservoir)	Drinking Water
Tugaloo River	Confluence of Tallulah and Chattooga Rivers to Yonah Lake Dam	Recreation and Drinking Water
Tugaloo River/Lake	Confluence with Prather Creek (near GA	Recreation and

Notley River/Lake Notley	Confluence with Fortenberry Creek to Lake Notley Dam	Recreation and Drinking Water
Notley River	Lake Notley Dam to Georgia - North Carolina State Line	Recreation
South Chickamauga Creek	Confluence of Tiger Creek with East Chickamauga Creek to confluence with Little Chickamauga Creek	Drinking Water
Toccoa River/Lake Blue Ridge	Headwaters to Lake Blue Ridge Dam	Recreation
Toccoa River	Lake Blue Ridge Dam to Georgia - Tennessee State Line	Recreation and Drinking Water
Tributary to Crawfish Spring Lake	Headwaters to confluence with Coke Oven Branch (including Crawfish Spring Lake) to West Chickamauga Creek	Drinking Water
Wolf Creek	Lake Trahlyta, Vogel State Park Beach	Recreation

(15) Trout Streams. Streams designated as Primary Trout Waters are waters supporting a self-sustaining population of Rainbow, Brown or Brook Trout. Streams designated as Secondary Trout Streams are those with no evidence of natural trout reproduction, but are capable of supporting trout throughout the year. Trout streams are classified in accordance with the designations and criteria as follows:

(a) Criteria.

- (i) There shall be no elevation of natural stream temperatures for Primary Trout Waters; 2°F or less elevation for Secondary Trout Waters.
- (ii) No person shall construct an impoundment on Primary Trout Waters, except on streams with drainage basins less than 50 acres upstream of the impoundment. Impoundments on streams with drainage basins less than 50 acres must be approved by the Division.
- (iii) No person shall construct an impoundment on Secondary Trout Waters without the approval of the Division.

(b) Designations by County.

BARTOW COUNTY

Primary:

None.

Secondary:

1. Boston Creek watershed upstream from Georgia Hwy. 20.
2. Connesena Creek watershed.

None.

Secondary:

1. Allgood Branch watershed upstream from Southern Railroad.
2. Chappel Creek watershed.
3. Chelsea Creek watershed.
4. East Fork Little River watershed.
5. Hinton Creek watershed.
6. Kings Creek watershed.
7. Little Armuchee Creek watershed upstream from Chattooga County Road 326.
8. Middle Fork Little River watershed.
9. Mt. Hope Creek watershed.
10. Perennial Spring watershed.
11. Raccoon Creek watershed upstream from Georgia Hwy. 48.
12. Ruff Creek watershed.
13. Storey Mill Creek watershed.
14. Taliaferro Creek watershed.

CHEROKEE COUNTY

Primary:

None.

Secondary:

1. Bluff Creek watershed upstream from Cherokee County Road 114.
2. Boston Creek watershed.
3. Murphy Creek watershed.
4. Pine Log Creek watershed.
5. Salacoa Creek watershed.
6. Soap Creek watershed upstream from Cherokee County Road 116.
7. Stamp Creek watershed.

Primary:

None.

Secondary:

1. Savannah River for the ten-mile reach downstream from Hartwell Dam.

FANNIN COUNTY

Primary:

1. Conasauga River - Jacks River watershed.
2. Ellijay River watershed.
3. Etowah River watershed.
4. Fightingtown Creek watershed.
5. Owenby Creek watershed.
6. Persimmon Creek watershed.
7. South Fork Rapier Mill Creek watershed.
8. Toccoa River watershed upstream to Blue Ridge Reservoir dam.
9. Toccoa River watershed upstream from the backwater of Blue Ridge Reservoir.
10. Tumbling Creek watershed.
11. Wilscot Creek watershed.

Secondary:

All streams or stream sections not classified as primary in the above list.

FLOYD COUNTY

Primary:

None.

Secondary:

1. Dykes Creek watershed.
2. Johns Creek watershed upstream from Floyd County Road 212.
3. Kings Creek watershed.
4. Lavender Creek watershed upstream from Floyd County Road 893.

Secondary:

1. All streams or sections thereof except the Coosawattee River downstream from Ga. Hwy. 5 Bridge, and Talking Rock Creek (not including tributaries) and those classified as primary.
2. Ball Creek watershed.
3. Sevenmile Creek watershed.
4. Town Creek watershed.
5. Wildcat Creek watershed.

GORDON COUNTY

Primary:

None.

Secondary:

1. Johns Creek watershed.
2. Long Branch watershed.
3. Pine Log Creek watershed upstream from Georgia Hwy. 53.
4. Pin Hook Creek watershed upstream from Gordon County Road 275.
5. Rocky Creek watershed upstream from Gordon County Road 210.
6. Salacoa Creek watershed upstream from U.S. Hwy. 411.
7. Snake Creek watershed.

GWINNETT COUNTY

Primary:

None.

Secondary:

1. Chattahoochee River.

HABERSHAM COUNTY

Primary:

1. Chattahoochee River watershed upstream from Georgia Hwy. 255 Bridge.
2. Middle Fork Broad River watershed upstream from USFS Route 92-B.
3. Panther Creek watershed.

Primary:

1. Amicalola Creek watershed.
2. Camp Creek watershed.
3. Cane Creek watershed upstream from Cane Creek Falls.
4. Cavender Creek watershed.
5. Chestatee River watershed upstream from Lumpkin County Road 52-S976 (Lumpkin County Road 190).
6. Clay Creek watershed.
7. Etowah River watershed upstream from the Georgia Hwy. 52 Bridge.
8. Hurricane Creek watershed upstream from Lumpkin County Road 202.
9. Mooney Branch watershed.
10. Tobacco Pouch Branch watershed.

Secondary:

1. Cane Creek watershed upstream from Georgia Hwy. 52 Bridge to Cane Creek Falls.
2. Chestatee River watershed upstream from the mouth of Tesnatee Creek to Lumpkin County Road 52-S976 (Lumpkin County Road 190).
3. Etowah River watershed upstream from Castleberry Bridge to Georgia Hwy. 52 except those classified as primary above.
4. Shoal Creek watershed.
5. Yahoola Creek watershed upstream from Georgia Hwy. 52.

MURRAY COUNTY**Primary:**

1. Conasauga River watershed, including - Jacks River watershed, upstream from Georgia--Tennessee state line.
2. Holly Creek watershed upstream from Murray County Rd. SR826 (U.S. Forest Service line).
3. Rock Creek watershed upstream from Murray County Rd. 4 (Dennis).

Secondary:

1. All tributaries to Carters Reservoir.

3. Bluff Creek watershed.
4. East Branch watershed (including Darnell Creek watershed).
5. Fisher Creek watershed (upstream from the confluence of Talona Creek and Fisher Creek).
6. Fourmile Creek watershed.
7. Hobson Creek watershed.
8. Little Scarecorn Creek watershed.
9. Long Branch watershed.
10. Long Swamp Creek watershed upstream from Pickens County Road 294.
11. Mud Creek watershed.
12. Pin Hook Creek watershed.
13. Polecat Creek watershed.
14. Rock Creek watershed.
15. Salacoa Creek watershed.
16. Scarecorn Creek watershed upstream from Georgia Hwy. 53.
17. Sevenmile Creek watershed.
18. Soap Creek watershed.
19. Town Creek watershed.
20. Wildcat Creek watershed.

POLK COUNTY**Primary:**

None.

Secondary:

1. Cedar Creek watershed upstream from Polk County Road 121.
2. Fish Creek watershed upstream of Plantation Pipeline.
3. Lassetter Creek watershed.
4. Little Cedar Creek watershed.
5. Pumpkinpile Creek watershed upstream from Road SR1032.

7. Toccoa Creek upstream from Toccoa Falls.

TOWNS COUNTY

Primary:

1. Brasstown Creek watershed.
2. Chattahoochee River watershed.
3. Gumlog Creek watershed.
4. Hiawassee River watershed - entire stream and all tributaries classified as primary except all streams or sections thereof classified as secondary.
5. Tallulah River watershed.
6. Winchester Creek watershed.

Secondary:

1. Hightower Creek downstream from the mouth of Little Hightower Creek.

UNION COUNTY

Primary:

1. Arkaqua Creek watershed.
2. Brasstown Creek watershed.
3. Chattahoochee River watershed.
4. Conley Creek watershed upstream from Road S2325 (Union County Rd 237).
5. Coosa Creek watershed upstream from mouth of Anderson Creek.
6. Dooley Creek watershed.
7. East Fork Wolf Creek watershed upstream from Lake Trahlyta.
8. Gumlog Creek watershed.
9. Ivylog Creek watershed upstream from USDA Forest Service property line.
10. Nottely River watershed upstream from the mouth of Town Creek.
11. Toccoa River watershed.
12. Town Creek watershed.
13. West Fork Wolf Creek watershed.
14. Youngcane Creek watershed upstream from the mouth of Jones Creek.

WHITE COUNTY**Primary:**

1. Cathey Creek watershed upstream from the Arrowhead Campground Lake at the mouth of Tom White Branch.
2. Chattahoochee River watershed upstream from Georgia Hwy. 255 Bridge.
3. Town Creek watershed upstream from the mouth of Jenny Creek.

Secondary:

1. Chattahoochee River watershed upstream from Georgia Hwy. 115 to the Georgia Hwy. 255 Bridge.
2. Little Tesnatee Creek watershed upstream from the mouth of Turner Creek.
3. Turner Creek watershed except as listed under primary above (Turner Creek nearest to Cleveland city limits).

WHITFIELD COUNTY**Primary:**

None.

Secondary:

1. Coahulla Creek watershed upstream from Whitfield County Road 183.
2. Dry Creek watershed.
3. Snake Creek watershed.
4. Spring Creek watershed.
5. Swamp Creek watershed upstream from Whitfield County Road 9.
6. Tiger Creek watershed

(16) Waters Generally Supporting Shellfish. The waters listed below are either productive shellfish waters or have the potential to support shellfish. However, it may not be lawful to harvest shellfish from all of the waters listed below. Shellfish may only be harvested from waters approved for harvest by the Georgia DNR Coastal Resources Division. For a current list of approved waters for harvesting, contact the Coastal Resources Division.

CHATHAM COUNTY

1. Savannah River South Channel at Fort Pulaski to confluence with Lazaretto Creek.

1. South Newport River System south of centerline and eastward from confluence with South Hampton Creek.
2. Julinton River at Latitude 31° 36.8' and eastward to confluence with Sapelo River, including Broad River near Shellman Bluff.
3. Sapelo River from end of County Road 127 eastward excluding White Chimney River and Savannah Cut.
4. All waters surrounding Creighton Island.
5. Atwood Creek at Latitude 31° 28.3' and eastward.
6. Hudson Creek at Latitude 31° 27.2' and eastward.
7. Carnigan River at Latitude 31° 26.2' and eastward.
8. All waters surrounding Sapelo Island to the center line of Sapelo Sound, including New Teakettle Creek, Old Teakettle Creek and Dark Creek.
9. Dead River at Longitude 81° 21.5' to confluence with Folly River.
10. Folly River at Longitude 81° 21.2' to confluence with intracoastal waterways including Fox Creek tributary.
11. North River from confluence with Old Darien River to confluence with intracoastal waterway, including Old Darien River.
12. Darien River from confluence with Three Mile Cut to intracoastal waterway.
13. Rockdedundy River from confluence with Darien River to intracoastal waterway.
14. All waters surrounding Doboy Island, Commodore Island, Wolf Island, and Rockdedundy Island.
15. South River at confluence of intracoastal waterway to Doboy Sound.
16. Altamaha River from confluence with Three Mile Cut and Mackay River and eastward, including Buttermilk Sound, but excluding South Altamaha River.
17. Dog Hammock to confluence with Sapelo River.
18. Eagle Creek to confluence with Mud River.

GLYNN COUNTY

1. Mackay River water system from confluence with South Altamaha River to confluence with Brunswick River, excluding Wally's Leg.
2. All waters surrounding St. Simons Island and Little St. Simons Island.
3. All waters surrounding Andrews Island excluding Academy Creek.

- (i) Chlorophyll a: For the months of April through October, the average of monthly photic zone composite samples shall not exceed the chlorophyll a concentrations at the locations listed below more than once in a five-year period.
 - 1. Upstream from the Dam in the Forebay: 22 µg/L
 - 2. LaGrange Water Intake: 24 µg/L
- (ii) pH: Within the range of 6.0 - 9.5.
- (iii) Total Nitrogen: Not to exceed 4.0 mg/L as Nitrogen in the photic zone.
- (iv) Total Phosphorous: Total lake loading shall not exceed 2.4 pounds per acre foot of lake volume per year.
- (v) Bacteria:
 - 1. U.S. 27 at Franklin to New River: ~~Fecal coliform~~ Bacteria shall not exceed the Fishing criterion as presented in 391-3-6-.03(6)(c)(iii).
 - 2. New River to West Point Dam: E. coli shall not exceed the Recreation criterion as presented in 391-3-6-.03(6)(b)(i).
- (vi) Dissolved Oxygen: A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times at the depth specified in 391-3-6-.03(5)(g).
- (vii) Temperature: Water temperature shall not exceed the Recreation criterion as presented in 391-3-6-.03(6)(b)(iv).
- (viii) Major Lake Tributaries: For the following tributaries, the annual total phosphorus loading to West Point Lake shall not exceed the following:
 - 1. Yellow Jacket Creek at Hammet Road: 11,000 pounds
 - 2. New River at Hwy 100: 14,000 pounds
 - 3. Chattahoochee River at U.S. 27: 1,400,000 pounds
- (b) Lake Walter F. George: Those waters impounded by Walter F. George Dam and upstream to Georgia Highway 39 near Omaha.
 - (i) Chlorophyll a: For the months of April through October, the average of monthly photic zone composite samples shall not exceed 18 µg/L at mid-river at U.S. Highway 82 or 15 µg/L at mid-river in the dam forebay more than once in a five-year period.
 - (ii) pH: Within the range of 6.0-9.5 standard units.
 - (iii) Total Nitrogen: Not to exceed 3.0 mg/L as nitrogen in the photic zone.
 - (iv) Total Phosphorous: Total lake loading shall not exceed 2.4 pounds per acre-foot of lake volume per year.
 - (v) Bacteria:

and the confluence of Little Allatoona Creek and Allatoona Creek. Other impounded tributaries to an elevation of 840 feet mean sea level corresponding to the normal pool elevation of Lake Allatoona.

- (i) Chlorophyll a: For the months of April through October, the average of monthly mid-channel photic zone composite samples shall not exceed the chlorophyll a concentrations at the locations listed below more than once in a five-year period:

- | | |
|---|---------|
| 1. Upstream from the Dam: | 10 µg/L |
| 2. Allatoona Creek upstream from I-75: | 12 µg/L |
| 3. Mid-Lake downstream from Kellogg Creek: | 10 µg/L |
| 4. Little River upstream from Highway 205: | 15 µg/L |
| 5. Etowah River upstream from Sweetwater Creek: | 14 µg/L |

- (ii) pH: Within the range of 6.0-9.5 standard units

- (iii) Total Nitrogen: Not to exceed a growing season average of 4 mg/L as nitrogen in the photic zone.

- (iv) Total Phosphorous: Total lake loading shall not exceed 1.3 pounds per acre-foot of lake volume per year.

- (v) Bacteria:

1. Etowah River, State Highway 5 to State Highway 20: ~~Fecal coliform~~ Bacteria shall not exceed the Fishing Criterion as presented in 391-3-6-.03(6)(c)(iii).
2. Etowah River, State Highway 20 to Allatoona Dam: E. coli shall not exceed the Recreation criterion as presented in 391-3-6-.03(6)(b)(i).

- (vi) Dissolved Oxygen: A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times at the depth specified in 391-3-6-.03(5)(g).

- (vii) Temperature:

1. Etowah River, State Highway 5 to State Highway 20: Water temperature shall not exceed the Fishing criterion as presented in 391-3-6-.03(6)(c)(iv).
2. Etowah River State Highway 20 to Allatoona Dam: Water temperature shall not exceed the Recreation criterion as presented in 391-3-6-.03(6)(b)(iv).

- (viii) Major Lake Tributaries: For the following major tributaries, the annual total phosphorous loading to Lake Allatoona shall not exceed the following:

- | | |
|--|----------------|
| 1. Etowah River at State Highway 5 spur and 140, at the USGS gage: | 340,000 lbs/yr |
| 2. Little River at State Highway 5 (Highway 754): | 42,000 lbs/yr |
| 3. Noonday Creek at North Rope Mill Road: | 38,000 lbs/yr |
| 4. Shoal Creek at State Highway 108 (Fincher Road): | 12,500 lbs/yr |

- (ii) pH: within the range of 6.0 – 9.5 standard units.
- (iii) Total Nitrogen: Not to exceed 4.0 mg/L as nitrogen in the photic zone.
- (iv) Total Phosphorous: Total lake loading shall not exceed 172,500 pounds or 0.46 pounds per acre-foot of lake volume per year.
- (v) Bacteria: E. coli shall not exceed the Recreation criterion as presented in 391-3-6-.03(6)(b)(i).
- (vi) Dissolved Oxygen: A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times at the depth specified in 391-3-6-.03(5)(g).
- (vii) Temperature: Water temperature shall not exceed the Recreation criterion as presented in 391-3-6-.03(6)(b)(iv).
- (viii) Major Lake Tributaries: For the following major tributaries, the annual total phosphorous loading at the compliance monitoring location shall not exceed the following:

- | | |
|---|----------------|
| 1. Coosawattee River at Old Highway: | 151,500 pounds |
| 2. Mountaintown Creek at U.S. Highway 76: | 16,000 pounds |

(g) Lake Oconee: Those waters impounded by Wallace Dam and upstream on the Oconee River as well as other impounded tributaries to an elevation of 436 feet mean sea level corresponding to the normal pool elevation of Lake Oconee.

(i) Chlorophyll a: For the months of April through October, the average of monthly mid-channel photic zone composite samples shall not exceed the chlorophyll a concentrations at the locations listed below more than once in a five-year period:

- | | |
|--|----------------|
| 1. <u>Oconee Arm at Highway 44:</u> | <u>26 µg/L</u> |
| 2. <u>Richland Creek Arm:</u> | <u>15 µg/L</u> |
| 3. <u>Upstream from the Wallace Dam Forebay:</u> | <u>18 µg/L</u> |

- (ii) pH: within the range of 6.0 – 9.5 standard units.
- (iii) Total Nitrogen: Not to exceed a growing season average of 2 mg/L in the photic zone.
- (iv) Total Phosphorous: Not to exceed a growing season average of 0.2 mg/L in the photic zone.
- (v) Bacteria: E. coli shall not exceed the Recreation criterion as presented in 391-3-6-.03(6)(b)(i).
- (vi) Dissolved Oxygen: A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times at the depth specified in 391-3-6-.03(5)(g).