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PROPOSED AMENDMENTS TO THE RULES OF THE DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION DIVISION RELATING TO DROUGHT MANAGEMENT, CHAPTER 391-3-30

Chapter 391-3-30 Rules for Drought Management

391-3-30-.01 Purpose of Rule.

To establish rules and regulations relating to drought management including provisions for a drought response committee; drought indicators and triggers; a drought declaration process; and state and local predrought mitigation strategies and drought response strategies. Pre-drought mitigation strategies are designed to minimize the potential effects of drought. Drought response strategies include measures or actions to be implemented during various stages of drought.

Authority O.C.G.A. Secs. 12-5-7, 12-5-8, 12-5-20 et seq., 12-5-170 et seq.

391-3-30-.02 Definitions.

When used in this Chapter:

- (1) "Affected drought area" means any area subject to a drought declaration made in accordance with Section 391-3-30-.06.
- (2) "Director" means the director, or his/her designee, of the Environmental Protection Division of the Department of Natural Resources.
- (3) "Division" means the Environmental Protection Division of the Department of Natural Resources.
- (4) "Farm uses" shall mean irrigation of any land used for general farming, forage, aquaculture, pasture, turf production, orchards, or tree and ornamental nurseries; provisions of water supply for farm animals, poultry farming, or any other activity conducted in the source of farming operation. Farm uses shall also include the processing or perishable agricultural products and the irrigation of recreational turf, except in the Chattahoochee River watershed upstream from the Peachtree Creek confluence, where irrigation of recreational turf shall not be considered a farm use.
- (5) "Permittee" is defined as:
 - (a) any person that holds a water withdrawal permit issued by the Director pursuant to the Georgia Water Quality Control Act;
 - (b) any person that holds a water withdrawal permit issued by the Director pursuant to the Groundwater Use Act; or
 - (c) any person that holds a permit issued by the Director pursuant to the Georgia Safe Drinking Water Act that uses water obtained from any person meeting the criteria in paragraphs (a) or (b);
 - (d) permittee does not include any person that holds a water withdrawal permit for farm uses.
- (6) "Public water system" means a system for the provision to the public of piped water for human consumption.

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391-3-30-.03 Pre-drought Mitigation Strategies.

(1) During non-drought periods, irrigation outdoors for purposes of planting, growing, managing, or maintaining ground cover, trees, shrubs, or other plants shall be in accordance with O.C.G.A. §12-5-7(a.1)(1) and (2).

(2) The state has already made, and continues to make, extensive investments in water efficiency since conservation measures play such an important role in water stewardship. Therefore, with the exception of the outdoor irrigation requirements in O.C.G.A. §12-5-7(a.1)(1) and (2) and the Drought Contingency Plans and Water Conservation Plans required under Rules 391-3-2-.4(11), 391-3-6-.07(4)(b)8, and 391-3-6-.07(4)(b)9, which are referenced within this rule, this rule does not repeat or modify any existing pre-drought mitigation strategy or create any new pre-drought mitigation strategies.

391-3-30-.04 Drought Indicators and Triggers.

(1) The Director shall monitor climatic indicators and water supply conditions as needed to assess drought occurrence and severity, and its impact upon the ability of permittees to provide adequate supplies of water and avoid or relieve local water shortages. Such indicators and conditions may include but may not be limited to the following:

- (a) Precipitation;
- (b) Streamflow;
- (c) Groundwater;
- (d) Reservoir Levels;
- (e) Soil Moisture; and
- (f) Short term Climate Predictions.

(2) Prior to making a drought response declaration pursuant to Section 391-3-30-.05, the Director may consult with state and federal entities charged with collecting, interpreting and disseminating data used as a basis for developing drought indices. Such agencies may include but not be limited to the following:

- (a) State Climatologist;
- (b) National Oceanic and Atmospheric Administration;
- (c) United States Geologic Survey; and
- (d) United States Army Corps of Engineers.

391-3-30-.05 Drought Declaration.

(1) Based upon an evaluation of climatic indicators in accordance with Section 391-3-30-.04, the Director may declare non-drought conditions and various drought response levels for affected drought areas. Such declaration shall be based upon the severity of drought conditions and their impact on the ability of permittees to provide adequate supplies of water within the affected drought areas and avoid or relieve local water shortages.

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(2) The Director may declare non-drought conditions and drought response Level 1, 2 or 3, with Level 1 being the least severe and Level 3 being the most severe drought response level.

(3) The Director shall designate the geographical boundary of the affected drought area(s). The geographic delineation of a drought response level shall be based upon the severity of climatic indicators and condition of water supplies occurring within all or a portion of defined hydrologic units, counties or other areas. The drought response level shall apply to all permittees, except as described in subparagraph (4), dependent upon water sources within the affected drought area(s).

(4) The Director may differentiate between surface water drought and ground water drought in any affected drought area.

(5) Upon declaring a drought response level, the Director shall provide notice of such declaration to all permittees within the affected drought area(s).

391-3-30-.06 Drought Response Committee.

(1) A Drought Response Committee may be convened by the Director at any time for purposes of consulting on the development and/or implementation of pre-drought mitigation strategies or drought response strategies and may consist of such members and for such period of time as the Director deems appropriate.

391-3-30-.07 Record Keeping and Reporting.

(1) Within ninety (90) days of the effective date of this Rule and continuing monthly thereafter, each permittee whose monthly average water use is one million gallons per day or greater shall record water use on the "Water Use Reporting Form" for each calendar month. The form shall be submitted to the Division within fourteen (14) calendar days of the following month during non-drought conditions, and within five (5) calendar days of the following month during drought response levels declared in accordance with Section 391-3-30-.05.

391-3-30-.08 Drought Response Strategies.

(1) Within 5 days of receipt of notice from the Division of a drought response level declared pursuant to 391-3-30-.05, each permittee within an area subject to a drought declaration shall implement the applicable drought response strategies listed below.

(2) Drought Response Level 1

(a) General Outdoor Watering. Outdoor irrigation for purposes of planting, growing, managing, or maintaining ground cover, trees, shrubs, or other plants, as described in O.C.G.A. §12-5-7(a.1)(1), may be conducted between the hours of 8:00 P.M. and 8:00 A.M.

(b) Specific Categories of Outdoor Water Use. The outdoor water uses listed in O.C.G.A. §12-5-7(a.1)(2) are not affected.

(c) Other Outdoor Water Use. The following outdoor water uses shall not be allowed by permittees, except as provided:

(i) Watering in of pesticides, herbicides and fertilizers, except between the hours of 4:00 p.m. and 10:00 a.m.;

(ii) Use of fire hydrants, except for the purposes of firefighting, public health, safety, or flushing.

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(d) Drought Surcharge Pricing is not triggered at this Drought Response Level.

(e) Numeric Water Usage Reduction Targets are not triggered at this Drought Response Level.

(3) Drought Response Level 2. During Drought Response Level 2, permittees shall implement all Drought Response Level 1 measures plus the following additional Drought Response Level 2 measures:

(a) General Outdoor Watering. Outdoor irrigation for purposes of planting, growing, managing, or maintaining ground cover, trees, shrubs, or other plants, as described in O.C.G.A. §12-5-7(a.1)(1), may be conducted between the hours of 10:00 p.m. and 6:00 a.m.

(b) Specific Categories of Outdoor Water Use. The outdoor water uses listed in O.C.G.A. §12-5-7(a.1)(2) shall be allowed by all permittees, subject to the following additional requirements:

(i) Irrigation of personal food gardens may be conducted between the hours of 4:00 p.m. and 10:00 a.m.;

(ii) Irrigation of new and replanted plant, seed, or turf in landscapes, golf courses, or sports turf fields may be conducted at any time of day during installation and between the hours of 4:00 p.m. and 10:00 a.m. for a period of 30 days immediately following the date of installation;

(iii) Drip irrigation or irrigation using soaker hoses may be conducted between the hours of 4:00 p.m. and 10:00 a.m. For the purposes of this paragraph:

1. “Drip irrigation” shall mean the use of an irrigation system manufactured and sold specifically for delivering water through small flexible pipes and emitters slowly and directly to the soil around the base of individual plants in a manner that minimizes evaporative losses, pooling, runoff and wetting of plant foliage. This type of system may be part of a larger automated irrigation system or may operate as a stand-alone system connected to a typical outdoor faucet;

2. “Soaker hose” shall mean a hose that is connected to a typical outdoor faucet and that is manufactured and sold specifically for delivering water slowly and directly to the soil around the base of individual plants by allowing water to seep from it in a manner that minimizes evaporative losses, pooling, runoff and wetting of plant foliage;

(iv) Handwatering with a hose with automatic cutoff or handheld container may be conducted between the hours of 4:00 p.m. and 10:00 a.m.;

(v) Irrigation of athletic fields or public turf grass recreational areas may be conducted between the hours of 4:00 p.m. and 10:00 a.m.;

(vi) Irrigation of golf courses shall be conducted in accordance with “Golf Irrigation Prediction and Estimation Worksheet” between the hours of 4:00 p.m. and 10:00 a.m., provided, however, irrigation of golf course greens may occur at any time of day.

(c) Other Outdoor Water Use: the following outdoor water uses shall not be allowed by permittees, except as provided:

(i) Washing hard surfaces such as streets, gutters, sidewalks and driveways, except when necessary for public health and safety;

(ii) Using water for ornamental purposes, such as fountains, reflecting pools, and waterfalls.

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(d) Drought Surcharge Pricing. Within 1 year of the effective date of this Rule, permittees who are public water systems shall develop and implement a drought surcharge program as a price incentive for customers to reduce water demand. The surcharge program shall meet the following criteria:

(i) Drought surcharge rate(s) shall be distinct from established water rates;

(ii) Drought surcharge rate(s) shall apply only to the volumetric water rates;

(iii) Drought surcharge rate(s) shall be consistent with achieving a 5% water use reduction compared to the baseline for months October through March and a 10% water use reduction compared to the baseline for months April through September; and

(iv) Drought surcharge rate(s) shall be approximately revenue neutral relative to non-drought periods.

(e) Numeric Water Usage Reduction Targets are not triggered at this Drought Response Level.

(4) Drought Response Level 3. During Drought Response Level 3, permittees shall implement all Drought Response Level 1 and 2 measures plus the following additional Drought Response Level 3 measures:

(a) General Outdoor Watering. Outdoor irrigation for purposes of planting, growing, managing, or maintaining ground cover, trees, shrubs, or other plants, as described in O.C.G.A. §12-5-7(a.1)(1), is not permitted.

(b) Specific Categories of Outdoor Water Use. The outdoor water uses listed in O.C.G.A. §12-5-7(a.1)(2) shall be allowed by all permittees, subject to the additional requirements described in Drought Response Level 2.

(c) Other Outdoor Water Use: the following outdoor water uses shall not be allowed by permittees, except as provided:

(i) Pressure washing of buildings shall not be allowed by permittees.

(d) Drought Surcharge Program. The drought surcharge program shall be subject to the same requirements as Drought Level 2 except that Drought surcharge rate(s) shall be consistent with achieving a 10% water use reduction compared to the baseline for months October through March and a 15% water use reduction compared to the baseline for months April through September.

(e) Numeric Water Usage Reduction Targets. During Drought Response Level 3, for each month from October through March, permittees who are public water systems and whose monthly average water use is one million gallons per day or greater shall achieve a 10% reduction in monthly average water use below the monthly average water use for the same month during October through March of the year immediately preceding the declared drought, and for each month from April through September, a 15% reduction in monthly average water use below the monthly average water use for the same month during October through March of year immediately preceding the drought;

(i) Permittees with reservoir storage who perform the water supply and demand analysis described in Section 391-3-30-.09(1) demonstrating that percent reservoir storage is greater than 70% may reduce the water use reduction target described in this section by 2.5%;

(ii) Permittees with reservoir storage who perform the water supply and demand analysis described in Section 391-3-30-.09(1) demonstrating that percent reservoir storage is greater than 50% but less than 70% may reduce the water use reduction target described in this section by 1.0%;

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(iii) Permittees without reservoir storage whose primary water supply source is surface water and who perform the water supply and demand analysis described in Section 391-3-30-.09(1) demonstrating that withdrawals as a percent of streamflow are 0.75% or less may reduce the water use reduction target described in this section by 2.5%;

(iv) Permittees without reservoir storage whose primary water supply source is surface water and who perform the water supply and demand analysis described in Section 391-3-30-.09(1) demonstrating that withdrawals as a percent of streamflow are greater than 0.75% but less than 1.25% may reduce the water use reduction target described in this section by 1.0%;

(v) Permittees required to conduct a Water Loss Audit shall adjust the water use reduction targets of this Section based on the Water Loss Audit Data Validity Score and Target Infrastructure Leak Index as shown in Table I and Table II.

Table I – Combined Values derived from Water Loss Audit Data Validity Score and Target Infrastructure Leak Index for adjusting Water Use Reductions in Drought Response Level 3 ¹

		Target Infrastructure Leak Index (Value)				
		<1.0 (5)	1.0 – 3.0 (4)	> 3.0 – 5.0 (3)	> 5.0 – 8.0 (2)	> 8.0 (1)
Data Validity Score (Value)	91 – 100 (5)	25	20	15	10	5
	71 – 90 (4)	20	16	12	8	4
	51 – 70 (3)	15	12	9	6	3
	26 – 50 (2)	10	8	6	4	2
	0 – 25 (1)	5	4	3	2	1

¹Data Validity Score and Target Infrastructure Leak Index determined in accordance with “Georgia Water System Audits and Water Loss Control Manual,” and International Water Association (IWA) and American Water Works Association (AWWA) methods.

Table II – Percent adjustments to Water Use Reductions Targets in Section 391-3-30-.08(4) based on Combined Values from Water Loss Audit Data Validity Score and Target Infrastructure Leak Index Values in Table I

Table I Values ²	Percent Adjustment to Water Use Reductions Target
21-25	-2.5%
16 – 20	-1.0%
11 – 15	0.0%
6 – 10	1.0%
1 – 5	2.5%

² Public water systems where more than 50% of its residential service connections serve housing stock whose average age is more than 50 years may reduce their Table I percent adjustment to water use reduction target by an additional 1.0%.

(5) During Drought Response Level 3, industrial and commercial permittees shall implement measures described in drought contingency plans which are part of their water withdrawal permits issued pursuant to the Georgia Water Quality Control Act and Groundwater Use Act.

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391-3-30-.09 Variance Requests.

(1) Any application for a variance pursuant O.C.G.A. §12-5-7(a)(1) to impose restrictions on outdoor water use that are more stringent than those described in this Rule shall provide the following information demonstrating that the outdoor water use restrictions required by this Section will not avoid or relieve a local water shortage and the degree to which additional restrictions will avoid or relieve such shortage water shortage:

(a) A statement of which Drought Response Level (Level 1, Level 2, Level 3, or Level 3 plus) the public water system seeks to apply, the duration of those restrictions, and a description of why such restrictions are necessary. For the purposes of this Rule, “Level 3 plus” means all Level 3 water usage restrictions plus additional restrictions proposed by the public water system in order to avoid or relieve a local water shortage.

(b) For permittees whose principal source of water is surface water, a water supply and demand analysis which includes a quantitative analysis of the effect that additional restrictions will have upon the permittee’s source of water in terms of increased storage or streamflow available to the permittee for each month during which they will be implemented. The water supply and demand analysis shall, at a minimum, consist of a 24-month projection of the response of reservoir storage, or water withdrawals as a percent of streamflow, whichever is applicable, to demands represented by monthly water use for each month of the preceding calendar year, assuming calendar year 2007 – 2008 hydrologic conditions, and shall be conducted in accordance with the “Water Supply and Demand Analysis Worksheet.”

(c) Quantity estimate of reduced water use on a monthly basis expected from implementing such restrictions for each month during which they will be implemented compared to a quantity estimate of reduced water use on a monthly basis expected from implementing the restrictions required by this Section;

(d) Quantity estimate of the effect such restrictions will have upon the permittee’s source of water in terms of increased storage or streamflow available to the permittee for each month during which they will be implemented.

(2) As provided for in O.C.G.A. §12-5-7(a)(2), a political subdivision of this state or local government authority shall not be prohibited from imposing more stringent restrictions on outdoor water use than those required by this Section in case of an emergency which immediately threatens the public health, safety, or welfare for a period not to exceed seven days unless a variance is granted by the Director.

(3) Any application for a variance pursuant O.C.G.A. §12-5-7(b) requesting restrictions on outdoor water use that are less stringent than those described in this Rule shall provide the following information demonstrating that the outdoor water use restrictions required by this Rule are not needed to avoid or relieve a local water shortage:

(a) A statement of which Drought Response Level (non-drought, Level 1, or Level 2) the public water system seeks to apply, the duration of the less stringent restrictions, and a description of why the restrictions described in the Rule are not necessary.

(b) For permittees whose principal source of water is surface water, a water supply and demand analysis which includes a quantitative analysis of the effect that the proposed restrictions will have upon the permittee’s source of water in terms of storage or streamflow available to the permittee for each month during which they will be implemented. The water supply and demand analysis shall, at a minimum, consist of a 24-month projection of the response of reservoir storage, or water withdrawals as a percent of streamflow, whichever is applicable, to demands represented by monthly water use for each month of the

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preceding calendar year, assuming calendar year 2007 – 2008 hydrologic conditions, and shall be conducted in accordance with the “Water Supply and Demand Analysis Worksheet.”

(4) Upon consideration of the information required in Section 391-3-30-.09(1) or (3), as provided for in O.C.G.A. §12-5-7(c), the Director shall render a decision on an application for a variance within five business days after receipt thereof and grant a variance to the applicant of the restrictions required by this Rule if the applicant has provided sufficient evidence to support a reasonable conclusion that a variance is warranted.

(5) The Director will not approve variance applications that request restrictions on outdoor water use that are different from the Drought Response Levels (non-drought, Level 1, Level 2, Level 3, or Level 3 plus) than those described in this Rule.

(6) Permittees whose water supply is obtained in whole or part from storage in or releases from any project owned and operated by the United States Army Corps of Engineers may not request a variance for restrictions that are less stringent than those described in this Rule.

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Proposed Modifications to the Water Quality Control Rules for Surface Water Withdrawals, 391-3-6-.07, pertaining to surface water withdrawal applications submitted after the effective date of the rule for new, modified, or renewal permits

(4) Permit Application: Non-Farm Uses.

(a) All applications shall be on forms furnished by the Division.

(b) The applications shall include:

...

9. A drought contingency plan ~~approved~~ **submitted for approval** by the Director and prepared in accordance with the following guidelines. The plan should include alternative system and resource management strategies to be implemented under drought conditions that may severely reduce the availability of the resource. **The plan shall be consistent with Rule 391-3-30. If there are conflicts between this plan and Rule 391-3-30, Rule 391-3-30 shall prevail.** The applicant or permittee must provide the following items in the plan (or a statement as to why the item is not an appropriate part of the plan):

~~(i) Drought condition indicators;~~

~~(I) The applicant or permittee must develop a system for determining drought severity based on some approved indicator, e.g.:~~

~~I. Streamflow levels;~~

~~II. Ground water levels;~~

~~III. Reservoir storage or levels;~~

~~IV. Other.~~

(i) Applicants or permittees that are not public water systems (i.e., industrial or commercial permittees) applying to withdraw one million gallons per day or greater shall propose a numeric water usage reduction target to be implemented during a Drought Response Level 3 declared by the Director in accordance with 391-3-30-.05.

(I) The numeric water usage reduction target shall be determined on a case-by-case basis and shall be based on reasonable temporary measures that the applicant or permittee can implement without having to curtail operations or lay off employees.

(II) The numeric water usage reduction target shall be a percent (%) reduction in monthly average water use below the monthly average water use for the same month during the year immediately preceding the declared drought.

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Proposed Modifications to Groundwater Use Rules for Permit Applications, 391-3-2-.04, pertaining to groundwater withdrawal applications submitted after the effective date of the rule for new, modified, or renewal permits

(11) In the preparation of a permit application for a new permit or modification of an existing permit which includes an increase in the permitted water use (except for a farm use permit application) the applicant must submit to the Director for approval a water conservation plan prepared in accordance with the following guidelines. The plan must address the following items (or contain a statement why the item is not an appropriate part of the plan).

...

(d) A drought contingency plan ~~approved~~ **submitted for approval** by the Director and prepared in accordance with the following guidelines. The plan should include alternative system and resource management strategies to be implemented under drought conditions that may severely reduce the availability of the resource. **The plan shall be consistent with Rule 391-3-30. If there are conflicts between this plan and Rule 391-3-30, Rule 391-3-30 shall prevail.** The applicant must provide the following items in the plan (or a statement as to why the item is not an appropriate part of the plan):

1. Drought conditions or events that put the drought contingency plan into effect;

(i) ~~The applicant must develop a system for determining drought severity based on some approved indicator, e.g.:~~

(I) System demands;

(II) Ground water levels;

(III) Other;

(i) Applicants or permittees that are not public water systems (i.e. industrial or commercial permittees) applying to withdraw one million gallons per day or greater shall propose a numeric water usage reduction target to be implemented during a Drought Response Level 3 declared by the Director in accordance with 391-3-30-.05.

(I) The numeric water usage reduction target shall be determined on a case-by-case basis and shall be based on reasonable temporary measures that the applicant or permittee can implement without having to curtail operations or lay off employees.

(II) The numeric water usage reduction target shall be a percent (%) reduction in monthly average water use below the monthly average water use for the same month during the year immediately preceding the declared drought.