

# Subject 391-3-30 DROUGHT MANAGEMENT

## Rule 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. Predrought 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.

## Rule 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 Rule [391-3-30-.05](#).
- (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) "Drip irrigation" means 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.
- (5) "Farm uses" means irrigation of any land used for general farming, forage, aquaculture, pasture, turf production, orchards, or tree and ornamental nurseries; or provisions of water supply for farm animals, poultry farming, or any other activity conducted in the course of a farming operation. Farm uses shall also include the processing of perishable agricultural products.
- (6) "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, O.C.G.A. § [12-5-20](#)*et seq.*;
  - (b) Any person that holds a water withdrawal permit issued by the Director pursuant to the Groundwater Use Act, O.C.G.A. § [12-5-90](#)*et seq.*; or
  - (c) Any person that holds a permit issued by the Director pursuant to the Georgia Safe Drinking Water Act, O.C.G.A. § [12-5-170](#)*et seq.*, 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.
- (7) "Public water system" means a system for the provision to the public of piped water for human consumption.
- (8) "Soaker hose" means 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.

### **Rule 391-3-30-.03 Predrought 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).
  - (a) Persons may irrigate outdoors daily for purposes of planting, growing, managing, or maintaining ground cover, trees, shrubs, or other plants only between the hours of 4:00 p.m. and 10:00 a.m.
  - (b) Paragraph (a) shall not create any limitation upon the following outdoor water uses:
    1. Commercial agricultural operations as defined in Code Section [1-3-3](#);
    2. Capture and reuse of cooling system condensate or storm water in compliance with applicable local ordinances and state guidelines;
    3. Reuse of gray water in compliance with Code Section [31-3-5.2](#) and applicable local board of health regulations adopted pursuant thereto;
    4. Use of reclaimed waste water by a designated user from a system permitted by the Environmental Protection Division of the department to provide reclaimed waste water;
    5. Irrigation of personal food gardens;
    6. Irrigation of new and replanted plant, seed, or turf in landscapes, golf courses, or sports turf fields during installation and for a period of 30 days immediately following the date of installation;
    7. Drip irrigation or irrigation using soaker hoses;
    8. Handwatering with a hose with automatic cutoff or handheld container;
    9. Use of water withdrawn from private water wells or surface water by an owner or operator of property if such well or surface water is on said property;
    10. Irrigation of horticultural crops held for sale, resale, or installation;
    11. Irrigation of athletic fields, golf courses, or public turf grass recreational areas;

12. Installation, maintenance, or calibration of irrigation systems; or
  13. Hydroseeding.
- (c) Paragraph (a) shall not create any limitation upon outdoor water uses for purposes other than planting, growing, managing, or maintaining ground cover, trees, shrubs, or other plants.
- (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-.04\(11\)](#), [391-3-6-.07\(4\)\(b\)8](#), and [391-3-6-.07\(4\)\(b\) 9](#), this rule does not repeat or modify any existing predrought mitigation strategy or create any new predrought mitigation strategies.

### **Rule 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 that are public water systems 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;
  - (f) Short Term Climate Predictions;
  - (g) U.S. Drought Monitor; and
  - (h) Water Supply Conditions.
- (2) The Division shall periodically make available to the public reports of current climatic indicators. These reports shall be released at least semi-annually; however, when any area of the state has, for at least two consecutive months, been under severe or higher intensity drought conditions, as indicated by the U.S. Drought Monitor, the reports shall be released at least monthly. These reports shall compare current climatic conditions to historical levels and/or reservoir rule curves, if appropriate, for each indicator. The Division shall employ an adaptive approach to these reports, as resources permit, to pursue improvements to the drought indicators and triggers to make the reports as effective as possible. These reports shall include, at a minimum, the following drought indicators:
- (a) Precipitation: Precipitation during the prior 3, 6, and 12 months, compared to the same time periods historically.

- (b) Streamflow from the following United States Geological Survey gage locations: Chattooga River at Summerville (02398000), Etowah River at Canton (02392000), Chestatee River near Dahlonega (02333500), Broad River near Bell (02192000), Chattahoochee River near Cornelia (02331600), Flint River at GA 26 near Montezuma (02349605), Oconee River at Dublin (02223500), Ocmulgee River at Macon (02213000), Ogeechee River near Eden (02202500), Spring Creek near Iron City (02357000), Ichawaynochaway Creek at Milford (02353500), Alapaha River at Statenville (02317500), Satilla River near Waycross (02226500).
  - (c) Groundwater: CD4 well: 11AA01, CD5 well: 21T001, CD7 wells: 13L180, 12M017, 11K003, 13J004, 12K014, 10G313, 08K001, 08G001, 09F520.
  - (d) Reservoir Levels: Allatoona Lake, Lake Hartwell, Clarks Hill Lake, Lake Lanier.
- (3) Permittees that are public water systems shall notify the Division in writing within 7 days if a trigger level in the drought contingency plan required by Rules [391-3-2-.04\(11\)\(d\)](#) or [391-3-6-.07\(4\)\(b\)9](#) is surpassed. The notification shall include the relevant drought condition(s) or event(s) such as streamflow levels, ground water levels, reservoir storage or levels, system demands, and/or other approved indicator(s) which required the notification.
  - (4) Prior to making a drought response level declaration pursuant to Rule [391-3-30-.05](#), except for non-drought conditions, the Director shall convene a conference call, or similar communication medium, for all permittees for whom climatic indicators and water supply conditions are such that the Director is considering making a drought declaration. Within three business days of the Director's communication, potentially affected permittees may submit information to the Division regarding climatic indicators and/or their water supply conditions. For permittees whose principal source of water supply is surface water, they may submit a water supply and demand analysis as described in Rule [391-3-30-.08\(1\)\(b\)](#).
  - (5) During a declared drought pursuant to Rule [391-3-30-.05](#), the Director shall convene a conference call, or similar communication medium, at least quarterly for all permittees subject to Drought Response Strategies in the affected drought area(s). The purpose of this communication will be to review the latest climatic indicators and water supply conditions as they relate to the permittees.
  - (6) Prior to making a drought response level declaration pursuant to Rule [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 Geological Survey; and
    - (d) United States Army Corps of Engineers.

### **Rule 391-3-30-.05 Drought Declaration**

- (1) Based upon an evaluation in accordance with Rule [391-3-30-.04](#), the Director may declare non-drought conditions and various drought response levels for the affected drought

area(s). Such declaration shall be based upon the severity of drought conditions and their impact on the ability of permittees that are public water systems to provide adequate supplies of water within the affected drought area(s) and avoid or relieve local water shortages.

- (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 geographical 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), within the affected drought area(s).
- (4) The Director may differentiate between surface water drought and ground water drought in any affected drought area(s).
- (5) Upon declaring a drought response level, including non-drought conditions, the Director shall provide notice of such declaration to all permittees and the general public within the affected drought area(s). At a minimum, the Director shall issue a press release and send each affected permittee a letter which shall include the drought response level and a summary of the requirements for that particular drought response level.

### **Rule 391-3-30-.06 Drought Response Committee**

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

### **Rule 391-3-30-.07 Drought Response Strategies**

- (1) Within 5 days of receipt of notice from the Division of a drought response level declared pursuant to Rule [391-3-30-.05](#), each permittee within an area subject to a drought response level declaration shall implement the applicable drought response strategies listed below.
- (2) Drought Response Level 1.
  - (a) Permittees that are public water systems shall implement a public information campaign that shall include, at a minimum, public notice regarding drought conditions and drought specific public-service messages in one or more of the following ways: newspaper advertisements, bill inserts, website homepage, social media, and notices in public libraries.
- (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 Rule [391-3-30-.03\(1\)\(a\)](#), shall be limited to two days a week on an odd-even

schedule. Even numbered addresses may irrigate on Wednesday and Saturday between the hours of 4:00 p.m. and 10:00 a.m. Odd numbered addresses may irrigate on Thursday and Sunday between the hours of 4:00 p.m. and 10:00 a.m. "Even numbered address" means an address number ending with the number 0, 2, 4, 6, 8, or the site does not have a numbered address. "Odd numbered address" means an address ending with the number 1, 3, 5, 7, or 9.

- (b) Specific Categories of Outdoor Water Use. The outdoor water uses listed in Rule [391-3-30-.03\(1\)\(b\)](#) shall be allowed.
  - (c) The following outdoor water uses shall not be allowed, except as provided below:
    - 1. Washing hard surfaces such as streets, gutters, sidewalks and driveways, except when necessary for public health and safety;
    - 2. Using water for ornamental purposes, such as fountains, reflecting pools, and waterfalls;
    - 3. Use of fire hydrants, except for the purposes of firefighting, public health, safety, or flushing;
    - 4. Washing vehicles, such as cars, boats, trailers, motorbikes, airplanes, or golf carts;
    - 5. Non-commercial washing, or pressure washing, of buildings or structures, except for immediate fire protection; and
    - 6. Charity, or non-commercial fund-raiser, car washes.
  - (d) Permittees that are public water systems shall select and implement four, or more, additional practices from the Drought Response Strategies Menu in paragraph (5). Such permittees shall submit monthly reports to the Division by the 10th of each following month detailing the drought response strategies the system has selected, the extent of implementation, and enforcement strategy, if applicable.
- (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 Rule [391-3-30-.03\(1\)\(a\)](#), is not permitted.
  - (b) Specific Categories of Outdoor Water Use. The outdoor water uses listed in Rule [391-3-30-.03\(1\)\(b\)](#) shall be allowed, subject to the following additional requirements:
    - 1. Irrigation of personal food gardens shall be conducted between the hours of 4:00 p.m. and 10:00 a.m., unless done using drip irrigation or soaker hoses. Irrigation

of personal food gardens using drip irrigation or soaker hoses may be done at any time;

2. 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.;
  3. 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., subject to the two days a week odd-even schedule described in Drought Response Level 2;
  4. Irrigation of golf courses shall be conducted in accordance with the "Golf Irrigation Prediction and Estimation Worksheet" and only 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;
  5. Use of reclaimed waste water by a designated user from a system permitted by the Division to provide reclaimed waste water shall not be allowed for general outdoor watering as described in Rule [391-3-30-.03\(1\)\(a\)](#). It shall be allowed for any use described in Rule [391-3-30-.03\(1\)\(b\)](#) subject to the limitations in Rule [391-3-30-.07\(4\)\(b\)](#);
  6. Installation, maintenance, or calibration of irrigation systems is allowed, provided that it is done by professional landscapers or golf course superintendents.
- (c) Permittees that are public water systems shall implement all practices from the Drought Response Strategies Menu in paragraph (5).
- (d) Rate Structures. Within 1 year of the effective date of this Rule, permittees that are public water systems shall develop a drought surcharge program as a temporary price incentive for customers to reduce water demand during a declared drought. Permittees with tiered conservation rates that comply with specific criteria for tiered conservation rates in the applicable Regional Water Plan are not required to develop a drought surcharge program. Permittees are not subject to requirements regarding Rate Structures if they do not serve retail customers.
1. The drought surcharge program shall meet the following criteria:
    - (i) Drought surcharge rate(s) shall be implemented within 60 days of receipt of drought response level declaration notice.
    - (ii) Drought surcharge rate(s) shall be distinct from established water rates;
    - (iii) Drought surcharge rate(s) shall apply only to the volumetric water rates;  
and

- (iv) Drought surcharge rate(s) shall be approximately revenue neutral relative to non-drought periods. The Division will give deference to public water systems for their reasonable definition of revenue neutral.
    - (v) The drought surcharge program is not required to include industrial customers.
  - 2. Permittees shall be exempted from the requirement to have drought surcharge rate(s) that are distinct from established water rates if they demonstrate to the Division that their billing system is unable to make such distinction. Such permittees shall notify all affected customers of the drought surcharge rate(s) through a billing insert whenever the drought surcharge program is initiated.
  - 3. Permittees shall be exempted from the requirement to have drought surcharge rate(s) that apply only to the volumetric water rates if they demonstrate to the Division that their billing system is unable to apply a surcharge rate only to the volumetric use of water.
  - 4. If the applicable Regional Water Plan does not have specific criteria for tiered conservation rates then permittees are exempted from the requirement to develop a drought surcharge program if their conservation rates are designed and implemented consistent with the Division's "Conservation-Oriented Rate Structures" guidance dated August 2007 or Conservation Action Item 5.1 in the Metropolitan North Georgia Water Planning District's 2009 Water Supply and Water Conservation Plan.
- (e) Numeric Water Usage Reduction Requirements.
- 1. The Division may establish numeric reduction requirements for permittees that are public water systems and whose monthly average water use is greater than one million gallons per day. The numeric reduction requirements may vary based on time of year (i.e., warmer months and cooler months). The Division shall consider economic and climatic conditions during the baseline period when establishing the numeric reduction requirements. The Division shall also consider the public water system's peaking factor or their "Baseline Water Use and Efficiency Profile for Public Water Systems", if provided to the Division by the public water system, when establishing the numeric reduction requirements.
  - 2. Permittees that are public water systems and whose industrial customers comprise more than 90 percent of water use shall be exempt from Numeric Water Usage Reduction Requirements.
- (5) Drought Response Strategies Menu.
- (a) Public information campaign that goes significantly beyond the minimum notice and public service messages associated with Drought Response Level 1;



- (b) Glasses of water provided to restaurant customers only upon request;
  - (c) Distribute retrofit kits and water saving devices to customers. These kits and devices may include, but not be limited to, shower heads, leak dye tabs, toilet tank displacement devices, and hose shut off nozzles;
  - (d) Technical assistance outreach program to target high users to identify and/or recommend opportunities to reduce water usage;
  - (e) Reduce system pressure, unless such reduction would create unsafe water supply conditions;
  - (f) Pool cover requirements;
  - (g) Implement a drought surcharge program, or tiered conservation rates, that satisfy the criteria of this rule;
  - (h) Suspension of street cleaning program(s);
  - (i) Implement, or accelerate, leak detection and repair program(s);
  - (j) Impose monetary penalties or terminate water services to customers to reduce outdoor water waste due to excessive application, outdoor leaks, improper irrigation, or other similar reasons.
- (6) Professional Exemptions. The following commercial outdoor water uses are exempt from the Outdoor Water Use restrictions of this rule:
- (a) Pressure washing;
  - (b) Permanent car wash facility, provided that it is connected to a sanitary sewer system of a political subdivision or local government authority or recycles used wash water;
  - (c) Construction sites;
  - (d) Watering-in of pesticides and herbicides on turf; and
  - (e) Other activities essential to daily business.

### **Rule 391-3-30-.08 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 Chapter 391-3-30 will not avoid or relieve a local water shortage and the degree to which additional restrictions will avoid or relieve such 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 otherwise required by Chapter 391-3-30;
  - (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 Chapter 391-3-30 in case of an emergency which immediately threatens the public health, safety, or welfare; provided, however, that such emergency restrictions shall be valid 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 less stringent 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 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) Permittees whose water supply is obtained in whole or in part from storage in or releases from any project owned and operated by the United States Army Corps of Engineers may request a variance requesting restrictions on outdoor water use that are less stringent than those described in this Rule. However, for permittees that get more than 25 percent of their water supply from such projects, because these permittees have little control over the management of their water supply source, there shall be a rebuttable presumption that such variance requests should be denied by the Director.
- (4) Upon consideration of the "good cause" showing required in subsections 391-3-30-.08(1) or (3) of these Rules, 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) In order to provide for efficient implementation of the variance program and to facilitate effective communication to the media and the public regarding drought requirements, it is necessary and appropriate that variance requests be consistent with the framework of the Rule. Therefore, variance requests are limited to the Drought Response Levels (non-drought, Level 1, Level 2, Level 3, or Level 3 plus), and their corresponding Drought Response Strategies, as articulated in the rule.