

South Carolina Drought Regulations

SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

CHAPTER 121

Statutory Authority 49-23-10 Code of Laws of South Carolina 1976 as amended et. seq.

R.121- ____ South Carolina Department of Natural Resources Drought Planning Response.

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121-11.1. Purpose.

The purposes of these regulations are to establish procedures by which the State's water resources can be carefully and closely monitored, conserved, and managed in the best interests of all South Carolinians during periods of drought. The terms used herein shall have the same meaning as set forth in 49-23-20.

121-11.2. Definitions.

A. '**Department**' means the Department of Natural Resources.

B. '**Conservation**' means, to minimize or prevent depletion or waste of the water resource.

C. '**Drought Response Committee**' means the committee created under Section 49-23-60 to be convened to address drought related problems and responses.

D. '**Office of primary responsibility**' means the Department of Natural Resources.

E. **'Person'** means all persons, including individuals, firms, partnerships, associations, public or private institutions, municipalities or political subdivisions, governmental agencies, or private or public corporations organized under the laws of this State or another state or country.

F. **'Drought'** means a period of diminished precipitation which results in negative impacts upon the hydrology, agriculture, biota, energy, and economy of the State.

G. **'Water resources'** means water on or beneath the surface of the ground, including natural and artificial water courses, lakes or ponds, and water percolating, standing, or flowing beneath the surface of the ground.

H. **'Diffused surface water'** means waters of a casual or vagrant character, lying or running on the surface of the earth but not in definite courses, streams, or waterbodies.

I. **'Drought indices'** means topical and quantitative indicators of drought including, but not limited to, sustained decline in water levels of natural flowing streams and other natural bodies of water, decline in water tables above and below ground, forest fire indices, sustained decline in potable drinking water supplies, agricultural stress, low soil moisture, and low precipitation. The department must, through regulation, establish specific numerical values for the indices that define each level of drought.

J. **'Incipient drought'** means that there is a threat of a drought as demonstrated by drought indices. The incipient drought phase shall initiate in-house mobilization by department personnel and the Drought Response Committee. The department shall routinely monitor the climatic variables, streamflow, and water levels in potable drinking water supplies and water levels in the above and below ground water tables and lakes, and shall notify the Drought Response Committee and relevant federal, state, and local agencies that a portion of the State is experiencing an incipient drought condition. The department must increase monitoring activities to identify a change in existing conditions.

K. **'Moderate drought'** means that there is an increasing threat of a drought as demonstrated by drought indices. Statements must be released to the news media by the department, and appropriate agencies must accelerate monitoring activities.

L. **'Severe drought'** means that the drought has increased to severe levels as demonstrated by drought indices. This phase must be verified utilizing data, forecasts, and outlooks from various agencies. A drought of this severity normally requires an official declaration by the department and water withdrawals and use restrictions.

M. **'Extreme drought'** means that the drought has increased to extreme levels as demonstrated by drought indices. The department shall continue to evaluate information from various sources. Upon confirmation of an Extreme Drought Alert Phase, the Drought Response Committee may recommend that the Governor issue a public statement that an extreme drought situation exists and that appropriate water-use and withdrawal restrictions be imposed.

N. '**Board**' means the governing authority of the Department of Natural Resources.

O. "**Minimum flow**" means the monthly 5 percentile flow

P. "**Trigger level**" is defined as a water level decline equal to 150 ft. below the predevelopment level of an aquifer except for the Floridan aquifer system in which the trigger level is a decline of 75 ft below the predevelopment level or to mean sea-level, whichever is the least decline. Decline in aquifer water levels due to withdrawals not associated with drought should not be used for declaration of drought alert phases.

Q. "**Drought Emergency**" exists as declared by the Governor when the safety, security, health or welfare of the State or any portion of the State is threatened.

R. "**Essential water use**" means water used strictly for fire-fighting purposes, health and medical purposes, maintaining minimum streamflow requirements, and minimum water levels in the potable drinking water supplies and the above and below ground water tables, and the use of water to satisfy federal, state, or local public health and safety requirements is considered essential water use.

S. "**Non-essential water use**" means categories of water use, other than essential water use, which may be curtailed during severe or extreme drought.

T. "**7Q10 Flow**" is defined as the lowest mean streamflow over seven consecutive days that can be expected to occur once in a ten year period. In any year, there is a 10 percent probability that the average flow for seven consecutive days will be equal to or less than the 7Q10.

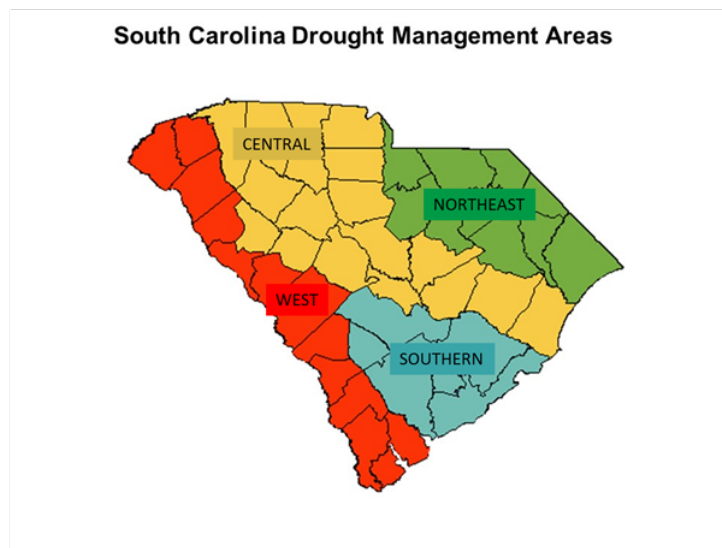
[121-11.3. Jurisdiction.](#)

These regulations apply to every person using water in this State and to all water resources of the State, but does not authorize any restriction in use of water during an incipient, moderate, and severe drought declaration injected into aquifer storage and recovery facilities, water stored in managed watershed impoundments or water from any pond completely situated on private property and fed only by diffused surface water. During a drought declaration, the use of water from a managed watershed impoundment shall not be restricted as long as minimum streamflow or flow equal to the 7Q10 is maintained, whichever is less.

121-11.4. Drought Management Areas Established.

A. In order to respond to drought conditions, four drought management areas are established as follows:

Drought Management Areas	Counties					
West	Oconee Pickens	Anderson Abbeville	McCormick Edgefield	Aiken Barnwell	Allendale Hampton	Jasper Beaufort
Central	Greenville Greenwood Spartanburg Cherokee	York Laurens Union	Chester Greenwood Newberry	Fairfield Saluda Lexington	Richland Sumter Calhoun	Clarendon Williamsburg Georgetown
Northeast	Chesterfield Marlboro	Darlington Florence	Dillon Marion	Horry Lancaster	Kershaw	Lee
Southern	Orangeburg	Bamberg	Colleton	Dorchester	Charleston	Berkeley



B. Establishment of drought management areas by the department in no way limits the department's or the Drought Response Committee's authority to act in an area smaller than a drought management area, such as a county or watershed. In order to prevent overly broad response to drought conditions, drought response measures shall be considered within individual drought management areas, as applicable. Insofar as practicable, within an individual drought management area, drought response measures shall be considered and administered in individual counties.

121-11.5. Drought Response Committee.

A. The Drought Response Committee shall consist of state representation and local representation for each drought management area as specified in R.121-11.4.

(1) A representative of each of the following State agencies shall represent State interests:

- (a) South Carolina Department of Natural Resources;
- (b) South Carolina Emergency Preparedness Division of the Office of the Adjutant General;
- (c) South Carolina Department of Health and Environmental Control;
- (d) South Carolina Department of Agriculture;
- (e) South Carolina Forestry Commission;

(2) Local representatives for each drought management area as specified in R.121-11.4 shall be appointed by the Governor with the advice and consent of the Senate to represent the following interests:

- (a) Counties; (b) Municipalities; (c) Public service districts; (d) Private water suppliers; (e) Agriculture; (f) Industry; (g) Domestic users; (h) Regional councils of governments; (i) Commissions of public works; (j) Power generation facilities; (k) Special purpose districts; (l) Soil and Water Conservation Districts.

There may not be more than two members on a local committee from each county within the drought management area.

The statewide committee shall coordinate planning and response only upon consultation with the appropriate local committee in the impacted drought management area during moderate, severe and extreme drought declarations. The Governor shall appoint the chair of the Drought Response Committee. The department shall provide administrative support.

(3) The Governor may appoint additional members as necessary to insure broad based input on the committee and may make interim appointments when the General Assembly is not in session. The statewide committee shall coordinate planning and response only upon consultation with the appropriate local committee in the impacted drought management area during moderate, severe and extreme drought declarations.

(4) Individual members of the Drought Response Committee representing local interests shall serve a term of four (4) years and may be reappointed. Appointments will commence and end as of March 1; however, the appointment will continue after March 1 until a successor is appointed. For additional Drought Response Committee members over and above those identified in Subsection (2) above, the appointment may continue after March 1 until a successor is appointed or notice is given that the additional position will not be reappointed.

- B. The Governor shall appoint the chair of the Drought Response Committee. The department shall provide administrative support.
- C. The Drought Response Committee for individual drought management areas shall convene upon notice by the South Carolina Department of Natural Resources or at the request of five committee members. A majority of the members is needed for a quorum. Decisions will be made by the majority of members present at the meeting, and voting on any matter before the committee shall be by committee members in person only, not by proxy.

121-11.6. Responsibilities of the Drought Response Committee.

- A. Members of the Drought Response Committee shall be notified at the onset of each Drought Alert Phase and provided information by the South Carolina Department of Natural Resources with respect to the Drought Alert Phase in each Drought Management Area as applicable. Notification to Committee members of the onset of each Drought Alert Phase shall be as provided in R.121-11.8 and R. 121-11.9. Following the notice of each Drought Alert Phase, the Drought Response Committee may be convened as provided in R.121-11.5.
- B. The Drought Response Committee shall evaluate drought conditions within drought management areas to determine if a need exists for action beyond the scope of local government. The committee shall consider:
 - (1) Effectiveness of local drought ordinances and plans in protecting and insuring adequate water supplies;
 - (2) Regional impacts of water use on water sources and other water users;
 - (3) Short term and extended climatological forecasts;
 - (4) Other relevant information.
- C. Upon determination that action in addition to local measures is necessary to insure adequate supplies of water in drought management areas, the Drought Response Committee shall prepare recommendations to reduce or alleviate drought impacts and submit the recommendations to the South Carolina Department of Natural Resources for implementation. If the recommendations involve the curtailment of water use, the committee shall determine which categories of non-essential water use must be curtailed in accordance with R.121-11.10.
- D. The Drought Response Committee shall consult with and invite participation by representatives of municipalities, counties, Commissions of public works, public and private water suppliers, public service districts, power generation facilities, industries, special purpose districts and any

other water users in the affected drought management area while evaluating drought conditions and in the preparing of recommended actions.

- E. Should the drought situation continue to deteriorate to the point that the safety, security, health, or welfare of a drought management area is seriously threatened or impacted, the Drought Response Committee shall immediately notify the Governor and provide a priority list of recommended actions to the Governor.

121-11.7. Drought Information Center.

- A. The Office of the State Climatologist, South Carolina Department of Natural Resources, shall maintain a Drought Information Center whenever one or more drought management areas of the State are in a moderate, severe or extreme drought alert phase. Information about the status of drought conditions and impacts on the economy and well-being of the State will be collected and made available to State Agencies, State Officials, the news media, and other concerned interests.
- B. The Drought Information Center shall routinely collect, monitor, and evaluate selected climatic, water-supply and water-use data as necessary to identify at an early stage the onset of a drought or potential for drought, geographic extent of the affected area and changes in the drought levels.
- C. Drought indices shall be computed on a weekly basis. These computations will be compared with the various similar indices computed by other State, Federal and private agencies.
- D. Monitoring shall be accelerated whenever drought conditions approach or enter the moderate drought stage in one or more drought management areas. This may include acquiring additional rainfall, stream flow, water use, and ground water level data; and collecting additional information on the impact of the drought on agriculture, industry, domestic water supplies, and other users.
- E. During periods of moderate, severe or extreme drought, available drought related data, as appropriate, will be provided to the Drought Information Center by the South Carolina Department of Agriculture, South Carolina Emergency Preparedness Division, South Carolina Forestry Commission, South Carolina Department of Health and Environmental Control, as well as by any other State Agency that is either impacted by or has information on drought conditions. Various Federal and local agencies may be asked to provide drought information on a voluntary basis.

121-11.8. Drought Alert Phases.

A. Four phases of drought alert are established herein, each identified by drought indices. Drought stage evaluation as indicated by quantified indices includes, but is not limited to:

Indicator	Description	Drought Phase			
		Incipient	Moderate	Severe	Extreme
Palmer Drought Severity Index	Depicts prolonged (months, years) abnormal dryness or wetness; incorporates temperature, precipitation, and soil moisture data	-0.50 to -1.49	-1.50 to -2.99	-3.00 to -3.99	≤ -4.00
Crop Moisture Index	Depicts short-term (up to 4 weeks) abnormal dryness or wetness affecting agriculture	0.00 to -1.49	-1.50 to -2.99	-3.00 to -3.99	≤ -4.00
Standard Precipitation Index	Compares observed precipitation amount (from 1- to 24-month periods) with long-term averages for the same period	0.00 to -0.99	-1.00 to -1.49	-1.50 to -1.99	≤ -2.00
Keetch-Byram Drought Index	Depicts moisture deficiencies in the upper layers of the soil; used to monitor fire danger	300 to 399	400 to 499	500 to 699	≥ 700
U.S. Drought Monitor	A weekly product that uses a variety of drought, climatological, hydrological, soil moisture and other indicators and indices as inputs	D0	D1	D2	≥ D3
Average daily streamflow	*CW – consecutive weeks	111%-120% of the minimum flow for 2 CW*	101%-110% of the minimum flow for 2 CW*	between the minimum flow and 90% of the minimum for 2 CW*	≤ than 90% of the minimum for 2 CW*
Ground Water, Static water level in an aquifer	**CM – consecutive months	between 11 - 20 ft above trigger level for 2 CM**	between 1-10 ft above trigger level for 2 CM**	between the trigger level and 10 ft below for 2 CM**	>than 10 ft below the trigger level for 2 CM**

(1) The incipient drought may be declared if any of the indices indicate an incipient drought, however, indication by one index alone does not mandate a declaration. The incipient drought phase shall initiate in-house mobilization by department personnel and the Drought Response Committee. The department shall routinely monitor the climatic variables, streamflow, and water levels in potable drinking water supplies and water levels in the above and below ground water tables and lakes, and shall notify the Drought Response Committee and relevant federal, state, and local agencies that a portion of the State is experiencing an incipient drought condition.

(2) A moderate drought may be declared if any of the indices indicate a moderate drought, however, indication by one index alone does not mandate a declaration. During a moderate drought, statements must be released to the news media by the department, and appropriate agencies must accelerate monitoring activities.

(3) This [severe drought] phase must be verified utilizing data, forecasts, and outlooks from various agencies. Indication by one index alone does not mandate a declaration. A drought of this severity may require water withdrawal and water use restrictions.

(4) The department shall continue to evaluate information from various sources. Indication by one index alone does not mandate a declaration. Upon confirmation of an Extreme Drought Alert Phase, the Drought Response Committee may recommend that the Governor issue a public statement that an extreme drought situation exists and that appropriate water-use and withdrawal restrictions be imposed.

- B. The need for the declaration of drought alert phases will be verified by other means, including, but not limited to other indices; water supply and demand; stream flow data; rainfall records; agricultural and forestry conditions; and general historical climatological data.

121-11.9. Notification of Drought.

- A. Upon the inception of a drought alert phase, the South Carolina Department of Natural Resources will disseminate public information concerning all aspects of the drought. The initial action in responding to drought is public education, providing information as to existing and potential conditions and water conservation measures necessary to meet the demand for water at each drought alert phase.
- B. The South Carolina Department of Natural Resources shall provide the following notice of Drought Alert Phases.

(1) The South Carolina Department of Natural Resources shall notify the Drought Response Committee at the beginning of an incipient drought alert phase and each upgrading of the drought alert to a higher phase. Such notice shall be by first class mail.

(2) The South Carolina Department of Natural Resources shall notify by first class mail public water systems in the affected Drought Management Areas and other appropriate agencies and individuals at the inception of a moderate drought alert phase and each upgrading of the drought alert to a higher phase.

(3) The South Carolina Department of Natural Resources shall publish notice at least once in a newspaper of general circulation in the areas affected at the inception of a Moderate Drought Alert Phase and each upgrading of the drought alert to a higher phase.

(4) The South Carolina Department of Natural Resources will take any other action appropriate to announce a drought alert.

121-11.10. Curtailment of Water Use During Droughts.

A. During severe or extreme drought conditions, the South Carolina Department of Natural Resources may require mandatory reduction or curtailment of non-essential water use in affected drought management areas if recommended by the Drought Response Committee in accordance with R.121-11.6. The curtailment of water use may involve adjusting the quantity of water used; adjusting the quality of water to meet the water use; adjusting the time of water use; and/or utilizing different sources of water.

B. The Drought Response Committee shall determine which categories of non-essential water use must be reduced or curtailed after reviewing each category of water use in C. Below by the following standards:

- (1) Purpose of the use;
- (2) Suitability of the use to the watercourse, lake, or aquifer;
- (3) Economic value of the use;
- (4) Social value of the use;
- (5) Extent and amount of the harm it causes;
- (6) Practicality of avoiding the harm by adjusting the use or method of use of one person or the other;
- (7) Practicality of adjusting the quantity of water used by each person;
- (8) Protection of existing values of water uses, land, investments, and enterprises;
- (9) Consumptive or non-consumptive nature of the use;
- (10) Impacts on essential water uses.

C. **Non-essential water uses** shall be evaluated in accordance with the following categories:

- (1) Agricultural use;
 - (a) Irrigation;

- (2) Commercial use;
 - (a) Commercial domestic use;
 - (b) Commercial process use;
- (3) Domestic use;
 - (a) Inside use;
 - (b) Outside use;
- (4) Electric Power Generation;
- (5) Industrial use;
 - (a) Industrial domestic use;
 - (b) Once through cooling;
 - (c) Industrial process use;
- (6) Institutional;
- (7) Recreational.

D. Following determination of non-essential water use, by the Drought Response Committee, the South Carolina Department of Natural Resources shall issue a declaration specifying the drought management areas affected and identifying the categories of non-essential water use to be reduced or curtailed. The declaration shall be sent to water systems, widely distributed to the news media, and published at least once a week in a newspaper of general circulation in each county affected.

E. Any person adversely affected by mandatory curtailment may, within ten days after such curtailment becomes effective, submit appropriate information to the South Carolina Department of Natural Resources and seek a variance from the curtailment. The following procedures shall apply to request for a variance from the water curtailment declaration:

(1) The request for variance shall include a detailed statement as to how the curtailment declaration adversely affects the person making the request;

(2) The request for variance shall provide information relevant to the water use in response to each of the standards in B.(1), (2), (3), (4), (5), (6), (7), (8), (9), and (10);

(3) Either the South Carolina Department of Natural Resources staff or the person requesting the variance may request a meeting to discuss any matter relevant to the request or to seek additional information. Such meeting shall be conducted as expeditiously as practicable;

(4) Upon receipt of all relevant information (specified in E. (1), (2), and (3) above) from the person requesting the variance, the South Carolina Department of Natural Resources staff shall issue a determination for the request for a variance. Such determination shall be made within five days of receipt of all relevant information from the person requesting the variance or within twenty days of the declaration of the curtailment, whichever comes first.

- F. Persons not capable of immediate water use reduction or curtailment because of equipment damage or other extreme circumstances shall commence gradual reduction within twenty-four hours of the declaration of curtailment and shall notify the South Carolina Department of Natural Resources of their proposed reduction schedule by certified mail within three working days of the declaration of curtailment. A variance will be required for the gradual or reduced reduction and a request for a variance must be submitted to the South Carolina Department of Natural Resources as specified in E. above within ten days after such curtailment becomes effective.
- G. Any declaration of curtailment shall continue in effect only as long as conditions in any drought management area require it. The declaration shall be terminated by action of either the Drought Response Committee or the South Carolina Department of Natural Resources, and notice of termination of the declaration shall be given as when originally issued.
- H. In the event that a declaration issued pursuant to this regulation conflicts with any ordinance or plan adopted pursuant to R.121-11.12, the declaration shall supersede any ordinance or plan.
- I. These regulations do not restrict or in any way affect the authority of the commissioner of the Department of Health and Environmental Control with respect to emergency declarations made in the interest of public health.

121-11.11. Mediation of Disputes by the South Carolina Department of Natural Resources.

- A. During any drought alert phase, the South Carolina Department of Natural Resources shall offer its services to mediate any dispute arising from competing demands for water. The mediation may be undertaken only upon the request of the parties involved and may not be binding.
- B. The Chairman of the South Carolina Department of Natural Resources shall appoint a three person board to mediate each dispute. The board shall meet as necessary to mediate the dispute at a location deemed most appropriate by the board for all persons involved.
- C. A written request shall be submitted from each grieved person to the South Carolina Department of Natural Resources. The requests will contain the following minimum information:
 - (1) Statement of the cause for mediation;
 - (2) Results sought by each person;
 - (3) Historical water use by each person;
 - (4) Description of water sources;
 - (5) Map of general area showing water sources, water transfers, water use points, and water discharge, as appropriate.

(6) Additional material deemed relative to the dispute by each person.

- D. The South Carolina Department of Natural Resources as appropriate may conduct investigations to resolve the dispute.
- E. A decision shall be made by the board within ten days of receipt of all necessary information.
- F. A permanent record of each mediation process shall be maintained by the South Carolina Department of Natural Resources, and a summary of the request, findings, and conclusions of mediation shall be reported by the board to the South Carolina Department of Natural Resources and incorporated into the minutes of the South Carolina Department of Natural Resources. The South Carolina Department of Natural Resources will entertain requests for confidentiality if sufficient reasons exist to withhold information under the Freedom of Information Act.
- G. A party affected by a declaration of the Drought Response Committee has the right to appeal that action to the Administrative Law Judge Division. The appeal must be filed within five days of the declaration. The filing of an appeal operates as an immediate stay of the declaration of the Drought Response Committee as it affects the appellant. A review of the immediate stay must be heard by the Administrative Law Judge Division within five days of the filing of the notice of appeal with the Administrative Law Judge Division. All issues under appeal must be heard as a contested case pursuant to the provisions of the Administrative Procedures Act and the rules of the Administrative Law Judge Division.
- H. Any mediation shall not stop or preclude the South Carolina Department of Natural Resources and the Drought Response Committee from taking any other action authorized by the South Carolina Drought Response Act.

121-11.12. Development of Drought Response Plans and Ordinances.

- A. The South Carolina Department of Natural Resources, in cooperation with the South Carolina Department of Health and Environmental Control, shall prepare and distribute a model drought response ordinance or ordinances within six months of approval by the General Assembly of these regulations. The model ordinance will be distributed to all entities which must develop ordinances and plans in accordance with B. below.
- B. Municipalities, counties, public service districts, and commissions of public works engaged in the business or activity of supplying water for any purpose shall develop and implement local drought response ordinances, or local drought response plans when authority to enact ordinances does not exist.

(1) In so far as possible and practical, local governments will be responsible for alleviating the impacts of drought (See R.121-11.6B). Cooperation among adjacent water suppliers is encouraged to develop alternate water supply sources and back-up systems and to develop compatible plans and ordinances.

(2) Local drought response ordinances and plans shall be consistent with these regulations and shall contain at a minimum the following information:

(a) A description of alternate supply sources, including time, costs, and problems associated with putting alternate sources on-line.

(b) A water use reduction plan and schedule for moderate, severe, and extreme drought for each category, as appropriate, in R.121-11.10.

(c) An implementation plan and ordinance, as appropriate.

(3) Proposed ordinances and plans must be submitted to the South Carolina Department of Natural Resources for consistency review within twelve months of the effective date of these regulations.

(4) Proposed local drought response ordinances and plans must be adopted within eighteen months of the effective date of these regulations.

(5) Water suppliers as specified in B. above, commencing the business or activity of supplying water, after the effective date of these regulations, shall submit a local drought response ordinance or plan to the South Carolina Department of Natural Resources within six months of the commencement of the business or activity and shall adopt the ordinance or plan within twelve months of the commencement of the business or activity.

Fiscal Impact Statement:

This regulation may require water curtailment and any water dependent industry may be impacted during severe or extreme droughts.