SECTION .0600 - WATER USE DURING DROUGHTS AND WATER SUPPLY EMERGENCIES

15A NCAC 02E .0601 SCOPE

The purpose of this Section is to minimize harmful impacts of drought and water supply emergencies on public health and safety, environmental quality, and the economy by establishing minimum standards and practices for water shortage response planning, water use reporting, water conservation, and water reuse during droughts and water supply emergencies.

History Note: Authority G.S. 143-354(a)(1); 143-354(a)(8); S.L. 2002-167;

Eff. March 19, 2007.

15A NCAC 02E .0602 DEFINITIONS

The following definitions shall apply for the purposes of this Section,

- (1) "Water" means any waters of the State located on or below the land surface as well as water contained within a water treatment and distribution system.
- (2) "Person" means any individual, corporation, company, association, partnership, unit of local government or other legal entity.
- "Water delivery system" means any open or closed conveyance system used to move water for potable or non-potable purposes from its point of origin to a point of use, including: municipal water systems; residential, commercial, industrial, and commercial plumbing systems; irrigation systems; water using equipment; and flexible hoses.
- (4) "Essential water use" means the use of water necessary for fire fighting, health and safety purposes; water needed to sustain human and animal life; and water necessary to satisfy federal, state and local public health, safety or environmental protection requirements.
- (5) "Non-essential water use" means categories of water use, other than essential water use, that may be curtailed during droughts and water emergencies.
- (6) "State agencies" includes all agencies of the executive branch of the government of North Carolina, the General Assembly, the General Court of Justice, and the University of North Carolina.
- (7) "Unit of local government" means a county, city, consolidated city-county, sanitary district or other local political subdivision or authority or agency of local government.
- (8) "Department" means the North Carolina Department of Environment and Natural Resources (DENR).
- (9) "Council" and "NCDMAC" mean the North Carolina Drought Management Advisory Council.
- "Drought Advisory" means an advisory issued by the NCDMAC that delineates the geographic extent and severity of a water deficit significant enough to have social, environmental or economic effects. Drought Advisories shall be designated as Abnormally Dry, Moderate Drought, Severe Drought, Extreme Drought and Exceptional Drought to indicate the severity of conditions from least to most severe, respectively.
- (11) "Syringing" means the application of a small volume of water, usually 0.10 inch or less, near midday to correct plant water deficits, reduce plant tissue temperatures and reduce the heat stress on turfgrass plants.

History Note: Authority G.S. 143-354(a)(8); S.L. 2002-167;

Eff. March 19, 2007.

15A NCAC 02E .0603 GENERAL INFORMATION

- (a) The provisions of this Section apply to the following classes of water users:
 - (1) Publicly owned and privately owned water supply systems;
 - (2) State agencies;
 - (3) Units of local government;
 - (4) Business and industrial water users; and
 - (5) Agricultural and horticultural water users.

- (b) This Section does not prevent owners and operators of a water delivery system or other persons from developing, implementing and requiring water use measures in response to droughts or emergency water shortages that are more restrictive than the specified response measures in Rules .0612 through .0614.
- (c) All established and new uses of reclaimed water, consistent with the provisions of 15A NCAC 02H .0200 and any successive rules and amendments that define and the use of reclaimed water, as administered by the Department's Division of Water Quality, shall be exempt from the requirements set forth in this Section.

History Note: Authority S.L. 2002-167;

Eff. March 19, 2007.

15A NCAC 02E .0604 ANNUAL REPORTING OF WATER USE DATA

In order to improve the availability of data for the development of the State water supply plan to be used when managing water resources during drought and water supply emergencies and to provide a basis for evaluating the effectiveness of emergency water conservation measures, the following data reporting requirements have been established:

- (1) Water systems that are required to prepare a Local Water Supply Plan under G.S. 143-355(I) shall, irrespective of the issuance of a drought advisory, annually report to the Department the following information:
 - (a) Water system identification information:
 - (b) Annual average daily water use (total amount of surface and ground water withdrawn as well as water supplied by another system) by the water system, in million gallons per day (MGD);
 - (c) The average daily water use (total amount of surface and ground water withdrawn as well as water supplied by another system) for each month of the prior calendar year, in million gallons per day (MGD);
 - (d) The number of connections for residential, industrial, commercial and institutional metered and non-metered water use, as of December 31st of the reporting year;
 - (e) The annual average daily water use in million gallons per day (MGD) categorized by residential, industrial, commercial, institutional water uses and sales to other systems to the extent that this information by category is available; and
 - (f) Water used by the system, in addition to the amount delivered to customers, to meet water treatment and distribution requirements, in million gallons per day (MGD).
- (2) All persons that are required to register water withdrawals and transfers under G.S. 143-215.22H, who are not subject to Item (1) of this Rule, shall annually report to the Department monthly average water use in million gallons per day (MGD) for each month. The following information shall be reported:
 - (a) Owner and facility identification information;
 - (b) Sources of water withdrawn;
 - (c) Number of days water was withdrawn for each month; and
 - (d) Average daily withdrawal for the actual number of days water was withdrawn each month, in million gallons per day (MGD).
- (3) Data shall be submitted electronically. Water users that exhibit to the Division of Water Resources an inability to submit data electronically may submit data in writing on a form supplied by the Department.
- Data shall be submitted to the Department by April 1st of each year for the period of January 1st to December 31st of the prior year.

History Note: Authority G.S. 143-355(k); 143-355(l); 143-354(a); Eff. March 19, 2007.

15A NCAC 02E .0605 WATER USE REDUCTION REPORTING, NEW WATER WITHDRAWAL REPORTING AND REGIONAL COORDINATION DURING DROUGHTS

In order to promote regional cooperation for the equitable use of water resources during a drought or other water supply emergency, all persons, as specified below, shall comply with the following reporting and coordination procedures:

- (1) Publicly and privately owned community water systems and units of local government shall report to the Division of Water Resources the implementation of mandatory water conservation measures within 72 hours of their initial enactment.
- (2) All persons that intend to make a new water withdrawal, which has not previously been registered under G.S. 143-215.22H, of 100,000 gallons or more in an area designated by the Council as suffering from Extreme or Exceptional Drought shall report to the Division of Water Resources, by the same means outlined in Item (3) of Rule .0604, the following information at least seven days prior to the withdrawal:
 - (a) Contact information for the person making the water withdrawal;
 - (b) Source(s) of water to be withdrawn;
 - (c) Number of days water is anticipated to be withdrawn; and
 - (d) Anticipated average daily withdrawal in million gallons per day (MGD).
- (3) All persons that withdraw water shall monitor drought and water supply conditions and shall participate in regional coordination for the management of water resources, evaluation of the cumulative effects of water withdrawals on regional water resources and the development of alternative water supply sources. Based on an assessment of drought severity and regional water supply conditions, the Department may contact water systems within the affected region to arrange a consultation meeting between water systems and relevant state and local agencies. The Department shall moderate these consultations and provide technical assistance.

History Note: Authority G.S. 143-354(a)(8); 143-355(k); S.L. 2002-167;

Eff. March 19, 2007.

15A NCAC 02E .0606 WATER SHORTAGE RESPONSE PLANNING REQUIREMENTS

All classes of water users shall prepare a Water Shortage Response Plan according to the water shortage response planning provisions in Rules .0607 through .0611 for their appropriate class of water use. The purpose of these Water Shortage Response Plans is to plan for an effective course of action to minimize harmful impacts of drought and water supply emergencies on public health and safety, environmental quality, and the economy. Water Shortage Response Plans shall take into account the specific characteristics of the water sources and the water uses for which the plan is prepared.

History Note: Authority G.S. 143-354(a)(1); 143-355(I); S.L. 2002-167;

Eff. March 19, 2007.

15A NCAC 02E .0607 PUBLICLY AND PRIVATELY OWNED WATER SYSTEM WATER SHORTAGE RESPONSE PLANNING REQUIREMENTS

- (a) Publicly and privately owned water systems that are required to prepare a Local Water Supply Plan under G.S. 143-355(I) shall include the following information in their local Water Shortage Response Plans for review by the Division of Water Resources:
 - (1) The designation of a staff position or organizational unit responsible for the implementation of their Water Shortage Response Plan;
 - (2) Notification procedures that will be used to inform employees and water users about the implementation of the plan and required water conservation response measures;
 - (3) Tiered levels of response actions to be taken to reduce water use based on the severity of water shortage conditions;
 - (4) Specific measurements of available water supply, water demand and system conditions that will be used to determine the severity of water shortage conditions and to initiate water use reduction measures and the movement between various levels:

- (5) Procedures that will be used to regulate compliance with the provisions of the plan;
- (6) Procedures for affected parties to review and comment on the plan prior to final adoption:
- (7) Procedures to receive and review applications for variances from specific requirements of the plan and the criteria that will be considered in the determination to issue a variance;
- (8) An evaluation method to determine the actual water savings accomplished and the effectiveness of the Water Shortage Response Plan when implemented; and
- (9) Procedures for revising and updating Water Shortage Response Plans to improve plan effectiveness and adapt to new circumstances.
- (b) Publicly and privately owned water systems that are required to prepare a Local Water Supply Plan shall submit a copy of their Water Shortage Response Plan and any subsequent revisions of the plan to the Division of Water Resources for review every five years with the full Local Water Supply Plan, as required by G.S. 143-355(I).
- (c) Publicly and privately owned water systems not required to prepare a Local Water Supply Plan shall:
 - (1) Assess their vulnerability to drought and water shortage emergencies; and
 - Prepare a written plan for responding to water shortage emergencies and drought using the provisions of Paragraph (a) of this Rule.
- (d) Publicly and privately owned water systems that depend on the water storage in a private or public impoundment that they do not own and operate under a contract for the withdrawal of water issued by the owner of an impoundment shall prepare a written plan for responding to water shortages that is consistent with the provisions of the contract and shall comply with all Water Shortage Response Plan provisions established by the owner of the impoundment.
- (e) Water Shortage Response Plans shall provide for water users who have made improvements to maximize water use efficiency in their daily operations and may face disproportionate hardships when making further water use reductions. Water Shortage Response Plans shall avoid restricting efficient water users in ways that would undermine incentives for water users to seek continued improvements in water use efficiency and shall honor locally approved certification programs that recognize efficient water users who meet industry standards for water use efficiency and water conservation.
- (f) When the NCDMAC issues a drought advisory designating an area of the state as currently suffering from drought, publicly and privately owned water systems that depend on water from the designated area shall for the duration of the designation:
 - (1) Implement the provisions of their Water Shortage Response Plan, as determined by the specific indicators established in the plan for initiating response measures;
 - (2) Monitor and document water supply conditions;
 - (3) Educate customers and employees on the need to conserve water and how to prepare for potential drought conditions;
 - (4) Inspect water delivery system components and ensure that existing equipment is operating as efficiently as possible;
 - (5) Stay informed on drought and water shortage emergency conditions and participate in regional coordination for the management of water resources; and
 - (6) Evaluate the feasibility of reclaiming and recycling water to meet water needs.

History Note: Authority G.S. 143-354(a)(1); 143-355(l); S.L. 2002-167; Eff. March 19, 2007.

15A NCAC 02E .0608 STATE AGENCY WATER SHORTAGE RESPONSE PLANNING REQUIREMENTS

- (a) State agencies that supply their own water shall prepare a written plan for responding to water shortages using the provisions of Rule .0607(a).
- (b) State agencies that are supplied water by a publicly or privately owned water system shall:
 - (1) Review normal operating procedures and water use to identify options to reduce water use and maximize water use efficiency during water supply emergencies, including changes to normal operating procedures;
 - (3) Provide information to their water purveyor(s) upon request to support development of the purveyor's Water Shortage Response Plan(s), including the agency's ability to reduce water use and limitations to reducing water use during droughts and water emergencies;

- (4) Develop procedures for informing employees of drought designations, water emergency declarations and response measures; and
- (5) Evaluate the feasibility of reclaiming and recycling water to meet water needs.

History Note: Authority G.S. 143-354(a)(1); S.L. 2002-167;

Eff. March 19, 2007.

15A NCAC 02E .0609 LOCAL GOVERNMENT WATER SHORTAGE RESPONSE PLANNING REQUIREMENTS

- (a) Units of local government that provide water to the public shall meet the requirements of Rule .0607(a).
- (b) Units of local government that do not provide water to the public shall:
 - (1) Review normal water use for the types and number of facilities operated to identify options to reduce water use and maximize water use efficiency by local government operations during water shortage emergencies, including possible changes to normal operating procedures;
 - (2) Cooperate with local water purveyor(s) on the development and implementation of the purveyor's Water Shortage Response Plan(s);
 - (3) Establish a procedure for informing citizens of drought designations, recommended conservation activities and mandatory response measures to reduce water use during droughts and water shortage emergencies;
 - (4) Provide a mechanism whereby residents can apply for and receive a variance from specific water use reduction requirements implemented by local governments;
 - (5) Consider disproportionate hardships that water shortage response policies and ordinances may cause water users who have already made improvements to maximize water use efficiency in their daily operations; and
 - (6) Evaluate the feasibility of reclaiming and recycling water to meet water needs.

History Note: Authority G.S. 143-354(a)(1); S.L. 2002-167;

Eff. March 19, 2007.

15A NCAC 02E .0610 BUSINESS AND INDUSTRIAL WATER SHORTAGE RESPONSE PLANNING REQUIREMENTS

- (a) Self-supplied business and industrial water users subject to the water withdrawal registration requirements of G.S. 143-215.22H shall prepare a written plan, for responding to water shortages that is consistent with industry water efficiency and drought response guidelines, that incorporate the relevant provisions of Rule .0607(a).
- (b) Business and industrial water users that depend on the water storage of a privately or publicly owned impoundment or withdraw water under a contract issued by the owner of an impoundment shall have a written plan for responding to water shortages that is consistent with the provisions of the contract and with any Water Shortage Response Plan provisions established by the owner of the impoundment.
- (c) Business and industrial water users that are supplied water by a publicly or privately owned water system shall establish a procedure for responding to water shortages that is complementary to their water purveyor's Water Shortage Response Plan.

History Note: Authority G.S. 143-354(a)(1); S.L. 2002-167;

Eff. March 19, 2007.

15A NCAC 02E .0611 AGRICULTURAL AND HORTICULTURAL WATER SHORTAGE RESPONSE PLANNING REQUIREMENTS

(a) Agricultural and horticultural water users subject to the water withdrawal registration requirements of G.S. 143-215.22H shall develop a written plan for responding to water shortages to maximize water use efficiency and reduce water usage to the maximum extent possible. Any of the guidance documents on best management practices for the efficient use of water in agricultural and horticultural operations developed by the United States Department of Agriculture's Natural Resources Conservation Service, the North Carolina

Department of Agriculture and Consumer Services, the NCDENR Division of Soil and Water Conservation, North Carolina State University, the North Carolina Cooperative Extension Service or other industry trade organizations may be used to assist agricultural and horticultural water users identify the most appropriate water use efficiency measures that they may incorporate into the plan for their particular operational needs. (b) When a region of the state is designated as suffering from Severe Drought, Extreme Drought or Exceptional Drought by a NCDMAC drought advisory, agricultural and horticultural water users shall reexamine and maintain water delivery systems to minimize water loss and maximize water use efficiency. (c) Agricultural and horticultural water users that depend on the water storage of a privately or publicly owned impoundment or withdraw water under a contract issued by the owner of an impoundment shall have a written plan for responding to water shortages that is consistent with the provisions of the contract and with any Water Shortage Response Plan provisions established by the owner of the impoundment.

History Note: Authority S.L. 2002-167;

Eff. March 19, 2007.

15A NCAC 02E .0612 DEFAULT WATER SHORTAGE RESPONSE PLANNING MEASURES

Publicly or privately owned water systems that are required to prepare a Local Water Supply Plan under G.S. 143-355(I) that do not have a written Water Shortage Response Plan, as outlined in Rule .0607, shall implement the default water use reduction measures of Rules .0613 and .0614 of this Section when their water system or water source is located in an area designated as suffering from Extreme or Exceptional Drought by the Council.

History Note: Authority S.L. 2002-167;

Eff. March 19, 2007.

15A NCAC 02E .0613 DEFAULT WATER USE REDUCTION MEASURES DURING NCDMAC EXTREME DROUGHT DESIGNATIONS

When the NCDMAC designates a region of the state as suffering from Extreme Drought, the following water use reduction standards shall apply to water users in the designated area, as indicated in Rule .0612:

- (1) Water users shall reduce water use by at least 10% below the amount used in the month prior to a NCDMAC Extreme Drought designation in the affected area.
- (2) All water users shall minimize non-essential use of water.
- (3) Outdoor irrigation is prohibited, except for:
 - (a) Watering lawns less than one inch of water per week, between the hours of 8:00 PM and 8:00 AM;
 - (b) Maintaining newly installed landscapes, lawns and erosion control projects that were initiated prior to the issuance of an Extreme Drought advisory, not to exceed the minimum rate necessary on the day of installation and for 60 days following installation, by means designed and operated to maximize water use efficiency and to prevent run-off and excessive watering;
 - (c) Using spray irrigation by wastewater effluent treatment systems from the NCDMAC Extreme Drought designated area(s) according to permit conditions under the provisions of North Carolina Administrative Code 15A NCAC 02H .0200 and any successive rules and amendments, as administered by the Department's Division of Water Quality;
 - (d) Maintaining athletic fields with less than one inch of water per week between the hours of 8:00 PM and 8:00 AM;
 - (e) Maintaining personal food gardens;
 - (f) Maintaining existing landscape plantings at the minimum rate necessary, between the hours of 8:00 PM and 8:00 AM, using a hand held container or hose with an automatic shutoff or using drip irrigation;
 - (g) Watering golf course tees, fairways and greens by means of an automated irrigation system between the hours of 8:00 PM and 8:00 AM with less than one inch of water per week;

- (h) Syringing golf course tees and greens exhibiting visible signs of stress between the hours of 12:00 PM and 4:00 PM, at the minimum rate necessary; and
- (i) Maintaining plant inventories, by means designed and operated to maximize water use efficiency, at retail garden centers, garden centers within mass merchant stores or other businesses with live plants as their stock in trade.
- (4) The use of water for washing or cleaning of mobile equipment including automobiles, trucks, boats and fleet vehicles is prohibited, except for:
 - (a) Operating commercial car washes that utilize the industry's best management practices for the efficient use of water and those that recycle, reclaim or reuse a portion of their wash water in their daily operations and have reduced total water consumption by 10% below the amount used in the month prior to a NCDMAC Extreme Drought designation in the affected area;
 - (b) Washing with a hand-held hose with an automatic shutoff device using less than five gallons per vehicle:
 - (c) Cleaning new and used vehicles using less than five gallons per vehicle to prepare for display in a dealer's show room, upon receipt from the manufacturer or prior owner, and following a sale prior to delivery to the purchaser; and
 - (d) Cleaning of construction, emergency, transport or public transportation vehicles if necessary to preserve the proper functioning and safe operation of the vehicle.
- (5) The use of water for washing impervious and paved surfaces is prohibited, except for:
 - (a) Prewashing in preparation for painting, recoating or sealing; and
 - (b) Applying at the minimum rate necessary for sanitation and public health purposes.
- (6) The use of water for ornamental fountains, artificial waterfalls, misting machines, reflecting pools, and ornamental ponds is prohibited, except for the minimum amount of make-up water necessary to maintain aquatic life.
- (7) The use of water for power washing of buildings and other structures is prohibited except when necessary to meet federal, state and local public health and safety requirements.
- (8) The use of water for flushing sewer lines is prohibited except when necessary to meet public health and safety standards.
- (9) The use of water from fire hydrants is prohibited, except for:
 - (a) Fighting fire and fire protection purposes;
 - (b) Testing or training if it is necessary to protect public safety and has been approved by the applicable water purveyor; and
 - (c) Flushing of potable water lines to protect the public health.
- (10) The filling of family, public or private swimming pools, including hot tubs, spas and whirlpool tubs, is prohibited, except:
 - (a) For health and rehabilitative purposes as prescribed by a medical doctor or administered by a medical facility; and
 - (b) For the minimal amount of make-up water necessary to maintain a pool's structural integrity and filtration system.
- (11) The serving of water in eating and drinking establishments shall be done on customer request only.
- (12) Water shall be applied at the minimum rate necessary to maintain effective dust and erosion control during the construction of roads and highways initiated prior to the declaration of an Extreme Drought by the NCMDAC.

History Note: Authority S.L. 2002-167; Eff. March 19, 2007.

15A NCAC 02E .0614 DEFAULT WATER USE REDUCTION MEASURES DURING NCDMAC EXCEPTIONAL DROUGHT DESIGNATIONS

When the NCDMAC designates a region of the state as suffering from Exceptional Drought, the following water use reduction standards shall apply to water users in the designated area, as indicated in Rule .0612:

(1) Water users shall reduce water use by at least 20% below the amount used in the month prior to the most recent NCDMAC Extreme Drought designation in the affected area.

- (2) Non-essential water use shall be minimized by the maximum extent possible.
- (3) Outdoor irrigation is prohibited, except for:
 - (a) Using spray irrigation by wastewater effluent treatment systems in NCDMAC Exceptional Drought designated areas according to permit conditions under the provisions of North Carolina Administrative Code 15A NCAC 02H .0200 and any successive rules and amendments, as administered by the Department's Division of Water Quality;
 - (b) Watering personal food gardens by hand with a container or hand held hose with an automatic shutoff device or using drip irrigation between the hours of 8:00 PM and 8:00 AM:
 - (c) Maintaining existing landscape plantings at the minimum rate necessary, between the hours of 8:00 PM and 8:00 AM, using a hand held container or hose with an automatic shutoff or using drip irrigation;
 - (d) Watering golf course tees, fairways and greens, athletic fields and lawns between the hours of 8:00 PM and 8:00 AM with less than one half inch of water per week;
 - (e) Syringing of golf course tees and greens exhibiting visible signs of stress between the hours of 1:00 PM and 4:00 PM, at the minimum rate necessary;
 - (f) Maintaining newly installed landscapes, lawns and erosion control projects that were initiated prior to the issuance of an Extreme Drought advisory, not to exceed the minimum rate necessary on the day of installation and for 28 days following installation, by means designed and operated to maximize water use efficiency and to prevent run-off and excessive watering; and
 - (g) Maintaining plant inventories, by means designed and operated to maximize water use efficiency, at retail garden centers, garden centers within mass merchant stores, or other businesses with live plants as their stock in trade.
- (4) The use of water for washing or cleaning mobile equipment including automobiles, trucks, boats and fleet vehicles is prohibited, except for:
 - (a) Operating commercial car washes that utilize the industry's best management practices for the efficient use of water and those that recycle, reclaim or reuse a portion of their wash water and have reduced total water consumption by 20% below the amount used in the month prior to the most recent NCDMAC Extreme Drought designation in the affected area;
 - (b) Cleaning of new and used vehicles in preparation for display in a dealer's show room, using less than five gallons per vehicle; and
 - (c) Using the minimum amount of water necessary to clean construction, emergency, transport or public transportation vehicles, if required to preserve the proper functioning and safe operation of the vehicle as required by law.
- (5) The use of water for washing impervious and paved surfaces is prohibited except for using the minimum amount of water necessary for sanitation and public health purposes.
- (6) The use of water for power washing of buildings and other structures is prohibited.
- (7) The use of water for flushing sewer lines is prohibited except when necessary to meet public health and safety standards.
- (8) The use of water from fire hydrants is prohibited, except for:
 - (a) Fighting fire and fire protection purposes; and
 - (b) Flushing of drinking water lines to protect public health and safety.
- (9) The filling of family, public or private swimming pools, including hot tubs, spas and whirlpool tubs, is prohibited except for health and rehabilitative purposes as prescribed by a medical doctor or administered by a medical facility.
- (10) The use of water for ornamental fountains, artificial waterfalls, misting machines, reflecting pools, and ornamental ponds is prohibited, except for the minimum amount of make-up water necessary to maintain aquatic life.
- (11) The serving of water in eating and drinking establishments shall be done on customer request only.
- (12) Water shall be applied at the minimum rate necessary to maintain effective dust and erosion control during the construction of roads and highways initiated prior to the declaration of an Extreme Drought by the NCDMAC.

History Note: Authority S.L. 2002-167;

Eff. March 19, 2007.

15A NCAC 02E .0615 WATER REUSE DURING DROUGHTS AND WATER EMERGENCIES

Water users may use reclaimed water under the provisions of North Carolina Administrative Code 15A NCAC 02H .0200 and any successive rules and amendments, as administered by the Department's Division of Water Quality, during droughts and other water emergencies to reduce withdrawals of surface water and ground water and to extend available water supplies.

History Note: Authority S.L. 2002-167;

Eff. March 19, 2007.