

RESOLUTION
DROUGHT MANAGEMENT PLAN

Section I: Declaration of Purpose and Intent

The New Ellenton CPW understands the fundamental need to make efficient use of the limited and valuable resource under its stewardship in order to protect the public's health and safety and environmental integrity. The purpose of this document is to establish a plan and procedures for managing water demand and evaluating supply options before and during a drought-related water shortage. The intent is to satisfy the requirement of the Drought Response Act of 2000 (Code of Laws of South Carolina, 1976, Section 49-23-10, et seq. As amended) with the goal of achieving the greatest public benefit from domestic water use, sanitation and fire protection and to provide water for other purposes in an equitable manner. Therefore, the New Ellenton CPW has adopted this Drought Management Plan and provides the regulations by which the New Ellenton CPW will manage and control its customer water usage during various levels of a drought.

Section II: Definition of Terms

For the purpose of this Plan and the accompanying Ordinance, the following definitions will apply:

Aesthetic Water Use: Water use for ornamental or decorative purposes such as fountains, reflecting pools and waterfalls.

Commercial and Industrial Use: Water use integral to the production of goods and/or services by any establishment having profit as its primary aim.

Conservation: Reduction in water use to prevent depletion or waste of the resource.

Customer: Any person, company or organization using finished water owned or supplied by New Ellenton Commission of Public Works.

Domestic Water Use: Water use for personal needs or household purposes such as drinking, bathing, heating, cooking, sanitation or for cleaning a residence, business, industry or institution.

Drought Alert Phases: There are four drought alert phases to be determined by the Drought Response Committee for the state of South Carolina. The four phases are:

1. Incipient Drought
2. Moderate Drought
3. Severe Drought
4. Extreme Drought

Drought Response Management Areas: There are four drought management areas corresponding to the major river basins in South Carolina. The four areas are:

1. West or Savannah
2. Central or Santee
3. Northeast or Pee Dee
4. Southern or Ashepoo, Combahee and Edisto

In order to prevent overly broad response to drought conditions, drought response measures shall be considered within each individual drought management areas or within individual counties, as applicable.

Drought Response Committee: A committee composed of State and local representatives created for the purpose of coordinating responses to water supply shortages within the Drought Management Areas and making recommendations for action to the South Carolina Department of Natural Resources and/or the Governor. The Committee is composed of State agency representatives from the South Carolina Emergency Management Division of the Office of the Adjutant General, South Carolina Department of Environmental Services, South Carolina Department of Agriculture, South Carolina Forestry Commission and the South Carolina Department of Natural Resources, as well as local committees representing counties, municipalities, public service districts, private water suppliers, agriculture, industry, domestic users, regional councils of government, commissions of public works, power generation facilities, special purpose districts and Soil and Water Conservation Districts.

Essential Water Use: Water used specifically for firefighting, maintaining in-stream flow requirements and to satisfy Federal, State or local public health and safety requirements.

Finished Water: Water distributed for use after treatment. The terms “water use,” “water user,” and “water customer” refer to finished water use unless otherwise defined.

Institutional Water Use: Water used by government, public and private educational institutions, churches and places of worship, water utilities and organizations within the public domain.

Irrigation Water Use: Water used to maintain gardens, trees, lawns, shrubs, flowers, athletic fields, right-of-way and medians.

Non-essential Water Use: Categories of water use other than Essential Water Use. Examples of non-essential water use include landscape irrigation and the washing of buildings, parking lots, automobiles, etc.

Residential Equivalent Unit (REU): An equivalency unit defined to be equal to one single-family residence. New Ellenton CPW’s allocated water capacity equals 300 gallons per day per REU.

SC Dept of Natural Resources: The State agency with primacy to implement the provisions of the Drought Response Act.

Water Supply Shortage: Lack of adequate, available water caused by drought to meet normal demands.

Section III: Drought Management Plan

- A. Introduction: To ensure that Commission of Public Works New Ellenton adequately manages its water system during drought-related conditions, an organized plan is necessary for system operation & reliability, proper communications, effective coordination and ultimate allocation of water use. Prior planning will compliment the Commission of Public Works ability to respond to drought conditions and to enforce the related ordinance.
- B. Designation of Water System Drought Response Representative: Administering a Drought Plan requires the skills needed to undertake a comprehensive public information program and the judgement required to deal with equity issues arising from enforcement of a mandatory program. Someone who has these skills will be selected by the water system to manage the water system's program and serve as the principal contact for the news media as the system's Drought Response Representative. The Drought Response Representative for the Commission of Public Works New Ellenton is Daniel R. Lowe, 100 Main St. S. New Ellenton, SC 29809 (803) 652-2862, dlowe@newellentoncpw.com
- C. Description of Water System Layout, Water Sources, Capabilities and Yields: The Commission of Public Works New Ellenton is located in the Savannah Drought Response Management Area of South Carolina. The system serves 3,500 customers from Talatha Church Rd. south to Highway 278. The system has two 300,00 gallon elevated storage tanks. The system's water comes from three ground water wells 450 ft. deep into an underground source of water called the Middendorf Aquifer. Well #1 is located on Boatner St. with a yield of 327.39 TGD. Well #2 is located on Oakridge Street with a yield of 327.39 TGD. Well #3 is located on Dry Branch Rd. with a yield of 327.39 TGD. Well #4 is located on Darlington Dr. with a yield of 327.39 TGD. The SCDES total permitted capacity of the water system operated by the Commission of Public Works New Ellenton is 478 million gallons yearly withdrawal.
- D. Identification of Water System Specific Drought or Water Shortage Indicators: Operators of every water system must develop historical trends that are valuable indicators of when a system's ability to meet demand begins to outpace supply. The Commission of Public Works has developed triggers for use during drought or demand water shortages that describe when specific phases of the Drought Response Ordinance are implemented. The system triggers are as follows:

Moderate Drought Phase

1. Elevated storage falls below 50% of total capacity
2. Average daily use greater than 75% of plant capacity for 7 consecutive days
3. Aquifer stabilized static level drops 10 feet

Severe Drought Phase

1. Elevated storage falls below 50% of total capacity
2. Average daily use greater than 95% of plant capacity for 7 consecutive days
3. Aquifer stabilized static level drops 20 feet

Extreme Drought Phase

1. Elevated storage falls below 25% of total capacity
2. Average daily use greater than 100% of plant capacity for 7 consecutive days
3. Aquifer stabilized static level drops 30 feet

- E. Cooperative Agreements and Alternative Water Supply Sources: Successful drought management requires a comprehensive program by the water utility. In many situations, administrative agreements are required with other agencies to fully implement the plan. Agreements with other water purveyors may be necessary for alternative water supply sources. Other agreements that strengthen conservation efforts by large users may be necessary. The Commission of Public Works New Ellenton identifies the following agreements that are in place to facilitate the implementation of this plan: The Commission of Public Works supplies potable water to 3,500 customers. The only alternative water supply source is an emergency tie in with the City of Aiken. This agreement states that the water is only to be used in an emergency in the event that there is excess capacity available.
- F. Description of Pre-Drought Planning Efforts: Before the occurrence of a water supply shortage and the need to implement the emergency provisions of the Ordinance, it is important that certain pre-response measures have been taken with the aim of conserving the system's source of water, as well as the water distributed to the customer. In regards to the conservation measures listed below, the Commission of Public Works New Ellenton has taken the following actions:
1. Identification of all major water users in the system:
Country Inn & Suites
Quick & Easy Car Wash
Soaps & Suds Laundry
Greendale Elementary School
KJ's Supermarket
 2. Identification of those users with whom there are conservation agreements:
N/A

3. A vigorous public education program is critical for achieving substantial water use reductions. An effective public outreach program will keep the public informed about the water supply situation, what actions will mitigate drought emergency problems, and how well the public is doing in terms of meeting the programs goals. Keeping the public involved, informed and participating in the decision-making process is key to implementing an effective Drought Management Plan.

The Commission of Public Works New Ellenton goal is to promote the wise use of our water resource. One major of the CPW is the rehabilitation of water mains that may cause a problem. Our objective is to find the problem area's before major line breaks that cause major water loss. Another area of concern is maximizing efficiency of water delivered from the CPW to customers.

The Commission of Public Works New Ellenton has targeted four community groups to accomplish its goals: Irrigation, Residential, Schools and Commercial Customers.

1. Irrigation: Increasing the efficiency of landscape irrigation has the most potential for reducing water consumption.
2. Residential: Teaching customers how water is delivered, the cost of water service, why water conservation is important and how they can use water more efficiently in their daily activities.
3. Schools: Educate future citizens about water conservation.
4. Commercial Customers: The same principles apply to commercial as residential. However, there may be some operations that are particularly high in water usage that will be addressed with more targeted water saving methods.

Methods to inform the public:

- a. Distribute information material
- b. Get teachers involved in water conservation
- c. Newspaper/online/CPW website
- d. Customer water bill postings

G. Description of Capital Planning and Investment of system Reliability and Demand Forecasting: Water utilities routinely find that capital improvements to the system strongly enhance their ability to get through times of drought. It is important that water utilities aggressively plan and build for future needs. The utility must continue to provide for system operation flexibility, improved pumping and storage capacity and new technologies to meet the demands of tomorrow.

The Commission of Public Works New Ellenton started a major upgrade in 2002. The project addressed a ten-year plan for development. The CPW has erected two new 300,000 gallon tanks and a telemetry system to help keep a better audit on water pumped as opposed to water billed. The CPW has also installed new main lines in the project and abandoned many old ones.

