TOWN OF SWANSEA

Drought Management Plan
and
Response Resolution

(As required by the South Carolina Drought Response Act of 2000.)

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Section I: - Declaration of Purpose and Intent

The TOWN OF SWANSEA understands the fundamental need to make efficient use of the limited and valuable water 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 requirements 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 TOWN OF SWANSEA has adopted this Drought Management Plan and Drought Response Resolution that provide the policies and the authority to fulfill this obligation. The Drought Management Plan outlines the framework by which TOWN OF SWANSEA will internally prepare for water shortages. The Resolution provides the regulations by which the TOWN OF SWANSEA will manage and control its customer water usage during various levels of a drought.

Section II: Definition of Terms

For the purposes of this Plan and the accompanying Resolution, 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 the TOWN OF SWANSEA.

Domestic Water Use: Water use for personal needs or for 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 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 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 Health and Environmental Control, South Carolina Department of Agriculture, South Carolina Forestry Commission, and 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 fire fighting, 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, rights-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. TOWN OF SWANSEA'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 TOWN OF SWANSEA adequately manages its water system during drought-related conditions, an organized plan is necessary for system operation and reliability, proper communications, effective coordination and ultimate allocation of water use. Prior planning will compliment the TOWN OF SWANSEA ability to respond to drought conditions and to enforce the related Resolution.

B. **Designation of Water System Drought Response Representative:** Administrating 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 water system's Drought Response Representative. The Drought Response Representative for TOWN OF SWANSEA is Ray Spires, Mayor (telephone 803-568-2835 and e-mail: rspires@pbtcomm.net).

C. **Description of Water System Layout, Water Sources, Capacities and Yields:** The TOWN OF SWANSEA is located in the Central Drought Response Management Area of South Carolina. The system serves approximately 10 square miles with almost 800 active accounts.
Briefly, describe the layout of the water system:
Town limits and unincorporated area of Lexington County, approximately 800 active accounts. System consists of 2 elevated tanks (total storage of 0.5 million gallons), and approximately 40 miles of transmission and distribution piping.
The water supply sources available to the system are:
Lake Murray (from the surface water plant owned by the City of West Columbia). The SCDHEC total permitted capacity of the water system operated by LCJMWSC is 4.57 million gallons per day. The TOWN OF SWANSEA is a contract customer. The one remaining well owned by the town is not used at present, and is retained for emergency purposes only.

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 a system's ability to meet demand when demand begins to outpace supply. The TOWN OF SWANSEA has developed triggers for use during drought or demand water shortages that describe when specific phases of the Drought Response Resolution are implemented. The system triggers are as follows:

Moderate Drought Phase

1. Average daily use greater than 3.5 mgd for 10 consecutive days.

Severe Drought Phase

1. Average daily use greater than 3.9 mgd for 14 consecutive days.

Extreme Drought Phase

1. Average daily use greater than 4.2 mgd for 14 consecutive days
2.

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 TOWN OF SWANSEA has no other feasible water sources available to facilitate the implementation of this Plan; therefore, no agreements are being negotiated or considered with other entities.

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 Resolution, it is important that certain pre-response measures be taken with the aim of conserving the system's source water, as well as the water distributed to the customer. In regards to the conservation measures listed below, the TOWN OF SWANSEA has taken the following actions:

G.

1. Identification of all major water users of the system:

   None.

2. Identification of those users with whom there are conservation agreements:

   None

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 program goals. Keeping the public involved, informed, and participating in the decision-making process is key to implementing an effective Drought Management Plan. *Provide a* description of your utility's efforts to *develop an effective drought-* related public education program:

   - Maintain contact with media as needed.

- Provide notice to customers on monthly bills as needed.

H. Description of Capital Planning and Investment for 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 every water utility 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. Describe the utility's capital improvement program and how past efforts have enhanced your system's ability to meet demand during drought conditions:
The TOWN OF SWANSEA is participating in the March, 2003 Bond Issue which includes approximately $7.1 million for 15 miles of transmission mains, 5 miles of distribution mains, a 1 million gallon storage tank and booster pumping station to increase service capabilities within the service area. The TOWN OF SWANSEA will continue to be a customer.

Describe other system improvements the utility should consider to prepare for future droughts and increasing water demands:

In FY 2005, the Commission will increase its capacity availability from 4.57 MGD to approximately 9 MGD. Required financing has been included in the March, 2003 financing plan mentioned above. The TOWN OF SWANSEA will continue to be a customer.

Drought Response Resolution

A. **Declaration of Policy and Authority:** The objective of this Drought Response Resolution is to establish authority, policy and procedure by which the TOWN OF SWANSEA will take the proper actions to manage water demand during a drought-related shortage. The Resolution satisfies the requirements of the Drought Response Act of 2000 and has the goal of achieving the greatest public benefit from limited supplies of water needed for domestic water use, sanitation, and fire protection and of allocating water for other purposes in an equitable manner.

This Resolution outlines the actions to be taken for the conservation of water supplied by the TOWN OF SWANSEA. These actions are directed both towards an overall reduction in water usage and the optimization of supply.

To satisfy these goals, the TOWN OF SWANSEA hereby adopts the following regulations and restrictions on the delivery and consumption of water. This Resolution is hereby declared necessary for the protection of public health, safety and welfare and shall take effect upon its adoption by the TOWN OF SWANSEA.

If it becomes necessary to conserve water in its service area due to drought, the TOWN OF SWANSEA is authorized to issue a proclamation (a "Proclamation") that existing conditions prevent fulfillment of the usual water-use demands. The Proclamation is an attempt to prevent depleting the water supply to the extent that water-use for human consumption, sanitation, fire protection, and other essential needs becomes endangered.

Immediately upon issuance of such a Proclamation, regulations and restrictions set forth under this Resolution shall become effective and remain in effect until the water supply shortage has ended and the Proclamation rescinded.

Water uses that are regulated or prohibited under this Resolution are considered to be non-essential and continuation of such uses during times of water upply shortages is deemed to constitute a waste of water, subjecting the offender(s) to penalties.

The Drought Management Plan as outlined in Section I - III is hereby approved.

B. **Moderate Drought Phase:** Upon notification by the Drought Response Committee that a Moderate drought condition is present and is expected to persist and/or upon determination by the TOWN OF SWANSEA that a moderate water supply shortage exists based on trigger levels, the TOWN OF SWANSEA will seek voluntary reductions from its customers in the use of water for all purposes and voluntary reductions on using water during certain peak water demand

periods. Specifically, the goal during this phase is to achieve a reduction of 20% in residential water use and 15% in other water uses such as commercial, industrial, institutional and irrigation; and a reduction in overall water use of 15%. To accomplish this, the TOWN OF SWANSEA will take the following actions:

1) Issue a Proclamation to be released to local media, TOWN OF SWANSEA's customers and to the South Carolina Department of Natural Resources Drought Information Center that Moderate drought conditions are present.

2) Provide written notification to the South Carolina Department of Natural Resources Drought Information Center and routinely publish in a newspaper of general circulation in the service area of the water system the voluntary conservation measures that the customers are requested to follow during Moderate drought conditions, including:

    a. Reduce residential water use to 65 gallons per person per day and a maximum of 200 gallons per household per day;

    b. Eliminate the washing down of sidewalks, walkways, driveways, parking lots, tennis courts and other hard surfaced areas;

    c. Eliminate the washing down of buildings for purposes other than immediate fire protection;

    d. Eliminate the flushing of gutters;

    e. Eliminate the domestic washing of motorbikes, boats, cars, etc.;

    f. Eliminate the use of water to maintain fountains, reflection ponds and decorative water bodies for aesthetic or scenic purposes, except where necessary to support aquatic life;

    g. Reduce watering of lawns, plants, trees, gardens, shrubbery and flora on private or public property to the minimum necessary. Encourage outdoor watering to be done during off-peak hours.

    h. Reduce the amount of water obtained from fire hydrants for construction purposes, fire drills or for any purpose other than fire-fighting or flushing necessary to maintain water quality; and

    i. Limit normal water use by commercial and individual customers including, but not limited to, the following:

        i. Stop serving water in addition to another beverage routinely in restaurants;

ii. Stop maintaining water levels in scenic and recreational ponds and lakes, except for the minimum amount required to support aquatic life;

iii. Cease water service to customers who have been given a 10-day notice to repair one or more leaks and have failed to do so.

3) Intensify maintenance efforts to identify and correct water leaks in the distribution system.

4) Cease to install new irrigation taps on the water system.

5) Continue to encourage and educate customers to comply with voluntary water conservation.

C. **Severe Drought Phase:** Upon notification by the Drought Response Committee that a Severe drought condition is present and is expected to persist and/or upon determination by the TOWN OF SWANSEA that a severe water supply shortage exists, TOWN OF SWANSEA will seek voluntary reduction in the use of water for all purposes and mandatory restrictions on non-essential usage and restrictions on times when certain water usage is allowed. Specifically, the goal during this phase is to achieve a reduction of 25% in residential water use, 20% in all other water use categories, and a reduction in overall water use of 20%. To accomplish these goals, the TOWN OF SWANSEA will take the following actions:

1) Issue a Proclamation to be released to the local media, TOWN OF SWANSEA's customers and to the South Carolina Department of Natural Resources Drought Information Center that Severe drought conditions are present.

2) Provide written notification to the South Carolina Department of Natural Resources Drought Information Center and routinely publish in a newspaper of general circulation in the service area of the water system the voluntary conservation measures and mandatory restrictions to be placed on the use of water supplied by the utility, including:

a. Voluntary reduction of residential water use by the utility's customers to 55 gallons per person per day and a maximum of 170 gallons per household or REU per day.

b. Control landscape irrigation by the utility's customers by staggering watering times

c. Mandatory restrictions on the use of water supplied by the utility for activities including:

i. Eliminate the washing down of sidewalks, walkways, driveways, parking lots, tennis courts and other hard surfaced areas;

ii. Eliminate the washing down of buildings for purposes other than immediate fire protection;

iii. Eliminate the flushing of gutters;

iv. Eliminate domestic washing of motorbikes, boats, cars, etc.;

v. Eliminate the use of water to maintain fountains, reflection ponds and decorative water bodies for aesthetic or scenic purposes, except where necessary to support aquatic life;

vi. Eliminate filling or maintaining public or private swimming pools;

vii. Eliminate obtaining water from fire hydrants for construction purposes, fire drills or any purpose other than fire-fighting or flushing necessary to maintain water quality; and

d. Limit use of water by commercial and individual customers including, but not limited to, the following:

i. Stop serving water in addition to another beverage routinely in restaurants;

ii. Stop maintaining water levels in scenic and recreational ponds and lakes, except for the minimum amount required to support aquatic life;

iii. Limit irrigating golf courses and any portion of its grounds;

iv. Cease water service to customers who have been given a 10-day notice to repair one or more leaks and have failed to do so; an

v. Limit expanding commercial nursery facilities, placing new irrigated agricultural land in production or planting or landscaping when required by site design review process.

3) Intensify maintenance efforts to identify and correct water leaks in the distribution system.

4) Continue to cease installation of new irrigation taps on the water system.

5) Publicize widely the penalties to be imposed for violations of mandatory restrictions and the procedures to be followed if a variance in the restrictions is requested.

6) Expand the use of education and public relations efforts and emphasize the penalties associated with violating the mandatory restrictions.

7) Provide written notification monthly to the South Carolina Department of Natural Resources Drought Information Center regarding the success of the voluntary and mandatory restrictions.

D. **Extreme Drought Phase:** Upon notification by the Drought Response Committee that an Extreme drought condition is present and is expected to persist and/or upon determination by the TOWN OF SWANSEA that an extreme water supply shortage exists based on the trigger levels, the TOWN OF SWANSEA will impose mandatory restrictions in the use of water for all purposes and on the times when certain water usage is allowed. Specifically, the goal during this phase is to achieve a reduction of 30% in residential water use, 25% in all other categories of water uses and a reduction in overall water use of 25%. To accomplish these goals, the TOWN OF SWANSEA will take the following actions:

1) Issue a Proclamation to be released to the local media, the TOWN OF SWANSEA's customers and to the South Carolina Department of Natural Resources Drought Information Center that Extreme drought conditions are present;

2) Provide written notification to the South Carolina Department of Natural Resources Drought Information Center and routinely publish in a newspaper of general circulation in the service area of the water system the mandatory restrictions to be placed on the use of water supplied by the utility, including:

    a. Limiting residential water use to 45 gallons per person per day and a maximum of 150 gallons per household or REU per day.

    b. Eliminate landscape irrigation by the utility's customers.

    c. Mandatory restrictions on the use of water supplied by the utility for activities including:

        i. Eliminate the washing down of sidewalks, walkways, driveways, parking lots, tennis courts and other hard surfaced areas;

        ii. Eliminate the washing down of buildings for purposes other than immediate fire protection;

        iii. Eliminate the flushing of gutters;

        iv. No domestic washing of motorbikes, boats, cars, etc.;

        v. Eliminate the use of water to maintain fountains, reflection ponds, and decorative water bodies for

aesthetic or scenic purposes, except where necessary to support aquatic life.

vi. Eliminate filling or maintaining public or private swimming pools;

vii. Eliminate obtaining water from fire hydrants for construction purposes, fire drills, or any purpose other than firefighting or flushing necessary to maintain water quality; and

d. Limit normal water use by commercial and individual customers including, but not limited to, the following:

i. Stop serving water in addition to another beverage routinely in restaurants;

ii. Stop maintaining water levels in scenic and recreational ponds and lakes, except for the minimum amount required to support fish and wildlife;

iii. Limit irrigating golf courses and any portion of their grounds;

iv. Cease water service to customers who have been given a 10-day notice to repair one or more leaks and have failed to do so; and

v. Limit expanding commercial nursery facilities, placing new irrigated agricultural land in production, or planting or landscaping when required by site design review process.

3) Intensify maintenance efforts to identify and correct water leaks in the distribution system.

4) Continue to cease installation of new irrigation taps on the water system.

5) Outline other conservation measures, examples are:

a. Place a moratorium on the issuance of all new water service connections and contracts for all new water main extensions. As part of the public information process, provide notice to developers of the moratorium;

b. Encourage all residential water customers to voluntarily reduce overall monthly water usage to 70% of the customer's monthly average. If voluntary reduction of usage is not successful, the TOWN OF

SWANSEA may, at its option, implement the following excessive use rate schedule for water:

Tier I	0 – 12,000 gallons/REU	regular rate
Tier II	12,001 – 20,000 gallons/REU	2 times regular rate
Tier III	Over 20,001 gallons/REU	3 times regular rate

c. Impose a drought surcharge per thousand gallons of water that increases with higher usage. The general principle behind the drought surcharge is that the fee is imposed on water use in excess of 1.5 times of average monthly use. The drought surcharge is a temporary fee imposed during the current water supply shortage and is not a cost-based rate. The drought surcharge is temporary and will be terminated at such time as the TOWN OF SWANSEA determines the water supply is above the trigger levels.

d. If the conservation measures of the *Resolution or Plan* prove inadequate to mitigate the effects of the drought conditions or water supply availability, the TOWN OF SWANSEA may take additional actions including, but not limited to:

i. Decreasing the gallon/REU limits in the different tiers; and

ii. Reduction of water system pressure as needed.

6) Publicize widely the penalties to be imposed for violations of mandatory restrictions and the procedures to be followed if a variance in the restrictions is requested.

7) Expand the use of education and public relations efforts as conducted under the Moderate and Severe drought phase and emphasize the penalties associated with violating the mandatory restrictions.

8) Provide written notification monthly to the South Carolina Department of Natural Resources Drought Information Center regarding the success of the mandatory restrictions.

E. Rationing

If a drought threatens the protection of public health and safety, the TOWN OF SWANSEA is hereby authorized to ration water.

F. Enforcement of Restrictions

If any customer of the TOWN OF SWANSEA fails to comply with the mandatory water use restrictions of this Resolution, the customer shall be given a written

notice of such failure to comply, which cites the date of said violation, and shall be assessed surcharges in accordance with the following schedule:

First violation - $100.00 surcharge shall be added to the customer's water bill;
Second violation - an additional $500.00 surcharge shall be added to the customer's water bill;

Third violation - the customer's water service shall be terminated and restored only after payment of a surcharge of $400.00 in addition to all previously assessed surcharges.

Law enforcement agencies and other authorized agencies or designated employees in the respective jurisdiction which is being supplied water by the TOWN OF SWANSEA shall diligently enforce the provisions of the Drought Response Resolution.

G. Variances

Customers, who in their belief are unable to comply with the mandatory water use restrictions of this Drought Response Resolution, may petition for a variance from restrictions by filing a petition with the TOWN OF SWANSEA within ten (10) working days after the issuance of the Proclamation requiring water use restrictions.

All petitions for variance shall contain the following information:

A. Name and address of the petitioner;
B. Purpose of water usage;
C. Special provision from which the petitioner is requesting relief;
D. Detailed statement as to how the curtailment declaration adversely affects the petitioner;
E. Description of the relief desired;
F. Period of time for which the variance is sought;
G. Economic value of the water use;
H. Damage or harm to the petitioner or others if petitioner complies with the Resolution;
I. Restrictions with which the petitioner is expected to comply and the compliance date;
J. Steps the petitioner is taking to meet the restrictions from which the variance is sought and the expected date of compliance; and
K. Other information as needed.

In order for the variance to be granted, the petitioner must demonstrate clearly that compliance with the Resolution cannot be technically accomplished during the duration of the water supply shortage without having an adverse impact upon the best interests of the community. The TOWN OF SWANSEA is authorized to grant the request for variance.

In addition, the TOWN OF SWANSEA is authorized to grant temporary variances for existing water uses otherwise prohibited under the Resolution if it is determined that failure to grant such variances could cause an emergency condition adversely affecting health, sanitation and fire protection for the public. No such variance shall be retroactive or otherwise justify any violation of this Resolution occurring prior to the issuance of the variance. Variances granted by the TOWN OF SWANSEA shall include a timetable for compliance and shall expire when the water supply shortage no longer exists, unless the petitioner has failed to meet specified requirements.

H. Status of the Resolution

1) If any portion of this Resolution is held to be unconstitutional for any reason, the remaining portions of the Drought Response Resolution shall not be affected.

2) The provisions of this Resolution shall prevail and control in the event of any inconsistency between this Resolution and other rules and regulations of the TOWN OF SWANSEA.

3) Nothing in this Resolution shall be deemed to invalidate or be interpreted in a manner inconsistent with any covenants now in effect and given as security to holders of bonds secured by revenues of the system.

June 16, 2003
First Reading

Ray Spires
Mayor

June 23, 2003
Second Reading

Linda G. Butler
Council

Woodrow Davis Jr.
Council

William M. Deal
Council

W. Verson Huckaba
Council