

# **WATER SHORTAGE RESPONSE PLAN**

Town of Spring Hope  
(PWSID #: 04-64-025)

This Water Shortage Response Plan (WSRP) has been written to conform with Rule .0607(a), a section of the "Water Use Registration and Allocation" subchapter of the North Carolina Administrative Code (15A NCAC 02E) as written by the North Carolina Department of Environment and Natural Resources (NCDENR). The procedures herein are written to reduce potable water demand whenever existing water supply sources are inadequate to meet current demands for potable water. Upon its adoption, this WSRP will be incorporated into the Ordinances of the Town of Spring Hope as the governing plan of action when existing water supply sources are inadequate to meet current demands for potable water.

## **I. AUTHORIZATION**

The Town of Spring Hope **Town Manager** shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section V, below, are met. In his or her absence, the Town of Spring Hope **Mayor** will assume this role.

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## **II. NOTIFICATION & EDUCATION METHODS**

The following notification methods will be used to notify water system employees and customers of a water shortage declaration:

- Town of Spring Hope Website ([www.springhope.net](http://www.springhope.net))
- Employee E-mail Announcements
- Independent Mailings to Major Users
- Bill Stuffers to All Users
- Signs and Posters at Municipal Buildings
- Local Newspaper(s) (*Spring Hope Enterprise*, etc.)
- Flyers/Handouts

The following notification methods will be used to educate the water system employees and customers of required water shortage response measures:

- Town of Spring Hope Website ([www.springhope.net](http://www.springhope.net))
- Local Newspaper(s) (*Spring Hope Enterprise*, etc.)
- School Presentations
- Town of Spring Hope Staff Meetings

## **III. WATER USE CLASSIFICATIONS**

### **A. CLASS 1: ESSENTIAL WATER USES**

The following drinking water uses have been determined to be essential uses of potable

water provided by the Town of Spring Hope in the event of a water shortage.

- **Domestic Use**
  - Water necessary to sustain human life and the lives of domestic pets and to maintain minimum standards of hygiene and sanitation
- **Public Use (Potable Water)**
  - Firefighting, including testing and drills by the Fire Department, if performed in the interest of public safety and if approved by the Board of Commissioners
  - Flushing of sewers and hydrants, if needed to ensure public health and safety and if approved by the Board of Commissioners

**B. CLASS 2: SOCIALLY/ECONOMICALLY IMPORTANT WATER USES**

The following drinking water uses have been determined to be socially or economically important uses of potable water provided by the Town of Spring Hope in the event of a water shortage.

- **Domestic Use (All Not Included in Class I & III)**
  - Home water use including kitchen, bathroom and laundry use
  - Minimal watering of vegetable gardens
  - Watering of trees where necessary to preserve them
- **Outdoor Use (Public/Private)**
  - Outdoor commercial watering using conservation measures
- **Agricultural Use (Potable Use Only)**
  - Watering by commercial nurseries at a minimum level necessary to maintain stock
  - Irrigation for commercial vegetable gardens and fruit orchards or the maintenance of livestock
- **Commercial Use**
  - Commercial car and truck washes
  - Commercial Laundromats
  - Restaurants and clubs
- **Institutional Use**
  - Schools
  - Churches

**C. CLASS 3: NON-ESSENTIAL WATER USES**

The following drinking water uses have been determined to be non-essential uses of potable water provided by the Town of Spring Hope in the event of a water shortage.

- **Ornamental Use**
  - Fountains, reflecting pools and artificial waterfalls
- **Outdoor, Non-Commercial Watering Use (Public/Private)**
  - Gardens, lawns, parks, playing fields and other recreational areas
  - Filling and operation of recreational swimming pools which serve fewer than 25 people
  - Non-commercial washing of motor vehicles

- Serving water in restaurants, clubs or eating places except by special request

➤ **Public Use**

- Fire Hydrants: any purpose, including use of sprinkler caps and testing fire apparatus and for fire department drills, except as listed in Class 1
- Flushing of sewers and hydrants except as listed in Class 1

**IV. YEAR-ROUND WATER USE POLICY**

- The Town of Spring Hope will encourage year-round efficient use of water for all customers.
- The Town of Spring Hope will carefully monitor demand and supply and determine average daily demand as a percent of available supply. Assessment of the regional water supply will be ongoing using the North Carolina Drought Monitor.

**V. WATER RESTRICTION/CONSERVATION PHASES AND TRIGGERS**

**A. VOLUNTARY PHASE: Water Use Reduction**

Whenever daily pumping times begin to exceed 12 hours to meet demand and maintain normal seasonal water system storage levels, the **Board of Commissioners** of the Town of Spring Hope shall be empowered, by adoption of this Water Shortage Response Plan (WSRP), to declare that Voluntary Conservation conditions exist and that the **Town Manager** shall, on a daily basis, monitor the water supply and the demand upon that supply.

In addition, the **Mayor** of the Town of Spring Hope shall be authorized to call upon all water customers to employ Voluntary Water Conservation Measures (see Addendum) so as to limit water use (especially Class 3 uses) and eliminate the waste of water **until a system-wide reduction goal of 10% is achieved**. Publication of these ordinances shall follow the provisions in Section II of this ordinance.

**B. MANDATORY PHASE: Water Use Restrictions (additive to voluntary measures)**

Whenever daily pumping times consistently exceed 12 hours to meet demand and maintain normal seasonal water system storage levels, and they continue to decline and may not be adequate to meet normal needs, the **Board of Commissioners** of the Town of Spring Hope shall be empowered, by adoption of this WSRP, to declare that Mandatory Conservation conditions exist and that the **Town Manager** shall, on a daily basis, continue to monitor the water supply and the demand upon that supply.

In addition, the **Mayor** of the Town of Spring Hope shall be authorized to call upon all water customers to employ Mandatory Water Conservation Measures (see Addendum) so as to limit water use and eliminate the waste of water **until a system-wide reduction goal of 20% is achieved**.

The Town of Spring Hope shall continue to encourage Voluntary Water Conservation Measures defined under the Voluntary Conservation declaration and, further, shall impose a ban on all Class 3 water uses for the duration of the shortage, until it is declared ended by ordinance of the **Board of Commissioners**. Publication of these ordinances shall follow the provisions in Section II of this ordinance.

**C. EMERGENCY PHASE: Water Use Restrictions/Bans (and/or Rationing)**

Whenever pumping cannot meet restricted water demands and storage levels are below the level necessary to meet normal needs and that serious shortages exist, the **Board of Commissioners** of the Town of Spring Hope shall be empowered, by adoption of this WSRP, to declare that a Water Shortage Emergency exists.

In addition, the **Mayor** of the Town of Spring Hope shall be authorized to call upon all water customers to employ Water Shortage Emergency Measures (see Addendum) so as to limit water use and eliminate the waste of water **until a system-wide reduction goal of 30% is achieved.**

“Class 1: Essential Water Uses” shall be identified, in specific, as targets for voluntary conservation initiatives. All “Class 2: Socially/Economically Important Water Uses” shall be banned, in addition to, the “Class 3: Non-Essential Water Uses.”

These restrictions shall continue until the emergency is declared ended by ordinance of the **Board of Commissioners**. Publication of these ordinances shall follow the provisions in Section II of this ordinance.

**D. RETURN-TO-NORMAL CONDITION: Plan for Incrementally Returning to Normal Water Use Based on a Reversal of Triggers**

When the **Town Manager** of the Town of Spring Hope has determined that water shortage conditions have abated and the water supply situation is returning to normal, water conservation measures employed during the Voluntary, Mandatory and Emergency conservation phases can be decreased in reverse order of implementation. It is the intent of the Town to remain for an adequate period of time at each water conservation phase to avoid oscillating back and forth between water shortage phases and the Return-To-Normal Condition.

**VI. ENFORCEMENT METHODS**

The provisions of this Water Shortage Response Plan shall be enforced by personnel of the Town of Spring Hope Public Works and Police Departments. Violators may be reported to the Town Manager’s office or the Public Works Director’s office with the contact information listed above in Section I of this ordinance. Any person who violates the provisions of this ordinance, who fails to carry out the duties and responsibilities imposed by this ordinance, or who impedes or interferes with any action undertaken or ordered pursuant to this ordinance shall be subject to the following penalties:

A. If the Town Manager learns of a violation of any water use restriction imposed pursuant to this ordinance, a written notice of the record shall be affixed to the property where the violation occurred and mailed to the customer and to any other person known to the Town of Spring Hope to be responsible for the violation or its correction. Said notice shall describe the violation and shall order that it is to be corrected, cured, or abated immediately (or within such specified time as the Town of Spring Hope determines is reasonable under the circumstances). If the order is not complied with, the Town of Spring Hope may terminate water service to the customer subject to the following procedures:

1. The Town of Spring Hope shall give the customer notice by mail that, due to the violation, water services will be discontinued within a specified time and that the customer will have the opportunity to appeal the termination by requesting a hearing before the Board of Commissioners;

2. If such a hearing is requested by the customer charged with the violation, he or she shall be given a full opportunity to be heard before termination is ordered; and,
3. The Board of Commissioners shall make findings of fact and shall order whether service should continue or be terminated.

B. A fee of \$50 shall be paid for the reconnection of any water service terminated pursuant to subsection (a). In the event of subsequent violation, the reconnection fee shall be \$200 for the second violation and \$300 for each additional violation.

C. Any customer found to be in violation of this ordinance may also be prosecuted in District Court for such violations. Any person so charged and found guilty of violating the provisions of this ordinance in District Court shall be held accountable for a misdemeanor offense. Each day's violation shall constitute a separate misdemeanor offense. The penalty for violation shall be a maximum fine of \$50 per day or imprisonment for not more than 30 days.

D. In addition to or in lieu of criminal prosecution, violation of this ordinance may subject the offender to civil penalties in the amounts provided, or otherwise an amount of \$25 per day, collectible in a civil action in the nature of debt.

## VII. WATER CONSERVATION/EMERGENCY PRICING POLICY

Upon the declaration of a water supply shortage, as provided above in Section V of this ordinance, the **Board of Commissioners** of the Town of Spring Hope shall have the power to adopt special water conservation/emergency pricing rates by ordinance designed to conserve water supplies. These special water conservation/emergency pricing rates shall be repealed upon the abatement of water shortage conditions, as defined by the "Return-To-Normal Condition" of Section V above. Such rates may provide for but may not be limited to:

- A. Uniform charges for water usage per unit of use (uniform unit rate);
- B. Extra charges for use in excess of a specified level (excess demand surcharge); and,
- C. Discounts for conserving water beyond specified levels.

## VIII. PUBLIC REVIEW AND COMMENT

Customers will have multiple opportunities to comment on the provisions of this Water Shortage Response Plan prior to its implementation. A draft plan will be published in the local newspaper(s) (*Spring Hope Enterprise*, etc.) and posted on the Town of Spring Hope's webpage ([www.springhope.net](http://www.springhope.net)). A public hearing will then be scheduled and notices will be disseminated in the form of bill stuffers to all water customers to collect comments on the draft. All subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by the Town of Spring Hope **Board of Commissioners**.

## IX. VARIANCE PROTOCOLS

Applications for water use variance requests are available from the Town of Spring Hope Town Hall building. All applications must be submitted to the Town Manager's office for review. A decision to approve or deny individual variance requests will be issued within 2 weeks of submittal after careful consideration of the following criteria:

- A. Impact on Water Demand;

- B. Expected Duration;
- C. Alternative Source Options;
- D. Social and Economic Importance;
- E. Purpose (i.e., necessary use of drinking water, etc.); and,
- F. Prevention of Structural Damage.

**X. EVALUATION OF PLAN EFFECTIVENESS**

The effectiveness of this Water Shortage Response Plan will be evaluated during the final full business week of each calendar month while water restriction/conservation phases are in effect. Effectiveness will be determined by comparing the stated water conservation goals of each phase with the observed water use reduction data. Other factors to be considered include frequency of plan activation, any problem periods without activation, total number of violation citations, desired reductions attained and evaluation of demand reductions compared to the previous year's seasonal data.

**XI. REVISION SCHEDULE**

This Water Storage Response Plan (WSRP) shall be reviewed and revised, as needed, to adapt to new circumstances affecting water supply and demand, following implementation of emergency restrictions, and at a minimum of every 5 years in conjunction with the updating of the Town of Spring Hope Local Water Supply Plan. Further, a WSRP work group will review procedures following each emergency or rationing stage to recommend any necessary improvements for the WSRP to the Town of Spring Hope Board of Commissioners. The Town of Spring Hope Town Manager is responsible for initiating all subsequent revisions.

## **ADDENDUM CONSERVATION**

### **MEASURES**

Direct users to adopt the following conservation measures:

#### **INDOOR RESIDENTIAL USE:**

##### **Conservation for Voluntary and Mandatory Conservation Phases**

- Use dishwashers only when they are full. Washing dishes by hand (don't let the tap run!) saves about 25 gallons per day.
- Adjust water level on clothes washing machines, if possible. Use full loads only, if not adjustable.
- Turn off faucets while brushing teeth, etc. Saves about 5 gallons per day.
- Reduce water used per flush by installing toilet tank displacement inserts. A plastic jug is often used as an alternative. **DO NOT USE BRICKS** - they disintegrate when soaked and the resulting grit hinders closing of the flap valve.
- Do not use the toilet as a trash can.
- Use sink and tub stoppers to avoid wasting water.
- Keep a bottle of chilled water in the refrigerator for drinking.
- Find and fix leaks in faucets and water-using appliances. Faucets can usually be fixed cheaply and quickly by replacing washers.
- Adapt plumbing with flow-restricting or other water-saving devices. These are usually inexpensive and easy to install.
- Learn to read your water meter so you can judge how much water you use and what difference conservation makes.
- Take shorter showers and shallow baths. Saves about 25 gallons per day.
- Reduce the number of toilet flushes per day. Each flush uses about 5 gallons (2-3 if you have water saving toilets).
- Don't use a garbage disposal.
- Use non-phosphate detergent and save laundry water for lawns and plants.

##### **Conservation for Emergency Conservation or Rationing Phase (In addition to measures listed above)**

- Turn off shower while soaping up.
- Use disposable eating utensils.

## **OUTDOOR RESIDENTIAL USE:**

### **Conservation for Normal Conditions and Voluntary Conservation Phase (in addition to measures listed above)**

- Do not allow children to play with hose or sprinklers.
- Limit car washing.
- Be ready to catch rainfall that occurs. Place containers under drain sprouts.
- Use leftover household water if available.
- Determine the amount of water being used outdoors by comparing water bills for summer and winter.

### **Lawns**

- Water before 10:00 a.m. to prevent evaporation, which occurs during the hottest part of the day. Morning is better than evening, when the dampness encourages the growth of fungus.
- Water only when lawn shows signs of wilt. Grass that springs back when stepped on does not need water.
- Water thoroughly, not frequently: long enough to soak roots. a light sprinkling evaporates quickly and encourages shallow root systems. Water slowly to avoid runoff.
- Don't let the sprinkler run any longer than necessary. In an hour, 600 gallons can be wasted.
- Allow maximum of one inch of water per week on your lawn. To measure, place cake tins outside to collect rain and water from sprinklers.
- Use pistol-grip nozzles on hoses to avoid waste when watering flowers and shrubs.
- Aerate lawns by punching holes 6 inches apart. This allows water to reach roots rather than run off surfaces.
- Consider delaying the seeding or sodding of new lawns.
- Position sprinklers to water the lawn, not the pavement.
- Avoid watering on windy days when the wind not only blows water off target, but also causes excess evaporation.
- Keep sprinkler heads clean to prevent uneven watering.
- Adjust sprinkler hose to simulate a gentle rain. Sprinklers that produce a fine mist waste water through evaporation.
- Know how to turn off an automatic sprinkler system in case of rain.
- Use an alarm clock or stove timer to remind you to shut off sprinklers that don't have timers.

### **Vegetables and Flower Gardens**

- Water deeply, slowly and weekly. Most vegetables require moisture to a depth of 6 to 8



inches.

- Keep soil loose so water can penetrate easily.
- Keep weeds out to reduce competition for water.
- Put the water where you want it and avoid evaporation by using soil-soakers or slow-running hoses, not sprinklers.

### **Trees and Shrubs**

- Water deeply using a soil-soaker or drip-irrigation.
- Water only when needed. Check the depth of soil dryness by digging with a trowel.
- Mulch to reduce evaporation. a 2" to 3" layer of wood chips, pine needles, grass clippings, or straw keeps the soil cool in summer.
- Dig troughs around plants to catch and retain water.
- Water trees growing in full sun more often than those in shade.
- Do not use sprinklers. Apply water directly at base.
- Do not fertilize during the summer. Fertilizing increases a plant's need for water.
- Postpone planting until fall or spring when there is generally less need for water.
- Install trickle-drip irrigation systems close to the roots of your plants. By dripping water slowly, the system doesn't spray water in to the air. Use soil probes for large trees.
- Water when cloudy, at night, or even when a light rain is falling.

### **Conservation for Mandatory Conservation Phase (In addition to measures listed above)**

- Vegetable gardens and food trees should be given minimal amounts of water on an individual basis only.
- Do not water lawns and inedible plants.
- Do not use sprinklers.

*(Most outdoor watering is prohibited under Emergency Conservation conditions.)*

### **INDUSTRIAL USE:**

- Identify and repair all leaky fixtures and water-using equipment. Give special attention to equipment connected directly to water lines, such as processing machines, steam-using machines, washing machines, water-cooled air conditioners, and furnaces.
- Assure that valves and solenoids that control water flows are shut off completely when the water-using cycle is not engaged.
- Adjust water-using equipment to use the minimum amount of water required to achieve its stated purpose.

- Shorten rinse cycles for laundry machines as much as possible; implement lower water levels wherever possible.
- For processing, cooling, and other uses, either re-use water or use water from sources that would not adversely affect public water supplies.
- Advise employees, students, patients, customers, and other users not to flush toilets after every use. Install toilet tank displacement inserts; place flow restrictors in shower heads and faucets; close down automatic flushes overnight.
- Install automatic flushing valves to use as little water as possible or to cycle at longer intervals.
- Place water-saving posters and literature where employees, students, patients, customers', etc. will have access to them.
- Check meters on a frequent basis to determine consumptive patterns.
- Review usage patterns to see where other savings can be made.

## APPENDIX A: SAMPLE PRESS RELEASE

DATE: \_\_\_\_\_ CONTACT: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_

Spring Hope, NC — Due to the abnormally dry weather conditions and the likelihood of continued dry weather, the Town of Spring Hope is asking its customers to conserve water.

[Insert description of situation, such as rainfall compared to normal, lake levels compared to normal, streamflows compared to normal, monthly outlook, etc.]

Voluntary conservation is needed now to ensure water is available for critical uses and to prevent the need for mandatory restrictions. By using voluntary water conservation practices in the home and garden, consumers can cut water use by as much as 10 percent with very little difficulty or inconvenience.

If you have questions or suggestions, please contact the Town of Spring Hope at (252) 478-5186

### **Water-Saving Tips**

#### **Kitchen**

- Eliminate leaks. A dripping faucet can waste 3,600 gallons a year.
- Install faucet aerators.
- Keep a pitcher of cold water in the fridge instead of running water until it is cold.
- Do not leave the water running while rinsing dishes.
- Only use the dishwasher with full loads, and use the “water-saver” setting, if available.

#### **Bathroom**

- Don't leave the water running while shaving or brushing teeth.
- Install a water-filled plastic jug or a “toilet tank bag” in your toilet tank to reduce the water used per flush. Do not use a brick, which may crumble and prevent the flapper from closing properly.
- Check for leaks by dropping a small amount of food coloring in the toilet tank. If color appears in the bowl, you have a leak.
- Take shorter showers.
- Install water-saving showerheads.

#### **Outdoors**

- Water in the morning or evening, not in the heat of the day, to prevent evaporation.
- Avoid watering on windy days.
- Water slowly & thoroughly to promote deep roots and healthy plants.
- Water close to the roots of plants so that there's little waste and evaporation.
- Add compost and other organic matter to your soil to improve its water-holding capacity.
- Choose plants that don't require a lot of water.
- Mulch all plant beds to reduce evaporation, weeds, and soil temperature.
- Limit car washing. Use a bucket and a hose with spray attachment.
- Use a broom instead of a hose to clean driveways and sidewalks.