

# The Town of Bryson City's Water Shortage Response Plan

## § 53.40 DEFINITION

For the purpose of this policy, the following definition shall apply unless the context clearly indicates or requires a different meaning.

**WATER SHORTAGE:** Shall be deemed to exist when the demand by customers connected to the Town water system reaches the point where continued or increased demand will equal or exceed the system supply and transmission capabilities. When demand results in the condition whereby customers cannot be supplied with water to protect their health and safety, then the demand must be substantially curtailed to relieve the water shortage.

(92' Code, § 52.01) (Ord., passed 11-9-87)

## § 53.41 DECLARATION OF WATER SHORTAGE

In the event it appears that water demand on the Town water system may exceed supply and transmission capabilities, the Town Manager shall declare that voluntary water conservation measures be implemented. The Town Manager shall declare a Stage 1 Water Shortage Condition Advisory requesting voluntary water conservation by consumers. In the event that voluntary conservation measures fail to relieve the demand on the system, the Town shall advance to a Stage 2 or Stage 3 Water Shortage Condition. ('92 Code, § 52.02) (Ord., passed 11-9-87)

## Section 1 AUTHORITY

Alternate authority: The Bryson City Town Manager shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section 4 are met. In the absence of the Town Manager, the Water Plant Superintendant or ORC of the Water Plant will assume this role.

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## **Section 2 NOTIFICATION**

The following notification methods will be used to inform water system employees and customers of a water shortage declaration: Cell phone, land line, local radio 1590 WBHN, local news paper Smoky Mountain Times, messages included on billing, notices and flyers on public and municipal buildings.

## **Section 3 LEVELS OF RESPONSE**

### **Voluntary Stage 1**

#### **§ 53.42 STAGE 1 WATER SHORTAGE CONDITION**

(A) In the event a Stage 1 Water Shortage Condition is declared, the following guidelines shall apply:

- (1) An extensive publicity campaign will be initiated using public media and specialized methods to inform the public of an impending or existing water shortage.
- (2) Conservation measures will be encouraged and recommended.

(B) In the event a Stage 1 Water Shortage Condition is declared, the following guidelines shall apply and the public encouraged to adhere to the following:

- (1) Limit car washing to the minimum.
  - (2) Limit lawn and garden watering to that which is necessary for plants to survive.
  - (3) Do not wash down outside areas such as sidewalks, patios, parking lots, service bays or aprons, or the like.
  - (4) Do not leave faucets running while shaving or rinsing dishes.
  - (5) Water shrubbery to the minimum required, reusing household water when possible.
  - (6) Limit use of clothes washers and dishwashers and when used, operate fully loaded.
  - (7) Use showers for bathing rather than bathtubs, and limit showers to no more than four minutes.
  - (8) Limit flushing of toilets by multiple usage.
  - (9) Use of disposable and biodegradable dishes is encouraged.
  - (10) The use of flow restrictive and water saving devices.
  - (11) Limit the hours of operation of water-cooled air conditioners
  - (12) All residences, businesses, and institutions are requested to temporarily delay new landscape work until the water shortage has ended.
- ('92 Code, § 52.03) (Ord., passed 11-9-87)

## Mandatory Stage 2

### § 53.43 STAGE 2 WATER SHORTAGE CONDITION

- (A) In the event the Town Manager issues a declaration of a Stage 2 Water Shortage Condition, then it shall be unlawful for any person, firm, or corporation to use or permit the use of water from the Town water system for any purpose hereinafter set forth until such time as the declaration of water shortage has been rescinded. In exercising the authority for declaring a water shortage condition, consideration shall be given to water storage levels and the available sources of supply, available usable storage on hand, drawdown rates, the projected supply capability, outlook for precipitation, daily water use patterns, and the availability of water from other sources.
- (B) In the event a Stage 1 Water Shortage Condition is in effect and the triggers described in Section 4 are met, then a Stage 2 Water Shortage Condition shall be proclaimed. In addition to the voluntary guidelines already in effect, it shall be unlawful to use water supplied by the Town water system in the following manner:
- (1) (a) To water lawns, grass, shrubbery, trees, flowers, and vegetable gardens except in accordance with the schedule set forth below for specific areas in the service area. Such watering shall be done by hand-held hose or container or by drip irrigation system only.  
(b) All areas may water on Sunday and Thursday between the hours of 6:00am and 9:00am.
  - (2) To fill newly constructed swimming and/or wading pools or refill swimming and/or wading pools which have been drained.
  - (3) To wash automobiles, trucks, trailers, boats, airplanes, or any other types of mobile equipment, including commercial washing.
  - (4) To wash down the outside areas such as streets, driveways, service station aprons, parking lots, office buildings, exteriors of existing or newly constructed homes or apartments, sidewalks, or patios, or to use water for any other similar purposes.
  - (5) To use water from public or private fire hydrants for any purpose other than fire suppression or other public emergency.
  - (6) To operate or induce water into any ornamental fountain, or other structure making similar use of water.
  - (7) To serve drinking water in restaurants, cafeterias, or other food establishments, except upon request.
  - (8) To operate water-cooled air conditioners or other equipment that does not recycle cooling water, except when health and welfare are adversely affected.
  - (9) To use water for any unnecessary purpose or to intentionally waste water.
- ('92 Code, § 52.04) (Ord., passed 11-9-87) Penalty, see § 53.99

## **Mandatory Stage 3**

### **§ 53.44 STAGE 3 WATER SHORTAGE CONDITION**

- (A) In the event the Town Manager issues a declaration of a Stage 3 Water Shortage condition, then it shall be unlawful for any person, firm, or corporation to use or permit the use of water from the Town water system for any purpose hereinafter set forth until such time as the declaration of water shortage has been rescinded. In exercising the authority for declaring a water shortage condition, consideration shall be given to water storage levels and available sources of supply, available usable storage on hand, drawdown rates, the projected supply capability, outlook for precipitation, daily water use patterns, and the availability of water from other sources.
- (B) In the event a Stage 2 Water Shortage Condition exists and the triggers described in Section 4 Triggers are met, then a Stage 3 Water Shortage shall be declared. In addition to the restrictions for Stage 1 and Stage 2 Water Shortage Conditions, the following restrictions shall also apply:
- (1) To induce water into any pool.
  - (2) Use water outside a structure for any use other than an emergency involving a fire.
  - (3) Fire protection to be maintained by drafting of ponds, rivers, and the like whenever possible.
  - (4) The use of throw-away utensils and plates is encouraged and recommended at all eating establishments.
  - (5) To operate an evaporative air conditioner which recycles water except during operating hours of business.
- ('92 Code, § 52.05) (Ord., passed 11-9-87) Penalty, see § 53.99 existing plan and Section 5 ENFORCEMENT

### **Section 4 TRIGGERS**

The Town will add additional information concerning stream levels later this year. The Swain County Emergency Management Service has installed a water gauging station at our raw water intake, stream levels will be internet accessible 24 hours per day. The data on stream level will take some time to compile but will be a very effective tool in deciding when to implement water shortage conditions. The level of Deep Creek will be given in values of feet/inches when enough data is gathered. Updates will follow as data is compiled.

Example:

## **Section 4 TRIGGERS**

The Town shall declare the appropriate Stage 1, 2, or 3 water shortage condition based on the following data gathered from Flood Inundation Management Alert Network (FIMAN) stream gauge site, located at the Raw Water Intake. If there are changes made to the sensor; adjustments will need to be made to the shortage stage levels. The Town reserves the right to adjust these triggers as necessary as more data is compiled and if it becomes apparent there is a problem with the current triggers. North Carolina Division of Water Resources, Water Supply Planning Section will be notified immediately of any changes that are made to these triggers.

### **STREAM STAGE TRIGGERS**

Stage 1 Voluntary Level shall be declared when the level of Deep Creek is reported by FIMAN to be at one foot.

Stage 2 Level shall be declared when the level of Deep Creek is reported by FIMAN to be at ½ foot or Six inches.

Stage 3 Level shall be declared when the level of Deep Creek is reported by FIMAN to be at 0 feet.

Deep Creek is normally at or above 1 foot 9 inches (1.75 feet) using the current FIMAN sensor data to calculate stream depth.

Additional triggers include .....(existing plan)

38 inches = level 1 implemented  
32 inches = level 2 implemented  
27 inches = level 3 implemented

Additional triggers include severe mechanical failures, main line breaks, source contamination, or exceeding 80% of the Water Plants capacity for more than three days consecutively (7Q10). Examples of mechanical breakdowns include but are not limited to filter under drain failure, pump failures etc. In addition to the aforementioned triggers the levels in storage tanks shall be considered in the declaration of any or all of the levels of a water shortage and the timing of its implementation. Presently when the tank level drops below 46.5 feet at the Sherrill Gap tank some customers begin to lose pressure. When any trigger such as a mechanical failure, main line break, or drought condition that limits the refilling of the Sherrill Gap tank or any combination of storage tanks to less than acceptable levels, the appropriate Stage of use restriction will be declared. A situation could exist where only a portion of the system would be affected, limiting use restrictions to the affected area only.

A Stage 1 level shall be declared when there are one or more of the aforementioned triggers that would limit or hinder the ability to produce or supply water for a short or limited time or when the level of raw source water is deemed low or has the potential to drop to a level that could limit production of potable water, or when use exceeds 80% of production for three consecutive days. Goal is 5-10% reduction in use.

A Stage 2 level shall be declared when there are one or more of the aforementioned triggers that would limit or hinder the ability to produce or supply water for an extended period of time or until whatever repairs needed can be made to the mechanical failure, stream levels drop to levels that limit production, or when use exceeds 80% of production for 5 consecutive days. Goal is 10-20% reduction in use.

A Stage 3 level shall be declared when there are one or more of the aforementioned triggers that would limit or hinder the ability to produce or supply water for an extreme or extended period of time to include extreme mechanical failures, severe or extreme drought conditions or any combination of the above, or when use exceeds 80% of production for 7 consecutive days. Goal is 25% reduction in use.

#### **§ 53.45 LIFTING OF RESTRICTIONS**

- (A) Water shortage conditions will expire when the Town Manager after consultation with the Board of Aldermen and upon the recommendation of Superintendent of Water and Waste Water and the ORC of the WTP, deems that the condition which caused the alert abated.
- (B) The expiration or cancelation of a water shortage declaration shall be promptly and extensively publicized. See Section 2 Notification ('92 Code, § 52.06) (Ord., passed 11-9-87)

**Section 5 ENFORCEMENT**

- (A) Every Police Officer of the Town shall, in connection with his duties imposed by the law, diligently enforce the provisions of this WSRP.
- (B) The Town Manager shall have the authority to enforce the provisions of this WSRP by the discontinuance of water service as specified in § 53.47 in the event of violation hereof.  
(’92 Code, § 52.07) (Ord., passed 11-9-87)
- (C) The violation of these provisions may be reported at the following Number: (828)488-3335.

**§ 53.47 Discontinuance Of Service**

Pursuant to the provisions of G.S. § 160A-174 and the Town water regulations, service may be temporarily discontinued for willful disregard of this WSRP and a \$250.00 reconnect fee may be imposed before restoration of service. In the event of continued gross noncompliance with this WSRP, the removal of the meter will be deemed proper, service will be discontinued, and all tap fees and deposits forfeited. Reconnection will only be made by payment of current due amounts, and new tap fees and deposits shall be paid.

(’92 Code, § 52.08) (Ord., passed 11-9-87)

Level	violation 1	violation 2	violation 3
STAGE 1	N/A	N/A	N/A
STAGE 2	warning	\$100.00	discontinue service
STAGE 3	\$250.00	discontinue service	

Reconnect Fee \$250.00

**§ 53.99 PENALTY**

Any violation of the provisions of this WSRP shall constitute a misdemeanor, punishable upon conviction by a fine not to exceed \$250.00 or imprisonment not exceeding 30 days as provided by G.S. § 14-4, and in addition thereto such violation may be enjoined and restrained as provided in G.S. § 160A-175.

(’92 Code, § 52.99) (Ord., passed 11-9-87)

**Section 6 PUBLIC COMMENT**

The public will be given the opportunity to review and comment on the WSRP at a public meeting at the Town Hall of Bryson City, the public will be given notice prior to the meeting (time/date) by one or more of the methods listed in Section 2 Notification, this

will normally be through the Smoky Mountain Times newspaper. This will precede final adoption of the proposed plan, after a final draft is complete and all revisions have been made, the Bryson City Board of Aldermen will vote to adopt or decline the proposed plan.

## **Section 7 VARIANCE PROTOCOLS**

Requests for variance related to the different levels of water use restrictions will be made directly to the Bryson City Board of Aldermen, during regularly scheduled Board meetings. Persons wishing to make a request for variance should contact the Town Office at (828)488-3335 before the Town Board meeting and be scheduled for a time on the meeting agenda to make their request. All requests for variance will be reviewed and a decision to approve or disapprove the request made as quickly as possible. The decision to approve or disapprove will be made based on the human and economic impact, the expected duration of the restriction level or levels, and the health, welfare, and safety of the public.

## **Section 8 EFFECTIVENESS**

The effectiveness of these WSRP protocols will be evaluated by comparing amounts of water used while the levels of restriction are declared compared to historical data from periods of normal operation. This data will come from billing records, water plant records, etc. This information will be used to calculate the percentage of effectiveness of the restrictions and determine if the expected goals in use reduction have been met.

## **Section 9 REVISIONS**

The WSRP will be reviewed and revised as needed to adapt to new circumstances that affect the supply and demand of the water resource, the plan should be reviewed and revised a minimum of every five years in conjunction with the updating of the LWSP, and at any time a deficiency is identified in the WSRP. All revisions should follow the protocols laid out in Section 7 of this proposal.

## **Section 10 REGULATION OF PRIVATE WELLS**

The Town of Bryson City has NO plan or provision to meter or regulate private drinking water wells.