

TITLE V: PUBLIC WORKS

CHAPTER 53: WATER SHORTAGE RESPONSE PLAN

Purpose

It is the purpose and intent of this document to assure that available water resources are put to reasonable beneficial uses to avoid depletion of the Town's water supply during a water shortage. This plan shall be liberally construed to effectuate such purpose and intent. This plan shall satisfy the requirements to develop and approve a Water Shortage Response Plan as required by the NC Division of Water Resources and compliance with 15A NCAC 02E .0607 with the authority of G.S. 143-354(a)(1); 143-355(I); S.L. 2002-167; Eff. March 19, 2007.

The Town of Haw River purchases water from the City of Burlington which owns two water supply reservoirs with over 7.5 billion gallons of water storage. The 20-year and 50-year safe yield of our lakes are both approximately 50 million gallons per day (MGD).

Definitions.

The following terms, phrases, words and their derivation shall have the meaning given herein. The word "shall" is always mandatory and never directory.

- (1) *Customer*: The term "customer" refers to any person who is an owner, occupant, or user of real property to which water is supplied by the Town. The term shall also refer to any person who uses water supplied by the Town, or to any person who is billed for the supply of water from the Town, or to any person who is responsible for or otherwise has the right or permission to utilize the supply of water provided by the Town.
- (2) *Person*: The term "person" means any natural person, any group of persons, any firm, partnership, association, corporation, company, or any other organization or entity.
- (3) *Raw water*: The term "raw water" refers to water impounded in a Burlington, city-owned reservoir or conveyed through pumps and pipes to a city-owned water treatment facility for further treatment to make potable water.
- (4) *Town*: The term "Town" means the Town of Haw River, A North Carolina Municipal corporation
- (5) *Water*: The term "water" refers to all water, except wastewater, supplied by the Town to any customer.
- (6) *Water shortage*: A "water shortage" shall be deemed to exist when the ordinary demands and requirements of water customers served by the Town cannot be satisfied without depleting the water supply to or below a critical level, the level at which the continued availability of water for human consumption, sanitation and fire protection is jeopardized.
- (7) *Well water or private water*: Water from sources other than the Town water system. This can include groundwater from private wells, captured rainwater, or recycled water.

Authority for WSRP Implementation

The Water Shortage Response Plan establishes the authority of the Town of Haw River to declare a water shortage emergency and the authority of the highest town official (Mayor, Mayor-Pro-tem, Manager, etc.) available as able to declare a water shortage emergency.

Notification of WSRP Activation & Conservation Measures

Declaration of a water shortage emergency will be announced based on the time-sensitive nature of the problem. Drought related shortages will be announced in open session of the Town of Haw River Town Council, in local newspapers, and on the official Town website. The Town will also use bill stuffers and postings within the Municipal Building to inform the public of the severity of the shortage and the required measures.

Shortages that develop more quickly (equipment failures, piping failures, process failures, contamination) may be announced using radio, website, and television media. The Public Works Director will coordinate with the Mayor, Manager, or other officials to make sure that these announcements are made in a timely manner. Measures enacted will be based on the severity of the event.

Measuring Severity

In response to the various types of water shortages, the stages spelled out below present the types of restrictions commiserate to the degree of severity. These stages are considered the minimum response actions and will be implemented as the trigger conditions occur. The Town Council may choose to enact more stringent measures not enumerated in this document.

Triggers & Responses

Response to water shortage. It shall be the duty of the Director of Public Works to report to the Town Manager conditions adversely affecting the Town water supply. The Manager shall review all relevant and available information, and if deemed necessary, shall recommend that the Town Council declare water conservation measures contained herein be in full force and effect as necessary. Conditions to be considered include abnormally dry weather conditions, lake water levels below normal for the season, forecasts for persistent drought, failure of treatment processes, piping or equipment, excessive water demand compared to treatment or storage capacity, contamination of supplies, declarations by the Governor of North Carolina, or a combination of these factors. If there is a time sensitive emergency (system failure) the highest-ranking official available shall declare a water emergency and require appropriate water conservation measures.

The Town of Haw River currently purchases water from the City of Burlington and will rely on the City of Burlington to determine when conservation measures are needed. The City of Burlington will rely on a study titled "Reservoir Analysis: Lakes

Mackintosh and Cammack” performed by ARCADIS Engineering (March 2008) will be used to determine the relationship between reservoir water level and remaining water supply storage.

Use of raw water. It shall be unlawful for any person to remove water from city-owned reservoirs for any reason. The City of Burlington shall have sole access to the water for purposes of treatment or other official city needs.

Water conservation rates. The Town of Haw River, if needed, will institute water conservation rates in response to any adjustments by the City of Burlington. The City of Burlington will use the following process to make those adjustments: In the event of a prolonged drought with worsening consequences, it shall be at the discretion of the City Manager to propose an adjustment to the water rates to help promote water conservation. The water conservation rate can be used to address residential, commercial and / or industrial water consumption by increasing the cost per unit volume according to a published rate schedule. The City Manager shall recommend as necessary the adoption of water conservation rates by the City Council.

The Town’s response to water shortages shall follow the restrictions related to the following stages of severity. During a water shortage event, treated water pumped to the distribution system will be monitored to assess the effectiveness of the conservation measures. Because of daily variability in water use, thirty (30) day trend charts will be used as an assessment tool.

- (1) ***Continuing voluntary conservation practices, ongoing.*** Customers shall be encouraged to observe water conservation measures to reduce the wasting of water as follows:
 - (a) Check plumbing and toilets for leaks annually, and if necessary, repair.
 - (b) Repair leaking faucets whenever they develop.
 - (c) Store drinking water in the refrigerator to avoid trying to run it cool at the tap.
 - (d) Use shower for bathing or reduce the depth of water used for tub baths. Limit showers to four (4) minutes where possible.
 - (e) Refrain from running faucets while shaving or rinsing dishes or brushing teeth.
 - (f) Install water flow restrictive devices in shower heads.
 - (g) Install water-saving devices such as plastic bottles or commercial units in toilet tanks.
 - (h) Wash full loads in clothes washers and dishwashers.
 - (i) Review water uses and where feasible install recycle systems, particularly commercial and industrial customers.

- (2) ***Stage I - Voluntary conservation, water alert.*** Customers shall be encouraged to observe the recommendations for ongoing conservation practices and to increase the level of the conservation effort as follows:

- (a) Limit the use of clothes washers and dishwashers, and when used, to operate fully loaded.
- (b) Reduce the flushing of toilets to the minimum whenever practical.
- (c) Limit lawn watering to only when grass shows signs of withering and apply water as slowly as possible to achieve deep penetration.
- (d) Limit shrubbery watering to the minimum reusing household water when possible.
- (e) Limit car washing to the minimum. Use a hose with a nozzle to control water flow and minimize waste.
- (f) Limit wash downs of outside areas such as sidewalks, patios, driveways, or other similar purposes.
- (g) Limit hours of operation of water-cooled air-conditioners if possible.
- (h) Use disposable dishes and utensils, both for residential and commercial purposes, where feasible.

The Town of Haw River will use the following basis to implement Stage I Voluntary conservation measures in keeping in concert with our water service provider, City of Burlington. Stage I Voluntary conservation measures will be implemented based on the level of water in the City reservoirs (seventy-five (75%) percent capacity remaining), abnormally dry conditions, season of the year, long range weather forecast calling for persistent drought, failure of treatment processes, piping or equipment, excessive water demand compared to treatment or storage capacity, contamination of supplies, declarations by the Governor of North Carolina, or a combination of these factors.

(3) ***Stage II - Moderate mandatory conservation, established drought.*** Customers shall be encouraged to observe the recommendations of the continuing voluntary conservation and Stage I Voluntary conservation, and the level of the conservation effort shall be increased to require the following mandatory measures. No person shall:

- (a) Water lawns, grass, trees, shrubbery, flowers, golf greens or vegetable gardens except between 4:00 P.M. - 9:00 PM on Wednesday and 7:00 AM - 12:00 noon on Saturday. The use of well water or private water is the only exception to this rule.
- (b) Introduce water into wading pools or swimming pools except to the extent necessary to replenish losses due to evaporation or spillage, and maintain operation of chemical feed equipment.
- (c) Use water to wash down outside areas such as sidewalks, patios, driveways, or for other similar purposes.
- (d) Introduce water into any decorative fountain, pool or pond except where the water is recycled.
- (e) Serve water in a restaurant or similar establishment except upon request.
- (f) Use water for any unnecessary purpose or intentionally waste water.
- (g) Wash the exterior of a motor vehicle or boat (travel or camping trailers) except where fifty (50%) percent or more of the water is recycled, or where a well or private water system is used.

- (h) Golf courses and institutions owning athletic fields (including artificial surfaces) shall be required to reduce water usage by fifty (50%) per cent with watering only permitted between the hours of 10:00 PM and 5:00 AM.

Provided, however, any customer may secure a written license from the Town Manager or his designee to use water contrary to the Stage II mandatory conservations measures where it can be shown to the Manager's satisfaction that use of water pursuant to conditions prescribed by the Town Manager in the license will result in a 30% or greater saving of water. Any license issued pursuant to this provision: (1) must be in the possession of the licensee whenever water is used contrary to the Stage II mandatory conservations measures; and (2) is subject to amendment or revocation by the Town Manager at any time for good cause. Businesses with a privilege license for the Town of Haw River that use water to maintain their businesses may continue to operate under Stage II.

Stage II Moderate mandatory conservation measures will be implemented based on the level of water in the City of Burlington reservoirs (sixty (60%) percent capacity remaining), abnormally dry conditions, season of the year, long range weather forecast calling for persistent drought, failure of treatment processes, piping or equipment, excessive water demand compared to treatment or storage capacity, contamination of supplies, declarations by the Governor of North Carolina, or a combination of these factors.

- (4) ***Stage III - Severe mandatory conservation, prolonged drought.*** Customers shall be encouraged to observe the recommendations of the continuing voluntary conservation and Stage I Voluntary conservation measures and required to continue observing the mandatory requirements in Stage II. The level of the conservation effort shall increase to require the following additional mandatory measures.

- a. No person shall:

1. Water lawns, grass, trees, shrubbery, flowers, golf greens or vegetable gardens except by hand-held hose (with shut-off nozzle), container, or drip irrigation system during the hours of 4:00 P.M. - 9:00 PM on Wednesday and 7:00 AM - 12:00 noon on Saturday. No automatic sprinkler system or un-attended watering shall be allowed. The use of well water or private water is the only exception to this rule.
2. Fill a wading pool or swimming pool or replenish any filled pool except to the minimum essential for operation of chemical feed equipment.
3. Make non-essential use of water for commercial or public use.
4. Operate water-cooled air conditioners or equipment that do not recycle cooling water, except when health and safety are adversely affected.

- b. Request industry reduce consumption by ten (10%) per cent.

Stage III Severe mandatory conservation measures will be implemented based on the level of water in the City of Burlington reservoirs (forty-five (45%) percent capacity remaining), abnormally dry conditions, season of the year, long range weather forecast calling for persistent drought, failure of treatment processes, piping or equipment, excessive water demand compared to treatment or storage capacity, contamination of supplies, declarations by the Governor of North Carolina, or a combination of these factors.

(5) **Stage IV - Stringent mandatory conservation, severe water loss.** Customers shall be encouraged to observe the recommendations of the continuing voluntary conservation and Stage I Voluntary conservation measures and required to continue observing the mandatory requirements in Stages II and III. The level of the conservation effort shall increase to require the following additional mandatory measures:

- a. No person shall:
 1. Use water outside a structure except in an emergency involving a fire.
 2. Operate evaporative air conditioning units, which recycle water except during the operating hours of the business.
 3. Use water to fill or refill any swimming pool or wading pool.
 4. Wash any motor vehicle, including commercial washing unless a private well is used.
- b. Request industry reduce consumption an additional twenty-five (25%) percent. Industries must submit water conservation plans for City review.

In addition to the conservation measures enumerated above customers of eating establishments shall use plates, cups and eating utensils that are disposable.

Stage IV Stringent mandatory conservation measures will be implemented based on the level of water in the City reservoirs (thirty (30%) percent capacity remaining), abnormally dry conditions, season of the year, long range weather forecast calling for persistent drought, failure of treatment processes, piping or equipment, excessive water demand compared to treatment or storage capacity, contamination of supplies, declarations by the Governor of North Carolina, or a combination of these factors.

(6) **Stage V - Rationing.** Customers shall be encouraged to observe the recommendations of the continuing voluntary conservation and Stage I Voluntary conservation measures and required to continue observing the mandatory requirements of Stages II, III, and IV. The level of the conservation effort shall increase to require the following mandatory measures:

- a. Fire protection will be maintained, but where possible, tank trucks shall use raw water.

- b. All industrial uses of water shall be prohibited, with the exception of water for domestic sanitation purposes.
- c. All other uses of water will be limited to those necessary to meet minimum health and safety needs of the customers as determined by the Town Manager upon consultation with the Director of Public Works in light of conditions present.

Failure to act in accordance therewith or use of water in any manner or attempt to evade or avoid water-rationing restrictions, shall be unlawful.

Stage V Rationing measures will be implemented based on the level of water in the City of Burlington reservoirs (fifteen (15%) percent capacity remaining), abnormally dry conditions, season of the year, long range weather forecast calling for persistent drought, failure of treatment processes, piping or equipment, excessive water demand compared to treatment or storage capacity, contamination of supplies, declarations by the Governor of North Carolina, or a combination of these factors.

Scope and duration: In the event that the Town Council shall declare one (1) or more stages of water conservation to be in effect, said proclamation shall be applicable to all persons using water supplied by the Town. Continuing voluntary conservation practices of the water conservation measures shall remain in full force and effect at all times or until such time as this article is amended or repealed. Whenever Stages I, II, III, IV, and V of the water conservation measures are declared, they shall remain in full force and effect until such time as this article be amended or repealed, or until the Mayor (or his designee) by proclamation declares that the particular stage of the water shortage is over and the measures applicable to it are no longer in effect. Repeal of any stage of mandatory water restrictions shall become effective 30 days following the Mayor's proclamation and ratification of such action by the Town Council. Measures in response to shortages caused by equipment, piping, process failure, or contamination may be repealed immediately upon resolution.

Effect of invalidity. Should any section or provision of this section be declared by the courts to be unconstitutional or invalid such decision shall not affect the validity of this section as a whole or any part other than the part so held unconstitutional or invalid.

Violation of section prohibited; enforcement.

Violation. In the event that the Town Council shall declare one (1) or more stages of water conservation as set forth herein, it shall be unlawful for any person to use or permit use of water supplied by the Town in violation of any mandatory restrictions instituted. Records of violations shall be maintained and carried forward to be used for imposition of penalties and fines against violators in subsequent stages as long as mandatory restrictions remain in effect.

Enforcement. It shall be the duty of the director of public works to investigate violations of the mandatory restrictions and issue orders consistent with the purpose and intent of

this article. All customers shall cease any violation of the mandatory restrictions upon the order of the director of public works. Any customer who violates any provision of this article, or who shall violate or fail to comply with any order made hereunder shall be subject to penalty or a combination of the penalties as follows:

Assessment of fines or other fees for violation of mandatory restrictions. The Town Manager shall recommend fines and fees for violations of mandatory restrictions and these fines and fees shall be approved by the Town Council. The schedule of fines and fees shall be announced.

Discontinuance of service. The Town may discontinue water service to any structure(s) or parcel(s) when the Town Manager upon recommendation of the Director of Public Works gives written notice of any violation of mandatory restrictions and intent to discontinue service. Water service shall be discontinued within twenty-four (24) hours notice of any such violation unless the violation shall cease voluntarily.

When service is discontinued pursuant to the provisions of this section, service shall not be re-instituted unless and until the Town Manager upon recommendation of the director of utilities determines that the risk to the Town's water supply has been alleviated.

The customers shall have a right of appeal to the town council, upon serving written notice of appeal on the Town Manager within five (5) days after receiving notice of any violation and intent to discontinue service. The appellant will be notified by the Town Manager of the time and place for the hearing of the appeal. The Town Council shall act on the appeal as expeditiously as possible and shall notify the appellant in writing not later than two (2) days after the final decision.

Equitable relief. The provisions of this section may be enforced by an appropriate remedy, including a mandatory or prohibitory injunction, issuing from a court of competent jurisdiction.

Penalty not a substitute remedy. The imposition of one or more penalties for any violation shall not excuse any violation or permit it to continue.

Penalties. For the first offense, violators will be issued a warning. For the second violation of this ordinance a civil penalty in the amount of \$100.00 shall be assessed. For the third violation of this ordinance a civil penalty in the amount of \$250.00 shall be assessed. The fourth violation of this ordinance shall result in interruption of water service to the offending customer. The Town will issue written notification to the customer and occupant of intent to interrupt water service and twenty-four (24) hours later will interrupt water service unless the violation has ceased. Each day shall constitute a separate violation. If water service has been interrupted due to repeat violation of this ordinance, service will not be re-instated until the Public Works Director has determined that the risk to the town water supply has been alleviated or the Public Works Director is otherwise assured of compliance. Violation of this ordinance may be

punished by any of the means available to the town through the provisions of N.C.G.S. 160A-175.

Public Review

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan. First, a draft plan will be posted at Town Hall and on the Town of Haw River website. A public hearing will be scheduled with notice printed in all customer water bills and local newspaper to collect comments on the draft. All subsequent notices of revisions to the draft plan will be published at least 30 days prior to an adoption vote by the Haw River's Town Council.

Variance

If the mandated further reduction in water usage cannot be obtained without imposing extraordinary hardship which threatens health and safety, the non-residential customer may apply to the municipality for a variance. For these purposes "extraordinary hardship" means a permanent damage to property or an economic loss which is substantially more severe than the sacrifices borne by other water users subject to this water rationing ordinance. If the further reduction would cause an extraordinary hardship or threaten health or safety, a variance may be granted by the Town Manager and a revised water use reduction requirement for the particular customer may be established.

Applications for water use variance requests are available from the Town of Haw River Town Hall. All applications must be submitted to the Town Hall for review by the Town Manager or his or her designee. A decision to approve or deny individual variance requests will be determined within two weeks of submittal after careful consideration of the following criteria: impact on water demand, expected duration, alternative source options, social and economic importance, purpose (i.e. necessary use of drinking water) and the prevention of structural damage.

Any person aggrieved by a decision relating to such a variance may file a complaint with the Town Council in accordance with established procedures.

Evaluation

The effectiveness of the water shortage response plan will be determined by comparing the stated water conservation goals with 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.

Revision

The Water Shortage Response Plan is considered part of the local water supply planning process and will be reviewed at a minimum of every five (5) years during preparation of the Local Water Supply Plan. The Water Shortage Response Plan can be reviewed more frequently. Examples of when the plan might be reviewed are when there is an actual water shortage situation or when there are significant changes to the water supply, treatment, and distribution network. The Public Works Department will be responsible

for reviewing the plan and communicating necessary modifications to the Town Manager.

Effective Date

This ordinance shall take effect immediately upon adoption or passage by the Town's governing body.

Effective Period

This ordinance will remain in effect until terminated by action of the Town's governing body.

Passed by the council this ____ day of ____, 2018.

(Mayor's Signature)

ATTEST:

(Clerk's Signature)