

**Water Shortage Response Plan
Town of Elon, North Carolina
August 2010, Adopted November 2011, Reviewed December 2018**

The procedures herein are written to reduce potable water demand and supplement existing drinking water supplies whenever existing water supply sources are inadequate to meet current demands for potable water.

I. Authorization

The Town of Elon Manager shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section IV are met. In his absence, the water system's Operator in Responsible Charge will assume this role.

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II. Authority

This Water Shortage Response Plan recognizes the authority of the Town of Elon to declare a water shortage emergency and the authority of the Town's highest available city official (Mayor, Mayor Pro-Tem, Manager, etc) as able to declare a water shortage emergency. This declaration will take into account the Town's water supplier and the Town ORC's recommendations to the Town Mayor and Manager.

III. Notification

The following notification methods will be used to inform water system employees and customers of a water shortage declaration: employee e-mail announcements, notices at municipal buildings, notices in water bills. Required water shortage response measures will be communicated through open session of Town of Elon Board of Alderman, the Elon Town Crier, and the Town of Elon website. Shortages that occur more quickly (equipment failures, piping failures, process failures, contamination, etc) may be announced using radio, website, television media, or through use of reverse 911. The Town's ORC, Manager, and Mayor will coordinate to make sure that these announcements are made in a timely manner.

IV. Levels of Response

Five progressive levels of water shortage response are outlined below. The five levels of water shortage response are: voluntary conservation, voluntary conservation with water alert, moderate mandatory conservation, severe mandatory conservation,

stringent mandatory conservation, and water rationing. A detailed description of each response level and corresponding water reduction measures follow below.

a. Continuing Voluntary Conservation Practices, ongoing. Customers shall be encouraged to observe water conservation measures to reduce wasting of water as follows:

- i. Check plumbing and toilets for leaks annually, and if necessary, repair.
- ii. Repair leaking faucets whenever they develop.
- iii. Store drinking water in the refrigerator to avoid trying to run it cool at the tap.
- iv. Use shower for bathing to reduce the depth of water used for tub baths. Limit showers to four (4) minutes where possible.
- v. Refrain from running faucets while shaving or rinsing dishes or brushing teeth.
- vi. Install water flow restrictive devices in shower heads.
- vii. Install water-saving devices such as plastic bottles or commercial units in toilet tanks.
- viii. Wash full loads in clothes washers and dishwashers.
- ix. Review water uses and where feasible install recycle systems, particularly commercial and industrial customers.

b. 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:

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

c. 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:

- i. Water lawns, grass, trees, shrubbery, flowers, golf greens, or vegetable gardens except between 4:00 PM -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.
- ii. 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.
- iii. Use water to wash down outside areas such as sidewalks, patios, driveways, or for other similar purposes.
- iv. Introduce water into any decorative fountain, pool, or pond except where the water is recycled.
- v. Serve water in a restaurant or similar establishment except upon request.
- vi. Use water for any unnecessary purpose or intentionally waste water.
- vii. 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 system is used.
- viii. Golf courses and institutions owning athletic fields (including artificial surfaces) shall be required to reduce water usage by fifty (50%) percent with watering only permitted between the hours of 10:00 PM and 5:00 AM.

d. 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.

- i. 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 PM - 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.
- ii. Request industry reduce consumption by ten (10%) percent.

- e. 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 mandatory requirements in Stages II and III. The level of conservation effort shall increase to require the following additional mandatory measures:
- i. 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.
 - ii. Request industry reduce consumption an additional twenty-five (25%) percent. Industries must submit water conservation plans for City review.
 - iii. Additionally Customers of eating establishments shall use plates, cups, and eating utensils that are disposable.
- f. Stage V - Rationing.** Customers shall be encouraged to observe the recommendation 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:
- i. Fire protection will maintained, but where possible tank trucks shall use raw water.
 - ii. All industrial uses of water shall be prohibited, with the exception of water for domestice sanitation purposes.
 - iii. 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 Water System ORC 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	Response	Description and % Reduction Goal
	Voluntary Reductions, Ongoing	Voluntary Reductions done on an ongoing everyday basis.
1	Voluntary Reductions, Water Alert	Water users are encouraged to reduce their water use and improve water use efficiency with a goal of a 5% Water Use Reduction.
2	Mandatory Reductions I	Water users must abide required water use reduction and efficiency measures; penalties apply for noncompliance. All water users are expected to reduce their water usage by 10% from their previous month's bill.
3	Mandatory Reductions II	Water users must abide required water use reduction and efficiency measures; penalties apply for noncompliance. All water users are expected to reduce their water usage by 20% from their previous month's bill.
4	Emergency Reductions	Water supply conditions are substantially diminished and pose an imminent threat to human health or environmental integrity. All water users are expected to reduce their water usage by 25% from their previous month's bill.
5	Water Rationing	Water supply conditions are substantially diminished and remaining supplies must be allocated to preserve human health and environmental integrity.

V. Triggers

Elon is provided water solely by purchase from the City of Burlington. When the City of Burlington declares a water shortage Elon is required to do so as well. During this time the Elon ORC and Town Manager will stay in close contact with City of Burlington staff and follow their triggers.

Return to Normal

When water shortage conditions have abated and the situation is returning to normal, water conservation measures employed during each phase should be decreased in reverse order of implementation. Permanent measures directed toward long-term monitoring and conservation should be implemented or continued so that the community will be in a better position to prevent shortages and respond to recurring water shortage conditions.

VI. Enforcement

The provisions of the water shortage response plan will be enforced by Town of Elon public works department and police personnel. Violators may be reported to the Town’s dedicated water conservation hotline. Citations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage.

Water Shortage Level	First Violation	Second Violation	Third Violation
Voluntary Reductions	N/A	N/A	N/A
Mandatory Reductions (Stages 2 and 3)	Warning	\$250	Discontinuation of Service
Emergency Reductions	\$250	Discontinuation of Service	Discontinuation of Service
Water Rationing	\$500	Discontinuation of Service	Discontinuation of Service

Drought surcharge rates are effective in Stages 3, 4 and 5 and may be increased by a factor of 5 for Stage 5.

VII. Public Comment

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan. First, a draft plan will be available at Town Hall for customers to view. A notice will be included in customer water bill notifying them of such. Also a draft plan will be published on the Town Website. All subsequent revisions to the draft plan will be published on the website at least 10 days prior to an adoption vote by Elon’s Board of Aldermen.

VIII. Variance Protocols

Applications for water use variance requests are available from the Town Hall. All applications must be submitted to Town Hall for review by the Water System ORC 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.

IX. Effectiveness

The effectiveness of the Elon 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.

X. Revision

The water shortage response plan will 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 five years in conjunction with the updating of our Local Water Supply Plan. Further, a water shortage response planning work group will review procedures following each emergency or rationing stage to recommend any necessary improvements to the plan to Elon’s Board of Alderman. The Town of Elon ORC is responsible for initiating all subsequent revisions.