

WATER SHORTAGE RESPONSE PLAN

A plan authorizing the declaration of water shortage; establishing procedures and measures for the essential conservation of water resources; and prescribing certain penalties.

Be It Enacted by the Governing Body of the City of Mebane, N.C. as follows:

Purpose

The purpose of this plan is to provide for the declaration of official phases of water supply shortage situations and the implementation of voluntary and mandatory water conservation measures throughout the Mebane Service Area in the event a shortage is declared.

This plan shall supersede previous water shortage response plans and repeals Article I of Chapter E Sections 14.01 – 14.06 in the Mebane Municipal Code of Ordinances in its entirety and adopting in lieu of the following:

Article I – Water System

Chapter E – Water Shortage Response Plan

Section 14.01.

Definitions

- a. "Allotment," as the term is used in this ordinance, shall mean the maximum quantity of water allowed for each customer over any applicable period as established in the water rationing provisions of this ordinance.
- b. "Any Water," as the term is used in this ordinance, shall mean any type of water, including fresh water, brackish water, wastewater, or reclaimed water.
- c. "Customer," as the term is used in this ordinance, shall mean any person using water for any purpose from the City's water distribution system and for which either a regular charge is made or, in this case of bulk sales, a cash charge is made at the site of delivery.
- d. "Emergency," as the term is used in this ordinance, shall mean that water supplies are below the level necessary, to meet normal needs and that serious shortages exist in the area.
- e. "Excess Use," as the term is used in this ordinance, shall mean the usage of water by a water customer in excess of the water allotment provided under the water rationing provisions of this ordinance for that customer, over any applicable period.

- f. "Fresh Water," as the term is used in this ordinance, shall mean water withdrawn from surface or groundwater, which has not been previously used, other than brackish water.
- g. "Mandatory Conservation," as the term is used in this ordinance, shall mean that raw water supplies (i.e., streamflow, reservoir levels or groundwater levels) are consistently below seasonal averages, and if they continue to decline, may not be adequate to meet normal needs.
- h. "Non-Residential Customer," as the term is used in this ordinance, shall mean commercial, industrial, institutional, public and all other such users, with the exception of hospitals and health care facilities.
- i. "Rationing, as the term is used in this ordinance, shall mean procedures established to provide for the equitable distribution of critically-limited water supplies, in order to balance demand and limited available supplies, and to assure that sufficient water is available to preserve public health and safety.
- j. "Residential Customer," as the term is used in this ordinance, shall mean any customers who receive water service for a single or multi-family dwelling unit. The term residential customer does not include educational or other institutions, hotels, motel, or similar commercial establishments.
- k. "Service Area," as the term is used in this ordinance, shall mean the area served by the City of Mebane water systems, including all connections to said system.
- l. "Service Interruption," as the term is used in this ordinance, shall mean the temporary suspension of water supply, or reduction of pressure below that required for adequate supply, to any customer, portion of a water supply, or entire system.
- m. "City" as used in this ordinance means the City of Mebane, N.C.
- n. "Voluntary Conservation", as the term is used in this ordinance, shall mean that conditions exist which indicate the potential for serious water supply shortages.
- o. "Waste of water", as the term is used in this ordinance, includes, but is not limited to (1) permitting water to escape down a gutter, ditch, or other surface drain, or (2) failure to repair a controllable leak of water due to defective plumbing.
- p. "Wastewater" as the term is used in this ordinance, shall mean water which has been previously used for industrial, municipal, domestic, or other purpose, and has not been returned to the surface or groundwater source.

Section 14.02.

Water Use Classifications

Class 1: Essential Water Uses

A. Domestic Use:

- Water necessary to sustain human life and the lives of domestic pets, and to maintain minimum standards of hygiene and sanitation.

B. Health Care Facilities:

- Patient care and rehabilitation, including swimming pools used for patient care and rehabilitation.

C. Public Use:

- Fire Hydrants
 1. Firefighting
 2. Certain testing and drills by the fire department if performed in the interest of public safety and if approved by the City Manager.
- Flushing of Sewers and Hydrants: As needed to ensure public health and safety and if approved by the City Manager.

Class 2: Socially or Economically Important Uses of Water

A. All Domestic Uses Other Than Those Included in Classes 1 and 3:

- Home water use including kitchen, bathroom and laundry use
- Minimal watering of vegetable gardens
- Watering of trees where necessary to preserve them

B. Commercial, Agricultural, Industrial and Institutional Uses

- Outdoor commercial watering (public or private) using conservation measures and to the extent that sources of water other than fresh water are not available to use.
- Irrigation for commercial vegetable gardens and fruit orchards or the maintenance of livestock.

- Watering by commercial nurseries at a minimum level necessary to maintain stock.
- Water use by arboretums and public gardens of national, State, or regional significance where necessary to preserve specimens.
- Use of fresh water at a minimum rate necessary to implement vegetation following earth-moving, where such vegetation is required by law or regulation.
- Watering of golf course greens.
- Filling and Operation of Swimming Pools:
 - Residential pools which serve more than 25 dwelling units.
 - Pools used by health care facilities for patient care and rehabilitation
 - Municipal pools
- Commercial car and truck washes
- Commercial Laundromats
- Restaurants, clubs, and Eating Places
- Air Conditioning:
 - Refilling for start up at the beginning of the cooling season
 - Make-up of water during the cooling season
 - Refilling specifically approved by health officials and the municipal governing body, where the system has been drained for health protection or repair purposes.
- Schools, Churches, Motels/Hotels and Similar Commercial Establishments

Class 3: Non-Essential Uses of Water

A. Ornamental Purposes:

- Fountains, reflecting pools, and artificial waterfalls

B. Outdoor Non-Commercial Watering (public or private):

- Gardens, lawns, parks, golf courses (except greens), playing fields and other recreational areas.

- Filling and operation of recreational swimming pools which serve fewer than 25 dwellings
- Non-commercial washing of motor vehicles
- Serving water in restaurants, clubs, or eating places except by specific request.
- Air Conditioning: refilling cooling towers after draining except as specified in Class 1

C. 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

Section 14.03.

Water Shortage Deemed in Light of Reserve Water Supply

A water shortage may be declared to exist when the usable water storage supply available through the facilities of the City shall have reached the point where the usable supply has been so reduced that the citizens cannot be supplied with water to protect their health and safety without substantially curtailing the water demand.

Section 14.04.

Declaration of Water Shortage

In the event of a water shortage in any of the five (5) stages of severity hereinafter set forth in the City water supply threatening the health and safety of the citizens of the City, the City Manager is authorized, empowered, and directed to issue a public declaration declaring to all persons the existence of such state and the severity thereof, and in order to more effectively protect the health and safety of the people within the service area, to place in effect the restrictive provisions hereinafter authorized.

A. 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, and on the City of Mebane website homepage. Required water shortage response measures will be communicated through the use of reverse 911, the local newspaper, and on the City of Mebane website.

B. Compliance Required in the Event of Water Shortage

In the event the City Manager issues any such declaration described in the section above, then and in that event it shall be unlawful for any person, firm, or corporation, to use or permit the use of water from the water system within the service area for any of the purposes hereinafter set forth until such time as this article be amended or repealed, or until the City Manager, by public proclamation, has declared certain provisions no longer in effect. In exercising this discretionary authority, consideration shall be given to: water levels of available sources of supply; available/usable storage on hand; draw-down rates; the projected supply capability; outlook for precipitation; daily water use patterns; and availability of water from other sources.

In light of the many benefits that can be derived by conserving water, all residents, businesses and institutions in the service area should follow water conservation practices, regardless of the time of year or whether or not a water shortage exists. Water conservation should be followed during all phases of construction related activities. Where appropriate, water needed should be obtained from supplemental sources and non-essential construction related activities which require water should be delayed until such time as the water emergency has ended.

C. Declaration of Restrictions

	Voluntary Conservation Stage I	Mandatory Stage II	Mandatory Stage III	Emergency Stage IV	Rationing Stage V
Class 1: Essential	Voluntary Conservation	Voluntary Conservation	Voluntary Conservation	Additional Conservation as possible	Mandatory Restrictions
Class 2: Socially or Economically Important	Voluntary Conservation	Voluntary Conservation/ Mandatory Restrictions	Voluntary Conservation/ Mandatory Restrictions	Mandatory Restrictions	Mandatory Restrictions
Class 3: Non-Essential	Voluntary Conservation	Mandatory Restrictions	Mandatory Restrictions	Mandatory Restrictions	Mandatory Restrictions

C.1 Declaration of Voluntary Conservation Stage I

A Stage 1 Condition may be declared when drought conditions appear to be imminent and Graham-Mebane Lake water level declines to a level of one hundred fifty (150) days of usable water storage.

- C.1.1** *An extensive publicity campaign will be initiated using public media and specialized methods to inform the public of an impending water shortage.*
- C.1.2** *Residential conservation measures will be encouraged and recommended including the following:*
- a. Use shower for bathing rather than bathtub and limit shower to no more than four (4) minutes.
 - b. Limit flushing of toilets by multiple uses.
 - c. Do not leave faucets running while brushing teeth, shaving, or rinsing dishes.
 - d. Limit use of clothes washers and dishwashers and when used, operate fully loaded.
 - e. Limit lawn water to that which is necessary for plants to survive.
 - f. Water shrubbery the minimum required, reusing household water when possible.
 - g. Limit car washing to the minimum.
 - h. Do not wash down the outside areas such as sidewalks, patios, etc.
 - i. Install water flow restrictive devices in shower heads.
 - j. Use disposable and biodegradable dishes.
 - k. Install water saving devices such as water filled plastic bottle or commercial units in toilet tanks.
 - l. Limit hours of operation of water cooled air conditioners.
- C.1.3** *It is recommended that water supply line pressure reducing valves be set to the minimum necessary for effective operations of fixtures and equipment.*
- C.1.4** *Conservation in public buildings, institutions, dormitories, etc. is encouraged by reducing pressure at plumbing fixtures, by installation of restricting devices and shutting down on water flow control devices, and by periodic flushing of urinals.*
- C.1.5** *All residents, businesses and institutions are requested to temporarily delay new landscape work until the water shortage has ended.*

C.2 Declaration of Mandatory Stage II

A Stage II Condition may be declared when drought conditions are prolonged and Graham-Mebane Lake water level declines to a level of one hundred twenty (120) days of usable water storage.

In addition to the restrictions heretofore imposed, the following moderate mandatory water restrictions shall be in effect. It shall be unlawful to use water from the public water system supplied by the city/town for the following purposes:

- a. To water lawns, grass, shrubbery, trees, flower and vegetable gardens except on Saturday between the hours of 6:00 am and 9:00 am.
- b. To fill newly constructed swimming and/or wading pools or refill swimming and/or wading pools, which have been drained. A minimal amount of water may be added to maintain continued operation of pools which are in operation at the time the provisions of a "Mandatory Stage II" are placed into effect.
- c. To operate water-cooled air conditioners or other equipment that does not recycle cooling water, except when health and safety are adversely affected.
- d. To wash automobiles, trucks, trailers, boats, airplanes, or any type of mobile equipment, including commercial washing, except those commercial operations that recycle at least 50% of their water use.
- e. To wash down 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 other similar purposes.
- f. To operate or introduce water into any ornamental fountain pool or pond or other structure making similar use of water.
- g. To serve drinking water in restaurants, cafeterias, or other food establishments, except upon request.
- h. To use water from public or private fire hydrants for any purpose other than fire suppression or other public emergency, unless authorized by the City Manager for water quality needs.
- i. To use water for dust control or compaction.
- j. To use water for any unnecessary purpose or to intentionally waste water.

C.3 Declaration of Mandatory Stage III

A Stage III Condition may be declared when drought conditions are prolonged and Graham-Mebane Lake water level declines to a level of ninety (90) days of usable water storage.

- a. To water or sprinkle any lawn.
- b. To water any vegetable garden or ornamental shrubs except during the hours of 6:00 am to 9:00 am on Saturday. Such watering is only to be done by handheld hose or container or drip irrigation system.

C.4 Declaration of Emergency Stage IV

A Stage IV Condition may be declared when drought conditions are persistent and Graham-Mebane Lake water level declines to a level of sixty (60) days of usable water storage. In addition to the restrictions heretofore imposed, the following stringent mandatory water restrictions shall be in effect. It shall be unlawful:

- a. To use water outside a structure for any use other than an emergency use involving fire.
- b. To operate an evaporative air conditioning unit which recycles water except during the operating hours of the business.
- c. To introduce water into any swimming pool.

C.4 Declaration of Rationing Stage V

A Stage V Condition may be declared when all the conditions exist in Stage IV and Graham-Mebane Lake water level declines to a level of thirty (30) days of usable water storage. In the event a "Rationing Stage V" is declared to exist, a system of water rationing shall be put in effect in addition to all previously imposed restrictions. In the event of water rationing in which water will be supplied in the minimal quantities required for the health, welfare, and safety of the citizens in accordance with the following program.

- a. It shall be unlawful to fail to act in accordance therewith or use water in any manner or attempt to evade or avoid such water rationing restrictions.
- b. Fire protection will be maintained, but where possible, tank trucks shall use raw water.

Section 14.05.

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 City 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 City of Mebane website and City Hall. All applications must be submitted to the City Hall for review by the City 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 City Manager in accordance with established procedures.

Section 14.06.

Penalties

The City may impose an excess user charge of \$100.00 per event for violations of this chapter. The first such violation shall receive a warning citation and shall not be subject to the user fee set forth herein.

Section 14.07.

Public Comment

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan. First, a draft plan will be published in the local newspaper and on the City of Mebane website. A public hearing will be scheduled with a notice printed in the local newspaper to requesting comments on the draft plan. All subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by Mebane's City Council.

Section 14.08.

Effectiveness

The effectiveness of the Mebane 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.

Section 14.09.

Effective Date

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

Section 14.10.

Effective Period

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

Section 14.11.

Revisions

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, City staff will review procedures following each emergency or rationing stage to recommend any necessary improvements to the plan to Mebane's City Council. The City of Mebane City Manager is responsible for initiating all subsequent revisions.

Section 14.12.

Cessation of Restrictions

Upon improvement in the water level in the Graham-Mebane Lake, the City Manager is authorized and empowered to issue public declarations indicating the cessation of previously declared stages of water restrictions. The notifications of such declarations shall be in accordance with Section 14.04.

Passed by the council (or commission) this day of July 12, 2010.

(Mayor's Signature) Stendel Stephens

ATTEST
(Clerk's Signature) Stephanie W. Shaw

