

Neuse Regional Water and Sewer Authority (NRWASA)

Water Shortage Response Plan

(Updated March 2018)

1.1 Introduction

All public and privately owned water systems subject to G.S. 143-355 (l) are required to submit a Water Shortage Response Plan (WSRP) Update as part of their Local Water Supply Plan (LWSP). The Neuse Regional Water and Sewer Authority was completed and began selling water in 2008. However, the Neuse Regional Water and Sewer Authority only serves as a bulk water supplier to members of the Authority and does not provide water to individual customers. As such, the following Water Shortage Response Plan will be used to alert the member entities of the Authority of a potential water shortage at the plant. At that point, the decision to declare any water shortage response will be left to the individual members. While the Neuse Regional Water and Sewer Authority is the primary water supply of the member entities, it should be noted that all of the member entities previously relied on groundwater for their primary water supply and this water source continues to be available to the members today. Membership for the NRWASA includes the (8) member entities: Town of Ayden, Bell Arthur Water Corporation, Deep Run Water Corporation, Eastern Pines Water Corporation, Town of Grifton, City of Kinston, North Lenoir Water Corporation, Town of Pink Hill.

Based on the findings of the Authority's Water Conservation Task Force, the Authority recommended that all member entities develop individual water shortage response plans that included the same water shortage stages defined in the following sections. However, the members will not be required to implement the stages at the same time or upon notice by the Executive Director of the Authority. Implementation and enforcement of the individual water shortage response plans and decisions related to the water shortage response level will be the responsibility of each member entity. Use of the same water shortage response stages is consistent with the stated objectives for providing a consistent public message and equity among the members of the Authority.

1.2 Declaration of Water Emergency

The Executive Director of the Authority or his authorized representative is authorized to declare that a water emergency exists. Depending on the severity of the emergency, voluntary (Stage 1) and mandatory (Stage 2 and Stage 3) staged water use restrictions will be recommended for implementation by members of the Authority. Based on the individual water availability of each member (i.e. surface water and groundwater supplies), the local governing boards will determine if the following stages should be implemented for their customers.

1.3 Staged Water Use Restrictions

The Water Shortage Response Plan follows a staged approach to water shortages or emergencies. Stage 1 water restrictions would be voluntary measures, recommended to customers in an attempt to prevent more severe, mandatory water restrictions. If the imposition of Stage 1 voluntary water restrictions does not reduce water consumption to an acceptable level or if the water shortage becomes more severe, Stage 2 water restrictions may be imposed. Stage 2 water restrictions would be more severe in nature and would be mandatory restrictions. Stage 3 water restrictions are the most severe and would only be implemented if a water emergency existed. Stage 3 water restrictions would also be mandatory.

1.3.1 Stage 1 Water Conservation Alert (Voluntary Water Restrictions)

A Stage 1 water emergency at the plant will be declared in the event of an immediate water shortage or when there are three consecutive days when water demand exceeds 80% of the water production capacity. For the plant, water production capacity shall be defined as the maximum volume of water that meets state and federal standards that the water treatment process can produce during a twenty-four hour period. Water production capacity can vary depending on system component reliability and raw water conditions. Following the declaration of a Stage 1 water emergency by the Executive Director of the Authority, the Water System Manager of each member entity of the Authority will be notified via phone to consider the declaration of the same emergency stage at the local level. The choice to implement the recommended water shortage response level will be determined and enforced at the local level. The following voluntary water conservation practices shall be encouraged:

- Inspect and repair all faulty and defective parts of faucets and toilets.
- Use shower for bathing rather than bathtub and limit shower to no more than 5 minutes.
- Do not leave faucets running while shaving, brushing teeth, rinsing or preparing food.
- The use of clothes washers and dishwashers and when used, operate fully loaded. Operate dishwashers after the peak demand hours of 6 to 10 p.m.
- Limit lawn watering to that necessary for plant survival. Water lawns before the peak demand hours of 6 to 10 a.m.
- Water shrubbery the minimum required. Water shrubbery before the peak demand hours of 6 to 10 a.m.
- Limit vehicle washing
- Do not wash down outside areas such as sidewalks, driveways, patios, etc.

- Install water saving showerheads and other devices.
- Use disposable and biodegradable dishes where possible
- Install water saving devices in toilets such as early closing flappers.
- Limit hours of water-cooled air conditioners.
- Do not fill swimming or wading pools
- Commercial and industrial customers should review their water uses, perform water audits and install reclaimed / recycle water systems where feasible.

1.3.2 Stage 2 Water Shortage Warning (Mandatory Water Restrictions)

A Stage 2 water emergency at the plant will be declared in the event of an immediate water shortage or when there are two consecutive days when water demand exceeds 90% of the water production capacity. For the plant, water production capacity shall be defined as the maximum volume of water that meets state and federal standards that the water treatment process can produce during a twenty-four hour period. Water production capacity can vary depending on system component reliability and raw water conditions. Following the declaration of a Stage 2 water emergency by the Executive Director of the Authority, the Water System Manager of each member entity of the Authority will be notified via phone to consider the declaration of the same emergency stage at the local level. The choice to implement the recommended water shortage response level will be determined and enforced at the local level. During a Stage 2 water emergency, the following activities shall be prohibited:

- Watering lawns, grass, shrubbery, trees, flower and vegetable gardens except by hand held hose, container, or drip irrigation system. A person who regularly sells plants will be permitted to use water on their commercial stock. A golf course may water their greens. State, County and City licensed landscape contractors may water by hand held hose or drip irrigation any plants under a written warranty.
- Filling swimming or wading pools, either newly constructed or previously drained. Make up water for pools in operation will be allowed
- Using water-cooled air conditioners or other equipment, in which cooling water is not recycled, unless there are health or safety concerns.
- Washing any type of mobile equipment including cars, trucks, trailers, boats, or airplanes. Any persons involved in a business of washing motor vehicles may continue to operate.
- Washing outside surfaces such as streets, driveways, service station aprons, parking lots, or patios.
- Washing the exterior of office buildings, homes, or apartments.

- Using water for any ornamental fountain, pool, pond, etc.
- Serving drinking water in food establishments such as restaurants or cafeterias, unless requested to do so by a customer.
- Using water from a public or private fire hydrant for any reason other than to suppress a fire or other public emergency or as authorized by the Executive Director or his authorized representative.
- Using water to control or compact dust.
- Intentionally wasting water.
- Commercial and industrial water customers shall achieve mandatory reductions in water usage through whatever means are available. A minimum reduction of 20% shall be the target; however a greater target reduction percentage may be required depending on the severity of the water emergency. Reductions will be based on the use during the prior month of operation. Compliance with the reduction target shall be determined by the Water System Manager of each member entity of the Authority. Variances to the target reduction may be granted by the Water System Manager at the local level to designated public health facilities. All enforcement actions will be the responsibility of each member entity at the local level in accordance with their individual water shortage response plan.

1.3.3 Stage 3 Water Shortage Danger (Mandatory Water Restrictions)

A Stage 3 water emergency at the plant will be declared in the event of an immediate water shortage or when there is one day when water demand exceeds 100% of the water production capacity. For the plant, water production capacity shall be defined as the maximum volume of water that meets state and federal standards that the water treatment process can produce during a twenty-four hour period. Water production capacity can vary depending on system component reliability and raw water conditions. Following the declaration of a Stage 3 water emergency by the Executive Director of the Authority, the Water System Manager of each member entity of the Authority will be notified via phone to consider the declaration of the same emergency stage at the local level. The choice to implement the recommended water shortage response level will be determined and enforced at the local level. During a declared Stage 3 water emergency the following activities shall be prohibited, in addition to activities prohibited under Stage 2:

- Watering lawns, grass, shrubbery, trees, and flowers (no exceptions).
- Washing motor vehicles at commercial car wash establishments.
- Watering any vegetable garden except by hand held hose, container, or drip irrigation.

- Commercial and industrial water customers shall achieve mandatory reductions in water usage through whatever means are available. A minimum reduction of 50% shall be the target; however a greater target reduction percentage may be required depending on the severity of the water emergency. Reductions will be based on the use during the prior month of operation. Compliance with the reduction target shall be determined by the Water System Manager of each member entity of the Authority. Variances to the target reduction may be granted by the Water System Manager at the local level to designated public health facilities. All enforcement actions will be the responsibility of each member entity at the local level in accordance with their individual water shortage response plan.
- In the event that the prohibition of the activities listed above is not sufficient to maintain an adequate supply of water for fire protection, all use of water for purposes other than maintenance of public health and safety shall be prohibited. Residential water use shall be limited to the amount necessary to sustain life through drinking, food preparation and personal hygiene.

1.4 Notification of Water Shortage Response Plan Activation

The Executive Director of the Authority will notify the Water System Manager of each member entity when an element of the water shortage response plan is activated. The Water System Manager or his authorized representative for each member entity will evaluate water availability for their system to determine if an element of the water shortage response plan should be activated for their customers. It will be the responsibility of each member entity to attempt to contact all water users and system employees. The NRWASA will provide support for the notification process, if necessary. Notification will rely primarily on broadcast media outlets, such as community television, local news and radio public service announcements. In addition, the Authority's website (www.nrwasa.org) will have an announcement of the response as well as the conservation and response measures. Any change in the water shortage situation will be announced through the same outlets.

1.5 Compliance Plan During Stage 2 and Stage 3 Emergencies

The Water System Manager or his authorized representative of each member entity may require that commercial and industrial water customers prepare plans detailing measures to be taken by them to achieve mandatory reductions in daily water usage during Stage 2 and Stage 3 emergencies. Such plans shall be completed within sixty (60) Calendar days after receipt of notice to prepare them.

1.6 Enforcement and Penalties for Violation of Mandatory Restrictions

In order to provide consistency among its members, the NRWASA recommends the following enforcement activities for violation of mandatory restrictions. However, all enforcement decisions and actions will be the sole responsibility of each member entity at the local level:

Any User who is found to have failed to comply with any of the mandatory restrictions set forth in these Regulations may be subject to a penalty. A written warning will be issued for the first violation. A civil penalty of \$50.00 (or an alternative amount as determined by each member entity) shall be assessed for the second violation and a third violation shall result in a civil penalty of \$200.00 (or an alternative amount as determined by each member entity). A fourth violation will result in interruption of water service to the offending customer. The Member Utility 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.

1.7 Effectiveness

The effectiveness of the NRWASA 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, desired reductions attained and evaluation of demand reductions compared to the previous year's seasonal data.

1.8 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, the Water Conservation Task Force may be reconvened to review procedures following each emergency or rationing stage to recommend any necessary improvements to the plan to the NRWASA Board of Directors. The Executive Director of the Authority is responsible for initiating all subsequent revisions.

1.9 Appeal by Customers of Penalties and Termination of Service

In order to provide consistency among its members, the NRWASA recommends the following appeals process. However, all appeals will be the sole responsibility of each member entity at the local level:

Any User who receives a penalty and/or has service terminated as a result of violations of the mandatory restrictions in these Regulations may appeal upon notification to the authorized representative at each member of the Authority. The

Member Utility's City Council or Board of Directors shall be the final decision maker for appeals and shall transmit a written copy of the final decision by registered or certified mail within three days after notification by the authorized representative.

1.10 Adoption and Enforcement of Article by Public or Private Water Systems

The NRWASA does not maintain the authority to enforce the above water shortage restrictions on any customers or its members. However, any public or private water systems purchasing water from the Authority will be encouraged to activate the same water shortage emergency stage as declared by the Executive Director of the Authority. At a minimum, the NRWASA will require that each member adopt the stated definitions of Stage 1, Stage 2 and Stage 3 water emergencies such that a consistent conservation message can be delivered to the customers should a water shortage occur. Upon declaration of a water emergency by the Executive Director of the Authority, the public or private water systems shall be responsible for enforcement of the appropriate water use restrictions for the level of declared emergency.

1.11 Termination of Restrictions

A water emergency declaration for the plant will expire when the Executive Director or his authorized representative determines that the condition which causes the emergency has abated. Water shortage conditions will be evaluated on a weekly basis by the Executive Director of the Authority. The expiration or cancellation of a water emergency declaration shall be promptly declared to each member entity. At that point, each member entity will evaluate their individual water availability to determine if ongoing restrictions are necessary.