

## ***WATER SHORTAGE RESPONSE PLAN***

### **Introduction**

Brunswick Regional Water and Sewer H2GO henceforth referred to as the "H2GO" and the board of commissioners, henceforth referred to as the "commissioners" shall have the charge to protect Brunswick Regional Water and Sewer H2GO's public water supply and to ensure that the benefactors of this system are assured an adequate supply of water even in times of water shortage. Water shortage can be the result of climatic conditions causing drought or it may be the result of a physical breach in either or both the County's and H2GO's water supply system (i.e., mechanical failure, cut or broken water main, etc.) impeding the flow of potable or raw water supply.

### **Authorization**

The Brunswick Regional Water and Sewer Director shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section 8.4 are met. In his absence, the Assistant Director will assume this role.

### **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 notices in water bills. Required water shortage response measures will be communicated through public service announcements (PSA,s) on local radio and cable stations. Declaration of emergency water restrictions or water rationing will be communicated to all customers via local media.

### **Public Comment**

Customers will have several opportunities to comment on the provisions of the water shortage response plan. A draft plan will be available at the H2GO offices for customers to view. Customers will be notified per Section 8.2. All revisions to the plan will be available at least 30 days prior to an adoption vote by commissioners of H2GO.

### **Levels of Response**

Three levels of water shortage response are outlined in the table below. The three levels of water shortage response are: Stage 1- Water Conservation Alert, Stage 2- Water Shortage Warning, Stage 3- Water Shortage Danger. A detailed description of each response level and corresponding water reduction measures follow below.

- (a) *Declaration of water emergency.* The director 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 as described in this article shall be imposed upon all water customers.

(b) *Staged water use restrictions.*

(1) *Stage 1--Water Conservation Alert.* A Stage 1 water shortage emergency may be declared in the event of an immediate water shortage, as so declared by state and/or local officials, or when there are three (3) consecutive days when water demand exceeds eighty (80) percent of the water production capacity. Water production capacity shall be defined as the maximum volume of water that meets or exceeds state and federal standards that the water treatment process can produce during a twenty-four (24) hour period. Water production capacity can vary depending on system component reliability and/or raw water conditions. During a declared Stage 1 water shortage emergency the following voluntary water conservation practices shall be encouraged:

- a. Inspect and repair all faulty and defective parts of faucets and toilets.
- b. Use shower for bathing rather than bathtub and limit shower to no more than five (5) minutes.
- c. Do not leave faucets running while shaving, brushing teeth, rising or preparing food.
- d. Limit the use of clothes washers and dishwashers and when used, operate fully loaded. Operate dishwashers after the peak demand hours of 6:00 p.m. to 10:00 p.m.
- e. Limit lawn watering to that necessary for plant survival. Water lawns before the peak demand hours of 6:00 a.m. to 10:00 a.m.
- f. Water shrubbery the minimum required. Water shrubbery before the peak demand hours of 6:00 a.m. to 10:00 a.m.
- g. Limit vehicle washing to a minimum.
- h. Do not wash down outside areas such as sidewalks, driveways, patios, etc.
- i. Install water saving showerheads and other water conservation devices.
- j. Use disposable and biodegradable dishes where possible.

k. Install water saving devices in toilets such as early closing flappers.

l. Limit hours of water cooled air conditioners.

m. Do not fill swimming or wading pools.

(2) *Stage 2--Water Shortage Warning.* A Stage 2 water shortage emergency may be declared in the event of an immediate water shortage, as so declared by state and/or local officials, or when there are two (2) consecutive days when water demand exceeds ninety (90) percent of the water production capacity. Water production capacity shall be defined as the maximum volume of water that meets or exceeds state and federal standards that the water treatment process can produce during a twenty-four (24) hour period. Water production capacity can vary depending on system component reliability and/or raw water conditions. During a declared Stage 2 water shortage emergency the following activities shall be prohibited:

- a. Watering lawns, grass, shrubbery, trees, flower and vegetable gardens except by hand held hoses, 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 its greens. State and county licensed landscape contractors may water any plants by handheld hose or drip irrigation under a written warranty.
- b. Filling swimming or wading pools either newly constructed or previously drained. Make up water for pools in operation will be allowed.
- c. Using water-cooled air conditioners or other equipment, in which cooling water is not recycled, unless there are health or safety concerns.
- d. 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.
- e. Washing outside surfaces such as streets, driveways, service station aprons, parking lots or patios.
- f. Washing the exterior of office buildings, homes or apartments.
- g. Using water for any ornamental fountain, pool, pond, etc., unless recycled.

- h. Serving drinking water in food establishments such as restaurants or cafeterias, unless requested to do so by a customer.
- i. 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 director or his authorized representative.
- j. Using water to control or compact dust.
- k. Intentionally wasting water.
- l. Commercial and industrial water customers shall achieve mandatory reductions in water usage through whatever means are available. A minimum reduction of twenty (20) percent shall be the target; however a greater target reduction percentage may be required depending on the severity of the water shortage emergency. Compliance with the reduction target shall be determined by the director or his authorized representative. Variances to the target reduction may be granted by director or his authorized representative to designated public health facilities.

(3) *Stage 3--Water Shortage Danger.* A Stage 3 water shortage emergency may be declared in the event of an immediate water shortage, as so declared by state and/or local officials, or when there is one (1) day when water demand exceeds one hundred (100) percent of the water production capacity. Water production capacity shall be defined as the maximum volume of water that meets or exceeds state and federal standards that the water treatment process can produce during a twenty-four (24) hour period. Water production capacity can vary depending on system component reliability and/or raw water conditions. During a declared Stage 3 water shortage emergency the following activities shall be prohibited, in addition to activities prohibited under Stage 2:

- a. Watering lawns, grass, shrubbery, trees, and flowers.
- b. Washing motor vehicles at commercial car wash establishments.
- c. Watering any vegetable garden except by hand held hose, container, or drip irrigation.
- d. Commercial and industrial water customers shall achieve mandatory reductions in water usage through whatever means are available. A minimum reduction of fifty (50) percent shall be the target; however a greater target reduction percentage may be required depending on the severity of the water emergency.

Compliance with the reduction target shall be determined by the director or his authorized representative. Variances to the target reduction may be granted by the director or his authorized representative to designated public health facilities.

- e. 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.

(c) *Compliance Plan during Stage 2 and Stage 3 emergencies.* The director or his authorized representative 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.

**Triggers**

Brunswick Regional Water and Sewer is provided water solely by purchase from Brunswick County. When Brunswick County declares a water shortage Brunswick Regional Water and Sewer is required to do so as well. During this time Brunswick Regional Water and Sewer H2GO Director will stay in close contact with Brunswick County and follow their triggers.

**Enforcement**

The provisions of the water shortage response plan will be enforced by Brunswick Regional Water and Sewer personnel. Violators may be reported to the H2GO’s main office. Violations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage.

<b>Water Shortage Level</b>	<b>First Violation</b>	<b>Second Violation</b>	<b>Third Violation</b>
Stage 1	N/A	N/A	N/A
Stages 2	Warning	\$250	Discontinuation of Service
Stage 3	\$250	Discontinuation of Service	Discontinuation of Service

*Penalties for violation of mandatory restrictions.* Any user who is found to have failed to comply with any of the mandatory restrictions set forth in these regulations may be fined in accordance with the list of rates and charges currently in force for each violation.

*Authority to discontinue service.* Pursuant to the provisions of this article, water service may be temporarily discontinued for failure to comply with the mandatory restrictions in this article. All applicable penalty fees may be applied in the event of such service suspensions. In the event of continued non-compliance with this article, removal of meter and service will be deemed proper and service will be discontinued and tap fees and account deposits shall be forfeited.

*Appeals by customers of penalties and termination of service.* Any user who receives a penalty and/or has service terminated as a result of violations of the mandatory restrictions in this article may appeal upon notification to the director. The director shall be the final decision maker for appeals and shall transmit a written copy of the final decision by registered or certified mail within seven (7) days after notification.

*Adoption and enforcement of plan by public or private water system.* Public or private water systems purchasing water from the BRWS shall adopt and enforce this entire article as a condition of water service. Upon declaration of a water shortage emergency, the public or private water systems shall enforce the appropriate water use restrictions for the level of declared emergency.

*Termination of restrictions.* A water emergency declaration will expire when the Director or his authorized representative determines that the condition that causes the emergency has abated. The expiration or cancellation of a water shortage emergency declaration shall be promptly and extensively publicized.

## **Variance Protocols**

Applications for water use variance requests are available from the H2GO Office. All applications must be submitted to the H2GO Office for review by the Director or his 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.

## **Effectiveness**

The effectiveness of the Brunswick Regional Water and Sewer H2GO 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.

## **Reclaimed Water Usage Policy**

- (a) *Purpose.* The purpose of this policy is to set forth the principles and guidelines to encourage and permit the usage of reclaimed water for irrigation of golf courses, development common areas, commercial landscaped areas, public parks, agricultural lands, forestry lands, and residential lots.
- (b) *Background.* This reclaimed water usage policy is an integral part of an overall water conservation program to reduce the demand for potable water used for irrigation. The demand for potable water used for non-potable uses such as irrigation continues to increase. Due to limited availability of water resources, BRWS must use all water as a resource.

- (c) *Definitions.*

*Available* means that a reclaimed water distribution main is located within the right-of-way of the street or road adjacent to the property requesting installation of a meter for irrigation.

*Cross connection* means any physical connection that would allow reclaimed water back into the potable water system or potable water into the reclaimed water system.

*Department* shall mean Brunswick Regional Water and Sewer H2GO.

*Director* shall mean the director of the Brunswick Regional Water and Sewer H2GO.

*Irrigation system* shall mean a device or combination of devices including pipes, emitters, sprinkler heads, and similar devices that transmit water from H2GO system to landscaped areas including lawns and shrubbery.

*North Carolina Department of Environment and Natural Resources (NC DENR) Rules* shall mean the regulations for reclaimed water and water reuse as stated in the North Carolina Administrative Code and as amended from time to time.

*Reclaimed water* means water that has been treated at a water reclamation facility to a level that meets or exceeds the water quality requirements defined by the NC DENR Rules.

*Reclaimed water distribution system* shall mean all equipment, piping, valves, pumps, and associated materials and equipment used to transmit reclaimed

water from the wastewater treatment plant to the reclaimed water user.

*Reclaimed water transmission main* means those conduits used to supply reclaimed water from the wastewater treatment plants to potential reclaimed water users.

*Service line* shall mean that conduit from the reclaimed water distribution system to the property line.

(d) *Connection.*

- (1) After construction of a reclaimed water transmission main such that reclaimed water is available to the property, the property owner may connect to the reclaimed water system upon submission of plans and specifications for the proposed connection, receipts of all required permits, and approval of the connection by the director. Reclaimed water may be used only for irrigation or groundwater recharge purposes and shall be in accordance with NC DENR Rules and local ordinances rules and regulations. Any other use must be approved in advance by the director. The property owner shall be responsible for compliance with all applicable rules and regulations associated with the use of the reclaimed water on their property.
- (2) Connection to the reclaimed water system by developments with existing irrigation systems is encouraged but not required. H2GO may require developments with more than five hundred (500) residential units planned for construction and approved for construction after the effective date of this to policy to utilize irrigation systems capable of using reclaimed water to irrigate required common areas.

(e) *Rates, Rules, and Regulations.*

- (1) The Commissioners shall have the authority to establish rates for the connection and use of reclaimed water. All connection fees and usage charges shall be included in the public utilities schedule of fees and charges ordinances and may be amended as required.
- (2) The Commissioners shall have the authority to establish such rules and regulations concerning the connection to the reclaimed water distribution system and use of reclaimed water as required for the system to operate within the NC DENR Rules and local ordinances. The board of commissioners shall have the authority to establish priorities for the distribution of reclaimed water and establish priorities for the extension of reclaimed water transmission mains.

(f) *Conditions for Use of Reclaimed Water.*

- (1) H2GO may terminate, discontinue, or suspend reclaimed water service in accordance with this policy and other H2GO policies in the event that the customer fails to pay their bill by the due date, tampers with the metering device, violates any NC DENR reclaimed water permits, has a cross connection with the potable water system, or conducts any other action or has any other condition that is detrimental to the potable water system or reclaimed water system.
- (2) Property owners will be required to install an RPZ backflow prevention device on a potable water system that serves the property receiving reclaimed water. The property owner is responsible for the installation, maintenance, and testing of this backflow prevention device.
- (3) H2GO utilities personnel shall have the right to enter the property to inspect the irrigation system for the purposes of determining compliance with this policy.
- (4) H2GO reserves the right to interrupt or temporarily discontinue service to any portion or all of the reclaimed water system as deemed necessary by the director. In addition, the Director shall have the authority to establish and regulate service pressures within the reclaimed water distribution system. Delivery pressures may vary widely and be insufficient to use for direct irrigation without improvements to the property owner's irrigation system.
- (5) BRWS shall have the right to refuse service to any property owner and makes no guarantee of future service to any property owner.

### **Return to Normal**

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

### **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 and Brunswick County's water shortage response plan.