

**Water Shortage Response Plan
Polk County Water System, North Carolina
May 10, 2023**

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 Polk County Manager shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section IV are met.

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Alternate:
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General Manager
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II. 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 and on the County website (<http://www.polknc.org/>). Required water shortage response measures will be communicated through PSA announcements on local radio and cable stations, the County website, and ICWD website. Declaration of emergency water restrictions or water rationing will be communicated to all customers by telephone or door hangers if necessary.

III. Stages of Response

Polk County Water System (PCWS) purchases wholesale drinking water from Broad River Water Authority (BRWA). The operation of the system is managed by the ICWD. As such elements of the BRWA and ICWD water shortage response plans are included herein. A detailed description of each response level and corresponding water reduction measures follow below.

Stages of Response –Taken from the Broad River Water Authority Water Shortage Response Plan

When the following water supply thresholds (TRIGGERS) are reached, the County shall initiate the following STAGE reduction measures as outlined under the corresponding RESPONSE. The stages reduction measures will be communicated as indicated in Section C: Activation of Conservation Measures.

STAGE I: WATER SHORTAGE CONDITION VOLUNTARY WATER USE REDUCTION FOR PCWS CUSTOMERS	
TRIGGERS	
<p>A reduction in the flow of the Broad River at the raw water intake, as quantified as three times the flow measured by the United States Geological Survey (USGS) gauge at the Cove Creek tributary to Broad River, to 65 million gallons per day (MGD) for a period of seven (7) consecutive days (65 MGD represents the 7Q10 of the river¹); The County shall declare the Stage I reductions prior to the 7th day of the conditions above if it is determined to be necessary.</p>	
RESPONSE	
<ol style="list-style-type: none"> 1. Limit car washing to a minimum. 2. Limit lawn and garden watering to that which is necessary. 3. Do not wash down outside areas such as sidewalks, patios, parking lots, service bays, aprons, etc. 4. Do not leave faucets running while shaving, brushing teeth, showering, or rinsing dishes. 5. Water shrubbery to a minimum required reusing house-hold water when possible. 6. Limit use of clothes washers and dish washers and when used, operate fully loaded. 7. Use showers for bathing rather than bathtubs and limit showers to no more than four minutes. 8. Limit flushing of toilets by multiple usage. 9. Usage of disposable and biodegradable dishes is encouraged. 10. The use of flow restrictive and water saving devices is encouraged. 11. Limit hours of operation of water cooled air conditioners. 12. All residents, businesses, and institutions are requested to temporarily delay new landscape work until the water shortage has ended. 13. Wholesale customers will be asked to decrease their usage by implementing similar restrictions. 	

Notes: 1. Source: Rutherford County Land Use Plan, 2001

STAGE II: WATER SHORTAGE CONDITION MANDATORY WATER USE REDUCTION FOR PCWS CUSTOMERS
TRIGGERS
<p>A reduction in the flow of the Broad River at the raw water intake to 32 million gallons per day (MGD) for a period of seven (7) consecutive days (32 MGD is the flow needed such that 20% of the flow could yield 6.4 MGD for BRWA's use);</p> <p>The County shall declare the Stage II reductions prior to the 7th day of the conditions above if it is determined to be necessary.</p>
RESPONSE
<p><u>The following activities are prohibited:</u></p> <ol style="list-style-type: none"> 1. To water lawns, grass, shrubbery, trees, flowers, and vegetable gardens with a hose, sprinkler, etc. is prohibited; however, the use of a bucket or container of 5 gallon capacity or less is permitted. 2. To fill newly constructed swimming and/or wading pools or refill swimming and/or wading pools which have been drained. 3. To wash automobiles, trucks, trailers, boats, airplanes, or any other type of mobile equipment. The operations of commercial businesses are excluded, such as car washes, etc. 4. To wash down outside areas such as streets, driveways, service station aprons, parking lots, office buildings, exteriors of newly constructed homes or apartment, sidewalks, patios, or to use water for similar purposes. 5. To use water from public or private fire hydrants for any purpose other than fire suppression or other public emergency. Hydrant use for system flushing by PCWS staff will be delayed if possible, but is permitted if necessary to maintain appropriate water quality. Flushing of newly constructed water lines will only be allowed with permission from PCWS staff. 6. To operate or induce water into any ornamental fountain pool or pond or other structure making similar use of water. 7. To serve water in restraints, cafeterias, or other food establishments, except upon request. 8. To operate water cooled air conditioners or other equipment that does not recycle cooling water, except when health and safety would be adversely affected. 9. To use water for any unnecessary purpose or to intentionally waste water. <p>Wholesale customers will be asked to decrease their usage by the reduction goal of 10%.</p>

STAGE III: EMERGENCY WATER SHORTAGE CONDITION MANDATORY WATER USE REDUCTION FOR PCWS CUSTOMERS	
TRIGGERS	
<p>A reduction in the flow of the Broad River at the raw water intake to 24 million gallons per day (MGD) for a period of seven (7) consecutive days (24 MGD is the flow needed such that 20% of the flow could yield 4.8 MGD for BRWA's use);</p> <p>The Board shall declare the Stage III reductions prior to the 7th day of the conditions above if it is determined to be necessary.</p>	
RESPONSE	
<p><u>All Stage II restrictions shall apply to Stage III. The following activities are also prohibited:</u></p> <ol style="list-style-type: none"> 1. To induce water into any pool. 2. To use water outside any structure for any use other than an emergency involving a fire. 3. The use of disposable utensils and plates is encouraged at all eating establishments. <p>Wholesale customers will be asked to evaluate utilizing water from other cross-connected systems. PCWS will review auto meter reading data to identify potential leaks and inform property owners. Wholesale customers will be asked to decrease their usage by the reduction goal of 25%.</p>	

STAGE IV: CRISIS WATER SHORTAGE CONDITION MANDATORY WATER USE REDUCTION FOR PCWS CUSTOMERS	
TRIGGERS	
<p>A reduction in the flow of the Broad River at the raw water intake to 16 million gallons per day (MGD) for a period of seven (7) consecutive days (16 MGD is the flow needed such that 20% of the flow could yield 3.2 MGD for BRWA's use); OR the Authority is unable to meet minimum pressure requirements in the water distribution system;</p> <p>The Board shall declare the Stage IV reductions prior to the 7th day of the conditions above if it is determined to be necessary.</p>	
RESPONSE	
<p><u>All Stage II and Stage III restrictions shall apply to Stage IV. The following will also apply:</u></p> <p>Flow to wholesale water customers will be asked to implement alternate supply if available.</p>	

IV. Triggers

Polk County Water System is provided water solely by purchase from the Broad River Water Authority. When Broad River Water Authority declares a water shortage Polk County Water system is required to do so as well. During this time the Polk County Manager will stay in close contact with Broad River Water Authority 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.

V. Enforcement

The provisions of the water shortage response plan will be enforced by Polk County personnel and local law enforcement. Violators may be reported on the County's phone line. Citations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage.

Water Shortage Level	Rate Surcharge	Fines
Stage 1	N/A	N/A
Stage 2	N/A	N/A
Stage 3	5,000 - 12,000 G/M 2 times regular rate	N/A
Stage 4	Over 12,001 G/M 3 times regular rate	*See Below For Additional Information:

*Additional Information for Stage 4:

First violation – A warning will be issued and customer will be advised that second violation they will be fined as follows.

Second violation – A \$50.00 fee will be invoiced to the customer by mail and if the fee is not paid within seven (7) days from the date of the invoice the service will be disconnected and an additional \$30.00 non-payment fee will be added to their account.

Third violation – the customer's water service shall be terminated and restored only after payment fee of \$200.00 is received in addition to all previously assessed fees.

Fourth violation – the customer's water service shall be terminated and restored only after payment fee of \$500.00 is received in addition to all previously assessed fees.

V1. Public Comment

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan should it be revised (excluding clerical revisions). First, a draft plan will be available at the County Office for customers to view. A notice will be included in the customer's water bill notifying them of such. All subsequent revisions to the plan will be published at least 30 days prior to an adoption vote by Polk's County Commissioners.

VII. Variance Protocols

Applications for water use variance requests are available from the County Public Works Office. All applications must be submitted to the County Office for review by the County 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.

VIII. Effectiveness

The effectiveness of the Polk County Water System 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.

IX. 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 the 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 Polk's County Commissioners. The Polk County Manager is responsible for initiating all subsequent revisions.