



# City of Gastonia – Two Rivers Utilities Department DRAFT Water Shortage Response Plan

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 Gastonia City Manager shall enact the following water shortage response provisions in accordance with the standards set forth in the Gastonia Code of Ordinances – Chapter 14, Article VII., entitled Emergency Water Conservation. In his or her absence, the Director of Public Utilities will assume this role.

City Manager  
City of Gastonia

Director of Public Utilities  
City of Gastonia

## II. Declaration

Whenever the regional water supply or the water supply of the City of Gastonia’s water system is impacted due to conditions which may adversely affect the continued availability of water for human consumption, sanitation, health and fire protection, it may be necessary to declare a water shortage and implement conservation requirements under the standards set forth in the Gastonia Code of Ordinances -- Chapter 14, Article VII. – Emergency Water Conservation.

## III. Notification

The following notification methods will be used to inform all employees and customers of a water shortage declaration: employee e-mail announcements, notices at municipal buildings, notices in water bills, the City of Gastonia’s social media pages , the City of Gastonia website, and the customer notification system, which may be a telephone call or via a mobile application. Required water shortage response measures will be communicated through, the City of Gastonia’s social media pages, and on the City of Gastonia website.

## IV. Levels of Response

Four levels of water shortage response are outlined in the table below. The levels of response are based upon criteria set by the Catawba-Wateree Drought Management Advisory Group (C-W DMAG).



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Stage	Response	Description
1	Voluntary Reductions	Water users are encouraged to reduce their water use and improve water use efficiency; however, no penalties apply for noncompliance. Water supply conditions indicate a potential for shortage. Reduction goal of 3-5%.
2	Mandatory Reductions I	Water users must abide required water use reduction and efficiency measures; penalties apply for noncompliance. Water supply conditions are significantly lower than the seasonal norm and water shortage conditions are expected to persist. Reduction goal of 5-10%.
3	Mandatory Reductions II	Same as in Stage 2. Reduction goal of 10-20%.
4	Emergency Reductions	Water supply conditions are substantially diminished and pose an imminent threat to human health or environmental integrity. Reduction goal of 20-30%

In Stage 1, Voluntary Reductions, all water users will be asked to reduce their normal water use by 3 to 5%. Customer education and outreach programs will encourage water conservation and efficiency measures including: irrigating landscapes at a maximum of two days per week between the hours of 8:00 p.m. to 8:00 a.m. preventing water waste, runoff and watering impervious surfaces; reduction of residential vehicle washing; washing only full loads of clothes and dishes; using spring-loaded nozzles on garden hoses; and identifying and repairing water leaks.

In Stage 2, Mandatory Reductions I, all customers are expected to reduce their water use by 5 to 10% in comparison to their average usage. In addition to continuing to encourage all voluntary reduction actions, the following restrictions apply per Section 14-814 (2) of the Gastonia Code of Ordinances: irrigation is limited to 8:00 p.m. Tuesday to 8:00 a.m. Wednesday and 8:00 p.m. Saturday to 8:00 a.m. Sunday, washing vehicles at home is prohibited, non-commercial washing of homes, buildings, sidewalks and streets except as required for public safety and/or to maintain regulatory compliance is prohibited, and operation or introduction of water into any non-recirculating ornamental fountain, pool, or pond or other structure making similar use of water is prohibited. Additionally, all testing and training purposes requiring drinking water (e.g. fire protection) will be limited.

In Stage 3, Mandatory Reductions II, customers must continue actions from all previous stages and further reduce water use by 10 to 20% compared to their average water usage. The following additional water restrictions as specified in Section 14-814 (3) of the Gastonia Code of Ordinances will apply: use of water for construction purposes except for limited uses such as dust control, filling of new swimming pools, and flushing and testing of hydrants except for uses required to maintain water quality or other special circumstances.



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In Stage 4, Emergency Reductions, customers must continue all actions from previous stages and further reduce water usage by 20 to 30% compared to their average usage. As specified in Section 14-814 (4) of the Gastonia Code of Ordinances, a ban on all use of drinking water except to protect public health and safety is implemented. The City Manager may limit or prohibit new service connections to the city’s water system as specified in Section 14-812 (5) of the Gastonia Code of Ordinances.

### V. Triggers

Gastonia is provided water from Mountain Island Lake on the Catawba River. Gastonia will abide by the triggers set forth in the Catawba-Wateree Drought Management Advisory Group Low Inflow Protocol (LIP) Agreement or as specified in Section 14-810 of the City of Gastonia Code of Ordinances.

#### Summary of Trigger Points

Stage	Storage Index		Drought Monitor (3month Average)		USGS Streamflow Gages
0	90% < SI < TSI		0 = DM		AVG = 85%
1	75% < SI = 90% TSI	And	1 = DM	Or	AVG = 78%
2	57% < SI = 75% TSI	And	2 = DM	Or	AVG = 65%
3	42% , SI = 57% TSI	And	3 = DM	Or	AVG = 55%
4	SI = 42% TSI	And	4 = DM	Or	AVG = 40%

SI: Storage Index; TSI: Total Storage Index; DM: Drought Monitor

### VI. 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



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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.

**VII. Enforcement**

The provisions of the Water Shortage Response Plan will be enforced by City of Gastonia Public Utilities Department, Public Services Department, Engineering Department, Planning Department, Police and Fire Departments, and other such personnel as designated by the City Manager. Violators may be reported to the City’s Customer Care Center or the e-mail contact listed on the City’s website. Citations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage.

Violations of any alternative plans to achieve specified reduction in water usage, approved in accordance with the Variance Protocols Section IX of this document, will be subject to the same actions as specified in the chart below.

<b>Water Shortage Level</b>	<b>First Violation</b>	<b>Second Violation</b>	<b>Third Violation</b>	<b>Fourth and Successive Violation</b>
Voluntary Reductions	N/A	N/A	N/A	N/A
Mandatory Reductions (Stages 2 and 3)	Warning	\$100	\$250	\$500
Emergency Reductions	\$250	\$500	\$1000	\$1000

The City of Gastonia shall have the authority to discontinue or restrict water use in the event of a violation of the mandatory restrictions during a Stage 2 or higher water shortage declaration period in accordance with Section 14-822 of the Gastonia Code of Ordinances.

**VIII. Public Comment**

In the event the Water Shortage Response Plan is substantially revised, customers will have the opportunity to comment on the provisions of the plan. The draft plan will be available at the Garland



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Business Center and on the City’s website for customers to view. Notice to customers will be completed by either an ad in the local newspaper or notification on the customer water bill.

### **IX. Variance Protocols**

A variance to the restrictions of the water use may be requested in accordance with Section 14-813 of the Gastonia Code of Ordinances. Applications for water use variance requests are available from Customer Service located at the James B. Garland Municipal Business Center. All applications must be submitted to Customer Service 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.

Additionally, community athletic associations, golf courses and other similar customers that use water to irrigate large areas may submit a plan with proposed alternatives to the specified water control methods, provided the plan includes alternatives to implement equivalent reductions in water usage. Any violation of an approved alternative plan will result in enforcement, per section VII above.

### **X. Effectiveness**

The effectiveness of the Gastonia 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.

### **XI. 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.