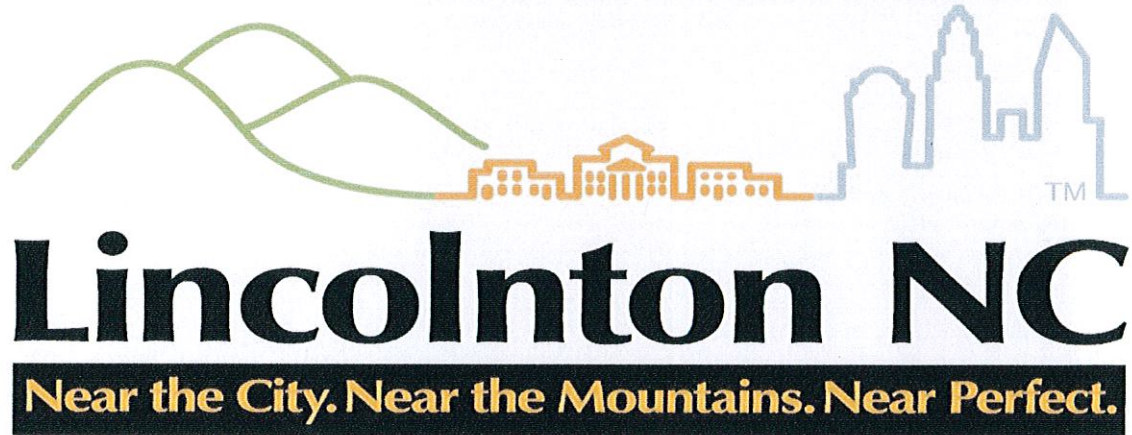


Water Shortage Response Plan



City of Lincolnton, NC

Revised December 13, 2018

Prepared by Pease Associates Charlotte, NC Comm. No. 2009021.00

Revised by Robert Pearson, Water Resources Director

Purpose

The City of Lincolnton herein provides written procedures 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 City of Lincolnton Manager shall enact the following water shortage response provisions whenever the conditions outlined in this response plan are met. In the City Managers absence, the Assistant City Manager will assume this role.

City Manager Mr. Steve Zickefoose City of Lincolnton Manager Phone: (704) 736-8980
E-mail: stevez@lincolntonnc.org

Assistant City Manager Mr. Richard Haynes Phone: (704) 736-8980
E-mail: rhaynes@lincolntonnc.org

II. Notification

The following notification methods will be used to inform water system employees and customers of a water shortage declaration:

Employee Communication

Employee communication will be immediate supervisor and notices posted on each employee bulletin board.

Public Communication

Notices will be posted on bulletin board located at municipal buildings. Notices will be posted on the City of Lincolnton's web site home page. Required water shortage response measures will be communicated through local news organizations.

III. Level of Response

There will be five levels of water shortage response as outlined in Table 1. The five levels of water shortage response are:

- Voluntary reductions
- Mandatory reductions phase I and II
- Emergency reduction
- Water rationing

A detailed description of each response level and corresponding water reduction measures are shown on Table 1.

Table 1
Response Levels and Water Reduction Measures

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 non shortage.
2	Mandatory Reduction 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.
3	Mandatory Reductions II	Water users must abide required water use reduction and efficiency measures; penalties apply for noncompliance is greater than stage I. Water supply conditions are significantly lower than the seasonal norm and water shortage conditions are expected to persist.
4	Emergency Reductions	Water supply conditions are substantially diminished and pose an imminent threat to human health or environmental integrity.
5	Water Rationing	Water supply conditions are substantially diminished and remaining supplies must be allocated to preserve human health and environmental integrity

In Stage I, Voluntary Reductions, all water users will be asked to reduce their normal water use by 5% in comparison to their previous month's water bill. Normal water use established in Stage I will be used to determine reductions in further stages. Customer education and outreach programs will encourage water conservation and efficiency measures including: irrigating landscapes a maximum of one inch per week; preventing water waste, runoff and watering impervious surfaces; watering plants deeply to encourage root growth; washing only full loads in clothes and dishwashers; using spring-loaded nozzles on garden hoses; and identifying and repairing all water leaks.

In Stage II, Mandatory Reductions I, all customers are expected to reduce their water use by 10% in comparison to their month's water bill established in "Stage I, Voluntary Reduction". In addition to continuing to encourage all voluntary reduction actions, the following restrictions apply: irrigation is limited to a half inch per week between 8PM and 8AM; outdoor use of drinking water for washing impervious surfaces is prohibited; and all testing and training purposes requiring drinking water (e.g. fire protection) will be limited.

In Stage III, Mandatory Reductions II, customers must continue actions from all previous stages and reduce water use by 30% in comparison to their month's water bill established in "Stage I, Voluntary Reduction". All non-essential uses of drinking water are banned and garden and landscape irrigation must be reduced to the minimum amount necessary for survival. Additionally, in Stage III, a drought surcharge of 1.5 times the normal water rate applies.

In Stage IV, Emergency Reductions, customers must continue all actions from previous stages and reduce their use by 50% comparison to their month's water bill established in "Stage I, Voluntary Reduction". A ban on all use of drinking water except to protect public health and safety is implemented and drought surcharges increase to 2 times the normal water rate.

The goal in **Stage V, Water Rationing**, is to provide drinking water to protect public health, such as, residences, residential health care facilities and correctional facilities, etc. In Stage V, all customers are only permitted to use water at the minimum required for public health protection. Firefighting is the only allowable outdoor water use and pickup locations for distributing potable water will be announced according to City of Lincolnton's Emergency Response Plan. Drought surcharges increase to 5 times the normal water rate.

IV. Triggers

The City of Lincolnton water source is the South Fork of the Catawba River adjacent to Reepsville Road. The following stream flow measurements recorded at the intake and production capacities will trigger entry into corresponding water restriction stages are shown in the following Table 2.

Table 2
Trigger Conditions Used to Lower Consumption

Stage	River Operating Conditions
1	Discharge at the Raw Water Intake Gage is 16 MGD for 14 consecutive days and the Production Capacity is greater than 80%.
2	Discharge at the Raw Water Intake Gage is 14 MGD for 10 consecutive days and the Production Capacity is greater than 90%.
3	Discharge at the Raw Water Intake Gage is 12 MGD for 7 consecutive days and the Production Capacity is greater than 100%.
4	Discharge at the Raw Water Intake Gage is 10 MGD for 5 consecutive days
5	Discharge at the Raw Water Intake Gage is 9 MGD for 1 consecutive days

Note: Table 2 will be reversed to relieve restrictions as conditions are met.

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 and Penalties

The provisions of the water shortage response plan will be enforced by the City of Lincolnton utility department and police personnel. Violators may be reported to the City Council. Citations are assessed according to the following schedule depending on the number of violations and current level of water shortage. Table 3 reflects the assessments.

Table 3 Violation Assessments

Stage	River Operating Conditions
1	Discharge at the Raw Water Intake Gage is 16 MGD for 14 consecutive days and the Production Capacity is greater than 80%.
2	Discharge at the Raw Water Intake Gage is 14 MGD for 10 consecutive days and the Production Capacity is greater than 90%.
3	Discharge at the Raw Water Intake Gage is 12 MGD for 7 consecutive days and the Production Capacity is greater than 100%.
4	Discharge at the Raw Water Intake Gage is 10 MGD for 5 consecutive days
5	Discharge at the Raw Water Intake Gage is 9 MGD for 1 consecutive days

Note: Drought surcharge rates are effective in Stages 3, 4 and 5.

VI. Public Comment

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan. First, a draft plan will be available at the City Offices for customers to view. A notice will be included in customer water bill notifying them of such. Also a draft plan will be published in local news organization publications and on the City of Lincolnnton website. A public hearing will be scheduled with notice printed in all customer water bills to collect comments on the draft. All subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by Lincolnnton's City Council.

VII. Variance Protocols

Applications for water use variance requests are available from the Lincolnnton website and Public Works Office. All applications must be submitted to the Public Works Office for review by the Water Resources 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.

VIII. Effectiveness

The effectiveness of the City of Lincolnnton 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 our 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 Lincolnnton's City Council. The City of Lincolnnton Water Resources Director is responsible for initiating all subsequent revisions.