

# **Caldwell County, North Carolina**

## **Water Shortage Response Plan**

### **(10-14-001 Caldwell Addison Lane)**

**Prepared by: Caldwell County Water Department**

**Approved by: Caldwell County Board of Commissioners: Effective:  
July 1, 2023**

**Purpose:** To establish a Water Shortage Response Plan according to guidelines provided by the State Division of Water Resources

The purpose of this Plan is to create a policy for dealing with short-term water shortage. The NC Division of Water Resources' Water Shortage Response Handbook for North Carolina Water Supply Systems (2003) recommends that public, potable water systems develop a **Water Shortage Response Program**, and include the following components:

- 1) Adoption of an ordinance to provide legal authority to enact system measures to reduce demand in the case of an emergency;
- 2) Development of a method to evaluate ability to meet demand; and 3)  
Development of procedures for implementing appropriate water shortage declarations.

All of these components have been implemented by Caldwell County, and are described below.

#### **1. Adoption of Water Shortage Declaration Ordinance or Bylaw**

The NC Division of Water Resources recommends that every public, potable water system adopt an ordinance to "provide for the declaration of a water shortage and specify voluntary and mandatory conservation measures to be imposed at each level of water shortage severity."

This Plan provides Administrative Authority for the Caldwell County Manager, or his designated Agent, to implement measures to address potential water shortages by allowing only "Alternate Day Outdoor Irrigation", subsequent to issuance of a "Water Shortage Watch Declaration". In the absence of the County Manager, the Public Works Director has the authority to implement the Plan. In Fact, the Manager shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section 3 are met.

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#### **2. Evaluation of Ability to Meet Demand**

The ability to meet demand is dependent on several components of the County's water supply system:

- a. The County's water suppliers' ability to supply potable water.
- b. Capacity and condition of the County's storage tanks.
- c. Capacity and condition of the County's distribution system.

County Water Department staff continually evaluates the status of all these components to determine if a water shortage condition exists or is approaching. There is a primary indicator used by staff to signal the potential for a water shortage condition, which is described below:

### **3. Triggers**

Caldwell County (West) is provided water solely by purchase from the Lenoir. When Lenoir declares a water shortage Caldwell County (West) is required to do so as well. During this time Caldwell County (West) Utilities Director will stay in close contact with Lenoir and follow their triggers.

### **Other Factors**

Other factors that will trigger evaluation of the potential for water shortage conditions include:

- Sudden loss of water supplies during periods of high demand.

- The occurrence of a major water transmission main break, fire, or any other emergency that would require high volumes of water, such that demand could exceed supply.

- Indications of short or long-term water quality concerns regarding Lake Rhodhiss and/or Lake Hickory.

- Accidental or intentional contamination of the water system

- Drought Advisory issued by the NC Drought Management Advisory Council

- Mechanical failure in a supplier's water treatment plant or distribution system

- Inability to distribute water through part of the system

### **Procedure for Implementing Water Shortage Phases**

If the Lake Rhodhiss and/or Lake Hickory storage level or other factors indicate the potential for a water shortage, the steps listed below are taken:

- a. Conservation measures will remain in effect until declared otherwise by the County Manager, and updates will be provided in the sequence outlined below:

STEP 1. The Public Works Director the Water Department Supervisor notifies the County Manager.

STEP 2. If appropriate, depending on the cause of the water shortage condition, the Caldwell County Public Works Director and County Manager and/or representatives of large-volume users are notified. The County Manager then determines if implementation of water shortage phases is appropriate.

STEP 3. The Public Works Director and/or the Water Department Supervisor develops a water shortage action plan, based upon the cause of the shortage.

STEP 4. Once water shortage phases are implemented, the following notifications are made:

1. The County Manager (or designee) notifies the County Commissioners, municipal contract water suppliers, and county government departments.
2. The Public Information Officer (or designee) will contact the media. The media, including television, news, and radio, will inform the public. The County Manager's office and the Water Department's telephone numbers will be provided, in case additional information is needed by the public.
3. The Public Works Director or the Water Department Supervisor will contact Customer Service and distribute a general e-mail so County employees can help provide accurate information to the public.
4. Customer Service will call major water customers (both irrigation and water accounts) and inform them of the implemented measures.
5. The Water Distribution System Operator will contact the Sheriff's Communications Center, and coordinate with major water users.
6. Public Works and/or the Water Department will supply fliers for distribution by field employees to place on customers' doors or provide to customers that need more information.
7. Water Department personnel will continue repairing water leaks on a high-priority basis.

8. Staff will regularly evaluate the ability to meet demand and modify the water shortage action plan, if needed.
9. At such time that the Public Works Director determines that the need for water shortage declarations are no longer needed, the Director will notify the County Manager. The County Manager will then declare the water shortage declaration to be ended.
10. The Water Shortage Response Plan will be reviewed every five years after implemented.

## **PUBLIC COMMENT**

Customers will have an opportunity to comment on the preparation of the Water Shortage Response Plan. First, a draft plan will be will be available at the County offices for customers to view. A notice will be included in customer water bill notifying them of such. All subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by Board of Commissioners.

## **VARIANCE PROTOCOLS**

Every variance request received will be considered by the Utilities Director. The request can be made in person or by letter. The approval criteria for considering variance request from water restrictions will depend on the impact of water demand, public health and the use of drinking water.

## **EFFECTIVENESS**

The effectiveness of the Water Shortage Plan will be determined by comparing the consumption data during the restricted water usage period with data from consumption totals over the past three years. The comparison of the data should determine if water restrictions have resulted in an actual savings of water.

## **LEVELS OF RESPONSE AND ENFORCEMENT CRITERIA**

The Caldwell County Water Department will abide by the Water Conservation Ordinance adopted by the Caldwell County Board of Commissioners May 7, 2018. The Water Conservation Ordinance defines and identifies multiple levels of water shortage severities and how enforcement will be handled.

The provisions of the water shortage response plan will be enforced by Caldwell County Utility department and police personnel. Violators may be reported to the Town's dedicated water conservation hotline. Citations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage

### 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 the County's Board of Commissioners. Caldwell County will initiate all subsequent revisions in coordination with the City of Lenoir.

## **CALDWELL COUNTY WATER CONSERVATION ORDINANCE**

**WHEREAS**, drought conditions have plagued the Foothills and Piedmont regions of North Carolina, including Caldwell County, for the past several years; and

**WHEREAS**, the shortage of rainfall has resulted in a serious reduction in water levels in the bodies of water from which local governments, including Caldwell County, obtain their water to supply citizens; and

**WHEREAS**, the water shortage has made it necessary for Caldwell County to sometimes implement water conservation measures; and

**WHEREAS**, Caldwell County needs an effective mechanism for enforcing such measures; and

**WHEREAS**, the Caldwell County Board of Commissioners believes that in the interest of public health and safety of the citizens of Caldwell County, a **Water Conservation Ordinance** should be adopted to provide such a mechanism;

NOW, THEREFORE, BE IT AND IT IS HEREBY ORDAINED AS FOLLOWS:

### **Section 1. Definition of water shortage; curtailment of use required.**

A water shortage shall be deemed to exist when water demand by customers connected to the Caldwell County water system reaches the point that, in the opinion of the County Manager or his/her designee, continued or increased demand will equal or exceed the system supply or transmission capabilities and will result in a condition whereby customers cannot be supplied with water to protect their health and safety. Water shortages may also be deemed to exist when the reservoir and river system that directly or indirectly provides the water supply to the Caldwell County Water System experiences a demand such that water systems throughout the area cannot be supplied with water to meet their needs. Under such conditions, demand must be substantially curtailed to relieve the water shortage as provided in this Ordinance.

### **Section 2. Declaration of water shortage condition.**

In the event that it appears that the demand on the water system may exceed supply or transmission capabilities, or that the demand on the water supply may exceed its ability to provide sufficient water for all water users, the Caldwell County Water Department shall so notify the County Manager. Following consultation with the Chairman of the

Caldwell County Board of Commissioners, the County Manager may declare a **Caution, Water Shortage Watch**, which may include an **Alternate Day Outdoor Irrigation** conservation requirement. If water supply conditions worsen, following consultation with the Chairmen of Caldwell County

Board of Commissioners, the County Manager may declare a **Stage 1, Water Shortage** condition and request voluntary water conservation by customers of the system. In the event that the voluntary measures of the **Stage 1, Water Shortage** condition fail to alleviate the shortage, the County Manager, after consultation with the Chairman, may declare that a **Stage 2, Stage 3, or Stage 4 Water Shortage** condition exists and implement the mandatory procedures provided hereinafter. **Issuance of a declaration by the Catawba Lakes Management Authority (Duke Energies) for the implementation of mandatory water conservation measures, based upon any established "stage" or level, shall supersede and dictate the provisions of this ordinance, with regard to triggering-conditions and actions.**

### **Section 3. Caution, Water Shortage Watch Condition**

. In the event that a **Caution, Water Shortage Watch** condition is declared, an extensive publicity campaign will be initiated using public media and such other methods as the County Manager may deem appropriate or necessary to inform the public of an impending water shortage. **Caution, Water Shortage Watch** conditions do not encourage any specific reduction in use of water beyond normal use.

### **Section 4. Stage 1, Water Shortage Condition - Voluntary guidelines**

. In the event that a **Stage 1, Water Shortage** condition is declared, an extensive publicity campaign will be initiated using public media and such other methods as the County Manager may deem appropriate or necessary to inform the public of an existing water shortage. The public shall be encouraged to voluntarily adhere to the following guidelines:

- (a) eliminate home vehicle washing;
- (b) limit lawn, garden, and shrubbery watering to the minimum necessary for plants to survive and reuse household water when possible;
- (c) eliminate washing down of outside areas such as sidewalks, patios, parking lots, service bays or aprons;
- (d) limit the use of washing machines and dishwashers and operate only when fully loaded;
- (e) use showers instead of bathtubs for bathing and limit showers to no more than four minutes duration;
- (f) limit flushing of toilets by multiple usage; after urination
- (g) use biodegradable and/or disposable dishes;
- (h) use flow restriction and other water-saving devices where possible; and
- (i) delay new landscape work until the water shortage has ended.

The goal for a **Stage 1, Water Shortage** condition is to reduce water usage by 5% from a normal level.

### **Section 5. Stage 2, Water Shortage condition - declaration of mandatory restrictions; illegal acts**

In determining whether to declare a **Stage 2, Water Shortage** condition, the County Manager shall consider water storage levels, available supply sources, available/usable storage on hand, drawdown rates, projected supply capability, outlook for precipitation, daily water use patterns, and availability of water from other sources.

Upon the declaration of a **Stage 2, Water Shortage** condition, and until such time as the declaration of water shortage has been rescinded, it shall be unlawful for any person or entity to use or permit the use of water from the Caldwell County Water System for any of the following purposes to:

- (a) water lawns, grass, shrubbery, trees, flowers, or vegetable gardens, except as may be specifically allowed in accordance with a watering schedule established in accordance with **Section 11** of this Ordinance; however, shrubbery, trees, flowers or vegetable gardens may be watered by use of a hand-held hose with an automatic cut-off;
- (b) fill newly constructed swimming or wading pools or to refill existing swimming or wading pools which have been drained;
- (c) operate or induce water into any ornamental fountain, pool, pond, or other structure making similar use of water (except as otherwise provided below);
- (d) wash automobiles, trucks, trailers, boats, airplanes, or any other type of mobile equipment, including commercial washing (unless water is recycled);
- (e) wash outside areas such as streets, driveways, service station aprons, parking lots, patios, office buildings, or exteriors or windows of buildings, including residential and commercial construction, or to use water for other similar purposes;
- (f) use water from fire hydrants for any purpose other than firefighting or other public **emergency**;
- (g) serve drinking water in restaurants, cafeterias, or other food establishments, except upon request;
- (h) use water for any unnecessary purpose or to intentionally waste water.

The goal for a **Stage 2, Water Shortage** condition is to reduce water usage by 10% from a normal level.

**Exception.** Incidental uses of water (including birdbaths and garden ponds or pools) *that serve pets, livestock, or other animals* are hereby exempted from these restrictions.

#### **Section 6. Stage 3, Water Shortage condition - declaration of mandatory restrictions; illegal acts**

. The County Manager may declare a **Stage 3, Water Shortage** condition after considering the factors listed in **Section 5** above and determining that the shortage is significantly more urgent than the **Stage 2** level.

Upon the declaration of a **Stage 3, Water Shortage** condition, and until such time as the declaration of water shortage has been rescinded, it shall be unlawful for any person or entity to use or permit the use of water from the Caldwell County Water System for any of the following purposes:

- (a) to induce water into any pool;

- (b) to use water outside a structure for any use other than an emergency involving a fire; however, shrubbery, trees, flowers or vegetable gardens may be watered by use of a hand-held hose with an automatic cut-off;
- (c) to operate an evaporative air conditioner which recycles water, except during operating hours of business.

The goal for a **Stage 3, Water Shortage** condition is to reduce water usage by 20% from a normal level.

In addition, during a **Stage 3, Water Shortage** condition, the following guidelines shall apply: fire protection shall be maintained wherever possible by drafting of ponds, rivers, etc.; and all eating establishments shall be encouraged to use disposable plates and utensils.

## **Section 7. Stage 4 Water Shortage Emergency - Declaration of mandatory restrictions: Illegal Acts**

The County Manager may declare a **Stage 4, Water Shortage** emergency condition after considering the factors listed in **Section 6** above, and determining that the shortage is significantly more urgent than the **Stage 3** level.

Upon the declaration of a **Stage 4, Water Shortage** condition, and until such time as the declaration of water shortage has been rescinded, it shall be unlawful for any person or entity to use or permit the use of water from the Caldwell County water system for any outside use, with the exception of use for watering farm animals and/or livestock. The County shall implement emergency water use restrictions, including enforcement of these restrictions and assessment of penalties. The County shall also meet with large commercial and industrial water customers to discuss strategies for reduction of water uses.

The goal for a **Stage 4, Water Shortage** condition is to reduce water usage by 25% from a normal usage level.

## **Section 8. Lifting of Restrictions Imposed during a Water Shortage**

. The County Manager shall lift or reduce the restrictions imposed during a water shortage when he determines, after consultation with the Chairman of the Board of Commissioners and such other persons as he deems appropriate, that the conditions which caused the shortage have been alleviated. Such action shall be promptly and extensively publicized.

## **Section 9. Violations.**

This Ordinance shall be enforced by the Caldwell County Sheriff's Department, subject to the following:

**A. Criminal penalties.** Any violation of a provision of this Ordinance shall constitute a **Class 3** misdemeanor, punishable upon conviction as provided in **North Carolina General Statutes Section 14-4** or successor statute by a maximum fine of \$500.00 and a maximum of 30 days' imprisonment.

**B. Civil penalties.** In addition to the other remedies cited in this Ordinance for the enforcement of its provisions, and pursuant to **North Carolina General Statutes Section 153A-123**, the regulations in this Ordinance may be enforced through the issuance of civil penalties by the Sheriff's Department. First offense penalties may be assessed at the rate of \$50.00 per offense. If the offender continues to violate the provisions of this ordinance, the second offense may be assessed in the amount of \$250.00 and the third or greater offense may be assessed in the amount of \$500.00. If the offender fails to pay such civil penalties within five days after having been cited, the County may either

add the amount of such penalties to the offender's next water bill or recover the penalties in a civil action in the nature of debt. Offenders who fail to pay any such penalties added onto their water bills will be subject to disconnection of service as provided in **Section 10** of this Ordinance.

**C. Court order.** In addition to, or in lieu of, the foregoing, pursuant to **North Carolina General Statutes Section 153A-123**, the County may seek a mandatory or prohibitory injunction and/or an order of abatement commanding the offender to correct the unlawful condition or cease the unlawful activity.

The above remedies are cumulative, and the County may pursue any or all of the same at its discretion.

**Section 10. Discontinuance of service.**

. In addition to any other applicable remedy, any person or entity that willfully violates the provisions of this Ordinance may be subject to temporary disconnection of service and payment of the applicable reconnect fee before service may be restored. Continued gross noncompliance may subject the violator to discontinuance of service, removal of meter, and forfeiture of all tap fees and deposits. Reconnection shall thereafter be made only upon payment of all then-current tap and other fees and deposits.

**Section 11. Schedule.**

Notwithstanding any other provision of this Ordinance, the County Manager or his designee is hereby authorized to establish schedules, during **Stage 2, 3 or 4** emergency conditions described herein, to set forth certain times or days in which citizens may engage on a limited basis in activities that are otherwise prohibited under this Ordinance.

**Section 12. Effective date.**

This Ordinance shall become effective upon adoption or amendment.

**Adopted: By action of the Caldwell County Board of Commissioners, Monday, May 7, 2018**


**Amended: August 16, 2023**



Two handwritten signatures are present. The first signature is on the left, and the second is on the right. Below the first signature, the text "hurch, Chairm" is visible, and below the second signature, the text "an" is visible.

Caldwell County **Board** of Commissioners

**ATTEST:**



A handwritten signature of Kathy T. Greene is written over the printed name.

**Kathy T. Greene, MMC, NCCCC**  
**Clerk to the Board**

