

FIRST CRAVEN SANITARY DISTRICT

Water Shortage Response Plan

March 2023

Introduction

First Craven Sanitary District, subject to G.S. 143-355 (I), is required to develop a Water Shortage Response Plan (WSRP) as part of the District's Local Water Supply Plan (LWSP). Recently adopted rules governing water use during droughts and water emergencies (15A NCAC 02E. 0607) stipulate specific issues that must be included in this plan.

The purpose of this plan is to identify the possible causes of drinking water shortages within the First Craven Sanitary District and establish a response for each.

Authorization of Implementation

When conditions exist to constitute a water shortage within the First Craven Sanitary District as outlined by the trigger conditions in this document, the Manager, with the support of the First Craven Sanitary District Board, is authorized and shall declare a water conservation emergency. In the event of the Manager being absent, the Water Operator on duty, with the support of the First Craven Sanitary District Board, is authorized and shall declare a water conservation emergency.

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Notification of WSRP Activation and Conservation Measures

Staff and all effected water users will be notified when this WSRP has been activated. Management will notify staff. Radio, television, social media, and/or newspaper will be used as a method of notification for water users. When possible, letters will be posted on the customer's doors or handed out. Notifications will include information concerning water use policies and restrictions. Any change in the water shortage situation will be announced through the same media outlets used initially.

Water Use Classification

During a declared water shortage emergency, the following water use classifications will be used:

Class 1: Essential Water Uses

- Schools and Fire Departments
- Required for health care

Class 2: Socially or Economically Important Uses

- Home water use including kitchen, bathroom, and laundry
- Minimal watering of vegetable gardens and trees
- Outdoor commercial watering using conservation measures
- Commercial car washes
- Restaurants and other commercial establishments
- Churches

Class 3: Non-Essential Uses

- swimming pools
- non commercial washing of motor vehicles
- outdoor watering and impervious surface washing (public/private)

Response to the Water Shortage Emergency

Once a water shortage emergency has been declared by the Manager and approved by the First Craven Sanitary District Board, or if time constraints do not allow, approved by the Chairman of the Board, one of the three severity phases shall be implemented as needed:

1. Voluntary Phase

The Voluntary Phase of this plan will be implemented when water supply conditions indicate a potential for shortage.

When conditions warrant the Voluntary Phase, the following actions will take place:

1. Issue a water shortage advisory and inform the public of the potential problem.
2. Request voluntary conservation for all water uses and provide helpful hints on how to conserve water.
3. Restrict some Class 3 water use if necessary.

2. Mandatory Phase

The Mandatory phase of this plan will be implemented when water supply conditions are significantly lower than normal and water shortage conditions are expected to persist.

When conditions warrant the Mandatory Phase, the following actions will take place:

1. Issue a water shortage alert and inform the public of the potential problem.
2. Ban all Class 3 water use.
3. Request voluntary conservation for all other water uses and provide helpful hints on how to conserve water.
4. Restrict or ban some Class 2 water use if necessary.

3. Emergency Phase

The Emergency Phase of this plan will be implemented when water supply conditions are substantially diminished and pose an imminent threat to human health or environmental integrity.

When conditions warrant the Emergency Phase, the following actions will take place:

1. Issue a water shortage emergency and inform the public of the potential problem (include any possible health advisories).
2. Contact Craven County Water System for emergency water supply.

3. Ban all Class 3 water use.
4. Restrict or ban some Class 2 water use when necessary.
5. Request voluntary conservation for all water uses.
6. Request that Class 1 water use in schools be restricted.

Water Shortage Triggers

The following triggers are specific indicators of the potential for and severity of a water shortage problem within the First Craven Sanitary District. These triggers will be used to initiate water use restrictions.

1. Increased pumping times of 15 or more hours for 3 consecutive days without any sign of reduction of demand due to drought conditions, very high demands, and/or undetected water leak.

Action: Voluntary Phase

2. Increased pumping times of 18 or more hours for 4 consecutive days without any sign of reduction of demand due to drought conditions, very high demands, and/or undetected water leak.

Action: Mandatory Phase

3. Failure of 2 out of 3 wells to operate. The one remaining well will exceed 12 hours per day of operations.

- a. If condition exist during winter months, normal conditions, and/or short-term

Action: Voluntary Phase

- b. If conditions exist during summer months, high demands, and/or likely long-term

Action: Mandatory Phase

4. Potential long-term power failure to wells and treatment plant. The emergency generators on site will operate the treatment plant and two of three wells.

- a. If water demand is normal, adequate fuel, and generators operating properly

Action: Voluntary Phase

- b. If high demand, limited fuel availability, or generator failure

Action: See Trigger #6

5. Low water levels in storage caused by sudden high demands (fires, drought) or broken water mains and transmissions lines and unable to isolate the break.
 - a. If condition is short-term and there is no danger of loss of system wide pressure

Action: none

- b. If condition is expected long-term and/or there is a danger of loss of system wide pressure

Action: Mandatory Phase

6. Any equipment failure that will prohibit the treatment plant from producing water.
 - a. If condition is short-term and can be fixed within 6 hours and there is no expected high demand

Action: none

- b. If condition is expected to take longer than 6 hours, but less than 15 hours and water demand is low to normal, and storage will allow

Action: Voluntary Phase

- c. If the condition is expected to take longer than 15 hours, and/or there is a danger of loss of system wide pressure

Action: Mandatory Phase

- d. If it is determined that the condition cannot be repaired before a system wide pressure loss event

Action: Emergency Phase

Once the Water Shortage Emergency is declared over, all bans and restrictions shall be lifted. The public will be notified. A request for voluntary conservation for all water uses shall stay in effect for at least 48 hours.

Enforcement

The First Craven Sanitary District Board has authorized the enforcement of the following penalties in the event the customer violates any of the water use restrictions during a water shortage emergency as outline in this WSRP. The First Craven Sanitary District Manager is responsible for enforcement.

Voluntary and Mandatory Phase

- 1st offense: Verbal Warning
- 2nd offense: Written Warning
- 3rd offense: Termination of Water Service

Emergency Phase

- 1st offense: Written Warning
- 2nd offense: Termination of Water Service

Variances

During a water shortage emergency, the First Craven Sanitary District Board and/or Manager may grant variances in water restrictions based on the severity of the situation. Issues that will be considered in a variance shall be economic and social impact, impact of water demand, and the expected duration of the emergency.

Variance request must be made in writing and delivered to the District office. A decision to approve or deny the variance request will be determined within 2 days of submittal.

Evaluation

The effectiveness of this WSRP will be determined by comparing system wide water consumption during the declared emergency with normal, expected water use during normal operations. Other factors to be considered include frequency of plan activation, any problem periods without activation, and total number of violation citations issued.

If it is determined by the First Craven Sanitary District Board and/or Manager that water restrictions set forth by this WSRP are not adequate in preventing a system wide pressure loss situation and/or adverse health effect, then the Manager is authorized to declare an emergency and implement the emergency phase of this WSRP and/or take any other necessary actions. Such actions may include banning all nonessential uses of water,

decrease times and duration of certain water uses, reclassify additional water uses as nonessential, and discontinue service for excessive use.

Revision

This WSRP will be reviewed and revised as needed to adapt to new circumstances affecting water supply and demand. As required by the provisions of G.S.143-355 (I), this WSRP will be reviewed and/or revised at a minimum of every five years. This WSRP will also be reviewed after the implementation of each emergency phase to determine the effectiveness of the plan. The First Craven Sanitary District Manager is responsible for initiating all subsequent revisions.

Public Comment and Review

The public may review this document of the WSRP at the First Craven Sanitary District office and on the District's website located at <http://firstcravensanitarydistrict.com>. The Board will receive any oral or written comments at any time. Further, all subsequent revisions to this plan will be published on the website at least 14 days prior to an adoption vote by the First Craven Sanitary District Board.