

**WATER SHORTAGE RESPONSE PLAN**

**City of Bessemer City Utilities Department**

132 W. Virginia Avenue

Bessemer City, North Carolina 28016

Phone 704-629-5542

Fax 704-629-5119

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**2. Authority**

The City of Bessemer City, City Manager is the only individual with the authority to implement water shortage response actions, after consultation with the City of Bessemer City, City Council.

Name: Josh Ross

Position Title: City Manager

Contact: 704-689-1541 or email at jross@bessemercity.com

In the event the City Manager listed above is absent for any reason and would be unable to implement water shortage response actions, then this responsibility would become that of the Assistant City Manager, after consultation with The City of Bessemer City, City Council.

Name: Jamie Ramsey

Position Title: Assistant City Manager

Contact: 704-833-0381 or email at jramsey@bessemercity.com

**3. Notification**

The City Manager, along with assistance from the City Clerk and the Assistant City Manager will develop a press release to notify the public about water shortages by means of newspaper, radio and television, keeping the public informed of any changes in shortage situations and conservation measures.

When distributing information to the public, we will provide concise, accurate and most current information available. When preparing press releases we will use clear language that can be understood by the general public. We will have the most recent available facts and figures before contacting any part of the media.

A memo will also be published by the City Manager or Assistant City Manager informing all City employees of the current water shortage and current stage of restrictions being implemented.

**4. Water Use Classifications**

1. **Essential Water Use** (Class 1)

**Domestic Use:** Water necessary to sustain human life and lives of domestic pets; and to maintain minimum standards of hygiene and sanitation.

**Public Use:** Firefighting and flushing of sewers and hydrants as needed to ensure public health and safety.

1. **Socially or Economically Important Uses** (Class 2)

**Domestic Use:** Home water use including kitchen, bathroom and laundry use. Minimal watering of vegetable gardens and watering of trees where necessary to preserve them.

**Commercial, Agricultural, Industrial, and Institutional Uses:** Outdoor commercial watering (public or private). Industrial process water use.

**Irrigation:** Watering by commercial nurseries and use of fresh water to establish vegetation following earth moving and/or landscaping.

1. **Non-Essential Uses** (Class 3)

**Ornamental Purposes:** Fountains, reflecting pools and artificial wells. Outdoor non-commercial watering (public or private). Gardens, lawns, parks, playing fields and other recreational areas. Filling and operation of recreational pools (residential-which serve fewer than 25 dwellings). Non-commercial washing of vehicles. Serving water in restaurants (except by request). And air conditioning.

**5. Levels of Response**

1. **Stage I**  Voluntary Conservation

Voluntary conservation shall be placed into effect when conditions indicate the potential for water supply shortage. **(See trigger for Stage I)**

* **Voluntary Conservation Stage**
* Issue water shortage advisory
* Request voluntary conservation for all water use
* Keep public informed
1. **Stage II** Mandatory Restrictions

Mandatory restrictions shall be placed into effect when water supplies are significantly lower than the seasonal normal and drought conditions are expected to persist. **(See trigger for Stage II)**

* **Mandatory Restriction Stage II**
	+ Issue 2nd water shortage alert
	+ Restrict or ban all class 3 (non-essential) uses
	+ Restrict class 2 (socially and economically important) water use
	+ Monitor compliance with ban on use and enforce when necessary
	+ Keep public informed
1. **Stage III** Mandatory with Increased Restrictions

Mandatory with increased restrictions shall be placed into effect when water supplies are lower than Stage II normal and the drought conditions are persisting with no appreciable rainfall. **(See trigger for Stage III)**

* **Mandatory with increased restrictions Stage III**
	+ Issue water shortage stage III declaration
	+ If not done in stage II, ban all class 3 (non-essential) water uses
	+ Ban or restrict class 2 (socially and economically important) water uses
	+ Request additional conservation from class 1 (essential) users
	+ Monitor all drought activities, especially compliance
	+ Consider enacting advanced restriction pricing with fines for overuse
	+ Keep public informed

**In responding to water shortages the following are actions that will be taken:**

1. Locate and repair all leaks
2. Explore possibilities for supplementing water supplies
3. Consider changing water rate structure to discourage unnecessary use
4. Direct community to conserve water according to the severity of the shortage (as per ordinance)
5. Monitor water supply conditions and effectiveness of conservation measures

**Monitoring supply and demand is the basis for making timely and appropriate responses to water shortages.**

1. **Triggers**

**When to Implement Stage I Voluntary Restrictions**

Voluntary conservation shall be implemented when condition indicates the potential for water supply shortages by the following:

**Streams:** When extended dry conditions result in persistently low flows (below seasonal normals) and continued dry conditions are being forecasted.

**Reservoirs:** When less than 80% of the usable water supply storage is remaining.

**When to implement Stage II Mandatory Restriction**

Mandatory restrictions shall be implemented when water supplies are significantly lower than the seasonal normal and drought conditions are expected to persist and the following conditions apply:

**Streams:** Demand conditions are exceeding 50% of the estimated stream flow above the intake that is available for supply.

**Reservoirs:** Less than 60% of the usable water supply storage is remaining.

**When to implement Stage III Mandatory (Increased) Restrictions**

Increased mandatory restrictions shall be implemented when experiencing an extreme water shortage and the following conditions apply:

**Streams**: Demand exceeds 75% of the estimated stream flow above intake that is available for supply.

**Reservoirs**: Less than 40% of the usable water storage is remaining.

1. **Return to Normal**

When water shortage conditions have abated and supply situations have returned to normal including stream flows and reservoirs, the conservation measures previously implemented will be decreased, in reverse order of implementation, as conditions dictate and public shall be notified.

1. **Enforcement**

Monitoring for compliance with mandatory restrictions will be accomplished by the following:

* + Public Works Department employees (meter readers)
	+ Public Works Departments employees
	+ Water Treatment Plant employees
	+ Natural Gas Department employees
	+ Code Enforcement
	+ Police Department patrols
	+ Community Complaints

Enforcement will be carried out by the Code Enforcement division of the Police Department. Enforcement procedures will be carried out in accordance with the City Ordinance.

1. **Public Comment**

The water shortage response plan will be advertised as available for public review in the office of the City Manager, City Clerk, Front Office, Office of the Public Utilities Director.

1. **Variances**

The City Manager, or Assistant City Manager in the absence of the City Manager, shall have the authority to issue variances to the water use restrictions and these variances will be considered on a case by case basis.

Variances will only be considered for extreme economical hardships where proof is provided that the restrictions are the sole cause.

Variances will also be considered for Health and/or Medically necessary reasons.

Criteria to be used to decide if a variance will be granted are as follows:

* What impact will it have on system demand?
* How long will variance be needed?
* Is there existence of alternative sources?
* Economic Importance.
* Will it prevent structural damage?
* What will results be if a variance is not granted?

Request for variances shall be submitted in writing to the office of the Bessemer City, City Manager at 132 W. Virginia Avenue, Bessemer City, N.C. 28016

1. **Evaluation of Effectiveness**

The effectiveness of the restrictions in this plan will be evaluated by review of daily water production rates and reservoir levels data. This data will be tracked and compared to pre-water shortage conditions to determine if restriction levels are achieving the necessary usage reductions. If restrictions are not meeting the necessary water use reductions, then additional measures shall be taken at the time and the City Ordinance shall be reviewed for possible modifications.

1. **Revisions**

After each activation of this response plan the Assistant City Manager and staff shall review the outcome of the desired reduction levels and note whether or not the plan was effective. If the plan was effective at achieving desired levels of reduction then no revisions will be made. If the plan does not achieve desired levels then the Assistant City Manger and his staff shall make the necessary revisions to the plan and submit to City Manager for approval and City Council for adoption.

The plan shall also be reviewed every five years to adapt to any new circumstances (e.g. new water sources, changes to authority positions, etc.). The plan shall then be submitted to City Manager for review and then to City Council for adoption of any changes made.