

***DIVISION 5 CONSERVATION***

**§ 16-81 DEFINITION.**

The following term when used in this division, shall have the meaning ascribed to it in this section, except where the context clearly indicates a different meaning:

***WATER SHORTAGE*** shall be deemed to exist when the ordinary demands and requirements of water consumers served by the City cannot be satisfied without depleting the water supply to or below a critical level, the level at which the continued availability of water for human consumption, sanitation, and fire protection is jeopardized. Situations also occur that can interrupt the availability of water supply or its distribution to our customers. This Water Shortage Response Plan has been developed to allow the City to adapt to these situations and continue to supply water to our customer. These situations can be caused by drought, storms, water line breaks, power failures, or harmful acts of human beings. This plan will set forth protocol for how the City Water System will respond to these situations.  
(‘89 Code, § 16-81) (Ord. passed 8-19-86; Am Ord. passed 5-18-10)

**§ 16-82 WATER SHORTAGE RESPONSE PLAN (WSRP).**

**Implementation of the WSRP**

(A) To avoid further depletion of the City's water supply during a water shortage, the City Manager will authorize the implementation of what level of response is needed based on the criteria set forth in this plan. The current situation will be communicated to the Mayor and City Council.

(B) Whenever the City Manager finds a water shortage exists, he shall proclaim one or more water conservation stages. The City Manager's proclamation shall be based upon a recommendation from the Water Plant Superintendent, the Distribution System Superintendent, Distribution ORC, Public Works Director and the Utilities Manager to the City Manager of what response is required to continue meeting the human consumption, sanitation and fire protection needs of our customers. Recommendations of the Water Plant Superintendent or the Distribution System Superintendent shall be based on a review of factors such as current water supply, stream flow, drought conditions, presettling impoundment reservoir level, seasonal effect on water supply, condition of the distribution system, pumping capacity, and average current consumption rates.

(C) In the absence of the City Manager, the Assistant City Manager will be authorized to implement the required response within the plan.  
(‘89 Code, § 16-82) (Ord. passed 8-19-86; Am. Ord. passed 11-19-02; Am. Ord. passed 5-18-10) (Am. Ord. passed 1-17-23)

*Sections § 16-82 through 16-92 of this ordinance will constitute the City's Water Shortage Response Plan as required under North Carolina Administrative Code 15A NCAC 02E0.607 and General Statute 143-355(l)*



## **§ 16-83 NOTIFICATION OF WATER SHORTAGE RESPONSE PLAN IMPLEMENTATION.**

When the WSRP is activated water users and City employees will be notified by the following means, as time will allow:

- 1) Post information to the City's Website
- 2) Code Red – rapid dialing telephone alerts to affected zones
- 3) Department Heads and supervisor will brief their employees
- 4) Press release for the Local Newspaper if time appropriate for publishing
- 5) Public Service Announcements (PSAs) for TV and/or radio as appropriate
- 6) Messages printed on the water bills

(Ord. passed 5-18-10)

## **§ 16-84 UNLAWFUL TO VIOLATE MANDATORY RESTRICTION.**

If the City Manager declares one or more stages of water conservation, it shall be unlawful for any person to use or permit the use of water supplied by the City in violation of any mandatory restriction instituted pursuant to that declaration.

('89 Code, § 16-83) (Ord. passed 8-19-86; Am. Ord. passed 11-19-02; Am. Ord. passed 5-18-10)

## **§ 16-85 MEASURES TO BE IMPLEMENTED AT VARIOUS STAGES OF WATER CONSERVATION**

*Water Conservation* will be encouraged at all times. The following water use habits are to be recommended in an ongoing public information campaign to reduce wasting of water:

- 1) Check for leaks in toilets at least once a year by putting a few drops of food coloring in the storage tank. If the color comes through to the toilet bowl without flushing, the toilet needs adjustment or repair.
- 2) Repair leaking faucets whenever they develop.
- 3) Store water for drinking in the refrigerator to avoid trying to run it cool at the tap. The storage also eliminates chlorine taste that some customers find objectionable in drinking water.
- 4) Use shower for bathing or reduce the depth of water used for tub bath. Limit the length of each shower.
- 5) Do not leave faucets running while shaving or rinsing dishes.
- 6) Install water flow restrictive devices in showerheads.
- 7) Install water-saving devices such as plastic bottles or commercial units in toilet tanks, unless you already have a new water-saving type unit.
- 8) Always wash full loads in clothes washers and dishwashers.
- 9) Do not use the toilet for a trash basket; make every flush count.



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- 10) Commercial and industrial customers should review their water uses and where feasible install recycle systems. The savings on water and sewer bills will often pay for the installation in a reasonable period.

The following water conservation stages, associated recommendations, and mandatory measures may be instituted by the City Manager when a Water Shortage exists:

***Stage 1 Water Supply Alert Conservation.*** Continue all recommendations of Continuous Water Conservation and increase the level of conservation effort by publicizing the following measures:

- 1) Limit use of clothes washers and dishwashers and when used, operate fully loaded.
- 2) Limit flushing of toilets by multiple usages.
- 3) Limit lawn watering and only then, when grass shows signs of withering. Apply water as slowly as possible to achieve deep penetration.
- 4) Water shrubbery the minimum required, reusing household water when possible.
- 5) Limit car washing to the minimum.
- 6) Limit wash-down of outside impervious areas such as sidewalks, patios, etc.
- 7) Limit hours of operation of water-cooled air conditioners if possible.
- 8) Limit non-essential water use for commercial and industrial activities.
- 9) Encourage a goal of 10% reduction in water use by all customers.
- 10) Begin 5% Water Conservation Surcharge on Customer Water Rate.

***Stage 2 Water Supply Warning Conservation.*** Continue all recommendations of Stage I and increase the levels of conservation effort by enforcing the following measures:

- 1) No watering of lawns, shrubbery, flowers or vegetable gardens except after 6:00 p.m. on Saturday and Sunday. Golf courses to water only on even numbered calendar days.
- 2) No water to be introduced into swimming pools except to the extent necessary to maintain operation.
- 3) No washing down of outside areas such as sidewalks, patios or driveways, or other similar purposes.
- 4) Do not introduce water into any decorative fountain, pool or pond.
- 5) No serving of water in a public restaurant except upon request.
- 6) Do not use water for any unnecessary purpose or intentionally waste water.
- 7) Use disposable and biodegradable dishes.
- 8) Commercial and Industrial will reduce water use by 10%.
- 9) Encourage a goal of 30% reduction in water use by all customers.
- 10) Begin 15% Water Conservation Surcharge on Customer Water Rate.

***Stage 3 Mandatory Conservation.*** Continue all less severe water conservation stages and increase the level of conservation effort by enforcing the following measures:



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- 1) No lawn sprinkling.
- 2) No watering of any vegetable garden or ornamental shrubs except during the hours of 4:00 p.m. and 8:00 p.m. on Saturday.
- 3) No filling of any swimming pool; no replenishment of any filled pools except to the minimum essential for operation of chemical feed equipment.
- 4) No nonessential use of water for commercial or public use. The use of single-service plates and utensils is encouraged and recommended in restaurants.
- 5) Do not operate water-cooled air conditioners or other equipment that does not recycle cooling water, except when health and safety are adversely affected.
- 6) Discontinue washing exterior of motor vehicles except where 50% or more of the water is recycled, or where a private well water system is used.
- 7) Commercial and Industrial will reduce water use by 30%.
- 8) Encourage a goal of 50% reduction in water use by all customers.
- 9) Begin 25% Water Conservation Surcharge on Customer Water Rate.

**Stage 4 Emergency Conservation (Rationing).** Continue all less severe water conservation stages and increase the level of conservation effort by strictly enforcing the following measures:

- 1) It will be unlawful to fail to act in accordance with this section or use water contrary to this section or attempt to evade or avoid such water rationing restrictions.
- 2) Fire protection will be maintained, but where possible, tank trucks shall use raw water.
- 3) Close all swimming pools.
- 4) No washing of any motor vehicles, including commercial washing.
- 5) All industrial uses of water are prohibited.
- 6) All other uses of water will be limited to those necessary to meet minimum health and safety needs of the customers.

('89 Code, § 16-84) (Ord. passed 8-19-86; Am. Ord. passed 11-19-02; Am. Ord. 5-18-10) Penalty, see § 16-86

### **§ 16-86 ENFORCEMENT.**

It shall be the duty of the Utilities Manager to investigate violations of the mandatory restrictions and issue orders consistent with the purpose and intent of this division. All customers shall cease any violation of the mandatory restrictions upon the order of the Utilities Manager. Any customer who violates any provision of this division, or who shall violate or fail to comply with any order made pursuant to this division shall be subject to penalty or a combination of the penalties set forth in § 16-87. The Public Works Department Personnel, Fire Department Personnel, or Police Officers will be responsible for enforcement of this ordinance as they go about their daily duties about the City.

('89 Code, § 16-85) (Ord. passed 8-19-86; Am. Ord. passed 5-18-10) (Am. Ord. passed 1-17-23)



**§ 16-87 DISCONTINUANCE OF SERVICE; RIGHT OF APPEAL; OTHER REMEDIES; PENALTY NOT TO EXCUSE VIOLATION.**

(A) When customers are found to be in violation of the MANDATORY RESTRICTIONS, the City's personnel listed above (§ 16-85) will issue citations and penalties will be assessed as follows:

1 <sup>st</sup> Violation	Warning
2 <sup>nd</sup> Violation	\$100 Fine
3 <sup>rd</sup> Violation	\$250 Fine
4 <sup>th</sup> Violation	\$250 Fine and discontinuation of service

(B) The City may discontinue water service to any structure or parcel when the Utilities Manager gives written notice of violation of mandatory restrictions and intent to discontinue service in accordance with this Ordinance. Water service shall be discontinued within 24 hours unless the violator shall cease voluntarily. When service is discontinued pursuant to the provisions of this section, service shall not be reinstituted unless and until the Utilities Manager determines that, the risk to the City water supply has been alleviated.

(C) The customers shall have a right of appeal to the City Manager, upon serving written notice of appeal on the City Manager within five days after receiving notice of any violation and intent to discontinue service. The appellant will be notified by the City Manager of the time and place for the hearing of the appeal. The City Manager shall act on the appeal as expeditiously as possible and shall notify the appellant in writing no later than two days after the final decision.

(D) The provisions of this article may be enforced by an appropriate remedy, including a mandatory or prohibitory injunction, issuing from a court of competent jurisdiction.

(E) The imposition of one or more penalties for any violation shall not excuse any violation or permit it to continue.

('89 Code, § 16-86) (Ord. passed 8-19-86; Am. Ord. passed 5-18-10)

**§ 16-88 GUIDELINE TRIGGERS TO INITIATE CONSERVATION STAGES IN DROUGHT SITUATIONS**

System Supply Type	Water Supply Alert Conservation Level 1 US Drought Monitor indicates abnormally dry in our area	Water Supply Warning Conservation Level 2 US Drought Monitor indicates severe drought in our area	Mandatory Conservation Level 3 US Drought Monitor indicates extreme drought in our area	Emergency Conservation Level 4 US Drought Monitor indicates exceptional drought in our area
<b>Run-of-River</b> (Measure stream flow daily)	<ul style="list-style-type: none"> <li>Steam Flow less than 180 cubic feet per second</li> <li>Water demand does not exceed</li> </ul>	<ul style="list-style-type: none"> <li>Steam Flow less than 100 cubic feet per second</li> </ul>	<ul style="list-style-type: none"> <li>Steam Flow less than 75 cubic feet per second</li> <li>Water demand exceeds gravity flow</li> </ul>	<ul style="list-style-type: none"> <li>Steam Flow less than 40 cubic feet per second</li> <li>Water demand exceeds gravity flow</li> </ul>



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and inventory watershed for upstream water users during a water shortage situation.)	gravity flow at the intake <ul style="list-style-type: none"> <li>• Gravity flow into the intake screens is adequate to meet pumping demand</li> <li>• 6 Days of normal demand remaining in Presettling Impoundment</li> <li>• Average daily use &gt; 11 MGD for 5 consecutive days</li> <li>• Withdrawing 10% of flow past the intake</li> <li>• Presettling Impoundment is 5 feet down from full pond. 61 MGD supply remaining*</li> </ul>	<ul style="list-style-type: none"> <li>• Water demand exceeds gravity flow at the intake.</li> <li>• Supplemental pumps are put into operation with some gravity flow in intake</li> <li>• 6 Days of normal supply remaining in Presettling Impoundment</li> <li>• Average daily use &gt; 10 MGD for 5 consecutive days</li> <li>• Withdrawing 17 % of flow past the intake</li> <li>• Presettling Impoundment is 9 feet down from full pond. 48 MGD supply remaining *</li> </ul>	at the intake. Intake screens more than 12 inches out of water <ul style="list-style-type: none"> <li>• Supplemental pumps are in operation with limited gravity flow in intake</li> <li>• &lt; 6 Days of normal supply remaining in Presettling Impoundment</li> <li>• Average daily use &gt; 7 MGD for 5 consecutive days</li> <li>• Withdrawing 20 % of flow past the intake</li> <li>• Presettling Impoundment is 13 feet down from full pond. 36 MGD supply remaining *</li> </ul>	at the intake. Intake screens more than 24 inches out of water. <ul style="list-style-type: none"> <li>• Only supplemental pumping will get water into wetwells</li> <li>• &lt; 6 Days of normal supply remaining in Presettling Impoundment</li> <li>• Average daily use &gt; 2 MGD for 5 consecutive days</li> <li>• Withdrawing 5 % of flow past the intake</li> <li>• Presettling Impoundment is 17 feet down from full pond. 25 MGD supply remaining *</li> </ul>
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\* Presettling Impoundment volumes based on September 2003 Dewberry Davis Study

Triggers in the table above are to be used as guidelines and actual conditions may dictate some variations from the guidelines listed above. Any one or more of the trigger guidelines may be sufficient to implement conservation stages if an immediate situation threatens public health, public safety, or has potentially severe economical impacts.

Triggers for conditions such as operational difficulties at the water plant, contamination, water line breaks, and power failures may lead to Emergency Level 3 by the instant severity of the situation creating nearly instantaneous water shortage.  
(Ord. passed 5-18-10)

### § 16-89 RETURN TO NORMAL WATER SUPPLY CONDITIONS

When the Water Shortage conditions have abated and the water supply situation is returning to normal, water conservation measures employed during the Water Supply Alert Conservation, Water Supply Warning Conservation, Mandatory Conservation and Emergency Conservation can be decreased in the reverse order of implementation. Permanent measures directed toward long-term monitoring and conservation should be implemented or continued.  
(Ord. passed 5-18-10)

### § 16-90 VARIANCE FROM WATER CONSERVATION STAGES

Applications to apply for a variance from Various Water Conservation Stages are available from the Billing and Collections Division. Completed application will be submitted to the Billing and Collections Division; questions concerning the application may be directed to the ORC for



assistance. Applications will be reviewed and a recommendation will be made by an appeals committee composed of the Public Works Director, the Utilities Manager, and the Water Plant Superintendent. Recommendations will be made based on the following criteria:

- 1) Impact on the City's Water demand
- 2) Essential use of drinking water
- 3) How long would a variance be needed
- 4) Does an alternative water source exist
- 5) Social and economical importance
- 6) Prevention of structural damage

(Ord. passed 5-18-10) (Am. Ord. passed 1-17-23)

#### **§ 16-91 REVIEW OF THE EFFECTIVENESS OF WATER CONSERVATION STAGES**

The effectiveness of conservation stages will be evaluated in a timetable appropriate to the reason for invoking the conservation stages. For example, a large water main break would be evaluated hours as to how fast elevated storage is being depleted. In a drought situation, the water source availability would be evaluated daily versus the service water demand, to see if the conservation stages are keeping the service water demand less than source availability.

(Ord. passed 5-18-10)

#### **§ 16-92 ADOPTION OF THE WATER SHORTAGE RESPONSE PLAN**

When this draft copy Water Shortage Response Plan is approved by the State Division of Water Resources, it will be submitted to the City Attorney for review. Once the City Attorney has completed a review and approved the WSRP, it will be submitted to City Council for consideration at the next regular meeting and scheduling of a public hearing at the following month's regular council meeting. A copy of this Water Shortage Response Plan and future revisions will be posted on the City's Website for public inspection when it is submitted to the City Council for consideration and approval.

(Ord. passed 5-18-10)

#### **§ 16-93 REVIEW AND UPDATING OF WATER SHORTAGE RESPONSE PLAN**

The Water Shortage Response Plan will be reviewed annually or more often as necessary when conditions change requiring modification to the plan. Updates and changes will follow the procedure set forth in § 16-91 of this WSRP.

(Ord. passed 5-18-10)