

**ORDINANCE NO. (2007) - 235**

**AN ORDINANCE TO AMEND PART 8 CHAPTER 2 ARTICLE E, THE WATER CONSERVATION ORDINANCE OF THE RALEIGH CITY CODE**

**NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF RALEIGH, NORTH CAROLINA THAT:**

Section 1. Repeal, rewrite and re-enact Part 8, Chapter 2 Article E of the Raleigh City Code to read as follows:

**“ARTICLE E.  
WATER CONSERVATION PLAN**

**Sec. 8-2161. Purpose and Intent.**

It is the purpose and intent of this Article to assure that available water resources are put to reasonable beneficial uses to avoid depletion of the *city* water supply during a *water shortage* and to ensure that demand does not exceed the *City's* capacity for water treatment and distribution. This Article *shall* be liberally construed to implement such purpose and intent.

**Sec. 8-2162. Objective.**

The objectives of the Water Conservation policy are to establish a program that will educate *consumers* of the importance of water conservation, set goals for reduction of water use on a day to day basis and during times of drought, and reduce per capita water consumption in a manner that is fair and equitable to all *consumers/users*.

**Sec. 8-2163. Definitions.**

As used in this Article, the following terms *shall* have the meanings provided in this section unless the context clearly indicates otherwise.

**Approved (or Approval).** Approved or approval means certified in writing by the Public Utilities Director as an acceptable water *conservation device*, program or methodology for the purpose of water conservation.

**Available water supply.** The total amount of water that is available to the *City* in the water supply pool(s). The U.S. Army Corps of Engineers will determine this amount for Falls Lake once the water level in Falls Lake drops below 251.5 feet Mean Sea Level.

**Automatic spray irrigation system.** Any installed irrigation system that can be programmed to operate during certain times and/or conditions and which is connect to the *City's public water supply system*.

**BMP.** Best Management Practice.

**Certified automatic spray irrigation.** A *City* approved irrigation system that is connected to uses the *City's public water supply system* and is designed to minimize water use.

**Certified conservation user.** A certified *conservation* user is a consumer who complies with the City of Raleigh water *conservation* program.

**City.** City in this Article means the City of Raleigh.

**City reuse water.** Effluent water from *City* facilities, including the *City* E.M. Johnson Water Treatment Plant, Smith Creek Wastewater Treatment Plant, Little Creek Wastewater Treatment Plant and/or Neuse River Wastewater Treatment Plant, which meets or exceeds the minimum quality requirements of the current North Carolina Reuse and Reclaimed Water Quality Standards.

**Conservation (or conserve).** Conservation or conserve means any beneficial reduction in water loss, waste, or use.

**Conservation device.** An *approved water conservation* device, properly installed within a private plumbing or distribution system, to improve water use efficiency within the City water supply system.

**Conservation program.** A program that identifies the uses of water within residential users, industry groups, commercial and/or industrial applications, which focuses on *BMPs* to reduce the consumption of water. The program will be submitted to Public Utilities for review and *approval*. Each *conservation program* should be updated as required by the Public Utilities Director. All *certified conservation* users should be publicly recognized as water savers.

**Consumer.** Any *person*, business, corporation, institution, resident or industry responsible for any *property* at which water from the City of Raleigh *public water supply* is received. In the absence of other parties or the failure of other parties to accept the responsibilities herein set forth, the *owner* of record of the *real property* shall be ultimately responsible.

**Hand held hose.** Any hose that is connected to the *City's public water supply system* and held in the hand during irrigation use.

**Hose end sprinkler.** An irrigation device that is connected to the *City's public water supply system* and is not designed to be held in the hand during use. Examples are: single stream, multi-stream, and impact type sprinklers.

**Hydrant meter.** A water meter specifically designed, fabricated and leased from the City of Raleigh Public Utilities Department for *consumers* to purchase water from the *City* from fire hydrants in accordance with the *City's Hydrant Meter Program*.

**Major water user.** A water customer who uses 100,000 gallons per day (GPD) or more per account as determined on either an annual or an average day during the *City* seasonal water demand period.

**Non-Automatic Spray Irrigation System.** Any installed irrigation system that is connected to the *City's public water supply system* and which is operated manually.

**On-site reuse water.** On-site reuse water is effluent water from an individual on-site wastewater system which meets or exceeds the minimum requirements of the current North Carolina Reuse and Reclaimed Water Quality Standards.

**Potable water.** Potable water is the water from the *public water supply system* of the *City* which meets or exceeds the minimum requirements of the current Federal and North Carolina Safe Drinking Water Act.

**Projection period.** The remaining number of days in the calendar year from the date of the water supply projection, plus sixty (60) days.

**Public water supply.** The water supply of the *City*, and its customers for general use and which supply is recognized as the public water supply of the *City* by the North Carolina Department of Environment and Natural Resources.

**Rain sensor (or rain-sensing device or rain shutoff device):** A sensor system that automatically adjusts the schedule for or shuts off an irrigation system before or during rainfall.

**Reuse water.** *City reuse water and/or on-site reuse water.*

**Seasonal demand period.** The period of time from April 1<sup>st</sup> through November 30<sup>th</sup>.

**Water demand average.** The average daily amount of water pumped from the *City* water plant(s) for the previous thirty (30) day period.

**Water shortage.** A “water shortage” *shall* exist when the demands and requirements of water customers 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.

#### **Sec. 8-2164. COMPLIANCE WITH FEDERAL AND STATE LAW.**

The *City* will comply with the Federal Safe Drinking Water Act, the North Carolina Drinking Water Act, and North Carolina State Building Code, which pertain to water *conservation* and establish an effective on-going program to control use of *public water supply*.

#### **Sec. 8-2165. UNLAWFUL WATER USES.**

It *shall* be unlawful for any for any *person* to use water in violation of this Article or any of the mandatory water use restriction ordinances *approved* by the Raleigh City Council. It *shall* also be unlawful for any *person* to use *potable water* from the *public water* system, if reuse water from the City *reuse water* supply system is equally available to the same location and the water use does not require *potable water* quality.

**Sec. 8-2166. INSPECTION OF PROPERTY.**

It *shall* be the duty, upon request of the Public Utilities Director, for designated Public Utilities Department staff to observe and determine if the uses of water by Raleigh water supply system customers are compliant with the provisions of this Article.

**Sec. 8-2167. RIGHT OF ACCESS.**

The Public Utilities Director, or designated staff, *shall* have the right to enter, at a reasonable time, any property served by a connection to the *City public water supply* for the purpose of performing the duties of this Article. In cases in which the *property owner*, managing agent, or tenant chooses not to provide such access, the Public Utilities Director or authorized staff *may* obtain a warrant an inspect or *may* in accordance with applicable law interrupt water service to the *property*.

**Sec. 8-2168. WATER METERING AND WATER USE AUDITS.**

Water use restrictions *shall* apply to all *City* water supply system customers, including all *City* departments and *City* owned facilities. All permanent water service to customers *shall* be metered and billed based on the *City's* current water and sewer rate ordinance. All temporary water service to customers *shall* be provided through the *City's hydrant meter* program or other water accountability method *approved* by the Public Utilities Director. Water use audits will be conducted by designated Public Utilities staff when determined to be necessary by the Public Utilities Director on any water customer account to determine if water usage *may* be reduced by the customer.

**Sec. 8-2169. LANDSCAPE WATER CONSERVATION.**

After application of this Article, all new permanent in-ground irrigation systems *shall* be individually metered. Such systems must either have: (1) an *approved* programmable controller for adjustment of irrigation frequency and intensity and (2) a *rain sensor*, or other *approved conservation device*, for automatic shut-off in accordance with Raleigh standards or be approved under the requirements of the latest conservation certification program of the *City* for automatic in-ground irrigation systems. Any automatic in-ground irrigation system that is not certified by the Public Utilities Director *shall* comply with the mandatory water conservation requirements of Section 8-2175(c).

**Sec. 8-2170. MAJOR WATER USERS.**

All *major water users* are required to develop a *conservation program* and an emergency water usage reduction plan to focus on reducing water consumption, to include *BMPs* or policy for their specific uses of water in their business/commercial applications or manufacturing processes. The program *shall* be designed to reduce water consumption comparable to the overall reduction achieved by the every day, Stage 1, and Stage 2 mandatory water *conservation* ordinances. The *Conservation program shall* be submitted to Public Utilities for review and *approval* within one-hundred and eighty (180) days of notification by the *City*. Programs *shall* be implemented in accordance with the implementation of the *City's* water *conservation* ordinances. Each *conservation program shall* be updated by the *major water user* as required by the Public Utilities Director. All *certified conservation users* will be publicly recognized as water savers.

#### **Sec. 8-2171. VEHICLE WASH FACILITIES.**

All vehicle wash facilities that desire to be *approved shall* comply with the requirements of the latest conservation certification program of the *City* for vehicle wash facilities. Any vehicle wash facility that is not certified by the Public Utilities Director *shall* be closed during Stage 2 mandatory water conservation restrictions and rules until it is in compliance with the requirements of the *conservation certification program* or until the Stage 2 mandatory water conservation restrictions and rules are repealed. All certified vehicle wash facilities, following certification, *shall* display at entrance of the facility the approved for water conservation placard issued by the Public Utilities Department at all times.

#### **Sec. 8-2172. WATER USE MONITORING.**

The Public Utilities Director and designated staff are responsible for monitoring water usage from the public water system and the amount of public water supply that is available to the *City* on a continuous basis. The Public Utilities Director will implement the water use restrictions under this Article to ensure that the *City* has sufficient water supply available at all times. Water use restrictions *may* be recommended by the Public Utilities Director for approval by the *City Council* at any time that the *available water supply* capacity does not meet or exceed the projected water usage amount during the *projection period*, based on the then current *water demand average*. Water use monitoring thresholds are:

- a) Over 70% available water supply capacity – every day mandatory water conservation restrictions and voluntary water use measures and best management practices are in effect.
- b) 70% or lower available - stage 1 mandatory water conservation restrictions and rules may be necessary
- c) 50% or lower available – stage 2 mandatory water conservation restrictions and rules may be necessary.

#### **Sec. 8-2173. EDUCATION.**

The Public Utilities Director and designated staff are responsible for developing and maintaining a comprehensive water *conservation* education program to implement voluntary adoption of *City*

water *conservation* best management practices. The City of Raleigh Public Utilities Department Water Conservation Plan authorized under this Article serves as the principal text for the water *conservation* education program and *shall* be fully incorporated into the Raleigh Public Utilities Handbook (“the Handbook”) along with other water *conservation* information. The Handbook *shall* include detailed descriptions of the Certified Landscape Irrigation Auditing Program, the Conservation Certification Program for the Professional Vehicle Wash Industry, the Water Wise Certification Program, the civil penalty matrix and the Major Water Users Conservation Program. The Handbook shall also include technical standards for the water *conservation* equipment and materials specified by the *City*.

**Sec. 8-2174. CONSERVATION WATER RATE.**

The *City* water consumption rate ordinance will be annually reviewed by the Public Utilities staff to ensure that unit price values and the rate ordinance structure recommended to City Council provides an economic incentive for water *conservation*.

**Sec. 8-2175. MANDATORY WATER USE RESTRICTIONS.**

It *shall* be unlawful for any *person* to use water from the *public water supply system* of the *City* in violations of the following mandatory water *conservation* restrictions:

- (a) All Stage 1 mandatory water conservation restrictions and rules as set forth by any ordinance adopted by the City Council.
- (b) All Stage 2 mandatory water conservation restrictions and rules as set forth by any ordinance adopted by the City Council.
- (c) Every day mandatory water conservation restrictions
  - (1) To use water from City of Raleigh *public water supply* for *automatic and non-automatic irrigation systems* and for *hose end sprinklers* except:
    - a. *Properties* with **ODD** numbered addresses *may* water lawns and landscapes only on **TUESDAY, THURSDAY and SATURDAY**.
    - b. *Properties* with **EVEN** numbered addresses *may* water lawns and landscapes only on **WEDNESDAY, FRIDAY and SUNDAY**.

*No automatic or non-automatic irrigation systems or hose end sprinklers shall be operated on MONDAY.*

Notwithstanding the limitations of subsections a and b above, *City certified automatic irrigation system* installations *approved* pursuant to section 8-2169 *may* be operated on the days and at times determined by the system controller sensors for weather, soil and other conditions in order to maximize the efficiency of water use and minimize the consumption of water or as necessary for testing and

calibration of the system controller. But no *certified automatic irrigation system* approved by the *City* may operate during a Stage 1 water conservation restriction period except in conformity with applicable Stage 1 requirements. A placard issued by the City's Public Utilities Department *shall* be displayed on the street yard of the *property*.

- (2) Violations of Section 8-2175(c) *may* be punished by any of the means available to the City pursuant to N.C.G.S. 160A-175. A written warning will be issued for the first violation of 8-2175(c). A civil penalty of \$50.00 *shall* be assessed for the second violation of Section 8-2175(c) and a third violation *shall* result in a civil penalty of \$200.00. A fourth violation will result in interruption of water service to the offending customer. The City will issue written notification to the customer and occupant of intent to interrupt water service and twenty-four (24) hours later will interrupt water service. If water service has been interrupted due to repeat violation of Section 8-2175(c), service will not be re-instated until the Public Utilities Director has determined that the risk to the City water supply has been alleviated or the Public Utilities Director is otherwise assured of compliance.

### **Sec. 8-2176. VOLUNTARY WATER USE MEASURES**

All *consumers* are encouraged to adopt the following best management practices to *conserve water*:

#### **(a) Outdoor Water Uses:**

1. Check for plumbing leaks. A single dripping faucet can waste hundreds, even thousands, of gallons per year. Most water leaks are easy to detect and repair with basic plumbing skills and a few simple tools.
2. Have soil tested by the North Carolina Department of Agronomy/Soil Testing Section. Most yards in this region are composed of granite soils. They need lime more than they need fertilizer.
3. Plant native trees and shrubs. The North Carolina State University Cooperative Extension Service has excellent suggestions for home gardeners. Use mulch around shrubs and garden plants to reduce evaporation. Mix the turf areas with shaded areas to reduce irrigation demands.
4. Let the grass grow taller in hot weather by raising your lawn mower cutting height. Longer grass blades help shade each other, reduce evaporation, and inhibit weed growth.
5. Water slowly and thoroughly during cool, windless hours to prevent water loss from evaporation.

6. Be attentive if using a hose and sprinkler, consider setting an alarm or the oven timer as a reminder to move the hose and sprinkler as needed.
7. Use a rain gauge. One inch of water per week will keep lawns green throughout the summer.
8. Water should be applied slowly to achieve deep penetration and prevent water run-off. Do not water impervious surfaces such as streets, parking lots, driveways and sidewalks.
9. Install a drip irrigation system for watering gardens, trees, and shrubs. Drip systems are very efficient because they provide a slow, steady trickle of water to plants at their roots through a network of hidden pipes and hoses.
10. Use properly treated reuse water for irrigation as an alternative water source. Raleigh's water conservation rules do not regulate the amount of reuse water and therefore any amount can be used during any mandatory water conservation stage. Contact the Raleigh Public Utilities Department for information regarding reuse water availability.
11. Capture rain water in cisterns and rain barrels. The average rainfall in the Raleigh area is about 48 inches per year. Run-off from the roof of a typical 2,500 square foot home is about 75,000 gallons a year. Raleigh encourages customers to capture rainwater and use it on the landscape.
12. Consider the amount of water being used and look for ways to use less whenever possibly. Do not leave water running - use spring loaded or other automatic shut-off devices on hoses or outdoor faucets.
13. Use commercial vehicle washing facilities, especially those which have been certified by Raleigh as water conserving facilities, instead of washing vehicles at home.
14. Use a broom or blower to remove dust, dirt, leaves and other debris from sidewalks, driveways, porches and decks rather than water.

**(b) Indoor Water Uses:**

1. Thaw frozen food in your refrigerator or microwave instead of using running water. Wash fruits and vegetables with a vegetable brush in a basin or bowl instead of using running water.
2. Scrape or wipe, rather than rinse, dishes before loading into the dishwasher. Wash only full loads. Consider replacing old dishwasher with a water and energy saving model.

3. Wash only full loads of laundry or use the appropriate water level or load size selection on the washing machine. Presoak heavily soiled items. Use detergent sparingly in order to avoid rinsing more than normal cycle. Consider purchasing a high efficiency washing machine to save laundry water and energy.
4. Install low-flow toilets, faucet aerators, and low-flow showerheads.
5. Leaky toilet can waste 200 gallons of water per day. To detect leaks in a toilet, add a few drops of food coloring to the tank water. Do not flush. Wait a few minutes. The toilet is leaking if the colored water appears in the bowl.
6. Commercial and industrial customers not otherwise regulated as a *major water user* should review their water uses and should consider implementing industry specific best management water conservation practices.
7. Check for leaks in toilets, faucets, shower heads and any other plumbing fixtures and repair these leaks immediately.

**Sec. 8-2177. ENFORCEMENT.**

**(a) Penalty.**

Violation of any provision of this Article *may* subject the offender to a civil penalty to be recovered by the *City* in a civil action in the nature of debt if the offender does not pay the penalty within thirty (30) days after the assessment has become final by exhaustion of the appeal process established by this section, or by failure to appeal the assessment and will be subject to temporary water service interruption.

Except as otherwise provided in this Article and in mandatory water use restriction ordinances, the civil penalty for violation of any provision of this Article *shall* not exceed one thousand dollars (\$1,000.00) per day for each day of continuous violation, or a cumulative or single civil penalty of twenty-five thousand dollars (\$25,000.00). The civil penalty for willful violation of any provision of this Article *shall* not exceed five thousand dollars (\$5,000.00) per day for each day of a continuous violation, or a cumulative or single civil penalty of twenty five thousand dollars (\$25,000.00).

**(b) Assessment.**

Any civil penalty *shall* be assessed by the Public Utilities Director, and *shall* be based upon the reasonable estimated cost of correcting the cited violation, the magnitude of the potential risk posed to the public health, safety and welfare by the violation, and the cost of the public safety or other emergency response caused by the violation. The Public Utilities Director *shall* serve written notice of the civil penalty assessment on the offender and set out with reasonable care the basis of the amount so assessed.

**(c) Equitable relief.**

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

**(d) Enforcement option.**

The penalties and enforcement provisions established by this Article *may* be applied in addition to or in lieu of the penalties established by other sections of this Code and applicable ordinances.

**Secs. 8-2178 ---- 8-2179  
RESERVED.”**

**Section 2.** All laws and clauses of laws in conflict herewith are hereby repealed to the extent of said conflict.

**Section 3.** If this ordinance or application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the ordinance which can be given separate effect and to this end the provisions of this ordinance are declared to be severable.

**Section 4.** This ordinance shall be enforced as provided in N.C.G.S. 160A-175 or as provided in the Raleigh City Code. All criminal sanctions shall be the maximum allowed by law notwithstanding the fifty dollar limit in G.S. 14-4(a) or similar limitations.

**Section 5.** This ordinance shall become effective on July 2, 2007.

**Adopted:** May 15, 2007

**Effective:** July 2, 2007

**Distribution:** Department Heads

*This Ordinance was prepared by the City Attorney's office*