ARTICLE II. WATER-CONSERVING PLUMBING FIXTURES[1]

Sec. 18-19. Purpose of provisions.

It is the purpose of this article to require the use of ultra-low-flow plumbing fixtures in all new construction, or when replacing plumbing fixtures during renovation or remodeling of existing buildings, and to require the labeling of plumbing fixtures with information regarding the flow rates for the purpose of conserving water to maintain the integrity of drinking water supplies and reduce wastewater flows.

(Code 1993, § 13.16.010; Ord. of 10-2-1990, § 1)

Sec. 18-20. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Commercial building means any type of building other than residential.

Kitchen Faucet or Kitchen Faucet Replacement Aerator **means it allows a flow of no more than 1.8 gallons of water per minute at a pressure of 60 pounds per square inch and conforms to the applicable requirements in ASME A112.18.1/CSA B125.1.**

Lavatory Faucet or Lavatory Faucet Replacement Aerator **means it allows a flow of no more than 1. gallons per minute at a pressure of 60 pounds per square inch and is listed to the WaterSense High Efficiency Lavatory Faucet Specification.**

Plumbing fixture means any toilet, urinal, showerhead, bathroom, lavatory and kitchen faucet and replacement aerators.

Residential building means any building or unit of a building intended for occupancy as a dwelling but shall not include a hotel or motel.

Shower Head **means a showerhead that allows a flow of no more than the average of 2.0 gallons of water per minute at 80 pounds per square inch of pressure, is listed in the WaterSense Specification for Showerheads and meets the US Department Definition of Energy definition of showerhead.**

Toilet means any fixture consisting of a water-flushed bowl with a seat, used for the disposal of human waste.

Urinal means any fixture consisting of a water-flushed bowl used for the disposal of human waste.

(Code 1993, § 13.16.020; Ord. of 10-2-1990, § 2)

[1]State law reference(s)—Water efficiency requirements, O.C.G.A. § 8-2-1 et seq.; flow-rate restrictions on plumbing fixtures, O.C.G.A. § 8-2-3.

Sec. 18-21. Standards for plumbing fixtures.

Consistent with the general approach taken in Georgia, these Maximum Flow and Water Consumption requirements and related definitions in 18-20 to 18-25 of the plumbing code shall apply to all plumbing systems, including those in one- and two-family dwellings. The maximum water consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 18-21.

No plumbing fixture shall be installed which does not meet the standards listed in this section. This includes all plumbing fixtures installed in newly constructed buildings or when replacing plumbing fixtures during remodeling or renovation of existing buildings, except as noted in section 18-23. The standards are as follows:

(1) A water closet or toilet that:

a. Is a dual-flush water closet that meets the following standards:

1. The average flush volume of two reduced flushes and one full flush may not exceed 1.28 gallons;

2. The toilet meets the performance, testing, and labeling requirements prescribed by the following standards, as applicable:

(i) American Society of Mechanical Engineers Standard A112.19.2-2008; and

(ii) American Society of Mechanical Engineers Standard A112.19.14-2006 Six-Liter Water Closets Equipped with a Dual Flushing Device"; and

3. Is listed to the WaterSenseTM Tank-Type High Efficiency Toilet Specification; or

b. Is a single-flush water closet, including gravity, pressure assisted, and electro-hydraulic tank types, that meets the following standards:

~~1. The average flush volume may not exceed 1.28 gallons;~~

1. The single flush water closet (including gravity, pressure-assisted, and electro-hydraulic tank types) and the average flush volume does not exceed 1.28 gallons.

2. The toilet must meet the performance, testing, and labeling requirements prescribed by the American Society of Mechanical Engineers Standard A112.192/CSA B45.1 or A112.19.14; and

3. The toilet must be listed to the WaterSenseTM Tank-Type High Efficiency Toilet Specification;

(2) A shower head that allows a flow of no more than an average of 2½ gallons of water per minute at 60 pounds per square inch of pressure;

a. A hand-held shower spray is a shower head. As a point of clarification, multiple shower heads may be installed in a single shower enclosure so long as each showerhead individually meets the maximum flow rate, the WaterSense requirements, and the US Department of Energy's definition of the showerhead. However, multiple shower heads are not recommended for water efficiency purposes.

(3) A urinal and associated flush valve that:

a. Uses no more than one-half gallons of water per flush;

b. Meets the performance, testing, and labeling requirements prescribed by the American Society of Mechanical Engineers Standard A112.19.2/CSA B45.1;

c. For flushing urinals, meets all WaterSenseTM specifications for flushing urinals; and

d. Where non-water urinals are employed, complies with American Society of Mechanical Engineers Standard A112.19.3/CSA B45.4 or American Society of Mechanical Engineers Standard A112.19.19/CSA B45.4. Non-water urinals shall be cleaned and maintained in accordance with the manufacturer's instructions after installation. Where non-water urinals are installed, they shall have a water distribution line roughed-in to the urinal location at a minimum height of 56 inches (1,422 mm) to allow for the installation of an approved backflow prevention device in the event of a retrofit. Such water distribution lines shall be installed with shut-off valves located as close as possible to the distributing main to prevent the creation of dead ends. Where non-water urinals are installed, a minimum of one water-supplied fixture rated at a minimum of one water supply fixture unit shall be installed upstream on the same drain line to facilitate drain line flow and rinsing;

(4) A lavatory faucet or lavatory replacement aerator that allows a flow of no more than 1½ gallons of water per minute at a pressure of 60 pounds per square inch in accordance with American Society of Mechanical Engineers Standard A112.18.1/CSA B.125.1 and listed to the WaterSenseTM High-Efficiency Lavatory Faucet Specification; and

~~(5) A kitchen faucet or kitchen replacement aerator that allows a flow of no more than two gallons of water per minute.~~

(5) Kitchen faucets are permitted to temporarily increase the flow above the maximum rate, but not to exceed 2.2 gpm (8.3 L/m) at 60 psi (414 kPa) and must revert to a maximum flow rate of 1.8 gpm (6.8 L/m) at 60 psi (414 kPa) upon valve closure.

(6) Consumption tolerances shall be determined from referenced standards.

(7) For The flushometer valves and flushometer tanks, the average flush volume does not exceed 1.28 gallons.

(8) See 2014 GA Amendment to Section 301.1.2 'Waiver from requirements of high efficiency plumbing fixtures'.

(9) Clothes Washers. Residential clothes washers shall be in accordance with the Energy Star program requirements.

(10) Cooling Tower Water Efficiency.

a. Once-Through Cooling. Once-through cooling using potable water is prohibited.

b. Cooling Towers and Evaporative Coolers. Cooling towers and evaporative coolers shall be equipped with makeup water and blow down meters, conductivity controllers and overflow alarms. Cooling towers shall be equipped with efficiency drift eliminators that achieve drift reduction to 0.002 percent of the circulated water volume for counterflow towers and 0.005 percent for crossflow towers.

c. Cooling Tower Makeup Water. Water used for air conditioning, cooling towers shall not be discharged where the hardness of the basin water is less than 1500 mg/L. **Exception:** Where any of the following conditions of the basin water are present: total suspended solids exceed 25 ppm, CaCO3 exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.

(11) Table 18-21

TABLE 18-21
MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY[b]
Lavatory faucet and replacement aerators, private	WaterSense Labeled & 1.2 gpm at 60 psi[f]
Lavatory faucet, public (metering)	0.25 gallon per metering cycle
Lavatory, public (other than metering)	0.5 gpm at 60 psi
Showerhead[a]	WaterSense Labeled & 2.0 gpm at 80 psi[f]
Kitchen faucet and replacement aerators	1.8 gpm at 60 psi[f]
Urinal	0.5 gallon per flushing cycle[f]
Water closet	1.28 gallons per flushing cycle[c, d, e, f]

For SI: 1 gallon = 3.785 L, 1 gallon per minute = 3.785 L/m,

1 pound per square inch = 6.895 kPa.

(12) Exceptions

1. Blowout design water closets having a water consumption not greater than $3^1/_2$ gallons (13 L) per flushing cycle.
2. Vegetable sprays.
3. Clinical sinks having a water consumption not greater than $4^1/_2$ gallons (17 L) per flushing cycle.
4. Laundry tray sinks and service sinks.
5. Emergency showers and eye wash stations.

ARTICLE IV. CONSERVATION MEASURES RELATING TO LAWN AND LANDSCAPE IRRIGATION[2]

Sec. 18-200. Summary.

It is a violation of the City Code of Dacula to water a lawn or landscaped area in a manner that wastes water or causes a substantial amount of runoff including causing water to fall on sidewalks, driveways, or other areas not considered lawns or landscapes. It is recommended that citizens have their irrigation system inspected annually, by a certified inspector, to ensure that the irrigation system is working properly, as well as, maintain their irrigation system to prevent waste by repairing broken, missing, or misdirected sprinkler heads. Beginning January 1, 2009, rain and freeze sensors are required on all new automatic sprinkler systems. Rain and freeze sensor shut-off switches are defined as electric devices that detect and measures rainfall amounts and temperature and override the cycle of an irrigation system so as to turn off such system when a predetermined amount of rain has fallen or temperatures near or fall below 32 degrees Fahrenheit. Only freeze sensors are required for golf courses, public facilities or recreation areas, and/or irrigation systems dependent upon a nonpublic water source.

(Ord. of 12-29-2008 , § 1)

Sec. 18-201. Purpose.

Lawn and landscape irrigation practices within the City of Dacula, especially during the summer months, can cause a waste of valuable water resources. The purpose of this section is to mandate that water be used for lawn and landscape irrigation in a manner that prevents waste, conserves water resources for their most beneficial and vital uses, and protects the public health.

(Ord. of 12-29-2008 , § 1)

Sec. 18-202. Lawn and landscape irrigation restrictions.

(a) A person commits an offense if he knowingly or recklessly irrigates, waters, or causes or permits the irrigation or watering of a lawn or landscape located on premises owned, leased, or managed by the person in a manner that causes:

(1) A substantial amount of water to fall upon impervious areas instead of upon the lawn or landscape, such that a constant stream of water overflows from the lawn or landscape onto a street or other drainage area; or

(2) An irrigation system or other lawn or landscape watering device to operate during any form of precipitation.

[2]Editor's note(s)—Sections 1 and 2 of an ordinance adopted Dec. 29, 2008 , added provisions to the Code, but did not specify manner of inclusion. Therefore, at the discretion of the editor, said provisions have been included as art. IV, §§ 18-200—18-208 herein.

(b) A person commits an offense if, on premises owned, leased, or managed by him/her, if he/she knowingly operates a lawn or landscape irrigation system or device that:

(1) Has any broken or missing sprinkler head; or

(2) Has not been properly maintained in a manner that prevents the waste of water.

(c) Avoiding Water Waste Through Design. All new landscape irrigation systems shall adhere to the following design standards:

(1) Pop-up type sprinkler heads shall pop-up to a height above vegetation level of not less than four (4) inches above the soil level when emitting water.

(2) Pop-up spray heads or rotary sprinkler heads must direct flow away from any adjacent surfaces and must not be installed closer than four inches from impervious surfaces.

(3) Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or by other means that produces no overspray or runoff.

(4) Narrow or irregular shaped landscaped areas, less than four (4) feet in any direction across opposing boundaries shall not be irrigated by any irrigation emission device except sub-surface or low flow emitters with flow rates not to exceed 6.3 gallons per hour.

(d) Landscape Irrigation System Required Components. All new landscape irrigation systems shall include the following components:

(1) A rain sensor shut-off installed in an area that is unobstructed by trees, roof over hangs, or anything else that might block rain from triggering the rain sensor shutoff.

(2) A master shut-off valve for each controller installed as close as possible to the point of connection of the water but downstream of the backflow prevention assembly.

(3) Pressure-regulating devices such as valve pressure regulators, sprinkler head pressure regulators, inline pressure regulators, WaterSense spray sprinkler bodies, or other devices shall be installed as needed to achieve the manufacturer's recommended pressure range at the emission devices for optimal performance.

(4) Except for landscape irrigation systems serving a single-family home, all other systems must also include:

(a) a WaterSense irrigation controller; and

(b) at least one flow sensor, which must be installed at or near the supply point of the landscape irrigation system and shall interface with the control system, that when connected to the WaterSense controller will detect and report high flow conditions to such controller and automatically shut master valves. The flow sensor serves to aid in detecting leaks or abnormal flow conditions by suspending irrigation. High flow conditions should be consistent with manufacturers' recommendations and specifications.

(Ord. of 12-29-2008 , § 1)

Sec. 18-203. Rain sensing devices and freeze gauges.

(a) Any new irrigation system (commercial or residential) installed within the City on or after January 1, 2009 must be equipped with a rain sensing device. A freeze gauge is also required.

(b) Any irrigation system installed before January 1, 2009 shall be required to install a rain sensing device and freeze gauge when an irrigation system is repaired or replaced.

(c) The following constitute violation of this section:

(1) Installation, causing or permitting the installation of a new irrigation system in violation of subsection 18-203(a); or

(2) Operating, causing or permitting the operation of an irrigation system that does not comply with subsection 18-203(a); or

(3) Operating, causing or permitting the operation of an irrigation system that does not comply with subsection 18-203(b).

(Ord. of 12-29-2008 , § 1)

Sec. 18-204. Variances.

The City may, in special cases, grant variances from the provisions of subsection 18-202(a) or section 18-203 to persons demonstrating extreme hardship and need. The City may grant variances only under all of the following circumstances and conditions:

(1) The applicant must sign a compliance agreement on forms provided by the City, and approved by the City administrator, agreeing to irrigate or water a lawn or landscape only in the amount and manner permitted by the variance.

(2) Granting of a variance must not cause an immediate significant reduction in the Gwinnett County water supply.

(3) The extreme hardship or need requiring the variance must relate to the health, safety, or welfare of the person requesting it.

(4) The health, safety, and welfare of other persons must not be adversely affected by granting the variance.

(Ord. of 12-29-2008 , § 1)

Sec. 18-205. Revocation of variances.

The City may revoke a variance granted when the City determines that:

(a) The conditions of section 18-204 are not being met or are no longer applicable;

(b) The terms of the compliance agreement are being violated; or

(c) The health, safety, or welfare of other persons requires revocation.

(Ord. of 12-29-2008 , § 1)

Sec. 18-206. Penalties.

The City administrator and his or her designee are hereby authorized and directed to monitor compliance with the above restrictions, issue a citation which imposes up to a $1,000.00 fine at which such restrictions are not observed, as follows:

(a) The first time a customer or consumer violates the above restrictions, a notice to comply will be issued to the owner, leasee, or manager of the property.

(b) The second time that a customer or consumer fails to comply with the above restrictions; a citation shall be issued imposing up to a $100.00 fine.

(c) The third time that a customer or consumer fails to comply with the above restrictions; a citation shall be issued imposing up to a $300.00 fine.

(d) The fourth time of noncompliance, a summons can be served upon the citizen or consumer to appear before the judge of Dacula Municipal Court.

(Ord. of 12-29-2008 , § 2)

Sec. 18-207. Appeal.

Any person aggrieved or affected by any decision hereunder may appeal to the City administrator of the City of Dacula, or his/her designee, for relief or reconsideration. Any person aggrieved or affected by any decision of the City administrator relating to the application of these regulations may file an appeal with the mayor and council of the City of Dacula within 30 days of the decision of the City administrator. Appeals shall only be granted where unique circumstances are such that application of these regulations would create an undue hardship to the property owner.

(Ord. of 12-29-2008 , § 2)

Sec. 18-208. Modification of restrictions.

The City administrator may modify or cancel the above restrictions or add additional restrictions from time to time as the emergency conditions affecting the water system may worsen or abate.

(Ord. of 12-29-2008 , § 2)

Sec. 18-209. Definitions

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Flow sensor means an inline device in a landscape irrigation system that produces a repeatable signal proportional to flow rate.

Lawn or Landscape Irrigation system means an assembly of component parts that is permanently installed for the controlled distribution of water to irrigate landscapes such as ground cover, trees, shrubs, and other plants. Lawn and Landscape Irrigation System refer to the same system.

Master shut-off valve means an automatic valve such as a gate valve, ball valve, or butterfly valve) installed as part of the landscape irrigation system capable of being automatically closed by the WaterSense controller. When this valve is closed water will not be supplied to the landscape irrigation system

Pressure regulating device means a device designed to maintain pressure within the landscape irrigation system at the manufacturer's recommended operating pressure and that protects against sudden spikes or drops from the water source.

Rain sensor shut-off means an electric device that detects and measures rainfall amounts and overrides the cycle of a landscape irrigation system so as to turn off such system when a predetermined amount of rain has fallen.

WaterSense irrigation controller is a weather-based or soil moisture-based irrigation controller labeled under the U.S. Environmental Protection Agency's WaterSense program, which includes standalone controllers, add-on devices, and plug-in devices that use current weather data as a basis for scheduling irrigation.

WaterSense spray sprinkler bodies means a sprinkler body with integral pressure regulation, generating optimal water spray and coverage labeled under the U.S. Environmental Protection Agency's WaterSense program.