

STATE OF GEORGIA

CITY OF LAKE CITY

RESOLUTION NO. 2024-002

A RESOLUTION BY THE MAYOR AND CITY COUNCIL OF THE CITY OF LAKE CITY, GEORGIA TO ADOPT LEGISLATIVE FINDINGS TO SUPPORT THE LOCAL AMENDMENTS TO THE GEORGIA STATE MINIMUM STANDARD PLUMBING CODE AND TO AMEND AS NECESSARY CHAPTER 10 "BUILDING AND BUILDING REGULATIONS", ARTICLE III "PLUMBING" OF THE CITY'S CODE AND OTHERWISE PERFORM ALL OTHER ACTS NECESSARY TO ACCOMPLISH THE INTENT OF THE RESOLUTION; TO PROVIDE AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

WHEREAS, the current minimum water efficiency requirements for buildings in Lake City, Georgia ("City") is the Georgia State Minimum Standard Plumbing Code ("Georgia Plumbing Code") as approved and adopted by the Georgia Department of Community Affairs ("DCA") from time to time;

WHEREAS, pursuant to O.C.G.A. § 8-2-25(c), the City of Lake City, Georgia is authorized to adopt local requirements when needed that are more stringent than the Georgia Plumbing Code based on local climatic, geologic, topographic, or public safety factors;

WHEREAS, the long-term availability, reliability, and resiliency of water supplies is a critical need of Lake City and water efficiency is essential to meeting this need;

WHEREAS, the amendments to the City Code, Chapter 10 "Building and Building Regulations", Article III "Plumbing", shown in the ordinance in "Attachment A" and the local amendments to the Georgia Plumbing Code shown in the redline in "Attachment B" are more stringent than the Georgia Plumbing Code on water efficacy because the amendments require

even more efficient uses of water and provide clarifications on existing allowable practices;

WHEREAS, based on its local climatic, geologic, topographic factors included in the regional water resources plan prepared by the Metropolitan North Georgia Water Planning District (“Metro Water District”), of which Lake City, Georgia is a part, water conservation is especially import to the City and the Metro Water District;

WHEREAS, Lake City, Georgia has become aware that more water efficient technologies have become widely available at comparable prices and performance to the water efficient technologies currently required as the minimum in the Georgia Plumbing Code;

BE IT AND IT IS HEREBY RESOLVED, by the Mayor and Council of the City of Lake City, Georgia, and by the authority thereof, that:

1. The governing body of Lake City, Georgia finds that, based on local climatic, geographic, topographic, and public safety factors included in the Metro District’s plans, it is justified in adopting local water efficiency requirements more stringent than the Georgia Plumbing Code;
2. Lake City, Georgia is considering codifying these water efficiency requirements in local code as an amendment to the Georgia Plumbing Code in the form of the local amendments to the Georgia Plumbing Code shown in Attachments “A” and “B”; and
3. Lake City, Georgia is directing its staff to submit this resolution and the local amendments to the Georgia Plumbing Code to DCA for review and comment as required by O.C.G.A. § 8-2-25(c)(1).

BE IT FURTHER RESOLVED, that this resolution shall be effective on the date of its approval by the Mayor and Council.

{SIGNATURE AND DATE PAGE TO FOLLOW}

SO RESOLVED AND ADOPTED this 11th day of March, 2024.

CITY OF LAKE CITY, GEORGIA



Ronald Dodson, Mayor

ATTEST:



Eric Beckman, City Clerk

APPROVED AS TO FORM:



City Attorney

ATTACHMENT "A"

CHAPTER 10- BUILDINGS AND BUILDINGS REGULATIONS

ARTICLE III - PLUMBING

DIVISION 2 -LOW-FLOW FIXTURES

Sec. 10-124. – Standards for plumbing fixtures and landscape irrigation.

(a) No plumbing fixture or landscape irrigation shall be installed which does not meet the standards listed in this section or the state minimum plumbing code, whichever is stricter. 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 10-126.

(b) 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 WaterSense™ 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;
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 WaterSense™ Tank-Type High Efficiency Toilet Specification;

(2) A showerhead that allows a flow of no more than an 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 U.S. Department of Energy's definition of showerhead;

(3) A urinal and associated flush valve that:

- a. Uses no more than 0.5 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 WaterSense™ 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-supplied fixture unit shall be installed upstream on the same drain line to facilitate drain line flow and rinsing;

(4) A lavatory faucet or lavatory faucet replacement aerator that allows a flow of no more than 1.2 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 WaterSense™ High-Efficiency Lavatory Faucet Specification;

(5) A kitchen faucet or kitchen faucet replacement aerator that 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 American Society of Mechanical Engineers Standard A112.18.1/CSA B.125.1; and

(6) Landscape Irrigation.

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

b. Lawn or Landscape Irrigation system. 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.

c. Master shut-off valve. 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.

- d. Pressure regulating device. 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.
- e. Rain sensor shut-off. 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.
- f. WaterSense irrigation controller. Is a weather-based or soil moisture-based irrigation controllers 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.
- g. WaterSense spray sprinkler bodies. A sprinkler body with integral pressure regulation, generating optimal water spray and coverage labeled under the U.S. Environmental Protection Agency's WaterSense program.

DIVISION 3 - WATER EFFICIENCY

Sec. 10-128. – Maximum Flow and Water Consumption

- (a) Consistent with the general approach taken in Georgia, these Maximum Flow and Water Consumption requirements and related definitions in Section 604.4 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 604.4. If the WaterSense program updates the maximum flow rates, then new fixtures must meet the updated maximum instead of the maximum flow rate listed in Table 604.4.

(1) Exceptions:

- a. Blowout design water closets having a water consumption not greater than 3 1/2 gallons (13 L) per flushing cycle.
- b. Vegetable sprays.
- c. Clinical sinks having a water consumption not greater than 4 1/2 gallons (17 L) per flushing cycle.

- d. Laundry tray, sinks and, service sinks.
- e. Emergency showers and eye wash stations.

(b)

TABLE 10-128
MAXIMUM FLOW RATES AND CONSUMPTION FOR
PLUMBING FIXTURES AND FIXTURE FITTINGS

<u>PLUMBING FIXTURE OR FIXTURE FITTING</u>	<u>MAXIMUM FLOW RATE OR QUANTITY</u>
Lavatory faucet and replacement aerators, private	WaterSense Labeled & 1.25 gpm at 60 psi
Lavatory faucet, public (metering)	0.25 gallon per metering cycle
Lavatory, public (other than metering)	0.5 gpm at 60 psi
Showerhead	WaterSense Labeled & 2.52.0 gpm at 8060 psi
Kitchen Sink faucet and replacement aerators	2.01.8 gpm at 60 psi
Urinal	0.5 gallon per flushing cycle
Water closet	1.28 gallons per flushing cycle

For SI: 1 gallon = 3.785 L, 1 gallon per minute = 3.785 L/m,
1 pound per square inch = 6.895 kPa.

- (1) A hand-held shower spray is a shower head. As point of clarification, multiple shower heads may be installed in a single shower enclosure so long as each shower head individually meets the maximum flow rate, the WaterSense requirements, and the US Department of Energy definition of showerhead. However, multiple shower heads are not recommended for water efficiency purposes.
- (2) Consumption tolerances shall be determined from referenced standards.
- (3) For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.
- (4) For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.

- (5) For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.
- (6) See 2014 GA Amendment to Section 301.1.2 'Waiver from requirements of high efficiency plumbing fixtures'.
- (7) 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.

Sec. 10-129. – Clothes Washers.

- (a) Residential clothes washers shall be in accordance with the Energy Star program requirements.

Sec. 10-130.- 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.

Sec. 10-131.- Landscape Irrigation System Efficiency Requirements.

- (a) The requirements in Section 10-131 shall apply to all new landscape irrigation systems connected to the public water system except those (a) used for agricultural operations as defined in the Official Code of Georgia Section 1-3-3, (b) used for golf courses, and (c)

dependent upon a nonpublic water source.

1. **Avoiding Water Waste Through Design.** All new landscape irrigation systems shall adhere to the following design standards:

- a. 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.
- b. 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.
- c. 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.
- d. 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.

2. **Landscape Irrigation System Required Components.** All new landscape irrigation systems shall include the following components:

- a. A rain sensor shut-off installed in an area that is unobstructed by trees, roof overhangs, or anything else that might block rain from triggering the rain sensor shutoff.
- b. 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.
- c. 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.

- d. Except for landscape irrigation systems serving a single-family home, all other systems must also include: (i) a WaterSense irrigation controller and (ii) at least one flow sensor, which must be installed at or near the supply point of the landscape irrigation system, that when connected to the WaterSense controller will detect and report high flow conditions to such controller and automatically shut master valves.

ATTACHMENT "B"

Georgia Plumbing Code

Chapter 13 “Non-potable water systems”, Section 1304 “Reclaimed Water Systems”

Local Amendment to revise Section 1304.3.2 to read as follows:

1304.3.2 Connections to water supply. Reclaimed water provided from a reclaimed wastewater treatment system permitted by the Environmental Protection Division may be used to supply water closets, urinals, trap primers for floor drains and floor sinks, water features and other uses approved by the Authority Having Jurisdiction, in motels, hotels, apartment and condominium buildings, and commercial, industrial, and institutional buildings, where the individual guest or occupant does not have access to plumbing. Also, other systems that may use a lesser quality of water than potable water such as water chillers, carwashes or an industrial process may be supplied with reclaimed water provided from a reclaimed wastewater treatment facility permitted by the Environmental Protection Division. The use of reclaimed water sourced from any new private reclaimed wastewater treatment system for outdoor irrigation shall be limited to golf courses and agriculture operations as defined in the Official Code of Georgia Section 1-3-3, and such reclaimed water shall not be approved for use for irrigating any other outdoor landscape such as ground cover, tree, shrubs, or other plants. These limitations do not apply to reclaimed water sourced from existing private reclaimed water systems or from existing or new, governmentally-owned reclaimed wastewater treatment systems.

Georgia Plumbing Code:

Appendix E, Section E101.1.2.

Local Amendment to revise Section E.101.1.2 to read as follows:

Because of the variable conditions encountered in hydraulic design, it is impractical to specify definite and detailed rules for sizing of the water piping system. Accordingly, other sizing or design methods conforming to good engineering practice standards are acceptable alternatives to those presented herein. Without limiting the foregoing, such acceptable design methods may include for multi-family buildings the Peak Water Demand Calculator from the IAPMO/ANSI 2020 Water Efficiency and Sanitation Standard for the Built Environment, which accounts for the demands of water-conserving plumbing fixtures, fixture fittings, and appliances. If future versions of the Peak Water Demand Calculator including other building types, such as commercial, such updated version shall be an acceptable design method.