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August 10, 2023

**VIA OVERNIGHT MAIL**

The Department of Community Affairs  
Codes and Industrialized Building Section  
60 Executive Park South, NE  
Atlanta, Georgia 30329-2231

***Re: Forsyth County Ordinance Amendment on Flow Rate Restrictions***

To Whom It May Concern:

Enclosed are proposed amendments to Forsyth County's ordinance on flow rate restrictions for plumbing fixtures. These amendments are being required by the Metropolitan North Georgia Water Planning District. Pursuant to O.C.G.A. § 8-2-25(c)(1), the County is submitting the proposed amendments to the Department for review. The Board of Commissioners intend to adopt the ordinance amendments following the Department's sixty (60) day review period.

Please reach out to our office should you have any questions or edits to the proposed amendment.

Sincerely,

JARRARD & DAVIS, LLP

*/s/ Karen Pachuta*

Karen Pachuta

**A RESOLUTION  
BY THE BOARD OF COMMISSIONERS OF FORSYTH COUNTY TO  
IMPROVE WATER CONSERVATION RESTRICTIONS RELATED TO FLOW RATE  
RESTRICTIONS ON PLUMBING FIXTURES AND TO PROVIDE A DRAFT  
OF SUCH ORDINANCE CHANGES TO THE GEORGIA DEPARTMENT OF  
COMMUNITY AFFAIRS**

**WHEREAS**, the Constitution of the state of Georgia, approved by the voters of the State in November of 1982, and effective July 1, 1983, provides in Article IX, Section II, Paragraph I thereof, that the governing authority of the county may adopt clearly reasonable ordinances, resolutions and regulations; and

**WHEREAS**, the Board of Commissioners of Forsyth County adopted an ordinance on flow rate restrictions on plumbing fixtures within Forsyth County, Georgia, on March 25, 1991; and

**WHEREAS**, the Metropolitan North Georgia Water Planning District has provided action items to its members, including Forsyth County, to adopt amendments to the Georgia State Minimum Standard Plumbing Code to provide for water efficiency, with such changes being required by January 1, 2024; and

**WHEREAS**, the Board of Commissioners of Forsyth County thus desires to exercise its authority to amend the existing flow rate restriction ordinance as recommended by the Metropolitan North Georgia Water Planning District and adopt the amendment attached hereto as Exhibit A; and

**WHEREAS**, pursuant to O.C.G.A. § 8-2-25(c)(1), proposed amendments to the state minimum standard codes must be provided by the Board of Commissioners of Forsyth County to Georgia Department of Community Affairs sixty (60) days prior to adoption of the amendment; and

**WHEREAS**, pursuant to O.C.G.A. § 8-2-25(c)(2), the Georgia Department of Community Affairs has sixty (60) days after receipt of the proposed amendments to make any recommendations to the proposed amendments.

**NOW THEREFORE**, the Board of Commissioners of Forsyth County, Georgia, hereby resolves as follows:

1. The text attached hereto as Exhibit A is the proposed amendment to the Forsyth Code of Ordinances, with an effective date of January 1, 2024;
2. That this Resolution and proposed text in Exhibit A be promptly provided to the Georgia Department of Community Affairs for its review;

3. That following the sixty (60) day review period of the Georgia Department of Community Affairs, appropriate notice and hearing on the amendments contained herein be carried out according to general and local law.

BE IT RESOLVED this 20<sup>th</sup> day of July, 2023.

**FORSYTH COUNTY BOARD OF COMMISSIONERS**

Alfred John  
Alfred John, Chairman

[Signature]  
Laura Semanson, Vice-Chairman

Cindy Jones Mills  
Cindy Jones Mills, Secretary

Kerry Hill  
Kerry Hill, Member

Todd Levent  
Todd Levent, Member

Attest:

Rhonda P. Howard   
Clerk to the Board

## EXHIBIT A

### FLOW RATE RESTRICTIONS ON PLUMBING FIXTURES

#### Section 1. 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* means any type of building other than residential.

*Construction* means the erection of a new building or the alteration of an existing building in connection with its repair or renovation or in connection with making an addition to an existing building and shall include the replacement of a malfunctioning, unserviceable, or obsolete faucet, showerhead, toilet, or urinal in an existing building.

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

#### Section 2. - ~~Restrictions for residential buildings.~~ Applicability.

~~On or after July 1, 1991, no construction may be initiated within the unincorporated portions of the county for any residential building of any type which:~~

- ~~(1) — Employs a gravity tank type, flushometer valve, or flushometer tank toilet that uses more than an average of 1.6 gallons of water per flush; provided, however, this subsection shall not be applicable to one piece toilets until July 1, 1992;~~
- ~~(2) — Employs a shower head that allows a flow of more than an average of 2.5 gallons of water per minute at 60 pounds per square inch of pressure;~~
- ~~(3) — Employs a urinal that uses more than an average of 1.0 gallons of water per flush;~~
- ~~(4) — Employs a lavatory faucet or lavatory replacement aerator that allows a flow of more than 2.0 gallons of water per minute; or~~
- ~~(5) — Employs a kitchen faucet or kitchen replacement aerator that allows a flow of more than 2.5 gallons of water per minute.~~

**Effective January 1, 2024, where new construction, or any alterations, repairs or additions to existing buildings or plumbing systems, or the installation or modification of an irrigation system requiring a permit occurs, new and replacement plumbing fixtures and equipment shall comply with the requirements of the Georgia State Minimum Standard Plumbing Code as amended by the State of Georgia and Forsyth County.**

#### Section 3. - ~~Commercial building construction.~~ Amendment to the Georgia State Minimum Standard Plumbing Code

~~On or after July 1, 1992, there shall be no construction of any commercial building initiated within the unincorporated portions of the county for any commercial building of any type which does not meet the requirements of section 18-102(1) — (5).~~



Effective January 1, 2024, the Georgia State Minimum Standard Plumbing Code is amended by Forsyth County as follows:

Chapter 2, Section 202 General Definitions. Add in alphabetical order and revise, as applicable, the following definitions:

KITCHEN FAUCET OR KITCHEN FAUCET REPLACEMENT AERATOR. 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 ASME A112.18.1/CSA B125.1.

LAVATORY FAUCET OR LAVATORY FAUCET REPLACEMENT AERATOR. A lavatory faucet or lavatory faucet replacement aerator that allows a flow of no more than 1.2 gallons per minute at a pressure of 60 pounds per square inch and is listed to the WaterSense High Efficiency Lavatory Faucet Specification.

LANDSCAPE IRRIGATION.

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

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.

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.

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.

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.

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

SHOWER HEAD. A shower head 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 U.S. Department of Energy definition for showerhead.

**Chapter 6, Section 604.4 Maximum Flow and Water Consumption. Revise Section 604.4 to read as follows:**

**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 consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4.**

**Exceptions:**

1. **Blowout design water closets having a water consumption not greater than 3 ½ gallons (13 L) per flushing cycle.**
2. **Vegetable sprays.**
3. **Clinical sinks having a water consumption not greater than 4 ½ gallons (17 L) per flushing cycle.**
4. **Laundry tray sinks and service sinks.**
5. **Emergency showers and eye wash stations.**

**TABLE 604.4**

**MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS**

<b><u>PLUMBING FIXTURE OR FIXTURE FITTING</u></b>	<b><u>MAXIMUM FLOW RATE OR QUANTITY<sup>b</sup></u></b>
<b><u>Lavatory faucet and replacement aerators, private</u></b>	<b><u>WaterSense Labeled &amp; 1.2 gpm at 60 psi<sup>f</sup></u></b>
<b><u>Lavatory faucet, public (metering)</u></b>	<b><u>0.25 gallon per metering cycle</u></b>
<b><u>Lavatory, public (other than metering)</u></b>	<b><u>0.5 gpm at 60 psi</u></b>
<b><u>Showerhead<sup>a</sup></u></b>	<b><u>WaterSense Labeled &amp; 2.0 gpm at 80 psi<sup>f</sup></u></b>
<b><u>Kitchen faucet and replacement aerators</u></b>	<b><u>1.8 gpm at 60 psi<sup>f, g</sup></u></b>

<u>Urinal</u>	<u>0.5 gallon per flushing cycle<sup>f</sup></u>
<u>Water closet</u>	<u>1.28 gallons per flushing cycle<sup>c, d, e, f</sup></u>

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

1 pound per square inch = 6.895 kPa.

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 shower head individually meets the maximum flow rate, the WaterSense requirements, and the U.S. Department definition of showerhead. However, multiple shower heads are not recommended for water efficiency purposes.

b. Consumption tolerances shall be determined from referenced standards.

c. For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.

d. For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.

e. For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.

f. See 2020 GA Amendment to Section 301.1.2 ‘Waiver from requirements of high efficiency plumbing fixtures’.

g. 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.

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

604.4.2 Cooling Tower Water Efficiency.

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

604.4.2.2 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.

604.4.2.3 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 150 mg/L. Exception: Where any of the following conditions of the basin water are present: total suspended solids exceed 25 ppm, CaCO<sub>3</sub> exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.

**604.4.3 Landscape Irrigation System Efficiency Requirements.** The requirements in Section 604.4.3 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. Nothing in this Code or this Section 604.4.3 is intended to require that landscape irrigation systems must be installed at all premises. The landscape irrigation efficiency requirements in this Section 604.4.3 apply only when someone voluntarily chooses, or is otherwise required by some requirement beyond this Code, to install a landscape irrigation system on premises.

**604.4.3.1 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.**

**604.4.3.2 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.

Chapter 13 NONPOTABLE WATER SYSTEMS, Section 1304 Reclaimed Water Systems. 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.

Appendix E, Section E101.1.2. 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.

Section 4. - Repairs, renovations and additions. Reserved

~~The requirements of section 18-102 shall apply to any residential construction initiated after July 1, 1991, and to any commercial construction initiated after July 1, 1992, which involves the repair or renovation of or addition to any existing building when such repair or renovation of or addition to such existing building includes replacement of toilets or showers or both.~~

Section 5. Exemptions.

- (a) New construction and the repair or renovation of an existing building shall be exempt from the requirements of sections 18-102—18-104 when:
- (1) The repair or renovation of the existing building does not include the replacement of the plumbing or sewage system servicing toilets, faucets or showerheads within such existing buildings;
  - (2) When such plumbing or sewage system within such existing building, because of its capacity, design, or installation, would not function properly if the toilets, faucets or showerheads required by this article were installed;
  - (3) Such system is a well or gravity flow from a spring and is owned privately by an individual for use in such individual's personal residence; or
  - (4) Units to be installed are:
    - a. Specifically designed for use by ~~the handicapped~~ **persons with disabilities**;
    - b. Specifically designed to withstand unusual abuse or installation in a penal institution; or
    - c. Toilets for juveniles.
- (b) The owner, or his agent, of a building undergoing new construction or repair or renovation who is entitled to an exemption as specified in subsections (a)(2), (a)(3) or (a)(4) of this section shall obtain the exemption ~~by applying at the office of the county director of planning. A fee of \$25.00 shall be charged for the inspection and issuance of such exemption.~~ **from the Director of the Department of Building and Economic Development or from his or her designee.**

Section 6. Enforcement; penalty.

- (a) This article shall be enforced by the county sheriff and ~~county department of planning~~ **the Department of Building and Economic Development**. Citations for violations may be issued by the director of the ~~county planning and community development department~~ **Department of Building and Economic Development** or **from his or her** designee and the county sheriff.
- (b) Any person violating this article shall be tried before the magistrate of the county. Upon conviction, a violation of this article may be punished as provided in section 1-12.
- (c) Notwithstanding any of the foregoing, abatement of any nuisance shall be handled as authorized and using the procedures established in article VIII of this chapter.



# GEORGIA DEPARTMENT OF COMMUNITY AFFAIRS

## LOCAL CODE AMENDMENT FORM (For Local Government Use Only)

Item # :	(For DCA use only)	Page:	1	of	8	
Local Government:	Forsyth County Board of Commissioners	Date:	July 11 <sup>th</sup> , 2023			
Official's Name and Title:	Jake Hill, Deputy Director	Phone:	770-886-2772			
Address:	110 East Main St, Suite 100 Cumming GA 30040	Fax:				
		Email:	jchill@forsythco.com			
Title of Code Book:	International Plumbing Code	Code Book Edition:	2018	Code Section:	Chapter 13, Section 1304	
CHECK ONE:	<input checked="" type="checkbox"/>	Revise section to read as follows:		<input type="checkbox"/>	Add new section to read as follows:	
	<input type="checkbox"/>	Delete section and substitute the following:		<input type="checkbox"/>	Delete without substitution:	
<del>LINE THROUGH MATERIAL TO BE DELETED:</del>				<u>UNDERLINE MATERIAL TO BE ADDED</u>		

Code section with strike through and underline:

**Chapter 13 NONPOTABLE WATER SYSTEMS, Section 1304 Reclaimed Water Systems.** 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~~facility 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.

Complete ordinance section containing local amendment:

ARTICLE IV. - FLOW RATE RESTRICTIONS ON PLUMBING FIXTURES<sup>141</sup>

Section 1. 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* means any type of building other than residential.

*Construction* means the erection of a new building or the alteration of an existing building in connection with its repair or renovation or in connection with making an addition to an existing building and shall include the replacement of a malfunctioning, unserviceable, or obsolete faucet, showerhead, toilet, or urinal in an existing building.

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

Section 2. - ~~Restrictions for residential buildings.~~ **Applicability.**

~~On or after July 1, 1991, no construction may be initiated within the unincorporated portions of the county for any residential building of any type which:~~

- ~~(1) — Employs a gravity tank type, flushometer valve, or flushometer tank toilet that uses more than an average of 1.6 gallons of water per flush; provided, however, this subsection shall not be applicable to one piece toilets until July 1, 1992;~~
- ~~(2) — Employs a shower head that allows a flow of more than an average of 2.5 gallons of water per minute at 60 pounds per square inch of pressure;~~
- ~~(3) — Employs a urinal that uses more than an average of 1.0 gallons of water per flush;~~
- ~~(4) — Employs a lavatory faucet or lavatory replacement aerator that allows a flow of more than 2.0 gallons of water per minute; or~~
- ~~(5) — Employs a kitchen faucet or kitchen replacement aerator that allows a flow of more than 2.5 gallons of water per minute.~~

**Effective January 1, 2024, where new construction, or any alterations, repairs or additions to existing buildings or plumbing systems, or the installation or modification of an irrigation system requiring a permit occurs, new and replacement plumbing fixtures and equipment shall comply with the requirements of the Georgia State Minimum Standard Plumbing Code as amended by the State of Georgia and Forsyth County.**

Section 3. - ~~Commercial building construction.~~ **Amendment to the Georgia State Minimum Standard Plumbing Code**

~~On or after July 1, 1992, there shall be no construction of any commercial building initiated within the unincorporated portions of the county for any commercial building of any type which does not meet the requirements of section 18-102(1) — (5).~~

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**LAVATORY FAUCET OR LAVATORY FAUCET REPLACEMENT AERATOR.** A lavatory faucet or lavatory faucet replacement aerator that allows a flow of no more than 1.2 gallons per minute at a pressure of 60 pounds per square inch and is listed to the WaterSense High Efficiency Lavatory Faucet Specification.

**LANDSCAPE IRRIGATION.**

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

**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.

**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.

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**SHOWER HEAD.** A shower head 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 U.S. Department of Energy definition for showerhead.

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**Exceptions:**

- 1. Blowout design water closets having a water consumption not greater than 3 ½ gallons (13 L) per flushing cycle.**
- 2. Vegetable sprays.**
- 3. Clinical sinks having a water consumption not greater than 4 ½ gallons (17 L) per flushing cycle.**
- 4. Laundry tray sinks and service sinks.**

**5. Emergency showers and eye wash stations.**

**TABLE 604.4**

**MAXIMUM FLOW RATES AND CONSUMPTION FOR  
PLUMBING FIXTURES AND FIXTURE FITTINGS**

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

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

**1 pound per square inch = 6.895 kPa.**

**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 shower head individually meets the maximum flow rate, the WaterSense requirements, and the U.S. Department definition of showerhead. However, multiple shower heads are not recommended for water efficiency purposes.**

**b. Consumption tolerances shall be determined from referenced standards.**

**c. For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.**

**d. For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.**

**e. For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.**

**f. See 2020 GA Amendment to Section 301.1.2 'Waiver from requirements of high efficiency plumbing fixtures'.**

**g. 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.**

**604.4.1 Clothes Washers. Residential clothes washers shall be in accordance with the Energy Star program requirements.**

**604.4.2 Cooling Tower Water Efficiency.**

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

**604.4.2.2 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.**

**604.4.2.3 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, CaCO<sub>3</sub> exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.**

**604.4.3 Landscape Irrigation System Efficiency Requirements. The requirements in Section 604.4.3 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. Nothing in this Code or this Section 604.4.3 is intended to require that landscape irrigation systems must be installed at all premises. The landscape irrigation efficiency requirements in this Section 604.4.3 apply only when someone voluntarily chooses, or is otherwise required by some requirement beyond this Code, to install a landscape irrigation system on premises.**

**604.4.3.1 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.**

**604.4.3.2 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.

Chapter 13 NONPOTABLE WATER SYSTEMS, Section 1304 Reclaimed Water Systems. 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.

Appendix E, Section E101.1.2. 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.

Section 4. - ~~Repairs, renovations and additions.~~ **Reserved**

~~The requirements of section 18-102 shall apply to any residential construction initiated after July 1, 1991, and to any commercial construction initiated after July 1, 1992, which involves the repair or renovation of or addition to any existing building when such repair or renovation of or addition to such existing building includes replacement of toilets or showers or both.~~

Section 5. Exemptions.

- (a) New construction and the repair or renovation of an existing building shall be exempt from the requirements of sections 18-102—18-104 when:
- (1) The repair or renovation of the existing building does not include the replacement of the plumbing or sewage system servicing toilets, faucets or showerheads within such existing buildings;
  - (2) When such plumbing or sewage system within such existing building, because of its capacity, design, or installation, would not function properly if the toilets, faucets or showerheads required by this article were installed;
  - (3) Such system is a well or gravity flow from a spring and is owned privately by an individual for use in such individual's personal residence; or
  - (4) Units to be installed are:
    - a. Specifically designed for use by ~~the handicapped~~ **persons with disabilities**;
    - b. Specifically designed to withstand unusual abuse or installation in a penal institution; or
    - c. Toilets for juveniles.
- (b) The owner, or his agent, of a building undergoing new construction or repair or renovation who is entitled to an exemption as specified in subsections (a)(2), (a)(3) or (a)(4) of this section shall obtain the exemption ~~by applying at the office of the county director of planning. A fee of \$25.00 shall be charged for the inspection and issuance of such exemption.~~ **from the Director of the Department of Building and Economic Development or from his or her designee.**

Section 6. Enforcement; penalty.

- (a) This article shall be enforced by the county sheriff and ~~county department of planning~~ **the Department of Building and Economic Development.** Citations for violations may be issued by the director of the ~~county planning and community development department~~ **Department of Building and Economic Development** or ~~from~~ **his or her** designee and the county sheriff.
- (b) Any person violating this article shall be tried before the magistrate of the county. Upon conviction, a violation of this article may be punished as provided in section 1-12.
- (c) Notwithstanding any of the foregoing, abatement of any nuisance shall be handled as authorized and using the procedures established in article VIII of this chapter.

**GEORGIA DEPARTMENT OF  
COMMUNITY AFFAIRS**

**LOCAL CODE AMENDMENT FORM  
INSTRUCTION SHEET**

1. A letter on official letterhead must accompany this form requesting the Department of Community Affairs to review the proposed local amendment(s) in accordance with OCGA 8-2-25, and in that letter all other required submitted documentation should be included as required by OCGA 8-2-25.
2. Please use a separate form for each proposed local code amendment.
3. "Sheet   1   of       " indicates the number of sheets for each individual proposed code amendment, not the number of sheets for all the amendments submitted. If all of the amendment or ordinance section will not fit in the space provided on form please submit remaining parts on additional sheet.
4. Identify the code and code section that is the subject of the proposed local amendment.
5. The local government official's name, address, telephone, fax and email address must be filled out completely.
6. Be sure to indicate the type of recommended action in the space referred to as "Check One".
7. If the proposed amendment revises the language of the code section, deletes the entire code section, or deletes the entire code section and offers substitute language, include the language of the present code section and line through the language to be deleted and underline the language of the proposed amendment..
8. **All proposed local code amendments must be typed and completed in full and the original submitted to the Codes and Industrialized Buildings Section of the Department of Community Affairs.** An incomplete form will be sent back to the proponent for completion.
9. Information concerning submittal of code amendments can be obtained by contacting the Codes and Industrialized Buildings Section at (404) 679-3118. All proposed local code amendments should be submitted to:

The Department of Community Affairs  
Codes and Industrialized Buildings Section  
60 Executive Park South, NE  
Atlanta, Georgia 30329-2231

# GEORGIA DEPARTMENT OF COMMUNITY AFFAIRS

## LOCAL CODE AMENDMENT FORM

(For Local Government Use Only)

Item # :	(For DCA use only)			Page:	1	of	11
Local Government:	Forsyth County Board of Commissioners			Date:	July 11 <sup>th</sup> , 2023		
Official's Name and Title:	Jake Hill, Deputy Director			Phone:	770-886-2772		
Address:	110 East Main St, Suite 100 Cumming GA 30040			Fax:			
				Email:	jchill@forsythco.com		
Title of Code Book:	International Plumbing Code	Code Book Edition:	2018	Code Section:	Chapter 6, Section 604.4		
CHECK ONE:	<input checked="" type="checkbox"/>	Revise section to read as follows:		<input type="checkbox"/>	Add new section to read as follows:		
	<input type="checkbox"/>	Delete section and substitute the following:		<input type="checkbox"/>	Delete without substitution:		
LINE THROUGH MATERIAL TO BE DELETED:				<u>UNDERLINE MATERIAL TO BE ADDED</u>			



Code section with strike through and underline:

**Chapter 6, Section 604.4 Maximum Flow and Water Consumption.** Revise Section 604.4 to read as follows:

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.

**Exceptions:**

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

TABLE 604.4  
MAXIMUM FLOW RATES AND CONSUMPTION FOR  
PLUMBING FIXTURES AND FIXTURE FITTINGS

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY <sup>b</sup>
Lavatory <u>faucet and replacement aerators</u> , private	<u>WaterSense Labeled &amp; 1.25</u> gpm at 60 psi <sup>f</sup>
Lavatory faucet, public (metering)	0.25 gallon per metering cycle
Lavatory, public (other than metering)	0.5 gpm at 60 psi
Showerhead <sup>a</sup>	<u>WaterSense Labeled &amp; 2.5</u> gpm at <u>80</u> psi <sup>f</sup>
<u>Kitchen Sink faucet and replacement aerators</u>	<u>2.0</u> gpm at 60 psi <sup>f,g</sup>
Urinal	0.5 gallon per flushing cycle <sup>f</sup>
Water closet	1.28 gallons per flushing cycle <sup>c, d, e, f</sup>

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

a. 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.

b. Consumption tolerances shall be determined from referenced standards.



- c. For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.
- d. For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.
- e. For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.
- f. See 2014 GA Amendment to Section 301.1.2 'Waiver from requirements of high efficiency plumbing fixtures'.
- g. 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.

**604.4.1 Clothes Washers.** Residential clothes washers shall be in accordance with the Energy Star program requirements.

#### **604.4.2 Cooling Tower Water Efficiency.**

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

**604.4.2.2 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.

**604.4.2.3 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, CaCO<sub>3</sub> exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.

**604.4.3 Landscape Irrigation System Efficiency Requirements.** The requirements in Section 604.4.3 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. Nothing in this Code or this Section 604.4.3 is intended to require that landscape irrigation systems must be installed at all premises. The landscape irrigation efficiency requirements in this Section 604.4.3 apply only when someone voluntarily chooses, or is otherwise required by some requirement beyond this Code, to install a landscape irrigation system on premises.

**604.4.3.1 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.

**604.4.3.2 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.

Complete ordinance section containing local amendment:

ARTICLE IV. - FLOW RATE RESTRICTIONS ON PLUMBING FIXTURES<sup>141</sup>

Section 1. 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* means any type of building other than residential.

*Construction* means the erection of a new building or the alteration of an existing building in connection with its repair or renovation or in connection with making an addition to an existing building and shall include the replacement of a malfunctioning, unserviceable, or obsolete faucet, showerhead, toilet, or urinal in an existing building.

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

Section 2. - ~~Restrictions for residential buildings.~~ **Applicability.**

~~On or after July 1, 1991, no construction may be initiated within the unincorporated portions of the county for any residential building of any type which:~~

- ~~(1) — Employs a gravity tank type, flushometer valve, or flushometer tank toilet that uses more than an average of 1.6 gallons of water per flush; provided, however, this subsection shall not be applicable to one piece toilets until July 1, 1992;~~
- ~~(2) — Employs a shower head that allows a flow of more than an average of 2.5 gallons of water per minute at 60 pounds per square inch of pressure;~~
- ~~(3) — Employs a urinal that uses more than an average of 1.0 gallons of water per flush;~~
- ~~(4) — Employs a lavatory faucet or lavatory replacement aerator that allows a flow of more than 2.0 gallons of water per minute; or~~
- ~~(5) — Employs a kitchen faucet or kitchen replacement aerator that allows a flow of more than 2.5 gallons of water per minute.~~

**Effective January 1, 2024, where new construction, or any alterations, repairs or additions to existing buildings or plumbing systems, or the installation or modification of an irrigation system requiring a permit occurs, new and replacement plumbing fixtures and equipment shall comply with the requirements of the Georgia State Minimum Standard Plumbing Code as amended by the State of Georgia and Forsyth County.**

Section 3. - ~~Commercial building construction.~~ **Amendment to the Georgia State Minimum Standard Plumbing Code**

~~On or after July 1, 1992, there shall be no construction of any commercial building initiated within the unincorporated portions of the county for any commercial building of any type which does not meet the requirements of section 18-102(1) — (5).~~

**Effective January 1, 2024, the Georgia State Minimum Standard Plumbing Code is amended by Forsyth County as follows:**

**Chapter 2, Section 202 General Definitions. Add in alphabetical order and revise, as applicable, the following definitions:**

**KITCHEN FAUCET OR KITCHEN FAUCET REPLACEMENT AERATOR. 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 ASME A112.18.1/CSA B125.1.**

**LAVATORY FAUCET OR LAVATORY FAUCET REPLACEMENT AERATOR.** A lavatory faucet or lavatory faucet replacement aerator that allows a flow of no more than 1.2 gallons per minute at a pressure of 60 pounds per square inch and is listed to the WaterSense High Efficiency Lavatory Faucet Specification.

### **LANDSCAPE IRRIGATION.**

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

**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.

**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.

**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.

**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.

**WaterSense irrigation controller.** 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.** A sprinkler body with integral pressure regulation, generating optimal water spray and coverage labeled under the U.S. Environmental Protection Agency's WaterSense program.

**SHOWER HEAD.** A shower head 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 U.S. Department of Energy definition for showerhead.

**Chapter 6, Section 604.4 Maximum Flow and Water Consumption.** Revise Section 604.4 to read as follows:

**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 consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4.**

#### **Exceptions:**

- 1. Blowout design water closets having a water consumption not greater than 3 ½ gallons (13 L) per flushing cycle.**
- 2. Vegetable sprays.**
- 3. Clinical sinks having a water consumption not greater than 4 ½ gallons (17 L) per flushing cycle.**
- 4. Laundry tray sinks and service sinks.**



5. Emergency showers and eye wash stations.

**TABLE 604.4**

**MAXIMUM FLOW RATES AND CONSUMPTION FOR  
PLUMBING FIXTURES AND FIXTURE FITTINGS**

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

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

**1 pound per square inch = 6.895 kPa.**

**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 shower head individually meets the maximum flow rate, the WaterSense requirements, and the U.S. Department definition of showerhead. However, multiple shower heads are not recommended for water efficiency purposes.**

**b. Consumption tolerances shall be determined from referenced standards.**

**c. For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.**

**d. For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.**

**e. For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.**

**f. See 2020 GA Amendment to Section 301.1.2 ‘Waiver from requirements of high efficiency plumbing fixtures’.**

**g. 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.**

**604.4.1 Clothes Washers. Residential clothes washers shall be in accordance with the Energy Star program requirements.**

**604.4.2 Cooling Tower Water Efficiency.**

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

**604.4.2.2 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.**

**604.4.2.3 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, CaCO<sub>3</sub> exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.**

**604.4.3 Landscape Irrigation System Efficiency Requirements. The requirements in Section 604.4.3 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. Nothing in this Code or this Section 604.4.3 is intended to require that landscape irrigation systems must be installed at all premises. The landscape irrigation efficiency requirements in this Section 604.4.3 apply only when someone voluntarily chooses, or is otherwise required by some requirement beyond this Code, to install a landscape irrigation system on premises.**

**604.4.3.1 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.**
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- 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.**
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  - 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.

Chapter 13 NONPOTABLE WATER SYSTEMS, Section 1304 Reclaimed Water Systems. 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.

Appendix E, Section E101.1.2. 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.

Section 4. - ~~Repairs, renovations and additions.~~ **Reserved**

~~The requirements of section 18-102 shall apply to any residential construction initiated after July 1, 1991, and to any commercial construction initiated after July 1, 1992, which involves the repair or renovation of or addition to any existing building when such repair or renovation of or addition to such existing building includes replacement of toilets or showers or both.~~

Section 5. Exemptions.

- (a) New construction and the repair or renovation of an existing building shall be exempt from the requirements of sections 18-102—18-104 when:
- (1) The repair or renovation of the existing building does not include the replacement of the plumbing or sewage system servicing toilets, faucets or showerheads within such existing buildings;
  - (2) When such plumbing or sewage system within such existing building, because of its capacity, design, or installation, would not function properly if the toilets, faucets or showerheads required by this article were installed;
  - (3) Such system is a well or gravity flow from a spring and is owned privately by an individual for use in such individual's personal residence; or
  - (4) Units to be installed are:
    - a. Specifically designed for use by ~~the handicapped~~ **persons with disabilities**;
    - b. Specifically designed to withstand unusual abuse or installation in a penal institution; or
    - c. Toilets for juveniles.
- (b) The owner, or his agent, of a building undergoing new construction or repair or renovation who is entitled to an exemption as specified in subsections (a)(2), (a)(3) or (a)(4) of this section shall obtain the exemption ~~by applying at the office of the county director of planning. A fee of \$25.00 shall be charged for the inspection and issuance of such exemption.~~ **from the Director of the Department of Building and Economic Development or from his or her designee.**

Section 6. Enforcement; penalty.

- (a) This article shall be enforced by the county sheriff and ~~county department of planning~~ **the Department of Building and Economic Development**. Citations for violations may be issued by the director of the ~~county planning and community development department~~ **Department of Building and Economic Development** or **from his or her** designee and the county sheriff.
- (b) Any person violating this article shall be tried before the magistrate of the county. Upon conviction, a violation of this article may be punished as provided in section 1-12.
- (c) Notwithstanding any of the foregoing, abatement of any nuisance shall be handled as authorized and using the procedures established in article VIII of this chapter.



**GEORGIA DEPARTMENT OF  
COMMUNITY AFFAIRS**

**LOCAL CODE AMENDMENT FORM  
INSTRUCTION SHEET**

1. A letter on official letterhead must accompany this form requesting the Department of Community Affairs to review the proposed local amendment(s) in accordance with OCGA 8-2-25, and in that letter all other required submitted documentation should be included as required by OCGA 8-2-25.
2. Please use a separate form for each proposed local code amendment.
3. "Sheet   1   of       " indicates the number of sheets for each individual proposed code amendment, not the number of sheets for all the amendments submitted. If all of the amendment or ordinance section will not fit in the space provided on form please submit remaining parts on additional sheet.
4. Identify the code and code section that is the subject of the proposed local amendment.
5. The local government official's name, address, telephone, fax and email address must be filled out completely.
6. Be sure to indicate the type of recommended action in the space referred to as "Check One".
7. If the proposed amendment revises the language of the code section, deletes the entire code section, or deletes the entire code section and offers substitute language, include the language of the present code section and line through the language to be deleted and underline the language of the proposed amendment..
8. **All proposed local code amendments must be typed and completed in full and the original submitted to the Codes and Industrialized Buildings Section of the Department of Community Affairs.** An incomplete form will be sent back to the proponent for completion.
9. Information concerning submittal of code amendments can be obtained by contacting the Codes and Industrialized Buildings Section at (404) 679-3118. All proposed local code amendments should be submitted to:

The Department of Community Affairs  
Codes and Industrialized Buildings Section  
60 Executive Park South, NE  
Atlanta, Georgia 30329-2231

# GEORGIA DEPARTMENT OF COMMUNITY AFFAIRS

## LOCAL CODE AMENDMENT FORM (For Local Government Use Only)

Item # :	(For DCA use only)	Page:	1	of	9	
Local Government:	Forsyth County Board of Commissioners	Date:	July 11 <sup>th</sup> , 2023			
Official's Name and Title:	Jake Hill, Deputy Director	Phone:	770-886-2772			
Address:	110 East Main St, Suite 100 Cumming GA 30040	Fax:				
		Email:	jchill@forsythco.com			
Title of Code Book:	International Plumbing Code	Code Book Edition:	2018	Code Section:	Chapter 2, Section 202	
CHECK ONE:	<input checked="" type="checkbox"/>	Revise section to read as follows:		<input type="checkbox"/>	Add new section to read as follows:	
	<input type="checkbox"/>	Delete section and substitute the following:		<input type="checkbox"/>	Delete without substitution:	
LINE THROUGH MATERIAL TO BE DELETED:				<u>UNDERLINE MATERIAL TO BE ADDED</u>		

Code section with strike through and underline :

**Chapter 2, Section 202 General Definitions.** Add in alphabetical order and revise, as applicable, the following definitions:

**KITCHEN FAUCET OR KITCHEN FAUCET REPLACEMENT AERATOR.** A kitchen faucet or kitchen faucet replacement aerator that allows a flow of no more than 1.82-0 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.** A lavatory faucet or lavatory faucet replacement aerator that allows a flow of no more than 1.25 gallons per minute at a pressure of 60 pounds per square inch and is listed to the WaterSense High Efficiency Lavatory Faucet Specification.

### **LANDSCAPE IRRIGATION.**

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

**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.

**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.

**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.

**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.

**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.

**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.

**SHOWER HEAD.** A shower head that allows a flow of no more than the average of 2.05 gallons of water per minute at 860 pounds per square inch of pressure, and is listed in the WaterSense Specification for Showerheads, and meets the US Department Definition of Energy definition of showerhead.

Complete ordinance section containing local amendment:

ARTICLE IV. - FLOW RATE RESTRICTIONS ON PLUMBING FIXTURES<sup>(4)</sup>

Section 1. 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* means any type of building other than residential.

*Construction* means the erection of a new building or the alteration of an existing building in connection with its repair or renovation or in connection with making an addition to an existing building and shall include the replacement of a malfunctioning, unserviceable, or obsolete faucet, showerhead, toilet, or urinal in an existing building.

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

Section 2. - Restrictions for residential buildings. Applicability.

~~On or after July 1, 1991, no construction may be initiated within the unincorporated portions of the county for any residential building of any type which:~~

- ~~(1) — Employs a gravity tank type, flushometer valve, or flushometer tank toilet that uses more than an average of 1.6 gallons of water per flush; provided, however, this subsection shall not be applicable to one-piece toilets until July 1, 1992;~~
- ~~(2) — Employs a shower head that allows a flow of more than an average of 2.5 gallons of water per minute at 60 pounds per square inch of pressure;~~
- ~~(3) — Employs a urinal that uses more than an average of 1.0 gallons of water per flush;~~
- ~~(4) — Employs a lavatory faucet or lavatory replacement aerator that allows a flow of more than 2.0 gallons of water per minute; or~~
- ~~(5) — Employs a kitchen faucet or kitchen replacement aerator that allows a flow of more than 2.5 gallons of water per minute.~~

**Effective January 1, 2024, where new construction, or any alterations, repairs or additions to existing buildings or plumbing systems, or the installation or modification of an irrigation system requiring a permit occurs, new and replacement plumbing fixtures and equipment shall comply with the requirements of the Georgia State Minimum Standard Plumbing Code as amended by the State of Georgia and Forsyth County.**

Section 3. - Commercial building construction. Amendment to the Georgia State Minimum Standard Plumbing Code

~~On or after July 1, 1992, there shall be no construction of any commercial building initiated within the unincorporated portions of the county for any commercial building of any type which does not meet the requirements of section 18-102(1) — (5).~~

**Effective January 1, 2024, the Georgia State Minimum Standard Plumbing Code is amended by Forsyth County as follows:**

**Chapter 2, Section 202 General Definitions. Add in alphabetical order and revise, as applicable, the following definitions:**

**KITCHEN FAUCET OR KITCHEN FAUCET REPLACEMENT AERATOR. 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 ASME A112.18.1/CSA B125.1.**

**LAVATORY FAUCET OR LAVATORY FAUCET REPLACEMENT AERATOR. A lavatory faucet or lavatory faucet replacement aerator that allows a flow of no more than 1.2 gallons per minute at a pressure of 60 pounds per square inch and is listed to the WaterSense High Efficiency Lavatory Faucet Specification.**

### **LANDSCAPE IRRIGATION.**

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

**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.**

**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.**

**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.**

**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.**

**WaterSense irrigation controller. 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. A sprinkler body with integral pressure regulation, generating optimal water spray and coverage labeled under the U.S. Environmental Protection Agency's WaterSense program.**

**SHOWER HEAD. A shower head 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 U.S. Department of Energy definition for showerhead.**

**Chapter 6, Section 604.4 Maximum Flow and Water Consumption. Revise Section 604.4 to read as follows:**

**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 consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4.**

#### **Exceptions:**

- 1. Blowout design water closets having a water consumption not greater than 3 ½ gallons (13 L) per flushing cycle.**
- 2. Vegetable sprays.**
- 3. Clinical sinks having a water consumption not greater than 4 ½ gallons (17 L) per flushing cycle.**
- 4. Laundry tray sinks and service sinks.**

5. Emergency showers and eye wash stations.

**TABLE 604.4**

**MAXIMUM FLOW RATES AND CONSUMPTION FOR  
PLUMBING FIXTURES AND FIXTURE FITTINGS**

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

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

**1 pound per square inch = 6.895 kPa.**

**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 shower head individually meets the maximum flow rate, the WaterSense requirements, and the U.S. Department definition of showerhead. However, multiple shower heads are not recommended for water efficiency purposes.**

**b. Consumption tolerances shall be determined from referenced standards.**

**c. For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.**

**d. For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.**



**e. For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.**

**f. See 2020 GA Amendment to Section 301.1.2 'Waiver from requirements of high efficiency plumbing fixtures'.**

**g. 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.**

**604.4.1 Clothes Washers. Residential clothes washers shall be in accordance with the Energy Star program requirements.**

**604.4.2 Cooling Tower Water Efficiency.**

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

**604.4.2.2 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.**

**604.4.2.3 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, CaCO<sub>3</sub> exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.**

**604.4.3 Landscape Irrigation System Efficiency Requirements. The requirements in Section 604.4.3 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. Nothing in this Code or this Section 604.4.3 is intended to require that landscape irrigation systems must be installed at all premises. The landscape irrigation efficiency requirements in this Section 604.4.3 apply only when someone voluntarily chooses, or is otherwise required by some requirement beyond this Code, to install a landscape irrigation system on premises.**

**604.4.3.1 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.**

**604.4.3.2 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.

Chapter 13 NONPOTABLE WATER SYSTEMS, Section 1304 Reclaimed Water Systems. 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.

Appendix E, Section E101.1.2. 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.



Section 4. - ~~Repairs, renovations and additions.~~ **Reserved**

~~The requirements of section 18-102 shall apply to any residential construction initiated after July 1, 1991, and to any commercial construction initiated after July 1, 1992, which involves the repair or renovation of or addition to any existing building when such repair or renovation of or addition to such existing building includes replacement of toilets or showers or both.~~

Section 5. Exemptions.

(a) New construction and the repair or renovation of an existing building shall be exempt from the requirements of sections 18-102—18-104 when:

- (1) The repair or renovation of the existing building does not include the replacement of the plumbing or sewage system servicing toilets, faucets or showerheads within such existing buildings;
- (2) When such plumbing or sewage system within such existing building, because of its capacity, design, or installation, would not function properly if the toilets, faucets or showerheads required by this article were installed;
- (3) Such system is a well or gravity flow from a spring and is owned privately by an individual for use in such individual's personal residence; or
- (4) Units to be installed are:
  - a. Specifically designed for use by ~~the handicapped~~ **persons with disabilities**;
  - b. Specifically designed to withstand unusual abuse or installation in a penal institution; or
  - c. Toilets for juveniles.

(b) The owner, or his agent, of a building undergoing new construction or repair or renovation who is entitled to an exemption as specified in subsections (a)(2), (a)(3) or (a)(4) of this section shall obtain the exemption ~~by applying at the office of the county director of planning. A fee of \$25.00 shall be charged for the inspection and issuance of such exemption.~~ **from the Director of the Department of Building and Economic Development or from his or her designee.**

Section 6. Enforcement; penalty.

- (a) This article shall be enforced by the county sheriff and ~~county department of planning~~ **the Department of Building and Economic Development.** Citations for violations may be issued by the director of the ~~county planning and community development department~~ **Department of Building and Economic Development** or **from his or her** designee and the county sheriff.
- (b) Any person violating this article shall be tried before the magistrate of the county. Upon conviction, a violation of this article may be punished as provided in section 1-12.
- (c) Notwithstanding any of the foregoing, abatement of any nuisance shall be handled as authorized and using the procedures established in article VIII of this chapter.

**GEORGIA DEPARTMENT OF  
COMMUNITY AFFAIRS**

**LOCAL CODE AMENDMENT FORM  
INSTRUCTION SHEET**

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3. "Sheet 1 of       " indicates the number of sheets for each individual proposed code amendment, not the number of sheets for all the amendments submitted. If all of the amendment or ordinance section will not fit in the space provided on form please submit remaining parts on additional sheet.
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5. The local government official's name, address, telephone, fax and email address must be filled out completely.
6. Be sure to indicate the type of recommended action in the space referred to as "Check One".
7. If the proposed amendment revises the language of the code section, deletes the entire code section, or deletes the entire code section and offers substitute language, include the language of the present code section and line through the language to be deleted and underline the language of the proposed amendment..
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The Department of Community Affairs  
Codes and Industrialized Buildings Section  
60 Executive Park South, NE  
Atlanta, Georgia 30329-2231



# JARRARD & DAVIS, LLP

222 WEBB STREET  
CUMMING, GEORGIA 30040

**KAREN PACHUTA**  
ASSOCIATE  
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PHONE: 678-455-7150  
FAX: 678-455-7149  
WWW.JARRARD-DAVIS.COM

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August 10, 2023

**VIA OVERNIGHT MAIL**

The Department of Community Affairs  
Codes and Industrialized Building Section  
60 Executive Park South, NE  
Atlanta, Georgia 30329-2231

***Re: Forsyth County Ordinance Amendment on Flow Rate Restrictions***

To Whom It May Concern:

Enclosed are proposed amendments to Forsyth County's ordinance on flow rate restrictions for plumbing fixtures. These amendments are being required by the Metropolitan North Georgia Water Planning District. Pursuant to O.C.G.A. § 8-2-25(c)(1), the County is submitting the proposed amendments to the Department for review. The Board of Commissioners intend to adopt the ordinance amendments following the Department's sixty (60) day review period.

Please reach out to our office should you have any questions or edits to the proposed amendment.

Sincerely,

**JARRARD & DAVIS, LLP**

*/s/ Karen Pachuta*

**Karen Pachuta**

**A RESOLUTION  
BY THE BOARD OF COMMISSIONERS OF FORSYTH COUNTY TO  
IMPROVE WATER CONSERVATION RESTRICTIONS RELATED TO FLOW RATE  
RESTRICTIONS ON PLUMBING FIXTURES AND TO PROVIDE A DRAFT  
OF SUCH ORDINANCE CHANGES TO THE GEORGIA DEPARTMENT OF  
COMMUNITY AFFAIRS**

**WHEREAS**, the Constitution of the state of Georgia, approved by the voters of the State in November of 1982, and effective July 1, 1983, provides in Article IX, Section II, Paragraph I thereof, that the governing authority of the county may adopt clearly reasonable ordinances, resolutions and regulations; and

**WHEREAS**, the Board of Commissioners of Forsyth County adopted an ordinance on flow rate restrictions on plumbing fixtures within Forsyth County, Georgia, on March 25, 1991; and

**WHEREAS**, the Metropolitan North Georgia Water Planning District has provided action items to its members, including Forsyth County, to adopt amendments to the Georgia State Minimum Standard Plumbing Code to provide for water efficiency, with such changes being required by January 1, 2024; and

**WHEREAS**, the Board of Commissioners of Forsyth County thus desires to exercise its authority to amend the existing flow rate restriction ordinance as recommended by the Metropolitan North Georgia Water Planning District and adopt the amendment attached hereto as Exhibit A; and

**WHEREAS**, pursuant to O.C.G.A. § 8-2-25(c)(1), proposed amendments to the state minimum standard codes must be provided by the Board of Commissioners of Forsyth County to Georgia Department of Community Affairs sixty (60) days prior to adoption of the amendment; and

**WHEREAS**, pursuant to O.C.G.A. § 8-2-25(c)(2), the Georgia Department of Community Affairs has sixty (60) days after receipt of the proposed amendments to make any recommendations to the proposed amendments.

**NOW THEREFORE**, the Board of Commissioners of Forsyth County, Georgia, hereby resolves as follows:

1. The text attached hereto as Exhibit A is the proposed amendment to the Forsyth Code of Ordinances, with an effective date of January 1, 2024;
2. That this Resolution and proposed text in Exhibit A be promptly provided to the Georgia Department of Community Affairs for its review;

3. That following the sixty (60) day review period of the Georgia Department of Community Affairs, appropriate notice and hearing on the amendments contained herein be carried out according to general and local law.

BE IT RESOLVED this 20<sup>th</sup> day of July, 2023.

**FORSYTH COUNTY BOARD OF COMMISSIONERS**

*Alfred John*

Alfred John, Chairman

*[Signature]*

Laura Semanson, Vice-Chairman

*Cindy Jones Mills*

Cindy Jones Mills, Secretary

*Kerry Hill*

Kerry Hill, Member

*Todd Levent*

Todd Levent, Member

Attest:

*Rhonda P. Howard* 

Clerk to the Board

## EXHIBIT A

### FLOW RATE RESTRICTIONS ON PLUMBING FIXTURES

#### Section 1. 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* means any type of building other than residential.

*Construction* means the erection of a new building or the alteration of an existing building in connection with its repair or renovation or in connection with making an addition to an existing building and shall include the replacement of a malfunctioning, unserviceable, or obsolete faucet, showerhead, toilet, or urinal in an existing building.

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

#### Section 2. - ~~Restrictions for residential buildings.~~ **Applicability.**

~~On or after July 1, 1991, no construction may be initiated within the unincorporated portions of the county for any residential building of any type which:~~

- ~~(1) — Employs a gravity tank type, flushometer valve, or flushometer tank toilet that uses more than an average of 1.6 gallons of water per flush; provided, however, this subsection shall not be applicable to one piece toilets until July 1, 1992;~~
- ~~(2) — Employs a shower head that allows a flow of more than an average of 2.5 gallons of water per minute at 60 pounds per square inch of pressure;~~
- ~~(3) — Employs a urinal that uses more than an average of 1.0 gallons of water per flush;~~
- ~~(4) — Employs a lavatory faucet or lavatory replacement aerator that allows a flow of more than 2.0 gallons of water per minute; or~~
- ~~(5) — Employs a kitchen faucet or kitchen replacement aerator that allows a flow of more than 2.5 gallons of water per minute.~~

**Effective January 1, 2024, where new construction, or any alterations, repairs or additions to existing buildings or plumbing systems, or the installation or modification of an irrigation system requiring a permit occurs, new and replacement plumbing fixtures and equipment shall comply with the requirements of the Georgia State Minimum Standard Plumbing Code as amended by the State of Georgia and Forsyth County.**

#### Section 3. - ~~Commercial building construction.~~ **Amendment to the Georgia State Minimum Standard Plumbing Code**

~~On or after July 1, 1992, there shall be no construction of any commercial building initiated within the unincorporated portions of the county for any commercial building of any type which does not meet the requirements of section 18-102(1) — (5).~~



Effective January 1, 2024, the Georgia State Minimum Standard Plumbing Code is amended by Forsyth County as follows:

Chapter 2, Section 202 General Definitions. Add in alphabetical order and revise, as applicable, the following definitions:

KITCHEN FAUCET OR KITCHEN FAUCET REPLACEMENT AERATOR. 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 ASME A112.18.1/CSA B125.1.

LAVATORY FAUCET OR LAVATORY FAUCET REPLACEMENT AERATOR. A lavatory faucet or lavatory faucet replacement aerator that allows a flow of no more than 1.2 gallons per minute at a pressure of 60 pounds per square inch and is listed to the WaterSense High Efficiency Lavatory Faucet Specification.

#### LANDSCAPE IRRIGATION.

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

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.

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.

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.

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.

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

SHOWER HEAD. A shower head 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 U.S. Department of Energy definition for showerhead.

Chapter 6, Section 604.4 Maximum Flow and Water Consumption. Revise Section 604.4 to read as follows:

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 consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4.

Exceptions:

1. Blowout design water closets having a water consumption not greater than 3 ½ gallons (13 L) per flushing cycle.
2. Vegetable sprays.
3. Clinical sinks having a water consumption not greater than 4 ½ gallons (17 L) per flushing cycle.
4. Laundry tray sinks and service sinks.
5. Emergency showers and eye wash stations.

TABLE 604.4

MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS

<u>PLUMBING FIXTURE OR FIXTURE FITTING</u>	<u>MAXIMUM FLOW RATE OR QUANTITY<sup>b</sup></u>
<u>Lavatory faucet and replacement aerators, private</u>	<u>WaterSense Labeled &amp; 1.2 gpm at 60 psi<sup>f</sup></u>
<u>Lavatory faucet, public (metering)</u>	<u>0.25 gallon per metering cycle</u>
<u>Lavatory, public (other than metering)</u>	<u>0.5 gpm at 60 psi</u>
<u>Showerhead<sup>a</sup></u>	<u>WaterSense Labeled &amp; 2.0 gpm at 80 psi<sup>f</sup></u>
<u>Kitchen faucet and replacement aerators</u>	<u>1.8 gpm at 60 psi<sup>f, g</sup></u>

<u>Urinal</u>	<u>0.5 gallon per flushing cycle<sup>f</sup></u>
<u>Water closet</u>	<u>1.28 gallons per flushing cycle<sup>c, d, e, f</sup></u>

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

**1 pound per square inch = 6.895 kPa.**

**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 shower head individually meets the maximum flow rate, the WaterSense requirements, and the U.S. Department definition of showerhead. However, multiple shower heads are not recommended for water efficiency purposes.**

**b. Consumption tolerances shall be determined from referenced standards.**

**c. For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.**

**d. For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.**

**e. For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.**

**f. See 2020 GA Amendment to Section 301.1.2 ‘Waiver from requirements of high efficiency plumbing fixtures’.**

**g. 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.**

**604.4.1 Clothes Washers. Residential clothes washers shall be in accordance with the Energy Star program requirements.**

**604.4.2 Cooling Tower Water Efficiency.**

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

**604.4.2.2 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.**

**604.4.2.3 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 150 mg/L. Exception: Where any of the following conditions of the basin water are present: total suspended solids exceed 25 ppm, CaCO<sub>3</sub> exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.**

**604.4.3 Landscape Irrigation System Efficiency Requirements.** The requirements in Section 604.4.3 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. Nothing in this Code or this Section 604.4.3 is intended to require that landscape irrigation systems must be installed at all premises. The landscape irrigation efficiency requirements in this Section 604.4.3 apply only when someone voluntarily chooses, or is otherwise required by some requirement beyond this Code, to install a landscape irrigation system on premises.

**604.4.3.1 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.**

**604.4.3.2 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.

Chapter 13 NONPOTABLE WATER SYSTEMS, Section 1304 Reclaimed Water Systems. 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.

Appendix E, Section E101.1.2. 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.

Section 4. - Repairs, renovations and additions. Reserved

~~The requirements of section 18-102 shall apply to any residential construction initiated after July 1, 1991, and to any commercial construction initiated after July 1, 1992, which involves the repair or renovation of or addition to any existing building when such repair or renovation of or addition to such existing building includes replacement of toilets or showers or both.~~

Section 5. Exemptions.

- (a) New construction and the repair or renovation of an existing building shall be exempt from the requirements of sections 18-102—18-104 when:
  - (1) The repair or renovation of the existing building does not include the replacement of the plumbing or sewage system servicing toilets, faucets or showerheads within such existing buildings;
  - (2) When such plumbing or sewage system within such existing building, because of its capacity, design, or installation, would not function properly if the toilets, faucets or showerheads required by this article were installed;
  - (3) Such system is a well or gravity flow from a spring and is owned privately by an individual for use in such individual's personal residence; or
  - (4) Units to be installed are:
    - a. Specifically designed for use by ~~the handicapped~~ **persons with disabilities**;
    - b. Specifically designed to withstand unusual abuse or installation in a penal institution; or
    - c. Toilets for juveniles.
- (b) The owner, or his agent, of a building undergoing new construction or repair or renovation who is entitled to an exemption as specified in subsections (a)(2), (a)(3) or (a)(4) of this section shall obtain the exemption ~~by applying at the office of the county director of planning. A fee of \$25.00 shall be charged for the inspection and issuance of such exemption.~~ **from the Director of the Department of Building and Economic Development or from his or her designee.**

Section 6. Enforcement; penalty.

- (a) This article shall be enforced by the county sheriff and ~~county department of planning~~ **the Department of Building and Economic Development**. Citations for violations may be issued by the director of the ~~county planning and community development department~~ **Department of Building and Economic Development** or **from** his **or her** designee and the county sheriff.
- (b) Any person violating this article shall be tried before the magistrate of the county. Upon conviction, a violation of this article may be punished as provided in section 1-12.
- (c) Notwithstanding any of the foregoing, abatement of any nuisance shall be handled as authorized and using the procedures established in article VIII of this chapter.



# GEORGIA DEPARTMENT OF COMMUNITY AFFAIRS

## LOCAL CODE AMENDMENT FORM

(For Local Government Use Only)

Item # :	(For DCA use only)	Page:	1	of	8	
Local Government:	Forsyth County Board of Commissioners	Date:	July 11 <sup>th</sup> , 2023			
Official's Name and Title:	Jake Hill, Deputy Director	Phone:	770-886-2772			
Address:	110 East Main St, Suite 100 Cumming GA 30040	Fax:				
		Email:	jchill@forsythco.com			
Title of Code Book:	International Plumbing Code	Code Book Edition:	2018	Code Section:	Chapter 13, Section 1304	
CHECK ONE:	<input checked="" type="checkbox"/>	Revise section to read as follows:		<input type="checkbox"/>	Add new section to read as follows:	
	<input type="checkbox"/>	Delete section and substitute the following:		<input type="checkbox"/>	Delete without substitution:	
<u>LINE THROUGH MATERIAL TO BE DELETED:</u>				<u>UNDERLINE MATERIAL TO BE ADDED</u>		

Code section with strike through and underline:

**Chapter 13 NONPOTABLE WATER SYSTEMS, Section 1304 Reclaimed Water Systems.** 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~~facility 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.

Complete ordinance section containing local amendment:

ARTICLE IV. - FLOW RATE RESTRICTIONS ON PLUMBING FIXTURES<sup>[4]</sup>

Section 1. 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* means any type of building other than residential.

*Construction* means the erection of a new building or the alteration of an existing building in connection with its repair or renovation or in connection with making an addition to an existing building and shall include the replacement of a malfunctioning, unserviceable, or obsolete faucet, showerhead, toilet, or urinal in an existing building.

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

Section 2. - ~~Restrictions for residential buildings.~~ **Applicability.**

~~On or after July 1, 1991, no construction may be initiated within the unincorporated portions of the county for any residential building of any type which:~~

- ~~(1) — Employs a gravity tank type, flushometer valve, or flushometer tank toilet that uses more than an average of 1.6 gallons of water per flush; provided, however, this subsection shall not be applicable to one piece toilets until July 1, 1992;~~
- ~~(2) — Employs a shower head that allows a flow of more than an average of 2.5 gallons of water per minute at 60 pounds per square inch of pressure;~~
- ~~(3) — Employs a urinal that uses more than an average of 1.0 gallons of water per flush;~~
- ~~(4) — Employs a lavatory faucet or lavatory replacement aerator that allows a flow of more than 2.0 gallons of water per minute; or~~
- ~~(5) — Employs a kitchen faucet or kitchen replacement aerator that allows a flow of more than 2.5 gallons of water per minute.~~

**Effective January 1, 2024, where new construction, or any alterations, repairs or additions to existing buildings or plumbing systems, or the installation or modification of an irrigation system requiring a permit occurs, new and replacement plumbing fixtures and equipment shall comply with the requirements of the Georgia State Minimum Standard Plumbing Code as amended by the State of Georgia and Forsyth County.**

Section 3. - ~~Commercial building construction.~~ **Amendment to the Georgia State Minimum Standard Plumbing Code**

~~On or after July 1, 1992, there shall be no construction of any commercial building initiated within the unincorporated portions of the county for any commercial building of any type which does not meet the requirements of section 18-102(1) — (5).~~

**Effective January 1, 2024, the Georgia State Minimum Standard Plumbing Code is amended by Forsyth County as follows:**

**Chapter 2, Section 202 General Definitions. Add in alphabetical order and revise, as applicable, the following definitions:**

**KITCHEN FAUCET OR KITCHEN FAUCET REPLACEMENT AERATOR. 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 ASME A112.18.1/CSA B125.1.**

**LAVATORY FAUCET OR LAVATORY FAUCET REPLACEMENT AERATOR. A lavatory faucet or lavatory faucet replacement aerator that allows a flow of no more than 1.2 gallons per minute at a pressure of 60 pounds per square inch and is listed to the WaterSense High Efficiency Lavatory Faucet Specification.**

**LANDSCAPE IRRIGATION.**

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

**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.**

**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.**

**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.**

**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.**

**WaterSense irrigation controller. 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. A sprinkler body with integral pressure regulation, generating optimal water spray and coverage labeled under the U.S. Environmental Protection Agency's WaterSense program.**

**SHOWER HEAD. A shower head 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 U.S. Department of Energy definition for showerhead.**

**Chapter 6, Section 604.4 Maximum Flow and Water Consumption. Revise Section 604.4 to read as follows:**

**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 consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4.**

**Exceptions:**

- 1. Blowout design water closets having a water consumption not greater than 3 ½ gallons (13 L) per flushing cycle.**
- 2. Vegetable sprays.**
- 3. Clinical sinks having a water consumption not greater than 4 ½ gallons (17 L) per flushing cycle.**
- 4. Laundry tray sinks and service sinks.**

5. Emergency showers and eye wash stations.

**TABLE 604.4**

**MAXIMUM FLOW RATES AND CONSUMPTION FOR  
PLUMBING FIXTURES AND FIXTURE FITTINGS**

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

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

1 pound per square inch = 6.895 kPa.

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 shower head individually meets the maximum flow rate, the WaterSense requirements, and the U.S. Department definition of showerhead. However, multiple shower heads are not recommended for water efficiency purposes.

b. Consumption tolerances shall be determined from referenced standards.

c. For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.

d. For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.

**e. For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.**

**f. See 2020 GA Amendment to Section 301.1.2 'Waiver from requirements of high efficiency plumbing fixtures'.**

**g. 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.**

**604.4.1 Clothes Washers. Residential clothes washers shall be in accordance with the Energy Star program requirements.**

**604.4.2 Cooling Tower Water Efficiency.**

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

**604.4.2.2 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.**

**604.4.2.3 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, CaCO<sub>3</sub> exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.**

**604.4.3 Landscape Irrigation System Efficiency Requirements. The requirements in Section 604.4.3 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. Nothing in this Code or this Section 604.4.3 is intended to require that landscape irrigation systems must be installed at all premises. The landscape irrigation efficiency requirements in this Section 604.4.3 apply only when someone voluntarily chooses, or is otherwise required by some requirement beyond this Code, to install a landscape irrigation system on premises.**

**604.4.3.1 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.**

**604.4.3.2 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.

Chapter 13 NONPOTABLE WATER SYSTEMS, Section 1304 Reclaimed Water Systems. 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.

Appendix E, Section E101.1.2. 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.



Section 4. - ~~Repairs, renovations and additions.~~ **Reserved**

~~The requirements of section 18-102 shall apply to any residential construction initiated after July 1, 1991, and to any commercial construction initiated after July 1, 1992, which involves the repair or renovation of or addition to any existing building when such repair or renovation of or addition to such existing building includes replacement of toilets or showers or both.~~

Section 5. Exemptions.

- (a) New construction and the repair or renovation of an existing building shall be exempt from the requirements of sections 18-102—18-104 when:
- (1) The repair or renovation of the existing building does not include the replacement of the plumbing or sewage system servicing toilets, faucets or showerheads within such existing buildings;
  - (2) When such plumbing or sewage system within such existing building, because of its capacity, design, or installation, would not function properly if the toilets, faucets or showerheads required by this article were installed;
  - (3) Such system is a well or gravity flow from a spring and is owned privately by an individual for use in such individual's personal residence; or
  - (4) Units to be installed are:
    - a. Specifically designed for use by ~~the handicapped~~ **persons with disabilities**;
    - b. Specifically designed to withstand unusual abuse or installation in a penal institution; or
    - c. Toilets for juveniles.
- (b) The owner, or his agent, of a building undergoing new construction or repair or renovation who is entitled to an exemption as specified in subsections (a)(2), (a)(3) or (a)(4) of this section shall obtain the exemption ~~by applying at the office of the county director of planning. A fee of \$25.00 shall be charged for the inspection and issuance of such exemption.~~ **from the Director of the Department of Building and Economic Development or from his or her designee.**

Section 6. Enforcement; penalty.

- (a) This article shall be enforced by the county sheriff and ~~county department of planning~~ **the Department of Building and Economic Development**. Citations for violations may be issued by the director of the ~~county planning and community development department~~ **Department of Building and Economic Development** or ~~from~~ **from** his **or her** designee and the county sheriff.
- (b) Any person violating this article shall be tried before the magistrate of the county. Upon conviction, a violation of this article may be punished as provided in section 1-12.
- (c) Notwithstanding any of the foregoing, abatement of any nuisance shall be handled as authorized and using the procedures established in article VIII of this chapter.

**GEORGIA DEPARTMENT OF  
COMMUNITY AFFAIRS**

**LOCAL CODE AMENDMENT FORM  
INSTRUCTION SHEET**

1. A letter on official letterhead must accompany this form requesting the Department of Community Affairs to review the proposed local amendment(s) in accordance with OCGA 8-2-25, and in that letter all other required submitted documentation should be included as required by OCGA 8-2-25.
2. Please use a separate form for each proposed local code amendment.
3. "Sheet   1   of       " indicates the number of sheets for each individual proposed code amendment, not the number of sheets for all the amendments submitted. If all of the amendment or ordinance section will not fit in the space provided on form please submit remaining parts on additional sheet.
4. Identify the code and code section that is the subject of the proposed local amendment.
5. The local government official's name, address, telephone, fax and email address must be filled out completely.
6. Be sure to indicate the type of recommended action in the space referred to as "Check One".
7. If the proposed amendment revises the language of the code section, deletes the entire code section, or deletes the entire code section and offers substitute language, include the language of the present code section and line through the language to be deleted and underline the language of the proposed amendment..
8. **All proposed local code amendments must be typed and completed in full and the original submitted to the Codes and Industrialized Buildings Section of the Department of Community Affairs.** An incomplete form will be sent back to the proponent for completion.
9. Information concerning submittal of code amendments can be obtained by contacting the Codes and Industrialized Buildings Section at (404) 679-3118. All proposed local code amendments should be submitted to:

The Department of Community Affairs  
Codes and Industrialized Buildings Section  
60 Executive Park South, NE  
Atlanta, Georgia 30329-2231

# GEORGIA DEPARTMENT OF COMMUNITY AFFAIRS

## LOCAL CODE AMENDMENT FORM

(For Local Government Use Only)

Item # :	(For DCA use only)			Page:	1	of	11
Local Government:	Forsyth County Board of Commissioners			Date:	July 11 <sup>th</sup> , 2023		
Official's Name and Title:	Jake Hill, Deputy Director			Phone:	770-886-2772		
Address:	110 East Main St, Suite 100 Cumming GA 30040			Fax:			
				Email:	jchill@forsythco.com		
Title of Code Book:	International Plumbing Code	Code Book Edition:	2018	Code Section:	Chapter 6, Section 604.4		
CHECK ONE:	<input checked="" type="checkbox"/>	Revise section to read as follows:		<input type="checkbox"/>	Add new section to read as follows:		
	<input type="checkbox"/>	Delete section and substitute the following:		<input type="checkbox"/>	Delete without substitution:		
LINE THROUGH MATERIAL TO BE DELETED:				<u>UNDERLINE MATERIAL TO BE ADDED</u>			

Code section with strike through and underline:

**Chapter 6, Section 604.4 Maximum Flow and Water Consumption.** Revise Section 604.4 to read as follows:

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.

**Exceptions:**

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

TABLE 604.4  
MAXIMUM FLOW RATES AND CONSUMPTION FOR  
PLUMBING FIXTURES AND FIXTURE FITTINGS

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY <sup>b</sup>
Lavatory <u>faucet and replacement aerators</u> , private	<u>WaterSense Labeled &amp; 1.25</u> gpm at 60 psi <sup>f</sup>
Lavatory faucet, public (metering)	0.25 gallon per metering cycle
Lavatory, public (other than metering)	0.5 gpm at 60 psi
Showerhead <sup>a</sup>	<u>WaterSense Labeled &amp; 2.5</u> 2.0 gpm at <u>80</u> 60 psi <sup>f</sup>
<u>Kitchen Sink faucet and replacement aerators</u>	<u>2.0</u> 1.8 gpm at 60 psi <sup>f, g</sup>
Urinal	0.5 gallon per flushing cycle <sup>f</sup>
Water closet	1.28 gallons per flushing cycle <sup>c, d, e, f</sup>

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

a. 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.

b. Consumption tolerances shall be determined from referenced standards.

- c. For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.
- d. For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.
- e. For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.
- f. See 2014 GA Amendment to Section 301.1.2 'Waiver from requirements of high efficiency plumbing fixtures'.
- g. 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.

**604.4.1 Clothes Washers.** Residential clothes washers shall be in accordance with the Energy Star program requirements.

#### **604.4.2 Cooling Tower Water Efficiency.**

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

**604.4.2.2 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.

**604.4.2.3 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, CaCO<sub>3</sub> exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.

**604.4.3 Landscape Irrigation System Efficiency Requirements.** The requirements in Section 604.4.3 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. Nothing in this Code or this Section 604.4.3 is intended to require that landscape irrigation systems must be installed at all premises. The landscape irrigation efficiency requirements in this Section 604.4.3 apply only when someone voluntarily chooses, or is otherwise required by some requirement beyond this Code, to install a landscape irrigation system on premises.

**604.4.3.1 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.



**604.4.3.2 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.



Complete ordinance section containing local amendment:

ARTICLE IV. - FLOW RATE RESTRICTIONS ON PLUMBING FIXTURES<sup>41</sup>

Section 1. 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* means any type of building other than residential.

*Construction* means the erection of a new building or the alteration of an existing building in connection with its repair or renovation or in connection with making an addition to an existing building and shall include the replacement of a malfunctioning, unserviceable, or obsolete faucet, showerhead, toilet, or urinal in an existing building.

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

Section 2. - ~~Restrictions for residential buildings.~~ **Applicability.**

On or after July 1, 1991, no construction may be initiated within the unincorporated portions of the county for any residential building of any type which:

- (1) — ~~Employs a gravity tank type, flushometer valve, or flushometer tank toilet that uses more than an average of 1.6 gallons of water per flush; provided, however, this subsection shall not be applicable to one-piece toilets until July 1, 1992;~~
- (2) — ~~Employs a shower head that allows a flow of more than an average of 2.5 gallons of water per minute at 60 pounds per square inch of pressure;~~
- (3) — ~~Employs a urinal that uses more than an average of 1.0 gallons of water per flush;~~
- (4) — ~~Employs a lavatory faucet or lavatory replacement aerator that allows a flow of more than 2.0 gallons of water per minute; or~~
- (5) — ~~Employs a kitchen faucet or kitchen replacement aerator that allows a flow of more than 2.5 gallons of water per minute.~~

**Effective January 1, 2024, where new construction, or any alterations, repairs or additions to existing buildings or plumbing systems, or the installation or modification of an irrigation system requiring a permit occurs, new and replacement plumbing fixtures and equipment shall comply with the requirements of the Georgia State Minimum Standard Plumbing Code as amended by the State of Georgia and Forsyth County.**

Section 3. - ~~Commercial building construction.~~ **Amendment to the Georgia State Minimum Standard Plumbing Code**

On or after July 1, 1992, there shall be no construction of any commercial building initiated within the unincorporated portions of the county for any commercial building of any type which does not meet the requirements of section 18-102(1) — (5).

**Effective January 1, 2024, the Georgia State Minimum Standard Plumbing Code is amended by Forsyth County as follows:**

**Chapter 2, Section 202 General Definitions. Add in alphabetical order and revise, as applicable, the following definitions:**

**KITCHEN FAUCET OR KITCHEN FAUCET REPLACEMENT AERATOR. 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 ASME A112.18.1/CSA B125.1.**

**LAVATORY FAUCET OR LAVATORY FAUCET REPLACEMENT AERATOR.** A lavatory faucet or lavatory faucet replacement aerator that allows a flow of no more than 1.2 gallons per minute at a pressure of 60 pounds per square inch and is listed to the WaterSense High Efficiency Lavatory Faucet Specification.

### **LANDSCAPE IRRIGATION.**

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

**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.

**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.

**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.

**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.

**WaterSense irrigation controller.** 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.** A sprinkler body with integral pressure regulation, generating optimal water spray and coverage labeled under the U.S. Environmental Protection Agency's WaterSense program.

**SHOWER HEAD.** A shower head 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 U.S. Department of Energy definition for showerhead.

**Chapter 6, Section 604.4 Maximum Flow and Water Consumption.** Revise Section 604.4 to read as follows:

**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 consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4.**

#### **Exceptions:**

- 1. Blowout design water closets having a water consumption not greater than 3 ½ gallons (13 L) per flushing cycle.**
- 2. Vegetable sprays.**
- 3. Clinical sinks having a water consumption not greater than 4 ½ gallons (17 L) per flushing cycle.**
- 4. Laundry tray sinks and service sinks.**

**5. Emergency showers and eye wash stations.**

**TABLE 604.4**

**MAXIMUM FLOW RATES AND CONSUMPTION FOR  
PLUMBING FIXTURES AND FIXTURE FITTINGS**

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

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

**1 pound per square inch = 6.895 kPa.**

**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 shower head individually meets the maximum flow rate, the WaterSense requirements, and the U.S. Department definition of showerhead. However, multiple shower heads are not recommended for water efficiency purposes.**

**b. Consumption tolerances shall be determined from referenced standards.**

**c. For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.**

**d. For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.**

e. For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.

f. See 2020 GA Amendment to Section 301.1.2 'Waiver from requirements of high efficiency plumbing fixtures'.

g. 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.

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

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

604.4.2.2 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.

604.4.2.3 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, CaCO<sub>3</sub> exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.

604.4.3 Landscape Irrigation System Efficiency Requirements. The requirements in Section 604.4.3 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. Nothing in this Code or this Section 604.4.3 is intended to require that landscape irrigation systems must be installed at all premises. The landscape irrigation efficiency requirements in this Section 604.4.3 apply only when someone voluntarily chooses, or is otherwise required by some requirement beyond this Code, to install a landscape irrigation system on premises.

604.4.3.1 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.

604.4.3.2 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 shut-off.

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.

Chapter 13 NONPOTABLE WATER SYSTEMS, Section 1304 Reclaimed Water Systems. 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.

Appendix E, Section E101.1.2. 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.



Section 4. - ~~Repairs, renovations and additions.~~ **Reserved**

~~The requirements of section 18-102 shall apply to any residential construction initiated after July 1, 1991, and to any commercial construction initiated after July 1, 1992, which involves the repair or renovation of or addition to any existing building when such repair or renovation of or addition to such existing building includes replacement of toilets or showers or both.~~

Section 5. Exemptions.

- (a) New construction and the repair or renovation of an existing building shall be exempt from the requirements of sections 18-102—18-104 when:
- (1) The repair or renovation of the existing building does not include the replacement of the plumbing or sewage system servicing toilets, faucets or showerheads within such existing buildings;
  - (2) When such plumbing or sewage system within such existing building, because of its capacity, design, or installation, would not function properly if the toilets, faucets or showerheads required by this article were installed;
  - (3) Such system is a well or gravity flow from a spring and is owned privately by an individual for use in such individual's personal residence; or
  - (4) Units to be installed are:
    - a. Specifically designed for use by ~~the handicapped~~ **persons with disabilities**;
    - b. Specifically designed to withstand unusual abuse or installation in a penal institution; or
    - c. Toilets for juveniles.
- (b) The owner, or his agent, of a building undergoing new construction or repair or renovation who is entitled to an exemption as specified in subsections (a)(2), (a)(3) or (a)(4) of this section shall obtain the exemption ~~by applying at the office of the county director of planning. A fee of \$25.00 shall be charged for the inspection and issuance of such exemption.~~ **from the Director of the Department of Building and Economic Development or from his or her designee.**

Section 6. Enforcement; penalty.

- (a) This article shall be enforced by the county sheriff and ~~county department of planning~~ **the Department of Building and Economic Development.** Citations for violations may be issued by the director of the ~~county planning and community development department~~ **Department of Building and Economic Development** or **from his or her** designee and the county sheriff.
- (b) Any person violating this article shall be tried before the magistrate of the county. Upon conviction, a violation of this article may be punished as provided in section 1-12.
- (c) Notwithstanding any of the foregoing, abatement of any nuisance shall be handled as authorized and using the procedures established in article VIII of this chapter.

**GEORGIA DEPARTMENT OF  
COMMUNITY AFFAIRS**

**LOCAL CODE AMENDMENT FORM  
INSTRUCTION SHEET**

1. A letter on official letterhead must accompany this form requesting the Department of Community Affairs to review the proposed local amendment(s) in accordance with OCGA 8-2-25, and in that letter all other required submitted documentation should be included as required by OCGA 8-2-25.
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4. Identify the code and code section that is the subject of the proposed local amendment.
5. The local government official's name, address, telephone, fax and email address must be filled out completely.
6. Be sure to indicate the type of recommended action in the space referred to as "Check One".
7. If the proposed amendment revises the language of the code section, deletes the entire code section, or deletes the entire code section and offers substitute language, include the language of the present code section and line through the language to be deleted and underline the language of the proposed amendment..
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The Department of Community Affairs  
Codes and Industrialized Buildings Section  
60 Executive Park South, NE  
Atlanta, Georgia 30329-2231



# GEORGIA DEPARTMENT OF COMMUNITY AFFAIRS

## LOCAL CODE AMENDMENT FORM (For Local Government Use Only)

Item # :	(For DCA use only)			Page:	1	of	9	
Local Government:	Forsyth County Board of Commissioners			Date:	July 11 <sup>th</sup> , 2023			
Official's Name and Title:	Jake Hill, Deputy Director			Phone:	770-886-2772			
Address:	110 East Main St, Suite 100 Cumming GA 30040			Fax:				
				Email:	jchill@forsythco.com			
Title of Code Book:	International Plumbing Code	Code Book Edition:	2018	Code Section:	Chapter 2, Section 202			
CHECK ONE:	<input checked="" type="checkbox"/>	Revise section to read as follows:			<input type="checkbox"/>	Add new section to read as follows:		
	<input type="checkbox"/>	Delete section and substitute the following:			<input type="checkbox"/>	Delete without substitution:		
<del>LINE THROUGH MATERIAL TO BE DELETED:</del>					<u>UNDERLINE MATERIAL TO BE ADDED</u>			

Code section with strike through and underline :

**Chapter 2, Section 202 General Definitions.** Add in alphabetical order and revise, as applicable, the following definitions:

**KITCHEN FAUCET OR KITCHEN FAUCET REPLACEMENT AERATOR.** A kitchen faucet or kitchen faucet replacement aerator that allows a flow of no more than 1.82-0 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.** A lavatory faucet or lavatory faucet replacement aerator that allows a flow of no more than 1.25 gallons per minute at a pressure of 60 pounds per square inch and is listed to the WaterSense High Efficiency Lavatory Faucet Specification.

### **LANDSCAPE IRRIGATION.**

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

**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.

**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.

**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.

**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.

**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.

**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.

**SHOWER HEAD.** A shower head that allows a flow of no more than the average of 2.05 gallons of water per minute at 860 pounds per square inch of pressure, and is listed in the WaterSense Specification for Showerheads, and meets the US Department Definition of Energy definition of showerhead.

Complete ordinance section containing local amendment:

ARTICLE IV. - FLOW RATE RESTRICTIONS ON PLUMBING FIXTURES<sup>41</sup>

Section 1. 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* means any type of building other than residential.

*Construction* means the erection of a new building or the alteration of an existing building in connection with its repair or renovation or in connection with making an addition to an existing building and shall include the replacement of a malfunctioning, unserviceable, or obsolete faucet, showerhead, toilet, or urinal in an existing building.

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

Section 2. - Restrictions for residential buildings. **Applicability.**

~~On or after July 1, 1991, no construction may be initiated within the unincorporated portions of the county for any residential building of any type which:~~

- ~~(1) — Employs a gravity tank type, flushometer valve, or flushometer tank toilet that uses more than an average of 1.6 gallons of water per flush; provided, however, this subsection shall not be applicable to one-piece toilets until July 1, 1992;~~
- ~~(2) — Employs a shower head that allows a flow of more than an average of 2.5 gallons of water per minute at 60 pounds per square inch of pressure;~~
- ~~(3) — Employs a urinal that uses more than an average of 1.0 gallons of water per flush;~~
- ~~(4) — Employs a lavatory faucet or lavatory replacement aerator that allows a flow of more than 2.0 gallons of water per minute; or~~
- ~~(5) — Employs a kitchen faucet or kitchen replacement aerator that allows a flow of more than 2.5 gallons of water per minute.~~

**Effective January 1, 2024, where new construction, or any alterations, repairs or additions to existing buildings or plumbing systems, or the installation or modification of an irrigation system requiring a permit occurs, new and replacement plumbing fixtures and equipment shall comply with the requirements of the Georgia State Minimum Standard Plumbing Code as amended by the State of Georgia and Forsyth County.**

Section 3. - Commercial building construction. **Amendment to the Georgia State Minimum Standard Plumbing Code**

~~On or after July 1, 1992, there shall be no construction of any commercial building initiated within the unincorporated portions of the county for any commercial building of any type which does not meet the requirements of section 18-102(1) — (5).~~

**Effective January 1, 2024, the Georgia State Minimum Standard Plumbing Code is amended by Forsyth County as follows:**

**Chapter 2, Section 202 General Definitions. Add in alphabetical order and revise, as applicable, the following definitions:**

**KITCHEN FAUCET OR KITCHEN FAUCET REPLACEMENT AERATOR. 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 ASME A112.18.1/CSA B125.1.**

**LAVATORY FAUCET OR LAVATORY FAUCET REPLACEMENT AERATOR.** A lavatory faucet or lavatory faucet replacement aerator that allows a flow of no more than 1.2 gallons per minute at a pressure of 60 pounds per square inch and is listed to the WaterSense High Efficiency Lavatory Faucet Specification.

### **LANDSCAPE IRRIGATION.**

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

**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.

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**SHOWER HEAD.** A shower head 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 U.S. Department of Energy definition for showerhead.

**Chapter 6, Section 604.4 Maximum Flow and Water Consumption.** Revise Section 604.4 to read as follows:

**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 consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4.**

#### **Exceptions:**

- 1. Blowout design water closets having a water consumption not greater than 3 ½ gallons (13 L) per flushing cycle.**
- 2. Vegetable sprays.**
- 3. Clinical sinks having a water consumption not greater than 4 ½ gallons (17 L) per flushing cycle.**
- 4. Laundry tray sinks and service sinks.**

5. Emergency showers and eye wash stations.

**TABLE 604.4**

**MAXIMUM FLOW RATES AND CONSUMPTION FOR  
PLUMBING FIXTURES AND FIXTURE FITTINGS**

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

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

1 pound per square inch = 6.895 kPa.

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 shower head individually meets the maximum flow rate, the WaterSense requirements, and the U.S. Department definition of showerhead. However, multiple shower heads are not recommended for water efficiency purposes.

b. Consumption tolerances shall be determined from referenced standards.

c. For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.

d. For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.

e. For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.

f. See 2020 GA Amendment to Section 301.1.2 'Waiver from requirements of high efficiency plumbing fixtures'.

g. 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.

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

604.4.2 Cooling Tower Water Efficiency.

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

604.4.2.2 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.

604.4.2.3 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, CaCO<sub>3</sub> exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.

604.4.3 Landscape Irrigation System Efficiency Requirements. The requirements in Section 604.4.3 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. Nothing in this Code or this Section 604.4.3 is intended to require that landscape irrigation systems must be installed at all premises. The landscape irrigation efficiency requirements in this Section 604.4.3 apply only when someone voluntarily chooses, or is otherwise required by some requirement beyond this Code, to install a landscape irrigation system on premises.

604.4.3.1 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.

604.4.3.2 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.

Chapter 13 NONPOTABLE WATER SYSTEMS, Section 1304 Reclaimed Water Systems. 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.

Appendix E, Section E101.1.2. 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.



Section 4. - ~~Repairs, renovations and additions.~~ **Reserved**

~~The requirements of section 18-102 shall apply to any residential construction initiated after July 1, 1991, and to any commercial construction initiated after July 1, 1992, which involves the repair or renovation of or addition to any existing building when such repair or renovation of or addition to such existing building includes replacement of toilets or showers or both.~~

Section 5. Exemptions.

- (a) New construction and the repair or renovation of an existing building shall be exempt from the requirements of sections 18-102—18-104 when:
- (1) The repair or renovation of the existing building does not include the replacement of the plumbing or sewage system servicing toilets, faucets or showerheads within such existing buildings;
  - (2) When such plumbing or sewage system within such existing building, because of its capacity, design, or installation, would not function properly if the toilets, faucets or showerheads required by this article were installed;
  - (3) Such system is a well or gravity flow from a spring and is owned privately by an individual for use in such individual's personal residence; or
  - (4) Units to be installed are:
    - a. Specifically designed for use by ~~the handicapped~~ **persons with disabilities**;
    - b. Specifically designed to withstand unusual abuse or installation in a penal institution; or
    - c. Toilets for juveniles.
- (b) The owner, or his agent, of a building undergoing new construction or repair or renovation who is entitled to an exemption as specified in subsections (a)(2), (a)(3) or (a)(4) of this section shall obtain the exemption by applying at the office of the county director of planning. ~~A fee of \$25.00 shall be charged for the inspection and issuance of such exemption.~~ **from the Director of the Department of Building and Economic Development or from his or her designee.**

Section 6. Enforcement; penalty.

- (a) This article shall be enforced by the county sheriff and ~~county department of planning~~ **the Department of Building and Economic Development**. Citations for violations may be issued by the director of the ~~county planning and community development department~~ **Department of Building and Economic Development** or **from his or her** designee and the county sheriff.
- (b) Any person violating this article shall be tried before the magistrate of the county. Upon conviction, a violation of this article may be punished as provided in section 1-12.
- (c) Notwithstanding any of the foregoing, abatement of any nuisance shall be handled as authorized and using the procedures established in article VIII of this chapter.

GEORGIA DEPARTMENT OF  
COMMUNITY AFFAIRS

LOCAL CODE AMENDMENT FORM  
INSTRUCTION SHEET

1. A letter on official letterhead must accompany this form requesting the Department of Community Affairs to review the proposed local amendment(s) in accordance with OCGA 8-2-25, and in that letter all other required submitted documentation should be included as required by OCGA 8-2-25.
2. Please use a separate form for each proposed local code amendment.
3. "Sheet 1 of       " indicates the number of sheets for each individual proposed code amendment, not the number of sheets for all the amendments submitted. If all of the amendment or ordinance section will not fit in the space provided on form please submit remaining parts on additional sheet.
4. Identify the code and code section that is the subject of the proposed local amendment.
5. The local government official's name, address, telephone, fax and email address must be filled out completely.
6. Be sure to indicate the type of recommended action in the space referred to as "Check One".
7. If the proposed amendment revises the language of the code section, deletes the entire code section, or deletes the entire code section and offers substitute language, include the language of the present code section and line through the language to be deleted and underline the language of the proposed amendment..
8. **All proposed local code amendments must be typed and completed in full and the original submitted to the Codes and Industrialized Buildings Section of the Department of Community Affairs.** An incomplete form will be sent back to the proponent for completion.
9. Information concerning submittal of code amendments can be obtained by contacting the Codes and Industrialized Buildings Section at (404) 679-3118. All proposed local code amendments should be submitted to:

The Department of Community Affairs  
Codes and Industrialized Buildings Section  
60 Executive Park South, NE  
Atlanta, Georgia 30329-2231

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# GEORGIA DEPARTMENT OF COMMUNITY AFFAIRS

## LOCAL CODE AMENDMENT FORM

(For Local Government Use Only)

Item # :	(For DCA use only)			Page:	1	of	8
Local Government:	Forsyth County Board of Commissioners			Date:	July 11 <sup>th</sup> , 2023		
Official's Name and Title:	Jake Hill, Deputy Director			Phone:	770-886-2772		
Address:	110 East Main St, Suite 100 Cumming GA 30040			Fax:			
				Email:	jchill@forsythco.com		
Title of Code Book:	International Plumbing Code	Code Book Edition:	2018	Code Section:	Appendix E, Section E101.1.2		
CHECK ONE:	<input checked="" type="checkbox"/>	Revise section to read as follows:		<input type="checkbox"/>	Add new section to read as follows:		
	<input type="checkbox"/>	Delete section and substitute the following:		<input type="checkbox"/>	Delete without substitution:		
LINE THROUGH MATERIAL TO BE DELETED:				<u>UNDERLINE MATERIAL TO BE ADDED</u>			

Code section with strike through and underline:

**Appendix E, Section E101.1.2.** ~~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.

Complete ordinance section containing local amendment:

ARTICLE IV. - FLOW RATE RESTRICTIONS ON PLUMBING FIXTURES<sup>(4)</sup>

Section 1. 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:

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- ~~(4) — Employs a lavatory faucet or lavatory replacement aerator that allows a flow of more than 2.0 gallons of water per minute; or~~
- ~~(5) — Employs a kitchen faucet or kitchen replacement aerator that allows a flow of more than 2.5 gallons of water per minute.~~

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- 4. Laundry tray sinks and service sinks.**



5. Emergency showers and eye wash stations.

**TABLE 604.4**

**MAXIMUM FLOW RATES AND CONSUMPTION FOR  
PLUMBING FIXTURES AND FIXTURE FITTINGS**

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<u>Kitchen faucet and replacement aerators</u>	<u>1.8 gpm at 60 psi<sup>f, g</sup></u>
<u>Urinal</u>	<u>0.5 gallon per flushing cycle<sup>f</sup></u>
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c. For flushometer valves and flushometer tanks, the average flush volume shall not exceed 1.28 gallons.

d. For single flush water closets, including gravity, pressure assisted and electro-hydraulic tank types, the average flush volume shall not exceed 1.28 gallons.

e. For dual flush water closets, the average flush volume of two reduced flushes and one full flush shall not exceed 1.28 gallons.

f. See 2020 GA Amendment to Section 301.1.2 'Waiver from requirements of high efficiency plumbing fixtures'.

g. 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.

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

604.4.2 Cooling Tower Water Efficiency.

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

604.4.2.2 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.

604.4.2.3 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, CaCO<sub>3</sub> exceeds 600 ppm, chlorides exceed 250 ppm, sulfates exceed 250 ppm, or silica exceeds 150 ppm.

604.4.3 Landscape Irrigation System Efficiency Requirements. The requirements in Section 604.4.3 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. Nothing in this Code or this Section 604.4.3 is intended to require that landscape irrigation systems must be installed at all premises. The landscape irrigation efficiency requirements in this Section 604.4.3 apply only when someone voluntarily chooses, or is otherwise required by some requirement beyond this Code, to install a landscape irrigation system on premises.

604.4.3.1 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.

604.4.3.2 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.

Chapter 13 NONPOTABLE WATER SYSTEMS, Section 1304 Reclaimed Water Systems. 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.

Appendix E, Section E101.1.2. 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.

Section 4. - ~~Repairs, renovations and additions.~~ **Reserved**

~~The requirements of section 18-102 shall apply to any residential construction initiated after July 1, 1991, and to any commercial construction initiated after July 1, 1992, which involves the repair or renovation of or addition to any existing building when such repair or renovation of or addition to such existing building includes replacement of toilets or showers or both.~~

Section 5. Exemptions.

- (a) New construction and the repair or renovation of an existing building shall be exempt from the requirements of sections 18-102—18-104 when:
- (1) The repair or renovation of the existing building does not include the replacement of the plumbing or sewage system servicing toilets, faucets or showerheads within such existing buildings;
  - (2) When such plumbing or sewage system within such existing building, because of its capacity, design, or installation, would not function properly if the toilets, faucets or showerheads required by this article were installed;
  - (3) Such system is a well or gravity flow from a spring and is owned privately by an individual for use in such individual's personal residence; or
  - (4) Units to be installed are:
    - a. Specifically designed for use by ~~the handicapped~~ **persons with disabilities**;
    - b. Specifically designed to withstand unusual abuse or installation in a penal institution; or
    - c. Toilets for juveniles.
- (b) The owner, or his agent, of a building undergoing new construction or repair or renovation who is entitled to an exemption as specified in subsections (a)(2), (a)(3) or (a)(4) of this section shall obtain the exemption ~~by applying at the office of the county director of planning. A fee of \$25.00 shall be charged for the inspection and issuance of such exemption.~~ **from the Director of the Department of Building and Economic Development or from his or her designee.**

Section 6. Enforcement; penalty.

- (a) This article shall be enforced by the county sheriff and ~~county department of planning~~ **the Department of Building and Economic Development**. Citations for violations may be issued by the director of the ~~county planning and community development department~~ **Department of Building and Economic Development** or **from his or her** designee and the county sheriff.
- (b) Any person violating this article shall be tried before the magistrate of the county. Upon conviction, a violation of this article may be punished as provided in section 1-12.
- (c) Notwithstanding any of the foregoing, abatement of any nuisance shall be handled as authorized and using the procedures established in article VIII of this chapter.