

## ARTICLE XX. TOWN OF PITTSBORO YEAR-ROUND WATER EFFICIENCY MEASURES

### Section 1. Purpose and intent.

It is the purpose and intent of this Ordinance to:

- (a) Assure that town water resources are put to reasonable beneficial uses and maximize the efficient use of the town's water supply so as to potentially avoid unnecessary water supply expansion and associated maintenance costs;
- (b) Help maintain compliance with State wastewater discharge permit requirements by using water more efficiently and subsequently reducing wastewater discharges;
- (c) Reduce damage to publicly-owned streets and sidewalks caused by landscape runoff and overspray;
- (d) Increase safety on streets and sidewalks by reducing the potential for pooling and frozen water on such areas; and
- (e) Prevent pollution of streams, lakes, and other surface waters by reducing water runoff from landscaped areas.

The following water efficiency measures shall be required of residential and non-residential properties as described:

### Section 2. New Construction—Residential Indoor Uses: All interior plumbing in new residential construction shall meet the following requirements:

- (a) Toilets – All toilets shall be WaterSense labeled tank-type toilets.
- (b) Flushing urinals – All flushing urinals, if installed, shall be WaterSense labeled flushing urinals.
- (c) Bathroom sink faucets – All bathroom sink faucets shall be WaterSense labeled bathroom sink faucets or faucet accessories (e.g., aerators)
- (d) Kitchen sink faucets – All kitchen sink faucets shall comply with federal standards for a maximum flow rate of 2.2 gallons per minute (gpm) (8.3 liters per minute [lpm]).
- (e) Showerheads – All showerheads shall be WaterSense labeled showerheads. This includes fixed showerheads that direct water onto a user for bathing purposes and hand-held showers. In cases where more than one showerhead or hand-held shower is provided in combination with others in a single device intended to be connected to a single shower outlet, the entire device must meet the maximum flow requirement in all possible operating modes.
- (f) Shower compartments – The total allowable flow rate of water from all showerheads flowing at any given time, including rain systems, waterfalls, body sprays, and jets, shall be limited to 2.0 gpm per shower compartment, where the floor area of the shower compartment is less than or equal to 2,160 square inches (in<sup>2</sup>) (1.4 meters<sup>2</sup> [m<sup>2</sup>]). For each increment of 2,160 in<sup>2</sup> (1.4 m<sup>2</sup>) of floor area thereafter or part thereof, additional showerheads are allowed, provided the total flow rate of water from all flowing devices is equal to or less than 2.0 gpm per shower compartment, and the additional showerheads

are operated by controls that are separate from the other showerheads in the compartment.

(g) Hot water on demand: In new construction, a hot water system will be installed to provide hot water on demand at the point of use in sinks and baths/showers. All hot water fixtures shall be WaterSense labeled. Insulation for hot-water pipe with a minimum thermal resistance (R-value) of R-4 shall be applied. Hot water systems shall be designed and shall include such components as may be necessary to deliver hot water at each demand point with no more than 0.6 gallons (2.3 liters) of water delivered prior to the delivery of hot water. Systems that are activated based solely on a timer and/or temperature sensor do not meet this requirement.

(h) Appliances – If the following types of appliances are financed, installed, or sold as upgrades through the homebuilder, they shall meet these criteria:

Dishwashers – Dishwashers shall be ENERGY STAR® qualified.

Clothes washers – Clothes washers, including those in common-use laundry rooms of multi-family buildings, shall be ENERGY STAR qualified with a water factor (WF) of less than or equal to 6.0 gallons of water per cycle per cubic foot of capacity.

(i) The installation of a pressure-reducing valve (PRV) on the house side of the water meter, in an easily accessible location, shall be required for all new single-family residences served by the Town’s utility system. The preferred location is in the garage or other non-in-ground location. The static service pressure shall be set no higher than 60 pounds per square inch (psi), regardless of input pressure. New single-family residences served by a well or well-share are not required to install the PRV.

(j) Drinking water treatment systems must be certified to meet applicable NSF/ANSI standards, which are:

- NSF/ANSI 42 Drinking Water Treatment Units – Aesthetic Effects
- NSF/ANSI 53 Drinking Water Treatment Units – Health Effects
- NSF/ANSI 55 Ultraviolet Microbiological Water Treatment Systems
- NSF/ANSI 58 Reverse Osmosis Drinking Water Treatment Systems
- NSF/ANSI 62 Drinking Water Distillation Systems

Such systems shall yield at least 85 gallons of treated water for each 100 gallons of water processed.

(k) Operating Manual (for single-family homes) – The builder shall develop and provide to the single-family homeowner a file of information for all water-using equipment or controls installed in the house and yard, including all relevant WaterSense materials on indoor and outdoor water use. This may be a chapter or folder in an existing manual. If clothes washers or dishwashers are not provided, general information about water-efficient appliances provided from the town shall be included.

1. Irrigation system – If an irrigation system is installed, the builder shall provide the single-family homebuyer with a record drawing (e.g., schematic) of the system, an itemized list of irrigation components, copies of the irrigation schedules, and information about reprogramming the schedule after

establishment of the landscape. This information should be included in the operating manual.

### Section 3. New Construction—Commercial, Industrial, Institutional, and Multi-Family Development:

- (a) Flushing urinals – All flushing urinals, if installed, shall be WaterSense labeled flushing urinals. .
- (b) All new commercial car wash facilities, including automobile dealerships, shall use water recycling systems which recycle a minimum of 75-percent of the water used. This requirement does not apply to small operation auto detailers or similar uses.
- (c) Kitchens in which dishwashers are installed must use Energy Star® rated dishwashers.
- (d) Commercial Laundry Facilities: All laundry facilities intended for public use such as laundromats, hotel guest laundries, or multi-family housing laundry rooms will be equipped with Energy Star® qualified commercial clothes washers.
- (e) Drinking water treatment systems, if installed, shall meet NSF/ANSI requirements (such systems shall yield at least 85-gallons of treated water per 100-gallons processed).
- (f) All new multi-family development **exceeding four units** shall provide independent-unit metering (water meter for each dwelling unit)
- (g) Water Features (A) Recirculating water systems shall be used for water features. (B) Where available, recycled water shall be used as a source for decorative water features. (C) Surface area of a water feature shall be included in the high water use hydrozone area of the water budget calculation. (D) Pool and spa covers are highly recommended.

### Section 4. Outdoor Water Use

- (a) *System design.* All irrigation systems shall be designed, maintained, and operated to prevent, to the extent practicable, water from flowing onto paved or other impervious surfaces.
- (b) *Sensor requirement for new and existing irrigation systems.* Users and installers shall not install automatic irrigation systems of any type without a rain or soil moisture sensor that will prevent irrigation during periods of rainfall and when there is sufficient moisture in the ground for plant health and survival. Existing irrigation systems are strongly encouraged to also install a rain or soil moisture sensor.
- (c) *Sensor settings.* All rain sensors shall be adjusted and set so that they automatically shut off the irrigation system after not more than one-fourth (1/4) inch of rainfall has occurred or an equivalent moisture parameter is reached. All rain sensors shall be installed according to manufacturer's instructions in a location that will provide full exposure to rainfall or appropriate moisture parameter such that accuracy of operation is assured. All rain sensors shall be maintained in good working condition. No person shall adjust either the rain sensor

or irrigation system so that the sensor is not able to override and turn off the irrigation system after one-fourth inch of rain has fallen or an equivalent moisture parameter is reached.

(d) *Hand operated equipment.* All hoses used for hand watering, vehicle washing, or other allowable outdoor uses shall be equipped with shutoff nozzles.

## Section 5. Prohibition of Water Waste

No User shall:

(a) Cause or allow runoff of town supplied water from landscape areas into adjoining impervious areas, adjacent property, or streets, sidewalks, gutters, stormwater drains, or other paved surfaces as a result of incorrectly directed or maintained sprinklers, irrigation systems, or other application devices, or excessive watering.

(b) Cause or allow irrigation while precipitation is falling.

(c) Knowingly allow water to escape through leaks, breaks or malfunction within the water user's plumbing or distribution system for any period of time beyond which such a leak or break should reasonably have been repaired or corrected. All leaks, breaks or malfunctions shall be corrected within 30 days of identification of the source of the leak.

(d) Use or allow the use of water or flushing from any public or private fire hydrant for any purpose other than fire suppression, necessary fire hydrant or water distribution system maintenance, public emergency, or with prior approved written exception from the town.

(e) Willfully or negligently waste water in a manner not otherwise prohibited above.

## Section 6. Enforcement and Variances

[insert standard town language here]

## Section 7. Relationship to Water Shortage Stages

(a) The requirements of this Ordinance may be superseded by a declaration of a Water Supply Shortage or Emergency, or by mandatory water restrictions as set forth in the town's Water Shortage Response Ordinance.