

**CITY OF WINTER HAVEN FACT SHEET  
PLANNING COMMISSION MEETING  
August 2, 2022**

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**DATE:** July 18, 2022

**TO:** Winter Haven Planning Commissioners

**VIA:** Eric Labbe, Economic Opportunity & Community Investment Director

**FROM:** Sean Byers, Planning Manager

**SUBJECT: Case Number P-22-50:** Administrative request to amend the Winter Haven Code of Ordinances, Chapter 21, Article III, Division 4, by adding Section 21-154 relating to water conservation standards (Florida Water Star Program).

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**BACKGROUND:**

The Florida Water Star program was created in 2006, by the St. Johns Water Management District, and subsequently became a state-wide program in 2012. The goal of the program is to implement uniform standards and guidelines for water efficiency through indoor fixtures and appliances, landscape design, and irrigation systems. Earlier this year, the Southwest Florida Water Management District (SWFWMD) requested the City adopt the model Florida Water Star ordinance into the City's Land Development Code. Per SWFWMD, eight cities in Polk County have adopted the model ordinance, with three other cities and Polk County considering adoption.

The proposed language addresses the following major items regarding water conservation:

- Requires installation of *WaterSense* plumbing fixtures for all new residential, commercial, and institutional construction;
- Provides irrigation system design and installation standards which address controllers, sprinkler head type, placement, and flows;
- Provides maintenance requirements for irrigation systems; and
- Provides for irrigation exemptions for agricultural activities, vegetable gardens, athletic fields, golf courses, cemeteries, plant nurseries, and temporary irrigation.

**NOTIFICATION:**

All public notification requirements for this request were met.

**RECOMMENDATION:**

Staff recommends the Planning Commission recommend approval of this request, and its forwarding to the City Commission for final action.

**ATTACHMENT:**

Chapter 21, Article III, Division 4, Section 21-154

## Chapter 21, Article III, Division 4, Section 21-154

New Language underlined, deleted language ~~stricken through~~.

### **Section 21-154. Water Conservation**

#### A. Intent and Purpose.

It is the intent and purpose of this Section to implement uniform procedures that promote water conservation through more efficient landscapes, irrigation systems and methods, and installation of more efficient plumbing fixtures and appliances.

#### B. Definitions.

For the purposes of this Section, the following words and terms shall have the meaning given herein:

*Automatic Irrigation System* shall mean an irrigation system designed to operate following a preset program entered into an automatic controller.

*Automatic Controller* shall mean a mechanical or electrical device capable of automated operation of valve stations to set the time, duration and frequency of a water application.

*Distribution Equipment* shall mean the water emitters on irrigation systems, including but not limited to sprinklers, rotors, spray heads and micro-irrigation devices.

*ENERGY STAR*<sup>®</sup> shall mean a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy, with the purpose of reducing energy costs and protecting the environment, through energy- and water-efficient products and practices.

*Florida Water Star*<sup>®</sup> shall mean a certification program for new residential and commercial construction that is intended to include indoor and outdoor water-efficient options and prevent leaks.

*Florida Water Star Inspector* shall mean a person that verifies Florida Water Star program criteria in accordance with program documents. Inspectors demonstrate sufficient knowledge to verify appropriate subcategories (irrigation, landscape and plumbing). Inspectors are permitted to use construction documents, affidavits, and field verification during the verification period. See Florida Water Star certification program process web page at [FloridaWaterStar.com](http://FloridaWaterStar.com).

*Florida Water Star Irrigation and Landscape Accredited Professional (AP)* shall mean a landscape or irrigation professional who has successfully passed the Florida Water Star AP exam and is in good standing with the program.

Head-to-Head Spacing shall mean spacing of sprinkler heads so that each sprinkler throws water to the adjacent sprinkler.

High-volume Irrigation shall mean an irrigation system with a minimum flow rate per emitter of more than 30 gallons per hour (gph) or higher than 0.5 gallons per minute (gpm). High-volume is usually measured as gpm.

Irrigation Professional shall mean any person installing or maintaining an irrigation system in the City of Winter Haven for payment.

Irrigation Design Professional shall mean an irrigation design professional shall include state-licensed plumbers operating within the limits of the Florida Building Code, professional engineers or landscape architects licensed by the State of Florida, Florida Water Star Irrigation and Landscape Accredited Professionals and irrigation designers certified by the Irrigation Association or the Florida Irrigation Society.

Irrigation System shall mean a set of components that may include the water source, water distribution network, control components, and other general irrigation equipment which has been installed to provide irrigation.

Landscaped Area shall mean the entire parcel less the building footprint, driveways, hardscapes, decks and patios, and nonporous areas.

Licensed Irrigation Professional. An irrigation specialty contractor who obtains the irrigation specialty license from The Florida Construction Industry Licensing Board and maintains continuing education requirements.

Low-volume Irrigation shall mean any emitter or sprinkler that applies less than 30 gallons per hour (gph) or 0.5 gallons per minute (gpm).

Matched Precipitation shall be expressed in inches per hour, precipitation rate is the rate at which sprinklers apply water. Matched precipitation usually implies that all the sprinklers in a particular zone apply similar amounts of water to a given area.

Micro-irrigation shall mean the application of small quantities of water directly on or below the soil surface or plant root zone, usually as discrete drops, tiny streams, or miniature sprays through emitters placed along the water delivery pipes (laterals). Micro-irrigation encompasses a number of methods or concepts, including drip, subsurface, micro-bubbler, and micro-spray irrigation, previously known as trickle irrigation, low volume or low-flow irrigation.

Rotor shall mean a sprinkler that rotates and specifically, a gear-driven sprinkler. Often delivers a thin stream of water in a circular pattern over a longer distance with a precipitation rate from 0.1 inches per hour to 1.5 inches per hour.

Side-strip Sprinkler shall mean a sprinkler nozzle that sprays a long, but narrow pattern.

Spray Head shall mean a sprinkler head with a fixed orifice that does not rotate.

Substantial Modification shall mean any modification to an existing irrigation system such that 50 percent or more of the irrigation system (by area) is replaced or altered.

Temporary Establishment Irrigation shall mean the temporary use of irrigation for the establishment of new vegetation that shall be removed once the plants are established or within two years, which occurs first.

WaterSense® shall mean a program sponsored by the U.S. Environmental Protection Agency to promote the use of water-efficient products and services (Florida Water Star).

#### C. Efficient Plumbing Requirements.

1. Contractors obtaining City of Winter Haven Building Permits, for all new residential, commercial and institutional construction, no more than 60 days after the effective date of this Section, shall incorporate WaterSense plumbing fixtures (faucets, showerheads and toilets) and ENERGY STAR appliances (clothes washer and dishwasher) into said construction. All new construction shall incorporate WaterSense plumbing fixtures and ENERGY STAR appliances prior to issuance of certificate of occupancy.
2. In appliances where WaterSense plumbing fixtures and ENERGY STAR appliances are not available, a written request for an exception must be submitted and approved by the City. For exception to be approved, a best alternative water and/or energy conservative fixture and/or appliance must be identified in the submittal.

#### D. Florida Water Star Certification Effect.

Florida Water Star is a water conservation certification program for new and existing homes and commercial developments that meet specific water-efficiency criteria for indoor fixtures and appliances, landscape design and irrigation systems. Residential and commercial properties obtaining the Florida Water Star Certification will exceed conservation requirements imposed by this Section.

Upon receipt of certification from the Florida Water Star program that a residential or commercial property has obtained the Florida Water Star Certification, the City will not require the submission of the Letter of Certification of the Design for an Irrigation System, or the Letter of Completion Certifying Compliance with Design for an Irrigation System.

## E. Irrigation System Design and Installation Standards.

1. Applicability. Irrigation system design and installation standards shall apply to the following:

a. All new residential, commercial, and institutional construction where a new landscape irrigation system is required.

b. Where significant rehabilitation (50% or greater) of an existing landscape irrigation system will be conducted.

2. General.

a. Nothing within this Section shall require the installation of an irrigation system.

b. All irrigation systems shall be designed by an irrigation professional consistent with the irrigation systems standards and as set forth in this Section.

c. Where *Florida Water Star* Certification will not be obtained, a "Letter of Certification of the Design for an Irrigation System" signed by the contracted irrigation professional certifying the design is consistent with the requirements of this Section shall be required to obtain a building or irrigation permit before issuance of said permit.

d. *Florida Water Star* Certification or a "Letter of Completion Certifying Compliance with Design for an Irrigation System" signed by the contracted irrigation professional certifying the installation is consistent with the design shall be required before issuance of a certificate of occupancy.

e. All irrigation systems must be properly installed and maintained and must operate technology such as rain and/or soil moisture sensors that inhibit or interrupt operation of the irrigation systems during periods of sufficient moisture.

f. Compliance with this Section shall not exempt an individual from any other local, state or federal requirements.

3. System Design and Installation Standards.

Irrigation system design and installation shall be consistent with the irrigation system standards and the following requirements:

a. The maximum total irrigated area on residential lots, regardless of lot size, shall not exceed 10,000 square feet. This provision does not apply to temporary irrigation such as portable hoses and sprinklers.

- b. High-volume irrigation area shall not exceed 60 percent of the landscaped area. This standard is applicable on residential lots over 6,000 square feet and commercial lots over 21,750 square feet. This standard applies to common areas and open space in developments. This standard excludes vegetable gardens and fruit or nut trees on individual lots or community gardens.
- c. Narrow areas, four (4) feet wide or less, shall not be irrigated unless correctly installed low-volume irrigation or correctly installed side-strip irrigation are used.
- d. High-volume irrigation shall not be used for trees, shrubs, or groundcover beds. Permanent micro-irrigation may be used in these areas. The City encourages the use of temporary establishment irrigation.
- e. Irrigation zones shall be divided according to vegetated groupings (e.g., turfgrass, shrubs, native plants, trees) and the water requirements of the plants. Turf grass and landscaped beds, such as trees, shrubs, and groundcover beds, shall not be irrigated in the same zone as each other.
- f. Sprinkler head types, such as spray heads and rotors, shall not be mixed in the same zone.
- g. Distribution equipment in each zone shall have matched precipitation rates.
- h. Rotors and spray sprinkler heads in turfgrass areas shall be spaced to provide head-to-head coverage.
- i. A minimum separation of four (4)-inches shall be required between distribution equipment and pavement.
- j. A minimum separation of 24-inches shall be required between distribution equipment and buildings and other vertical structures, except fences.
- k. Technology that inhibits or interrupts operation of the irrigation system during periods of sufficient moisture shall be required on all irrigation systems to avoid irrigation during periods of sufficient rainfall. Examples of such devices include soil moisture sensors, weather stations, and rainfall shut off devices. The technology shall override the irrigation cycle when adequate rainfall has occurred. Technology that depends on rainfall for bypassing irrigation shall be placed where it is exposed to unobstructed natural rainfall and in compliance with Chapter 373.62, F.S., as amended.

- l. Permanent irrigation systems shall be equipped with an automatic control system to provide the following minimum capabilities:
  - 1. Ability to be programmed in minutes, by day of week, season, and time of day;
  - 2. Ability to accommodate multiple start times and programs;
  - 3. Automatic shut off after adequate rainfall;
  - 4. Ability to maintain time during power outages; and
  - 5. Operational flexibility to meet applicable year-round water conservation requirements.
- m. Sprinklers in low-lying areas have check valves to prevent head drainage.
- n. Irrigation system equipment shall be installed in accordance with manufacturer's specifications.
- o. No direct spray shall be allowed onto walkways, buildings, roadways, drives and impervious surfaces.
- p. Pipelines shall be designed to provide the system with the appropriate pressure required for maximum irrigation uniformity.
- q. All sprinkler heads with spray nozzles (non-rotary) shall be pressure-regulated at the head or zone valve.
- r. All irrigation system underground piping shall have minimum soil cover of six inches.
- s. Sprinklers shall rise above turfgrass height: a minimum of 6-inch pop-up for sprays and 4-inch pop-up for rotors for St. Augustine, Zoysia and Bahia grasses; a minimum of a 4-inch pop-up for sprays and rotors for Centipede, Bermuda and Seashore Paspalum grasses.

#### F. Maintenance of Irrigation Systems

- 1. An irrigation professional responsible for installing or substantially modifying an irrigation system shall provide the property owner with a maintenance checklist affixed to or near the controller and accompanied by a recommended maintenance schedule, proper irrigation system settings according to season, recommendations for checking technology that inhibits or interrupts operation of the system during periods of sufficient moisture, filter cleaning recommendations, if applicable, and information on the current water restrictions.

2. A property owner shall ensure that irrigation systems on their property are inspected at least annually for leaks, overspray, maladjusted heads, and heads that may be capped due to changes in the landscape, such as maturity or changes in plants. Technology that inhibits or interrupts operation of the system during periods of sufficient moisture may need to be replaced every few years and shall be correctly functioning to be in compliance with this article. Irrigation systems with known leaks shall not be operated until the leaks are repaired, except for testing purposes.
3. Within sixty (60) calendar days after landscape installation, the property owner shall ensure that the irrigation controller is adjusted to operate according to normal, established landscape conditions or irrigation restrictions, if the irrigation system is installed as part of newly established landscaping.

#### G. Exemptions

The following are exempted from the provisions of this section, but should follow the Florida Department of Environmental Protection's applicable "Florida-Friendly Best Management Practices for the Protection of Water Resources by the Green Industries":

- Bona fide agricultural activities;
- Vegetable gardens and fruit and nut trees;
- Athletic fields;
- Golf course play areas;
- Cemeteries;
- Nurseries; and
- Temporary establishment irrigation.

#### H. Alternative Compliance

1. An applicant may submit a proposal that varies from the strict application of the requirements of this Section (also known as "alternative compliance") in order to accommodate unique site features or characteristics, utilize innovative design, prevent extraordinary hardship, or to promote the overriding public interest or general public welfare. Diminished value of property or inconvenience is not an extraordinary hardship.
2. An applicant seeking authorization for alternative compliance shall have the burden of demonstrating to the City the reasons why the strict application of the requirements of this Section should not apply.
3. Requests for alternative compliance shall be submitted as part of the irrigation system approval process.
4. The City may approve an alternative compliance plan upon finding that the alternative compliance plan fulfills the purpose and intent of this Section at least as well as a plan that strictly adheres to the requirements of this Section.



5. The City may require a site inspection and corresponding site inspection fee for systems which are installed according to an approved alternative compliance plan.

I. Enforcement

Violation of any provision of this article shall be subject to penalties as provided for by this Code or by local law and compliance with this article may be enforced by any remedy available to the City at law or equity.