

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

LANDSCAPE WATER CONSERVATION ORDINANCE GUIDELINES

This document provides guidelines for the development of local government landscape water conservation ordinances. Local governments are required by Sections 125.568 and 166.048, Florida Statutes (*FS*), to consider adopting ordinances that require water-conserving landscapes. Section 373.185, *FS*, requires each water management district to provide a model ordinance to provide guidance to local governments in ordinance development. Local governments are not required by SJRWMD to adopt an ordinance based on these guidelines.

These guidelines were prepared with the assistance of a committee consisting of representatives from city and county governments, including elected officials and staff involved with planning, zoning, code enforcement, water conservation, utility operation and management, and senior management; professional and special interest organizations, including Florida Native Plant Society, Florida Irrigation Society, Florida Build Green Coalition, Florida Nursery Growers and Landscape Association, Florida Sod Growers Cooperative; landscape architects, the land development community, environmentalists, and concerned citizens; and government agencies, including Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, University of Florida Institute of Food and Agricultural Sciences Agricultural Extension Service and Lake County Water Authority.

The guidelines focus on issues that affect water use and do not address aesthetics, water quality, soil erosion control, fire resistance, and other considerations which may be included in comprehensive landscape regulations. Additional regulations may be needed to protect water quality or to assure aesthetically acceptable and safe landscapes.

Recommended Provisions for Local Landscape Water Conservation Ordinances

- ◆ **Landscapes** (model ordinance provisions provided)
 - Prior to installation, landscape plans meeting Florida-friendly landscape principles must be certified by appropriately licensed design professionals.
 - Newly installed landscapes must be inspected by appropriately licensed design professionals to ensure that they were installed as designed.
 - Landscape maintenance must be performed in accordance with recommendations in the current edition of *Florida Green Industries Best Management Practices for Protection of Water Resources in Florida* or the *Florida Yards & Neighborhoods Handbook*.
 - A person providing landscape installation or maintenance services for hire must be appropriately licensed.
 - Demonstration landscapes must be provided.

- ◆ **Irrigation Systems** (model ordinance provisions provided)
 - Permanent irrigation systems must meet design and construction standards in Appendix F of the Florida State Building Code and the Florida Irrigation Society's (FIS) January 1, 2002 or most current version of *Standards and Specifications for Irrigation Systems* for any features not treated in Appendix F.
 - Irrigation systems must be designed and installed by appropriately licensed professionals.
 - Overhead or spray irrigation may be used only for turfgrass and other ground covers that normally have a mature or maintained height no greater than one foot. Trees, shrubs, and other plants may be irrigated only with low volume irrigation at the base of the plant.
 - Overhead or spray irrigation is limited to 70 percent or less of the landscapable area. A lower percentage is recommended for areas identified as Priority Water Resource Caution Areas in SJRWMD's District Water Supply Plan.
 - Installation of non-potable water lines must be required when a source is available or anticipated to become available.
 - Irrigation systems must be connected to available non-potable water supply systems.
 - Irrigation systems connected to reclaimed water supply systems must be metered.
 - Irrigation systems must be operated and maintained in accordance with the *Florida Green Industries Best Management Practices for Protection of Water Resources in Florida* (2002 or the most current edition) or the *Florida Yards and Neighborhood Handbook*.

- ◆ **Licensing and Certifications** (model ordinance provisions provided)
 - The state-licensed professionals allowed to perform regulated services should be identified.
 - If other than state-licensed professionals can perform regulated services, the appropriate certification and training must be specified.

◆ Site Design Standards

- Existing native vegetation must be preserved on a site percentage basis and/or by targeting specific vegetative communities for preservation.
- Land clearing regulations must protect native vegetation prior to and during land development activities.
- Plants prohibited by Florida Department of Agriculture and Consumer Services rule, Chapter 5B-57 *F.A.C.*, must be removed from the site.
- Impervious surface areas are limited by zoning or future land use category.

◆ Inspection and Enforcement

- Enforcement of this set of regulations includes the issuance of citations, the treatment of each day a violation occurs as a separate offense, the imposition of fines that are significant and progressive, and the suspension or revocation of licenses or certifications.
- Inspections are required to assure compliance with the provisions of the ordinance.

Before enacting an ordinance a local government should determine whether or not the ordinance is consistent with or implements the local government's comprehensive plan. If the local government determines that the ordinance is not consistent with or does not implement its comprehensive plan, then appropriate comprehensive plan amendments should be adopted before proceeding with ordinance adoption.

MODEL ORDINANCE PROVISIONS

The following model ordinance provisions are examples on which a local ordinance may be based. The local ordinance need not duplicate the exact wording of these examples as long as the required provisions are satisfactorily addressed.

I. LANDSCAPES

1. In general

New landscapes or substantially replaced landscapes shall meet the standards established in this section. Maintenance of all landscapes shall comply with maintenance standards of this section.

2. Landscape Design

All landscapes shall be designed to use water efficiently and follow Florida-friendly landscape principles. The most current versions of *Florida Yards & Neighborhoods Handbook*, the Water Management Districts' *Waterwise Florida Landscapes*, *Xeric Landscaping with Florida Native Plants* by the Association of Florida Native Nurseries, the *Florida Green Industries Best Management Practices for Protection of Water Resources in Florida*, and *Water Right: Conserving our Water, Preserving our Environment* published by the International Turf Producers Foundation shall guide landscape designs.

A landscape design certified by a landscape design professional shall be submitted to the City/Town/County prior to landscape installation. Landscape design documents shall include a landscape layout and planting plan, and if irrigation is provided, an irrigation plan completed in accordance with the irrigation system design requirements of this ordinance. Landscape design professionals shall meet the licensing and certification requirements of this ordinance.

3. Landscape installers

Any person providing landscape installation services for hire is a landscape installation professional and shall meet the licensing and certification requirements of this ordinance.

4. Appropriate plant selection and location

Plant selection for landscaped areas shall be based on the plant's adaptability to the existing conditions present at the site, and shall consider the appropriate hardiness zone, soil type and moisture conditions, exposure to sun, and mature plant size. Plants selected must be suited to withstand the soil and physical growing conditions found in the microclimate of each location on a site with supplemental irrigation only during periods in which rainfall has been less than one inch in the last seven days.

Plants shall be grouped in accordance with their respective water and maintenance needs to provide for efficient irrigation. Plants with similar water soil, climate, sun, and light requirements shall be grouped together.

Plants prohibited by Florida Department of Agriculture and Consumer Services rule, Chapter 5B-57 *F.A.C.*, shall not be used not be used for landscaping purposes. Controlled plants named in Chapter 5B-57, *F.A.C.*, may not be used except as allowed by Chapter 5B-57, *F.A.C.*

5. Use of mulches

Mulches with a minimum depth of two inches shall be used in all planting beds.

6. Landscape certification

The completed landscape installation shall be certified by a landscape design professional who meets the licensing and certification requirements of this ordinance. When the landscape installation is part of a construction project, the certification is required before issuance of the Certification of Occupancy or its equivalent. The certification shall indicate that plants were installed as specified in the landscape design documents, that an irrigation audit has been performed, and that the audit confirmed that the system functions properly.

7. Landscape maintenance standards

Landscape maintenance shall be performed in accordance with the *Florida Green Industries Best Management Practices for Protection of Water Resources in Florida*, the University of Florida Cooperative Extension Service and with the *Florida Yards & Neighborhoods Handbook*.

8. Landscape maintenance professionals

Any person providing services for hire regarding any aspect of landscape maintenance including the application of fertilizer and pesticide is a landscape maintenance professional and must meet the licensing and certification requirements of this ordinance.

9. Demonstration landscapes

The City/Town/County shall provide demonstration landscapes at government facilities. Developers of single family residential subdivisions, PUDs, or any non-residential development, which include model buildings, shall provide demonstration landscapes at the site of at least one model building. Information about Florida-friendly landscape principles shall be provided at demonstration landscape sites and signs shall identify the sites as examples of water efficient landscapes.

II. IRRIGATION SYSTEMS

1. In general

Installation of an irrigation system is not required by this ordinance. A construction permit is required if an irrigation system is installed or substantially replaced.

2. Irrigation system design

A new or substantially replaced irrigation system shall be designed and constructed in accordance with the technical standards contained in Appendix F of the Florida State Building Code and the Florida Irrigation Society's (FIS) January 1, 2002 or most current edition of *Standards and Specifications for Irrigation Systems* for any features not treated in Appendix F.

An irrigation system plan certified by an irrigation design professional shall be provided prior to issuance of a permit. Plans shall be clearly readable, to reasonable scale, show the entire site to be irrigated, and include all improvements and equipment specifications. Irrigation design professionals must meet the licensing and certification requirements of this ordinance.

3. Irrigation system installation

Irrigation installation professionals meeting the licensing requirements of this ordinance may install irrigation systems. An irrigation valve site diagram detailing valve locations, gallons per minute demands, precipitation rates, plant types within valve circuits, and operating pressure requirements for each valve shall be developed by the installer. This diagram shall be attached inside each irrigation controller or be kept in another readily available location if it is not practical to insert it in a small controller. Irrigation scheduling information, with instructions for seasonal timer and sensor changes, and a regular irrigation system maintenance schedule shall be provided to the owner by the installer or by the builder to the owner at the sale of newly constructed building.

4. Limits to in-ground irrigation system installation

Overhead or spray irrigation may be used only for turfgrass and other ground covers that normally have a mature or maintained height no greater than one foot. Trees, shrubs, and other plants may be irrigated only with low volume irrigation at the base of the plant. Permanent in-ground overhead or spray irrigation shall be limited to 70 percent of the landscapable area on a site. Lower percentages may be required in the development review process as part of the approval criteria for developments to be awarded additional density, or for specific large scale development approval such as developments of regional impact. The remainder of the landscapable area on a site may be irrigated with a drip or other low volume irrigation system.

5. Meters required on in-ground irrigation systems using reclaimed water.

All newly installed in-ground irrigation systems connected to a reclaimed watersupply shall be equipped with meters at the time of installation to measure water usage.

6. Mandatory connection of irrigation system to non-potable water supply

All irrigation systems shall be connected to a non-potable water supply such as reclaimed water, storm water, or surface water, if such supply is available.

7. Non-potable water lines

Site plans and plans for subdivisions and planned unit developments shall include transmission and distribution lines for non-potable water, such as reclaimed water, storm water, or surface water for landscape irrigation if a supply of such water is available or is anticipated to become available to the area. The lines shall be installed prior to construction.

8. Operation and maintenance

All irrigation systems shall be operated and maintained in accordance with the *Florida Green Industries Best Management Practices for Protection of Water Resources in Florida* (2002 or the most current edition) or the *Florida Yards and Neighborhood* program, and in accordance with the irrigation scheduling information and with the system maintenance schedule provided by the builder to the owner at the sale of newly constructed building, by the installer at the time of installation, or by an existing owner to a new owner at the time of sale. A regular irrigation maintenance schedule shall include but not be limited to checking, adjusting, and repairing irrigation equipment; and resetting the automatic controller according to the season.

To maintain the original performance and design integrity of the irrigation system, repair of the equipment shall be done with the originally specified materials or their equivalents.

The irrigation system, including automatic rain sensor shutoff device, must be certified by an irrigation system installation professional to be operating properly and in good repair at such time as the property may be resold.

III. LICENSING AND CERTIFICATIONS

1. In general

The license or certification specified in this section is required to provide the corresponding services regulated in this ordinance.

2. Landscape design professionals

Landscape design professionals shall include landscape architects licensed in the State of Florida, and landscape designers certified by the Florida Nurserymen Growers and Landscapers Association, the Florida Yards & Neighborhoods program or comparable program.

3. Landscape installation professionals

Landscape installation professionals shall include landscape architects licensed in the State of Florida, and landscape contractors certified by the Florida Nurserymen Growers and Landscapers Association, the Florida Yards & Neighborhoods program, or comparable program.

4. Landscape maintenance professionals

Landscape maintenance professionals shall include landscape architects licensed in the State of Florida, landscape contractors certified by the Florida Nurserymen Growers and Landscapers Association, the Florida Yards & Neighborhoods program, or comparable program, and holders of a valid pesticide license issued under Ch. 482 or Ch 487, *FS*, (for pesticide applications only).

5. Irrigation design professionals

Irrigation design professionals shall include state-licensed plumbers operating within the limits of the Florida Building Code, professional engineers or landscape architects registered in the State of Florida, and irrigation designers certified by the Irrigation Association or Florida Irrigation Society.

6. Irrigation Installation and Maintenance Professionals

Irrigation installation and maintenance professionals shall include state-licensed plumbers operating within the limits of the Florida Building Code, and specialty contractors licensed by the City/Town/County and certified by the Irrigation Association or the Florida Irrigation Society.

7. Training

The professionals listed above must annually complete a minimum of 4 professional development hours (PDH) in principles of Florida-friendly landscaping from an approved training organization unless their license or certification requires a minimum of 4 PDH per year or 8 PDH over a two-year period to maintain licensing or certification. 50 minutes of instruction equals a PDH.

IV. DEFINITIONS

For the purpose of this ordinance, the following words and phrases shall have the meanings respectively ascribed to them by this section.

Automatic Controller. A mechanical or electronic device, capable of automated operation of valve stations to set the time, duration, and frequency of a water application

Best Management Practices (BMPs). A practice or combination of practices based on research, field-testing, and/or expert review, determined to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality, conserving water supplies, and protecting natural resources.

Ground cover. Low growing plants, other than turfgrass, used to cover the soil and form a continuous, low mass of foliage.

Florida-friendly landscape. Quality landscapes that conserve water and protect the environment, and are adaptable to local condition. Florida-friendly landscape principles include planning and design, appropriate choice of plants, soil amendments, efficient irrigation, practical use of turf, appropriate use of mulches, and proper maintenance.

Landscapable area. The area of a site less the building area, natural water features, driveways, paved walkways, and hardscapes such as decks, patios, and fountains, but including areas set aside for the preservation of native vegetation, swales, retention and detention basins.

Low volume irrigation (Microirrigation). The application of small quantities of water directly on or below the soil surface, usually as discrete drops, tiny streams, or miniature sprays through emitters placed along the water delivery pipes (laterals). Microirrigation encompasses a number of methods or concepts including drip, subsurface, bubbler, and trickle irrigation.

Turf or turfgrass. A mat layer of monocotyledonous plants such as Bahia, Bermuda, Centipede, Paspalum, St. Augustine, and Zoysia.

