ORDINANCE 2004-05

AN ORDINANCE OF THE COUNTY COUNCIL
OF VOLUSIA COUNTY, FLORIDA,
AMENDING THE CODE OF ORDINANCES
OF THE COUNTY OF VOLUSIA BY
AMENDING CHAPTER 50, ARTICLE III,
“MINIMUM STANDARDS FOR
ENVIRONMENTAL PROTECTION;” BY
AMENDING SECTION 50-71, “DEFINITIONS;”
AND BY CREATING A NEW DIVISION 10,
“WATER WISE LANDSCAPE IRRIGATION,”
SECTIONS 50-370 THROUGH 50-390; BY
PROVIDING FOR PURPOSE AND INTENT;
BY PROVIDING FOR AUTHORITY AND
APPLICABILITY; BY PROVIDING FOR
EXEMPTIONS; BY PROVIDING FOR
REQUIREMENTS FOR EFFICIENT
IRRIGATION; BY PROVIDING FOR
IRRIGATION SYSTEM DESIGN GUIDELINES;
BY PROVIDING FOR MUNICIPAL
ENFORCEMENT; BY PROVIDING FOR
PERMITTING AND FEES; BY PROVIDING
FOR PENALTY; BY PROVIDING FOR
APPEALS; BY PROVIDING FOR
SEVERABILITY; BY PROVIDING FOR
INCLUSION IN CODE AND SCRIVENERS
ERRORS; BY PROVIDING AN EFFECTIVE
DATE.

WHEREAS, §§125.568, 166.048, and 373.185, Florida Statutes, provide that
local governments should consider the adoption of water-efficient landscape standards;

WHEREAS, §§125.568(3), 166.048(3), and 373.185(3) provide that a deed
restriction or covenant entered after October 1, 2001, or local government ordinance
may not prohibit any property owner from implementing Xeriscape or Florida-friendly
landscape on his or her land; and

WHEREAS, the Florida Watershed Restoration Act of 1999 and the National
Pollutant Discharge Elimination System (NPDES) municipal stormwater permitting
program require local governments to reduce pollutant loads discharged from
stormwater management systems to better protect and restore surface and ground
waters; and
WHEREAS, §50-316, Code of Ordinances of the County of Volusia sets minimum standards for environmental protection that require rain sensor devices and establish general restrictions on water use for conservation purposes; and

WHEREAS, the County of Volusia recognizes the need for further protection of water as a natural resource through water wise irrigation practices and the application of Florida Friendly landscape practices; and

WHEREAS, water wise irrigation and Florida Friendly landscapes promote water conservation by efficient watering methods that generally result in a long-term reduction of irrigation, fertilizer, pesticide requirements, costs, energy, and maintenance; and

WHEREAS, water wise irrigation practices are designed to save significant amounts of water to preserve local water supplies.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNTY COUNCIL OF THE COUNTY OF VOLUSIA, FLORIDA, as follows:

SECTION I: Chapter 50, of the Code of Ordinances of the County of Volusia, Article III, “Minimum Standards for Environmental Protection,” Section 50-71, “Definitions,” is amended by adding the following definitions:

As-Built Sketch means a drawing or diagram of an irrigation system as it exists at the time of irrigation system completion prepared by or at the direction of the person installing the system. This drawing must be in substantially the same form and contain the information as the sample sketch on file with the Volusia County Health Department.

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

Director means Director of the Environmental Management Division of the County of Volusia, or authorized designee.
Distribution Equipment means water emitters on irrigation systems including but not limited to sprinklers, rotors, spray heads and microirrigation devices.

Expansion of Irrigation System means any addition to an irrigation system beyond the extent of the original, permitted installation.

Filter means a device in an irrigation system that separates sediment or other foreign matter.

Florida Friendly means practices, materials, or actions that enhance the preservation of Florida’s natural resources and protection of the environment.

Florida Friendly Landscape means a landscape that incorporates the BMPs and philosophies promoted by programs such as Florida Yards and Neighborhoods/Environmental Landscape Management. The programs promote quality landscapes that conserve water, utilize water wise principles, protect the environment, are adaptable to local conditions, and are drought tolerant.

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

Hardscape means areas such as patios, decks, driveways, paths and sidewalks that do not require irrigation.

High Volume Irrigation Area means a portion of landscaped area of any property that utilizes rotors, pop-up sprays, or sprinkler heads that irrigate more than five gallons per minute (per outlet).

Irrigation Contractor means a licensed Volusia County Health Department Certified Pump and Irrigation Contractor, a licensed Florida Water Well Contractor, a
Florida State Registered Plumbing Contractor, or a Florida State Certified Plumbing Contractor.

*Irrigation System* means a device or combination of devices having a hose, pipe, or other conduit connected directly to any source of ground or surface water, through which water, or a mixture of water and chemicals, is drawn and applied for residential, commercial or agricultural purposes.

*Irrigation Zone* means a grouping of rotors, sprinkler heads, pop-up sprays, microirrigation emitters, or other irrigation equipment operated simultaneously by the control of one valve.

*Landscape* means any combination of living plants (such as turfgrass, ground cover, shrubs, vines, hedges, or trees) and non-living landscape material (such as rocks, pebbles, sand, mulch, walls, fences, or decorative paving materials).

*Landscaped Area* means any parcel, excluding the building footprint, driveways, sidewalks, hardscapes such as decks and patios, and non-porous areas. Water features are included in the calculation of the landscaped area. This area includes Xeriscape as defined in § 373.185(1)(b) F.S.

*Low Volume Irrigation Area* means a portion of landscaped area of any property that uses exclusively microirrigation.

*Medium Volume Irrigation Area* means a portion of landscaped area of any property that utilizes pop-up sprays or sprinkler heads that irrigate at a rate of one-half to five gallons per minute (per outlet).

*Microirrigation* means the application of small quantities of water directly on or below the soil surface, usually as discrete drops or tiny streams through emitters placed...
along the water delivery pipes (lateral.) Microirrigation encompasses a number of methods or concepts including drip, subsurface, bubbler, low volume, or low flow irrigation, all of which emit less than 2 gallons of water per hour (gph) per outlet.

*Mulch* means non-living, organic or synthetic materials customarily used in landscape design to retard erosion and retain moisture.

*Native Vegetation* means an area which contains fifty percent (50%) or more plant species with a geographic distribution indigenous to all, or part, of the State of Florida, as identified in Wunderlin, R. P. 1998. *Guide to the Vascular Plants of Florida*. University Press of Florida, Gainesville. For the purposes herein, native vegetation does not include areas converted for agricultural use.

*New Irrigation System Installation* means an irrigation system permitted after the effective date of this ordinance.

*Owner/Contractor* means a person who installs an irrigation system on his or her own primary residence.

*Permitting Authority* means the Volusia County Health Department (VCHD) or the municipal designee.

*Pop-up Sprays* means spray heads, usually hidden in the landscape, that pop-up due to water pressure when activated and provide a continuous spray pattern throughout a given arc of operation.

*Portable Sprinklers* means any type of water sprinkler attached to the end of a hose including, but not limited to impact sprinklers, oscillating-arm sprinklers, and stationary fan sprinklers.
Pressure Regulating Head means a device that maintains a constant flow and pressure for increased efficiency of irrigation systems.

Rain Sensor Device means an operational, electrical or mechanical component placed in the circuitry of an irrigation system that is designed to override a sprinkler controller when precipitation has reached a pre-set quantity.

Runoff means water from rainfall, irrigation, or other sources that is not absorbed by the soil or landscape and flows from the area, often contaminated with pesticides, fertilizers, and other pollutants.

Substantial Irrigation System Modification means any modification to existing irrigation systems such that fifty percent (50%) or more of the irrigation system is impacted, replaced or altered.

Turfgrass means a mat layer of monocotyledonous plants such as Bahia, Bermuda, Centipede, Paspalum, St. Augustine and Zoysia.

Valve means a device used to control the flow of water in an irrigation system.

Water Wise Irrigation means irrigation design, installation, and maintenance that incorporates water efficient strategies and components, such as pressure regulating heads, rain sensor devices, and BMPs.

Water Wise Principles means appropriate planning and design, proper choice of plants, soil analysis that may include the use of solid waste compost, efficient irrigation, practical use of turf, appropriate use of mulches, and proper maintenance as set forth in §373.185 F. S.

Sec. 50-370. Purpose and Intent.

(a) The purpose and intent of this division is to promote water wise practices by establishing standards for the development, installation, and maintenance of landscape irrigation systems without inhibiting creative landscape design, construction and management.

(b) The water wise irrigation standards set forth herein are designed to conserve local water supplies and minimize adverse effects on Florida’s natural systems.

(c) The quality of Florida’s surface and ground water is adversely affected by irrigation runoff and leachate. Improper landscape irrigation design, construction, and management contributes to nonpoint source pollution that affects ground and surface water quality.

(d) This division establishes water wise landscape irrigation standards and encourages the use of Florida Friendly landscaping practices. Water wise landscape irrigation standards promote efficient water use, minimize polluted runoff, and utilize water conservation components and equipment. The Florida Friendly landscape concept is based on the principles of the Florida Yards and Neighborhoods (FYN) and Environmental Landscape Management (ELM) programs operated by the University of Florida Cooperative Extension Service.

Sec. 50-371. Authority and applicability.

(a) This division is adopted by the County of Volusia under its police power and charter authority to adopt minimum standards for environmental protection.

(b) These provisions shall be the minimum standards for irrigation systems applicable to landscape irrigation systems within the unincorporated and incorporated areas of the county.

(c) These provisions apply to new irrigation system installations on individual parcels and within entire subdivisions, head replacement on existing irrigation systems, expansion of irrigation systems and substantial irrigation system modification.

Sec. 50-372. Exemptions.

The following are exempted from the provisions of this division:

(a) Hand watering and portable sprinklers;

(b) Bonafide agricultural use;

(c) Golf course play areas and specialized athletic fields, provided however, the remainder of any such property shall comply with the requirements of this division.
Sec. 50-373. Requirements for efficient irrigation.

(a) System Design.

Irrigation systems shall be designed, constructed, and permitted to include:

(1) Automatic irrigation controllers, when utilized, shall contain a functional rain sensor device, capable of being set to one minute run times, and battery backup capability to retain programming in the event of a power failure;

(2) A rain sensor placed on a stationary structure, free and clear of any overhead obstructions and above the height of the sprinkler coverage;

(3) Equipment with check valves used in low-lying areas to prevent low head drainage;

(4) Backflow prevention methods and other provisions prescribed in section 74-42;

(5) Irrigation design with the appropriate uniformity for the type of plant being grown and for the type of soil;

(6) Irrigation system equipment installed as designed;

(7) Irrigation zones divided according to: available flow rate, vegetated groupings (i.e. turf, shrubs, native plants, etc.), sprinkler types (i.e. sprinklers with matching precipitation rates), and soil characteristics;

(8) Spray heads and rotors not mixed in same zone;

(9) Distribution equipment in a given zone having matched precipitation rates;
(10) Application rates that avoid runoff and permit uniform water infiltration into the soil, considering land slope, soil hydraulic properties, vegetative ground cover, and prevailing winds;

(11) A minimum separation of four (4) inches between distribution equipment and pavement;

(12) A minimum separation of twelve (12) inches between distribution equipment and buildings and other vertical structures;

(13) No direct spray onto walkways, buildings, roadways, and drives;

(14) Lawn spray patterns providing head to head coverage;

(15) Water conveyance systems with a flow velocity of five (5) feet per second or less;

(16) Pipelines designed to provide the system with the appropriate pressure required for maximum irrigation uniformity;

(17) Pressure regulating heads; and

(18) A maintenance checklist provided to the property owner by the irrigation contractor accompanied by a recommended maintenance schedule, proper irrigation system settings according to season, recommendations for checking rain sensor device, filter cleaning recommendations and information on the current water restrictions.

(b) System Layout and Native Vegetation Retention.

Irrigation systems shall comply with the following requirements:
(1) A high volume irrigation area shall not exceed fifty percent (50%) of the landscaped area. Low or medium volume irrigation areas may be utilized in lieu of any high volume irrigation area.

(2) A medium volume irrigation area shall not exceed twenty-five percent (25%) of the landscaped area. However, the landscaped area may contain up to seventy-five percent (75%) medium volume irrigation area, if no high volume irrigation area is utilized on site.

(3) A low volume irrigation area may be utilized for an entire landscaped area with the exception of native vegetation areas regulated by section 50-373 (b)(4).

(4) In the alternative to section 50-373 (b)(1)), (2), and (3) above, if twenty-five percent (25%) of the pre-existing native vegetation is retained on site, the remaining seventy-five percent (75%) of the landscaped area may be a high volume irrigation area. For all pre-existing native vegetation retained on a parcel:

a. No supplemental water shall be applied to the native vegetation area;

b. Only hand pruning of native vegetation is allowed;

c. Mechanical mowing or clearing is prohibited.

(c) System Operation Flows.

Systems shall dispense no more than:

(1) One inch of water per week for high volume irrigation areas;

(2) One-half inch of water per week for medium volume irrigation areas;
(3) One-quarter inch of water per week for low volume irrigation areas.

(d) **Irrigation System Operation and Maintenance.**

(1) Irrigation systems shall be operated properly and in compliance with section 50-315 and this section.

(2) All automatic controllers shall be programmed to the appropriate level of water conservation set forth in section 50-315.

(3) Irrigation systems shall be maintained to meet the requirements of this section.

**Sec. 50-374. Irrigation system design guidelines.**

The Director shall create educational and design guidelines including best management practices, Florida Friendly Landscape techniques and water wise principles.

**Sec. 50-375. Municipal enforcement.**

(a) The Volusia County Health Department shall administer the provisions of this division countywide unless a municipality has entered into an interlocal agreement with the county transferring administration to the municipality.

(b) Nothing herein prevents a municipality from enacting and enforcing additional regulations that are not inconsistent with this division.

**Sec. 50-376. Permitting and fees.**

(a) **Permitting Process.**
(1) **Permit required.** Prior to the installation, expansion, or substantial modification of an irrigation system, an owner/contractor or irrigation contractor shall obtain a valid permit from the permitting authority. A licensed contractor may obtain the permit if it is part of a building permit.

(2) **Permit approval.**

a. Action shall be taken on any complete permit application within 30 days of complete submittal.

b. Any permit issued may specify terms and conditions of approval.

c. A valid permit must be properly displayed at the job site prior to commencement of work.

d. A permit is valid for a period of six months from date of its issuance. The permitting authority may at its discretion extend this time limit for any reasonable period of time not to exceed an additional six months.

(3) **Permit denial.** The permitting authority shall notify an applicant of permit denial. Notice shall state the grounds for rejection.

(4) **Suspension or revocation of permit.** A permit may be suspended or revoked by the permitting authority if any irrigation system installation is found in violation of the permit, Florida law, Florida Administrative Code, this division, any applicable municipal ordinance or any of the following:

a. Material misstatement or misrepresentation in the application for a permit;
b. Failure to comply with the conditions set forth in the permit;

c. Disregard or violation of this article or any rule or regulation promulgated by the council;

d. Aiding and abetting another person in the violation of this article or any rule or regulation promulgated by the council pursuant hereto;

e. Failure to pay the required permit fee; and/or

f. Construction or installation of an irrigation system that would have deleterious effects on the quality of ground water supplies in the county.

(5) **Self-Certification.**

a. Contractors shall be accountable for proper installation and compliance through self-certification. The permitting authority shall conduct an adequate number of random inspections to ensure compliance of each contractor.

b. An irrigation contractor or owner/contractor must submit a completed and endorsed checklist on a form provided by the permitting authority, accompanied by an as-built sketch of the irrigation system, to the permitting authority and the property owner within thirty (30) days of irrigation system completion, permit expiration, or with any request for final inspection.

c. Irrigation contractor certificates may be refused, suspended or revoked for any material misrepresentation of information in the as-built sketch.
(6) **Certificate of Occupancy.** No certificate of occupancy shall be issued until:

a. A complete, self-certification checklist and as-built sketch have been submitted and accepted by the permitting authority; and

b. The permitting authority has conducted any required final inspection.

(b) **Fees.** A fee schedule may be adopted to fund this program.

(c) **Late permit fees or charges.** If a permit fee is not paid within thirty (30) days after notification, future permits will not be issued until all fees are paid.

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**Sec. 50-377. Penalty.**

Violations of this division may result in:

(a) Suspension or revocation of irrigation system permits pursuant to Section 74-39(i);

(b) Refusal, suspension or revocation of irrigation contractor certificates of competency pursuant to section 74-36(j);

(c) Refusal, suspension or revocation of irrigation contractor certificates of competency for a material misrepresentation of information on an as-built sketch;

and

(d) The imposition of penalties pursuant to section 1-7.
Sec. 50-378. Appeals.

Denial, suspension, or revocation of irrigation system permits by the Volusia County Health Department may be appealed to the Development Review Committee (DRC) pursuant to Appendix A, Section 101.02(d) of the Volusia County Land Development Code. DRC decision is final administrative action.

Secs. 50-379--50-390. Reserved.

SECTION III: SEVERABILITY - This ordinance and the various parts, sections, subsections and clauses thereof, are hereby declared to be severable. If any part, sentence, paragraph, subsection, section or clause is adjudged unconstitutional or invalid, it is hereby provided that the remainder of the ordinance shall not be affected thereby. If any part, sentence, paragraph, subsection, section or clause be adjudged unconstitutional or invalid as applied to a particular property, building, or other structure, it is hereby provided that the application of such portion of the ordinance to other property, buildings, or structures shall not be affected thereby.

SECTION IV: INCLUSION IN THE CODE AND SCRIVENERS ERRORS - The provision of this ordinance shall be included and incorporated into the Code of Ordinances of the County of Volusia, as additions or amendments thereto, and shall be appropriately renumbered or relettered to conform to the uniform numbering system of the Code. Sections of this ordinance may require the correction of typographical errors, which do not affect the intent. Such corrections may be authorized without need of a
Public Hearing, by filing a corrected or recodified copy of same with the clerk of the County of Volusia.

SECTION V: EFFECTIVE DATE - A certified copy of this Ordinance shall be filed with the Department of State by the County Manager within ten (10) days after enactment by the County Council and this Ordinance shall take effect July 1, 2004.


COUNTY COUNCIL

ATTEST: COUNTY OF VOLUSIA, FLORIDA

Cynthia A. Coto, County Manager Dwight D. Lewis, Chair