

**ORDINANCE 2004-05**

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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; and

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

1 WHEREAS, §50-316, Code of Ordinances of the County of Volusia sets  
2 minimum standards for environmental protection that require rain sensor devices and  
3 establish general restrictions on water use for conservation purposes; and  
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5 WHEREAS, the County of Volusia recognizes the need for further protection of  
6 water as a natural resource through water wise irrigation practices and the application of  
7 Florida Friendly landscape practices; and  
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9 WHEREAS, water wise irrigation and Florida Friendly landscapes promote water  
10 conservation by efficient watering methods that generally result in a long-term reduction  
11 of irrigation, fertilizer, pesticide requirements, costs, energy, and maintenance; and  
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13 WHEREAS, water wise irrigation practices are designed to save significant  
14 amounts of water to preserve local water supplies.  
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16 NOW, THEREFORE, BE IT ORDAINED BY THE COUNTY COUNCIL OF THE  
17 COUNTY OF VOLUSIA, FLORIDA, as follows:  
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21 **SECTION I:** Chapter 50, of the Code of Ordinances of the County of Volusia, Article III,  
22 “Minimum Standards for Environmental Protection,” Section 50-71, “Definitions,” is  
23 amended by adding the following definitions:

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

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

33 Director means Director of the Environmental Management Division of the  
34 County of Volusia, or authorized designee.

1 Distribution Equipment means water emitters on irrigation systems including but  
2 not limited to sprinklers, rotors, spray heads and microirrigation devices.

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

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

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

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

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

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

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

21 Irrigation Contractor means a licensed Volusia County Health Department  
22 Certified Pump and Irrigation Contractor, a licensed Florida Water Well Contractor, a

1 Florida State Registered Plumbing Contractor, or a Florida State Certified Plumbing  
2 Contractor.

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

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

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

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

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

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

22 Microirrigation means the application of small quantities of water directly on or  
23 below the soil surface, usually as discrete drops or tiny streams through emitters placed

1 along the water delivery pipes (laterals.) Microirrigation encompasses a number of  
2 methods or concepts including drip, subsurface, bubbler, low volume, or low flow  
3 irrigation, all of which emit less than 2 gallons of water per hour (gph) per outlet.

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

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

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

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

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

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

20 Portable Sprinklers means any type of water sprinkler attached to the end of a  
21 hose including, but not limited to impact sprinklers, oscillating-arm sprinklers, and  
22 stationary fan sprinklers.

1           Pressure Regulating Head means a device that maintains a constant flow and  
2 pressure for increased efficiency of irrigation systems.

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

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

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

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

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

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

18           Water Wise Principles means appropriate planning and design, proper choice of  
19 plants, soil analysis that may include the use of solid waste compost, efficient irrigation,  
20 practical use of turf, appropriate use of mulches, and proper maintenance as set forth in  
21 §373.185 F. S.

1 **SECTION II:** Chapter 50, of the Code of Ordinances of the County of Volusia, Article III,  
2 “Minimum Standards for Environmental Protection,” is amended by adding a new  
3 Division 10, “Water Wise Landscape Irrigation,” which contains new Sections 50-370  
4 through 50-390 as set forth herein.

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6 **Sec. 50-370. Purpose and Intent.**

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

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

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

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

1 the Xeriscape programs of the State's Water Management Districts, and  
2 practices identified in the *Green Industries Best Management Practices for*  
3 *Protection of Water Resources in Florida* (2002) as amended.

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5 **Sec. 50-371. Authority and applicability.**

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

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

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

14  
15 **Sec. 50-372. Exemptions.**

16 The following are exempted from the provisions of this division:

17 (a) Hand watering and portable sprinklers;

18 (b) Bonafide agricultural use;

19 (c) Golf course play areas and specialized athletic fields, provided however, the  
20 remainder of any such property shall comply with the requirements of this  
21 division.

1 **Sec. 50-373. Requirements for efficient irrigation.**

2 (a) System Design.

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

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

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

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

12 (4) Backflow prevention methods and other provisions prescribed in section  
13 74-42;

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

16 (6) Irrigation system equipment installed as designed;

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

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

21 (9) Distribution equipment in a given zone having matched precipitation  
22 rates;

1 (10) Application rates that avoid runoff and permit uniform water infiltration into  
2 the soil, considering land slope, soil hydraulic properties, vegetative  
3 ground cover, and prevailing winds;

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

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

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

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

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

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

14 (17) Pressure regulating heads; and

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

20 (b) *System Layout and Native Vegetation Retention.*

21 Irrigation systems shall comply with the following requirements:

1 (1) A high volume irrigation area shall not exceed fifty percent (50%) of the  
2 landscaped area. Low or medium volume irrigation areas may be utilized  
3 in lieu of any high volume irrigation area.

4 (2) A medium volume irrigation area shall not exceed twenty-five percent  
5 (25%) of the landscaped area. However, the landscaped area may  
6 contain up to seventy-five percent (75%) medium volume irrigation area, if  
7 no high volume irrigation area is utilized on site.

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

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

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

18 b. Only hand pruning of native vegetation is allowed;

19 c. Mechanical mowing or clearing is prohibited.

20 (c) *System Operation Flows.*

21 Systems shall dispense no more than:

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

23 (2) One-half inch of water per week for medium volume irrigation areas;

1           (3) One-quarter inch of water per week for low volume irrigation areas.

2   (d) Irrigation System Operation and Maintenance.

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

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

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

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

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

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

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

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

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

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24 (a) Permitting Process.

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

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6       (2) Permit approval.

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

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

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

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

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

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

22      a. Material misstatement or misrepresentation in the application for a  
23      permit;

- 1            b. Failure to comply with the conditions set forth in the permit;
- 2            c. Disregard or violation of this article or any rule or regulation
- 3            promulgated by the council;
- 4            d. Aiding and abetting another person in the violation of this article or
- 5            any rule or regulation promulgated by the council pursuant hereto;
- 6            e. Failure to pay the required permit fee; and/or
- 7            f. Construction or installation of an irrigation system that would have
- 8            deleterious effects on the quality of ground water supplies in the
- 9            county.

10           (5) Self-Certification.

- 11           a. Contractors shall be accountable for proper installation and
- 12           compliance through self-certification. The permitting authority shall
- 13           conduct an adequate number of random inspections to ensure
- 14           compliance of each contractor.
- 15           b. An irrigation contractor or owner/contractor must submit a
- 16           completed and endorsed checklist on a form provided by the
- 17           permitting authority, accompanied by an as-built sketch of the
- 18           irrigation system, to the permitting authority and the property owner
- 19           within thirty (30) days of irrigation system completion, permit
- 20           expiration, or with any request for final inspection.
- 21           c. Irrigation contractor certificates may be refused, suspended or
- 22           revoked for any material misrepresentation of information in the as-
- 23           built sketch.

1        (6) Certificate of Occupancy. No certificate of occupancy shall be issued  
2            until:

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

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

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

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

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11        **Sec. 50-377. Penalty.**

12            Violations of this division may result in:

13        (a) Suspension or revocation of irrigation system permits pursuant to Section 74-  
14            39(i);

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

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

20        (d) The imposition of penalties pursuant to section 1-7.

1 **Sec. 50- 378. Appeals.**

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

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7 **Secs. 50-379-- 50-390. Reserved.**

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

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18 **SECTION IV: INCLUSION IN THE CODE AND SCRIVENERS ERRORS** - The  
19 provision of this ordinance shall be included and incorporated into the Code of  
20 Ordinances of the County of Volusia, as additions or amendments thereto, and shall be  
21 appropriately renumbered or relettered to conform to the uniform numbering system of  
22 the Code. Sections of this ordinance may require the correction of typographical errors,  
23 which do not affect the intent. Such corrections may be authorized without need of a

1 Public Hearing, by filing a corrected or recodified copy of same with the clerk of the  
2 County of Volusia.

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

7  
8 ADOPTED BY THE COUNTY COUNCIL OF VOLUSIA COUNTY, FLORIDA, IN  
9 OPEN MEETING DULY ASSEMBLED IN THE COUNTY COUNCIL CHAMBERS AT  
10 THE THOMAS C. KELLY ADMINISTRATION CENTER, 123 WEST INDIANA AVENUE,  
11 DELAND, FLORIDA, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D., 2004.

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16 COUNTY COUNCIL  
17 ATTEST:

COUNTY OF VOLUSIA, FLORIDA

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21 \_\_\_\_\_  
Cynthia A. Coto, County Manager

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Dwight D. Lewis, Chair