ORDINANCE NO. 16-002

AN ORDINANCE OF THE COUNTY OF ORANGE, CALIFORNIA AMENDING SECTIONS 7-9-133.1 THROUGH 7-9-133.5 OF THE CODIFIED ORDINANCES OF THE COUNTY OF ORANGE RELATED TO THE COUNTY OF ORANGE LANDSCAPE IRRIGATION CODE

The Board of Supervisors of the County of Orange ordains as follows:

SECTION 1. Section 7-9-133.1 is hereby amended as follows:

The purpose of the following provisions is to comply with the requirements of California Code of Regulations, Title 23, Division 2, Chapter 2.7 to enact an ordinance that is at least as effective in conserving water as the State Model Water Efficient Landscape Ordinance developed pursuant to the requirements of Executive Order No. B-29-15 in the context of conditions in the County of Orange, in order to:

(a) Promote the values and benefits of landscapes while recognizing the need to invest water and other resources as efficiently as possible;

(b) Establish a structure for planning, designing, installing, and maintaining and managing water efficient landscapes in new construction and rehabilitated projects;

(c) Establish provisions for water management practices and water waste prevention for existing landscapes; and

(d) Use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount.

SECTION 2. Section 7-9-133.2 is hereby amended as follows:

(a) These provisions apply to all of the following landscape projects in all zoning districts:

(1) New landscape projects with an aggregate landscape area equal to or greater than 500 square feet, requiring a building or landscape permit, plan check or design review;

(2) Rehabilitated landscape projects with an aggregate landscaped area equal to or greater than 2,500 square feet, requiring a building or landscape permit, plan check or design review;

(3) New or rehabilitated landscape projects with an aggregate landscape area of 2,500 square feet or less may comply with the performance requirements of this section or conform to the prescriptive measures contained in Appendix A of the Guidelines;

(4) New or rehabilitated projects using treated or untreated graywater or rainwater capture on site, any lot or parcels within the project that has less than 2,500 square feet of landscape area and meets the lot or parcel's landscape water requirement (Estimated Total Water Use) entirely with the treated or untreated graywater or though stored rainwater capture on site is subject only to Appendix A of the Guidelines.

(b) Section 7-9-133.5(b) shall apply to:

(1) All landscaped areas, whether installed prior to or after January 1, 2010; and

(2) All landscaped areas installed after the effective date of this ordinance to which section 7-7-133.5(a) is applicable.

(c) These provisions do not apply to:

(1) Registered local, state, or federal historical sites;

(2) Ecological restoration projects that do not require a permanent irrigation system;

(3) Mined-land reclamation projects that do not require a permanent irrigation system; or

(4) Plant collections, as part of botanical gardens and arboretums open to the public.

SECTION 3. Section 7-9-133.3 is hereby amended as follows:

The following definitions apply to the specialized items in these provisions:

(a) "Aggregate landscape areas" pertains to the areas undergoing development as one project or for production home neighborhoods or other situations where multiple parcels are undergoing development as one project, but will eventually be individually owned.

(b) "Applied water" means the portion of water supplied by the irrigation system to the landscape.

(c) **"**Budget-based tiered-rate structure" means tiered or block rates for irrigation accounts charged by the retail water agency in which the block definition for each

customer is derived from lot size or irrigated area and the evapotranspiration requirements of landscaping.

(d) "Community Aesthetics Evaluation" means while not subject to a permit, plan check or design review, the Community Aesthetics Evaluation may be performed to ensure the aesthetic standards of the community and irrigation efficiency intent is maintained.

(e) "Ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

(f) "Estimated Applied Water Use" means the average annual total amount of water estimated to be necessary to keep plants in a healthy state, calculated as provided in the Guidelines. It is based on the reference evapotranspiration rate, the size of the landscape area, plant water use factors, and the relative irrigation efficiency of the irrigation system.

(g) "ET adjustment factor" or "ETAF" is equal to the plant factor divided by the irrigation efficiency factor for a landscape project, as described in the Guidelines. The ETAF is calculated in the context of local reference evapotranspiration, using site-specific plant factors and irrigation efficiency factors that influence the amount of water that needs to be applied to the specific landscaped area.

A combined plant mix with a site-wide average plant factor of 0.5 (indicating a moderate water need) and average irrigation efficiency of 0.71 produces an ET adjustment factor of (0.7) = (0.5/0.71), which is the standard of water use efficiency generally required by this Landscape Irrigation Code and the Guidelines, except that the ETAF for a special landscape area shall not exceed 1.0.

(h) "Guidelines" refers to the Guidelines for Implementation of the Landscape Irrigation Code, as adopted by the Board of Supervisors of the County of Orange, which describes procedures, calculations, and requirements for landscape projects subject to this Landscape Irrigation Code.

(i) "Hardscapes" means any durable material or feature (pervious and non-pervious) installed in or around a landscaped area, such as pavements or walls. Pools and other water features are considered part of the landscaped area and not considered hardscapes for purposes of this Landscape Irrigation Code.

(j) "Irrigation efficiency" means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The irrigation efficiency for purposes of this Landscape Irrigation Code is 0.75 for overhead spray devices and 0.81 for drip systems.

(k) "Landscaped area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance and Estimated Applied Water Use calculations. The landscaped area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

(l) "Landscape contractor" means a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

(m) "Landscape Documentation Package" means the documents required to be provided to the County for review and approval of landscape design projects, as described in the Guidelines and section 7-9-133.4.

(n) "Landscape project" means total area of landscape in a project, as provided in the definition of "landscaped area," meeting the requirements of section 7-9-132.2.

(o) "Local agency" means a city or county, including a charter city or charter county, that is authorized to implement, administer, and/or enforce any of the provisions of the Landscape Irrigation Code on behalf of the County. The local agency may be responsible for the enforcement or delegation of enforcement of this Landscape Irrigation Code including, but not limited to, design review, plan check, issuance of permits, and inspection of a landscape project.

(p) "Local water purveyor" means any entity, including a public agency, city, county, or private water company that provides retail water service.

(q) "Maximum Applied Water Allowance" or "MAWA" means the upper limit of annual applied water for the established landscaped area as specified in Section 2.2 of the Guidelines. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscaped area. The Estimated Applied Water Use shall not exceed the Maximum Applied Water Allowance. MAWA = (ETo) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]

(r) "Mined-land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

(s) "New construction" means, for the purposes of this Landscape Irrigation Code, a new building with a landscape or other new landscape such as a park, playground, or greenbelt without an associated building.

(t) "Non-pervious" means any surface or natural material that does not allow for the passage of water through the material and into the underlying soil.

(u) "Pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.

(v) "Permit" means an authorizing document issued by local agencies for new construction or rehabilitated landscape.

(w) "Plant factor" or "plant water use factor" is a factor, when multiplied by ETo, that estimates the amount of water needed by plants. For purposes of this Landscape Irrigation Code, the plant factor range for very low water use plants is 0 to 0.1; the plant factor range for low water use plants is 0 to 0.3; the plant factor range for moderate water use plants is 0.4 to 0.6; and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors cited in this Landscape Irrigation Code are derived from the publication "Water Use Classification of Landscape Species." Plant factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).

(x) "Recycled water" or "reclaimed water" means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.

(y) "Reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants. ETo is given expressed in inches per day, month, or year as represented in Appendix A of the Guidelines, and is an estimate of the evapotranspiration of a large field of four-to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of determining the Maximum Applied Water Allowances.

(z) "Rehabilitated landscape" means any re-landscaping project that meets the applicability criteria of section 7-9-133.2(a), where the modified landscape area is greater than 2,500 square feet.

(aa) "Smart irrigation controller" means an automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data with non-volatile memory shall be required for irrigation scheduling in all irrigation systems, recommending U.S. EPA WaterSense labeled devices as applicable.

(bb) "Special landscape area" means an area of the landscape dedicated solely to edible plants such as orchards and vegetable gardens, areas irrigated with recycled water, water features using recycled water, and recreational areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.

(cc) "Turf" means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-

season grasses. Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are warm-season grasses.

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

(ee) "Water feature" means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of water features is included in the high water use hydrozone of the landscaped area. Constructed wetlands used for on-site wastewater treatment, habitat protection or storm water best management practices that are not irrigated and used solely for water treatment or storm water retention are not water features and, therefore, are not subject to the water budget

SECTION 4. Section 7-9-133.4 is hereby amended as follows:

(a) Prior to installation, a Landscape Documentation Package shall be submitted to the County for review and approval of all landscape projects subject to the provisions of this Landscape Irrigation Code. Any Landscape Documentation Package submitted to the County shall comply with the provisions of the Guidelines.

(b) The Landscape Documentation Package shall include a certification by a professional appropriately licensed in the State of California stating that the landscape design and water use calculations have been prepared by or under the supervision of the licensed professional and are certified to be in compliance with the provisions of this Landscape Irrigation Code and the Guidelines.

(c) As part of the Landscape Documentation Package, landscape and irrigation system plans shall be prepared and certified by a professional appropriately licensed in the State of California prior to the issuance of building permits and the application for a Landscape Documentation Package as defined in sections 7-9-133.3 and this section 7-9-133.4. Landscape and irrigation plans shall be submitted to the County for review and approval with appropriate water use calculations and include:

(1) Project Description – A summary of the project, property, provisions for water conservation technologies, plant use and groupings, the use of recycled water (if any), the capture and retention of stormwater onsite, and any special issues that the Plan Check reviewer would need to be aware of;

(2) Water Efficient Landscape Worksheet – a report of analysis and calculations for establishing an Estimated Annual Water Use budget that shall not exceed the Maximum Applied Water Allowance. The MAWA and EAWU shall be calculated based on completing the *Water Efficient*

Landscape Worksheets (in accordance with the Guidelines, Section 2.2 Water Efficient Landscape Calculations and Alternatives).

(3) Erosion and Sediment Control Plans – to be submitted, as appropriate, as a grading permit application of soil assessment and management to prevent excessive erosion and runoff, as required under Section 7-1-805 of the County of Orange Grading and Excavation Code and Grading Manual;

(4) Landscape Design Plans – to be submitted per County of Orange requirements and include fire prevention (defensible space and fuel modification) requirements with approval(s) from the local fire authority;

(5) Irrigation Design Plans – to be submitted per County of Orange requirements and include provisions for the use of automatic irrigation systems and irrigation schedules based on climatic conditions, specific terrains, soil types, and other environmental conditions while minimizing irrigation overspray and runoff;

(6) Grading Plans – to be submitted, as appropriate, as a grading permit application when required under Section 7-1-805 of the County of Orange Grading and Excavation Code and Grading Manual.

(d) Verification of compliance of the landscape installation with the approved plans shall be obtained through a Certificate of Use and Occupancy or Permit Final process, as provided below and in the Guidelines.

(e) Prior to final inspection, closure of a building or grading permit, and issuance of a Certificate of Use and Occupancy, the following must be submitted to demonstrate compliance with section 7-9-133.4:

(1) Certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved Landscape Documentation Package;

(2) Documentation of the irrigation scheduling parameters used to set the controller(s);

(3) Documentation of the specified landscape and irrigation maintenance schedule; and

(4) Provisions for landscape maintenance practices that foster long-term landscape water conservation; and

(5) An irrigation system audit report.

SECTION 5. Section 7-9-133.5 is hereby amended as follows:

(a) For applicable landscape installation or rehabilitation projects subject to Section 7-9-133.2 of this Landscape Irrigation Code, the Estimated Applied Water Use allowed for the landscaped area shall not exceed the MAWA calculated using an ET adjustment factor of 0.55, except for Special Landscaped Areas where the MAWA is calculated using an ET adjustment factor of 1.0; or the design of the

landscaped area shall otherwise be shown to be equivalently water-efficient in a manner acceptable to the County; as provided in the Guidelines.

(b) Irrigation of all landscaped areas shall be conducted in a manner conforming to the rules and requirements, and shall be subject to penalties and incentives for water conservation and water waste prevention, as determined and implemented by the local water purveyor, or as mutually agreed by local water purveyor and the County.

(c) These Landscape Water Use Standards shall not apply to registered local, state, or federal historical sites; ecological restoration projects that do not require a permanent irrigation system; mined-land reclamation projects that do not require a permanent irrigation system; or plant collections, as part of botanical gardens and arboretums open to the public.

(d) Only Sections 2.8 and 2.9 of the Guidelines shall apply to new landscape installations or landscape rehabilitation projects at cemeteries.

(e) Existing landscapes installed before January 1, 2010 that exceed one acre shall comply with the requirements of their retail water purveyor to meet the landscape Maximum Applied Water Allowance.