



PUBLIC TESTIMONY

STATE OF CALIFORNIA'S MODEL WATER-EFFICIENT
LANDSCAPE ORDINANCE
MARCH 27, 2008
INLAND EMPIRE UTILITIES AGENCY



GIVEN BY: KRISTI LOVELADY, ADMINISTRATIVE MANAGER
RIVERSIDE COUNTY LANDSCAPE PROGRAM

- * Riverside County Water-Efficient Landscape Ordinance was developed in 2006 through the Riverside County Water Task Force which includes members of the County Board of Supervisors, BIA, water purveyors, Farm Bureau, Riverside Land Conservancy, and others. (**Hand Out: Ordinance No. 859**)
- * Establishes the County's water efficient landscape requirements for commercial, industrial, multi-family projects, and single family tract home development.
- * Requires a minimum 20% reduction in new development Maximum Annual Water Allowance or more as may be required by state legislation.
- * Irrigation systems must be designed to prevent runoff, over-spray, low-head drainage, etc. All irrigation systems to be equipped with "smart" controllers, a rain sensing device, anti-drain check valves, and a pressure regulator. Irrigation plans shall identify certain standard plan components and incorporate use of recycled water.
- * Landscaping plans follow the Riverside County Guide to California Friendly Landscaping (**Hand Out: Landscaping Guide**) and the California Friendly Plant List. Plants with different water needs shall be grouped in different hydrozones and irrigated on separate valves.
- * Landscaping plans are required to include a Water Budget.
- * Landscaping plans are required to have two irrigation schedules: plant establishment period and the other for the mature landscape. Plans shall incorporate the use of mulch, appropriate soil amendments, and plant selection. Plans must identify and cite certain standard plan components.
- * Requires that plans be reviewed by independent landscape architect.
- * Allows for inspections before, during, and after landscape installation.
- * County is working with the Water Task Force to:
 1. Encourage other jurisdictions to adopt Water-Efficient Landscape Ordinances similar to the County's
 2. Determine how the State's Water-Efficient Landscape Ord. varies from the County's Water-Efficient Landscape Ordinance.

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At this time, the County of Riverside presents the following comments on the State's Draft Ordinance:

1. Applicability:
 - A. Section 430.3 of the draft ordinance sets the threshold of applicability at projects that include 2,500 square feet of landscaping or greater. Therefore, the State's Model Water Efficient Water Ordinance will significantly affect the cost to process and track most of our commercial, industrial, and residential development projects.
 - B. Often, Local Agencies will review and approve developer-installed front-yard typical landscaping for multiple single-family tract homes under one permit. While individual landscaped front-yard lots would not meet the 2,500 square foot standard mentioned in Section 430.3 (b), in the aggregate, the subject permit approval may exceed the State's standard. It is unclear as to how the State's standard would apply in such circumstances. The County recommends that the standard apply to individual lots rather than the aggregate landscaped area under the permit in question.
 - C. Section 490.3 (d) indicates that the Irrigation Audit component of the draft Ordinance would apply to existing landscaping. No data base exists within the County that tracks existing landscaping. To develop such a data base for a County that is approximately 7,310 square miles in size would present a significant, unfunded cost. We urge the state to explore other ways of achieving this objective.
2. Definition of Local Agency [Section 491 (34)]: The Local Agency is defined as a local land use authority that is responsible for permit approval, plan check, and design review for a project. However, in various sections of the Draft State Ordinance, it implies that the Local Agency has water use authority (e.g. Section 492.4 (5)). Since not all Local Agencies have this authority, the County of Riverside recommends that the State review this ambiguity, consult with lead agencies who do not have water service capabilities, and revise this definition to more accurately define the role of Local Agency vs. Water Purveyor.
3. Landscape Documentation and Water Efficient Landscape Worksheet Components [Section 492.1 and 492.6 respectively]: The requirements of these two sections appears to be excessive for. The County recommends that the State work with a subcommittee of Local Agencies to streamline these requirements so that they are more relevant to the land use development process.

4. On-going Landscape Irrigation Audit Component [Section 493.1 (3) and (4)]: This appears to be a complex, unfunded mandate that would be costly to local jurisdictions and property owners. It is unclear what is intended to be accomplished with the data collected.

Many Local Agencies lack the resources to implement such on-going audits and to compile and analyze the resulting data. We question if this objective may better handled by the appropriate water purveyor who has the ability to more directly deal with the end-user on an on-going basis. Water purveyors may also have better access to the statistical information required.

5. Public Education Component [Section 492.18]: Through the Conditions of Approval for projects, the County can and often does require that certain water-efficient landscaping materials be provided to homeowners and property maintenance firms. However, we deal largely with developers and builders in the project entitlement process rather than the end-user. Since the targeted audience appears to be the end-user, the Local Agency requirement in Section 492.18 (a) may be better served by water purveyors, or collaborative partnerships between Local Agencies and water purveyors, who deal with the end-user through meters and water bills. Today, many of our local water purveyors have exemplary public outreach materials, web sites, and public gardens that address water-efficient landscaping.

The County would like to be added to any mailing lists created to disseminate responses to comments and/or future revisions to the State's model landscape ordinance.

Respectfully submitted by:

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**ORDINANCE NO. 859
AN ORDINANCE OF THE COUNTY OF RIVERSIDE
ESTABLISHING WATER-EFFICIENT LANDSCAPE REQUIREMENTS**

The Board of Supervisors of the County of Riverside Ordains as Follows:

Section 1. SHORT TITLE. This Ordinance shall be known as the "Water Efficient Landscape Requirements Ordinance".

Section 2. INTENT. It is the intent of the Board of Supervisors in adopting this Ordinance:

- A. To promote water-efficient landscaping, water use management and water conservation through the use of water-efficient landscaping, wise use of turf areas and appropriate use of irrigation technology and management;
- B. To reduce the water demands from landscapes without a decline in landscape quality or quantity;
- C. To retain flexibility and encourage creativity through appropriate design;
- D. To assure the attainment of water-efficient landscape goals by requiring that landscapes not exceed a maximum water demand of eighty percent (80%) of its reference evapotranspiration (ETo) or any lower percentage as may be required by state legislation;
- E. To eliminate water waste from overspray and/or runoff; and
- F. To achieve water conservation by raising the public awareness of the need to conserve water through education and motivation to embrace an effective water demand management program.

Section 3. APPLICABILITY.

- A. The water-efficient landscape requirements contained in this Ordinance shall be applicable to all discretionary permits and/or approvals for commercial, industrial and multi-family uses except for grading permits relating to said uses.
- B. In the event Covenants, Conditions and Restrictions are required by the County for any permit subject to this Ordinance, a condition shall be incorporated into any project approval prohibiting the use of water-intensive landscaping and requiring the use of low water use landscaping pursuant to the provisions of this Ordinance in connection with common area/open space landscaping. Additionally, such a condition shall also require the Covenants, Conditions and Restrictions to incorporate provisions concerning landscape irrigation system management and maintenance. This Ordinance shall not be construed as requiring landscaping of common areas or open space that is intended to remain natural.

Section 4. PLANT AND IRRIGATION REQUIREMENTS.

A. PLANT REQUIREMENTS.

- 1) The "Riverside County Guide to California Friendly Landscaping" (Landscaping Guide) is hereby incorporated by reference and is provided to assist the project applicant in choosing and grouping plant species with similar water demands to facilitate efficient irrigation through use of the water budget formula contained in the Landscaping Guide. The plant list contained in the Landscaping Guide provides a classification of high, moderate, low and very low water use for each plant. In order to

incorporate plant species other than those listed, the project applicant shall provide the Planning Director with information indicating the water requirements of the species. This information shall include a description of the plant, including but not limited to, its water requirements, field data, and a comparison of the plant to a similar species included in the plant list. The selection of low water use, native or drought tolerant plant species is strongly encouraged.

- 2) Plant types shall be grouped together in regards to their water, soil, sun and shade requirements and in relationship to the buildings. Plants with different water needs shall be irrigated separately. Plants with the following classifications shall be grouped accordingly: high and moderate, moderate and low, low and very low. Deviation from these groupings shall not be permitted.
- 3) Trees for shade shall be provided for residential, commercial and industrial buildings, parking lots and open space areas. These trees can be deciduous or evergreen and are to be incorporated to provide natural cooling opportunities for the purpose of energy and water conservation.
- 4) Soil tests on all projects are required for appropriate specifications of soil amendments, and to facilitate selection of water-efficient plant species suitable for the site. Soil amendments such as compost shall be provided to improve water holding capacity of soil, where soil conditions warrant.
- 5) All exposed surfaces of non-turf areas within the developed landscape area shall be mulched with a minimum three inch (3") layer of material, except in areas with groundcover planted from flats where mulch depth shall be one and one half inches (1 ½").
- 6) Turf areas shall be used wisely in response to functional needs and in compliance with the water budget formula and specifications in the Landscaping Guide.

B. IRRIGATION REQUIREMENTS.

- 1) All irrigation systems shall be designed to prevent runoff, over-spray, low-head drainage and other similar conditions where water flows off-site on to adjacent property, non-irrigated areas, walk, roadways, or structures. Irrigation systems shall be designed, constructed, managed, and maintained to achieve as high an overall efficiency as possible.
- 2) Landscaped areas shall be provided with a smart irrigation controller which automatically adjusts the frequency and/or duration of irrigation events in response to changing weather conditions unless the use of the property would otherwise prohibit use of a timer. The planting areas shall be grouped in relation to moisture control zones based on similarity of water requirements (i.e. turf separate from shrub and groundcover, full sun exposure areas separate from shade areas; top of slope separate from toe of slope). Additional water conservation technology may be required, where necessary, at the discretion of the Planning Director.
- 3) Water systems for common open space areas shall use non-potable water, if approved facilities are made available by the water purveyor. Provisions for the conversion to a non-potable water system shall be provided within the landscape plan. Water systems designed to utilize non-potable water shall be designed to meet all applicable standards of

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- the California Regional Water Quality Control Board and the Riverside County Health Department.
- 4) Separate valves shall be provided for separate water use planting areas, so that plants with similar water needs are irrigated by the same irrigation valve. All installations shall rely on highly efficient state of the art irrigation systems to eliminate runoff and maximize irrigation efficiency as required by the Landscaping Guide.
 - 5) All irrigation systems shall be equipped with the following:
 - a. A smart irrigation controller as defined in Section B. 2) of this Ordinance;
 - b. A rain sensing device to prevent irrigation during rainy weather;
 - c. Anti-drain check valves installed at strategic points to minimize or prevent low-head drainage; and
 - d. A pressure regulator when the static water pressure exceeds the maximum recommended operating pressure of the irrigation system.

Section 5. IMPLEMENTATION. In addition to the provisions contained in this ordinance, the project applicant shall comply with all the provisions of Section 18.12 of Ordinance No. 348, including, but not limited to, parking, landscaping, irrigation and shading requirements. The project applicant shall also be required to comply with Sections 5.A.(1) and 5.A.(2) of this Ordinance:

- A. All landscaping and irrigation plans submitted shall comply with the following requirements:
 - 1) Landscaping plans shall be prepared using the Water Budget Formula contained in the Landscaping Guide. In addition, landscaping plans shall provide a water budget which includes estimated annual water use (in gallons/acre feet) and the area (in square feet/acres) to be irrigated, precipitation rates for each valve circuit, and the irrigation schedules required pursuant to Section 5.A.2. of this Ordinance. Separate valves shall be provided for separate water-use planting areas, so that plant materials with similar water needs are irrigated by the same irrigation valve. The estimated annual water use, calculated by adding the amount of water recommended in the irrigation schedule shall not exceed the allowable water budget.
 - 2) Two irrigation schedules shall be prepared, one for the initial establishment period of six months and one for the established landscape, which incorporate the specific water needs of the plants and turf throughout the calendar year. The irrigation schedule shall take into account the particular characteristics of the soil; shall be continuously available on site to those responsible for the landscape maintenance; and shall contain specifics as to optimum run time and frequency of watering, and irrigation hours per day. The schedule currently in effect shall be posted at the controller.
 - a. Landscape plans shall consist of separate planting and irrigation plans, both drawn at the same size and scale, and shall accurately and clearly include the following information:
 - 1) Planting plans shall identify and site the following:

- a. New and existing trees, shrubs, ground covers, and turf areas within the developed landscape area;
 - b. Planting legend indicating all plant species by botanical name and common name, spacing, and quantities of each type of plant by container size;
 - c. Designation of hydrozones;
 - d. Area, in square feet, devoted to landscaping and a breakdown of the total area by landscape hydrozones;
 - e. Property lines, streets, and street names;
 - f. Building locations, driveways, sidewalks, retaining walls, and other hardscape features;
 - g. Appropriate scale and north arrow;
 - h. Planting specifications and details, including the recommendations from the soils analysis, if applicable.
- 2) Irrigation plans shall identify and site the following:
- a. Irrigation point of connection (POC) to the water system;
 - b. Static water pressure at POC;
 - c. Location and size of water meter(s);
 - d. Location, size, and type of all components of the irrigation system, including automatic controllers, main and lateral lines, valves, sprinkler heads and nozzles, pressure regulator, drip and low volume irrigation equipment;
 - e. Total flow rate (gallons per minute), and design operating pressure (psi) for each overhead spray and bubbler circuit, and total flow rate (gallons per hour) and design operating pressure (psi) for each drip and low volume irrigation circuit;
 - f. Precipitation rate (inches per hour) for each overhead spray circuit;
 - g. Irrigation legend with the manufacturer name, model number, and general description for all specified equipment, separate symbols for all irrigation equipment with different spray patterns, spray radius, and precipitation rate;
 - h. Irrigation system details for assembly and installation;
 - i. Recommended irrigation schedule for each month, including number of irrigation days per week, number of start times (cycles) per day, minutes of run time per cycle, and estimated amount of applied irrigation water, expressed in gallons per month and gallons per year, for the established landscape;
 - j. Calculation of landscape water budget using the water budget formula contained in the Landscaping Guide.

- B. If the water purveyor for a proposed project has adopted more stringent water-efficient landscaping requirements, as determined by the Planning Director, all landscaping and irrigation plans submitted shall comply with the water purveyor's requirements. Said plans shall be accompanied by a written approved document from the water purveyor delineating each requirement.

Section 6. COMPLIANCE. The Planning Director or designee shall have the duty and authority to administer and enforce this ordinance.

- A. Prior to issuance of a building permit for a project subject to this Ordinance, or as otherwise specified in the conditions of approval for a project, Planting and Irrigation Plans prepared for the project shall be submitted for review and approval by the Planning Director. Both the Planting and Irrigation Plans shall be reviewed by an independent licensed landscape architect to ensure that all components of the Plans adhere to the requirements of this Ordinance. The licensed landscape architect shall sign the Plans verifying that the Plans comply with this Ordinance. Any Plans submitted without the signature of a licensed landscape architect shall not be accepted for review.
- B. Prior to issuance of a certificate of occupancy or final inspection for a project subject to this ordinance, a Certificate of Completion shall be submitted to the Planning Director certifying that the landscaping has been completed in accordance with the approved Planting and Irrigation Plans for the project. The Certificate of Completion shall be signed by a licensed landscape architect and shall indicate that:
 - 1) The landscaping has been installed in conformance with the approved Planting and Irrigation Plans;
 - 2) The smart irrigation controller has been set according to the irrigation schedule;
 - 3) The irrigation system has been adjusted to maximize irrigation efficiency and eliminate overspray and runoff; and
 - 4) A copy of the irrigation schedule has been given to the property owner.
- C. The Planning Director or his/her designee shall have the right to enter upon the project site at any time before, during and after installation of the landscaping to conduct inspections for the purpose of enforcing this Ordinance.

Section 7. The provisions of this ordinance shall take effect thirty (30) days after its adoption.

Adopted: 859 Item 16.1 of 12/19/2006 (Eff: 01/18/2007)

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ORDINANCE NO. 859.1

AMENDING ORDINANCE NO. 859 ESTABLISHING
WATER-EFFICIENT LANDSCAPE REQUIREMENTS

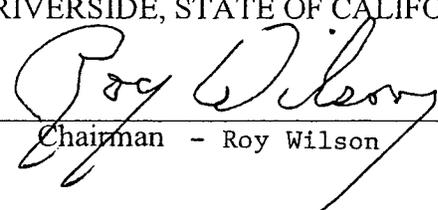
The Board of Supervisors of the County of Riverside Ordains as Follows:

Section 1. Section 3.A. of Ordinance No. 859 is hereby amended to read as follows:

A. The water-efficient landscape requirements contained in this Ordinance shall be applicable to all discretionary permits and/or approvals for commercial, industrial, and residential uses, including but not limited to subdivision common areas and perimeter landscaping, except for grading permits relating to said commercial, industrial, and residential uses.

Section 2. This Ordinance shall take effect thirty (30) days after its adoption.

BOARD OF SUPERVISORS OF THE COUNTY
OF RIVERSIDE, STATE OF CALIFORNIA

By: 

Chairman - Roy Wilson

ATTEST:

CLERK OF THE BOARD:

By: 

Deputy

(SEAL)

APPROVED AS TO FORM

November 26, 2007

By: 

KARIN WATTS-BAZAN

Deputy County Counsel

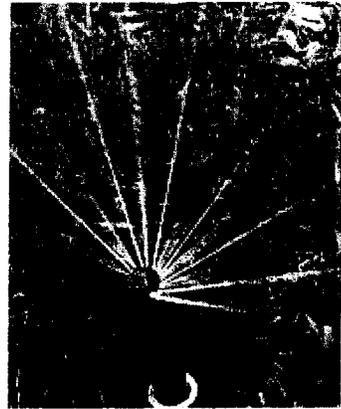
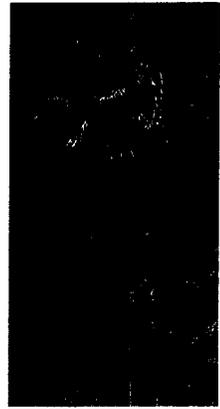
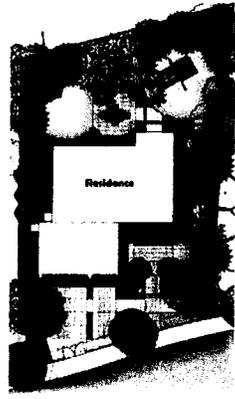
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County of Riverside Guide to California Friendly Landscaping



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too large.*

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Tony Carstens, Agency Director

PLANNING DEPARTMENT
Ron Goldman, Planning Director

March 2008