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## Landscape Standards Checklist – Performance

Project Address:	Project Number:
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In California, about half of the urban water used is for landscape irrigation. Substantial water savings can be gained by proper landscape design, installation and maintenance. California's Model Water Efficient Landscape Ordinance (SmartScape) promotes efficient landscapes in new developments and retrofitted landscapes. Proper interpretation and application of the Performance method requires professional expertise in landscape and irrigation design. The following checklist provides a list of items that must be included on the landscape plans to efficiently process your permit application.

### **Landscape Documentation Package** (CA Dept of Water Resources (DWR) Title 23, Chapter 2.7 §492.3)

- The project's address, total landscape area, water supply type, and contacts shall be stated on the plans.
- Add, sign and date the following statement on the plans: "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package."
- Water Efficient Landscape Worksheet (Attachment 1) that includes a hydro zone information table and water budget calculations shall be submitted for plan check.
- Landscape and irrigation design plans shall be submitted for plan check.
- The final set of landscape and irrigation plans shall bear the signature of a licensed landscape architect, licensed landscape contractor, certified irrigation designer, licensed architect, licensed engineer, licensed land surveyor, or personal property owner.

### **Water Efficient Landscape Worksheet** (DWR Title 23, Chapter 2.7 §492.4 and §492.13)

- Incorporate the Water Efficient Landscape Worksheet into plans. Show that the Maximum Applied Water Allowance (MAWA) meets or exceeds the calculated Estimated Total Water Use (ETWU).
- The evapotranspiration adjustment factor (ETAF) for the landscape project shall not exceed a factor of 0.55 for residential areas or 0.45 for non-residential areas.
- The plant factor used shall be from WUCOLS or from horticultural researchers with academic institutions. WUCOLS plants database can be found on-line at <http://ucanr.edu/sites/WUCOLS/>
- All water features shall be included in the high water use hydro zone. All temporary irrigated areas shall be included in the low water use hydro zone.
- All Special Landscape areas shall be identified on the plans. The ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0.
- For the purpose of calculating ETWU, the irrigation efficiency is assumed to be 0.75 for overhead spray devices and 0.81 for drip system devices.

### **Landscape Design Plan** (DWR Title 23, Chapter 2.7 §492.6)

- The landscape design plans, at a minimum, shall:
- Delineate and label each hydro zone by number, letter, or other methods.
- Identify each hydro zone as low, moderate, high water, or mixed water use.
- Identify recreational areas, areas solely dedicated to edible plants, areas irrigated with recycled water, type and surface area of water features, impermeable and permeable hardscape, and any infiltration systems.

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- For hydro zone with a mix of both low and moderate water use plants or both moderate and high water use plants, the higher plant factor or the plant factor based on the proportions of the respective plant water uses shall be used. Hydro zones containing a mix of low and high water use plants is not permitted.
- Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape.

## **Irrigation Design Plan** (DWR Title 23, Chapter 2.7 §492.7)

- The irrigation plans, at a minimum, shall contain the following:
  - Location and size of spate water meters for landscape
  - Location, type, and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices.
  - Static water pressure at the point of connection the public water supply
  - Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station.
- A dedicated water service meter or private sub meter shall be installed for all non-residential irrigated landscapes of at least 1,000 sq ft or residential irrigated landscape areas of at least 5,000 sq ft.
- Manual shut-off valves shall be required, as close as possible to the point of connection of the water supply, to minimize water loss in case of an emergency or routine repair.
- Areas less than 10-feet in width in any direction shall be irrigated with subsurface or drip irrigation.
- Overhead irrigation shall not be permitted within 24-inches of any non-permeable surface.

## **Required Statements and Certification** (DWR Title 23, Chapter 2.7 §492.6, §492.7 and §492.9)

- Add the following statement on the landscape and irrigation plans: "I have complied with the criteria of the ordinance and applied them for the efficient use of water in the landscape design plans".

## **Plan Notes for Inclusion**

- Recirculating water systems shall be used for water features.
- A minimum 3-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.
- For soils less than 6% organic matter in the top 6 inches of soil, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil.
- Pressure regulating devices are required if water pressure is below or exceeds the recommended pressure of the specified irrigation devices.
- Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur.
- A diagram of the irrigation plan showing hydro zones shall be kept with the irrigation controller for subsequent management purposes.
- A Certificate of Completion (Attachment 2) shall be filled out and certified by either the designer of the landscape plans, irrigation plans, or the licensed landscape contractor for the project.
- An irrigation audit report shall be completed at the time of final inspection.