



ACCOUNTING
ADMINISTRATION & ENGINEERING
BUILDING & DEVELOPMENT
OPERATIONS & MAINTENANCE

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LANDSCAPE WATER-EFFICIENCY – RESIDENTIAL COMPLIANCE FORM

In accordance with Title 23 Section 490.1, landscape water efficiency shall be addressed for all new construction projects with an aggregate landscape area equal to or greater than 500 square feet, rehabilitation landscape projects with an aggregate landscape area equal to or greater than 2,500 square feet, and cemeteries.

This document shall be filled out and a landscape plan that graphically shows all design features shall be incorporated into the plan set.

To learn more about the California Model Water Efficient Landscape Ordinance (MWELo), please visit www.water.ca.gov.

Project Address: _____ Permit Number: _____

APPLICANT INFORMATION:

Name: _____ Phone Number: _____

Address: _____ Email Address: _____

OWNER INFORMATION:

Check here if owner is the applicant

Name: _____ Phone Number: _____

Address: _____ Email Address: _____

PROJECT INFORMATION:

Project type (check all that apply):

- New Rehabilitation
 Private Homeowner-installed

Total Landscape Area (sq. ft.): _____

Grading Permit Number (if applicable): _____

METHOD OF COMPLIANCE:

- Prescriptive design for total landscape area of 2,500 sq. ft. or less (see page 2).
 Performance design for any size landscape area (see pages 3-5).
 This permit does not include landscaping but I am aware that if landscaping will be installed in the future, it shall comply with the MWELo requirements of Title 23 Chapter 2.7. Sign Here: _____

<u>For Office Use Only</u>
Date Submitted: _____
Date Approved: _____

**PRESCRIPTIVE DESIGN FOR TOTAL LANDSCAPE AREAS 2,500 SQ. FT. OR LESS
RESIDENTIAL COMPLIANCE**

Total Landscape Area: _____ sq. ft.

Water Type:

Turf Area: _____ sq. ft.

Potable

Non-Turf Area: _____ sq. ft.

Recycled

Special Landscape Area: _____ sq. ft.

Well

Name of Water Purveyor: _____

COMPOST

A minimum 21.6% of the landscape area shall be covered by 6 inches of compost.

PLANT MATERIAL

Install climate adapted plants that required occasional, little, or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area, excluding edibles and areas using recycled water.

MULCH

A minimum 3 inch layer of mulch shall be applied on all exposed soil surfaces or planting areas. Turf areas, creeping or rooting groundcovers, or direct seeding application where mulch is contra-indicated are exempt.

Mulch includes leaves, bark, straw, or compost as well as rocks, gravel, or decomposed granite.

TURF

Turf shall not exceed 25% of the landscape area.

Turf shall not be planted on sloped areas which exceed a slope of 1:4 (25%)

IRRIGATION

Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data and must utilize a rain sensor.

Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.

Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.

Manual shut-off valves shall be installed as close as possible to the point of connection of the water supply.

All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.

Areas less than 10 feet in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.

DOCUMENTATION

At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule, and a schedule of landscape and irrigation maintenance (see page 5).

By signing this form, I agree to comply with the requirements of the prescriptive compliance option to the MWEL0.

Signature

of applicant: _____ Date: _____

**PERFORMANCE DESIGN FOR ANY SIZE LANDSCAPE AREA
RESIDENTIAL COMPLIANCE**

Total Landscape Area: _____ sq. ft.

Water Type:

Turf Area: _____ sq. ft.

Potable

Non-Turf Area: _____ sq. ft.

Recycled

Special Landscape Area: _____ sq. ft.

Well

Name of Water Purveyor: _____

ISSUANCE DOCUMENT CHECKLIST:

Prior to permit issuance, the following documents must be submitted in order to complete the Landscape Documentation Package in accordance with Section 492.3:

- Water Efficient Landscape Worksheet (see page 4).
- Soil Management Report (see page 6 for guidelines).
- Landscape Design Plan as a permanent part of the plans (see page 6 for guidelines).
- Irrigation Design Plan as a permanent part of the plans (see page 6 for guidelines).
- Grading Design Plan as a permanent part of the plans or as a part of a grading permit (see page 7 for guidelines)

FINAL INSPECTION DOCUMENT CHECKLIST:

At the time of final inspection, the following documents must be submitted:

- Certificate of Completion (see page 5).
- Irrigation Scheduling (see page 7 for guidelines).
- Schedule of Landscape and Irrigation Maintenance.
- Landscape Irrigation Audit Report (see page 7 for guidelines).
- Soil Management Report, if deferred (see page 6 for guidelines).

By signing this form, I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package.

Signature
of applicant: _____ Date: _____

**WATER EFFICIENT LANDSCAPE WORKSHEET
RESIDENTIAL COMPLIANCE**

County Area: _____ Reference Evapotranspiration (ET_o): _____

Hydrozone Number	Plant Factor ^a	Irrigation Method	Irrigation Efficiency	ETAF	Landscape Area (ft ²)	ETAF x Area	ETWU
Regular Landscape Areas							
Totals							
Special Landscape Areas ^b							
	-	-	-	1.0			
	-	-	-	1.0			
	-	-	-	1.0			
	-	-	-	1.0			
Totals							
ETWU Total							
Maximum Allowed Water Allowance (MAWA)							

^a Plant Factors may be found using the [WUCOLS Search Tool](#) or from a scholarly reference.

0.0-0.1 = Very Low Water Use

0.4-0.6 = Moderate Water Use

0.1-0.3 = Low Water Use

0.7-1.0 = High Water Use

^b Special Landscape Areas are areas dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water.

**CERTIFICATE OF COMPLETION
RESIDENTIAL COMPLIANCE**

PROJECT INFORMATION:

Permit Number: _____ Date: _____

Project Address: _____

APPLICANT INFORMATION:

Name: _____ Phone Number: _____

Title: _____ Fax Number: _____

Company: _____ Email Address: _____

Address: _____

OWNER INFORMATION:

Check here if owner is the applicant

Name: _____ Phone Number: _____

Title: _____ Fax Number: _____

Company: _____ Email Address: _____

Address: _____

By signing this form, I/we certify that I/we have received copies of all the documents within the Landscape Documentation Package and the Certificate of Completion and that it is our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule.

Signature
of owner: _____ Date: _____

Landscape Documentation Package submitted on: _____

Landscape Documentation Package approved on: _____

Water Efficient Landscape Worksheet submitted to the water purveyor on: _____

INSTALLATION CERTIFICATION:

As the signer of the landscape design plans, signer of the irrigation plans, or a licensed landscape contractor, I/we certify that based upon periodic site observations, the work has been completed in accordance with the ordinance and that the landscape planting and irrigation installation conform with the criteria and specifications of the approved Landscape Documentation package.

Signature: _____ Date: _____

Name (Print): _____ Phone Number: _____

Title: _____ Fax Number: _____

Company: _____ Email Address: _____

Address: _____ License Number: _____

ATTACH THE FOLLOWING DOCUMENTS:

- Irrigation Scheduling.
- Schedule of Landscape and Irrigation Maintenance.
- Landscape Irrigation Audit Report (not required for prescriptive design).
- Soil Management Report, if deferred (not required for prescriptive design).

SOIL MANAGEMENT REPORT GUIDELINES (Section 492.5)

1. Submit soil samples to a laboratory for analysis and recommendations. Laboratory protocols shall account for adequate depth for the intended plants.
2. Soil analysis should include:
 - a. Soil texture
 - b. Infiltration rate
 - c. pH
 - d. Total soluble salts
 - e. Sodium
 - f. Percent organic matter
 - g. Recommendations
3. Where mass grading will be performed, the Soil Management Report may be deferred as part of the Certificate of Completion.
4. In large projects or multiple landscape installations (e.g. tract homes), a soil sampling rate of 1 in 7 lots is acceptable.

LANDSCAPE DESIGN PLAN GUIDELINES (Section 492.6)

1. Identify all plant materials on the plans and coordinate the plans with the Plant Factors used in the Water Efficient Landscape Worksheet.
2. Plant materials with similar water needs shall be grouped together unless permitted by Section 492.7(a)(2)(D).
3. Plants shall be selected appropriately based upon their adaptability to local climatic, geologic, topographical, and fire-hazard conditions.
4. The maximum slope of turf is 25%.
5. Use of invasive species are strongly discouraged.
6. Water features shall use recirculating water systems and where available, shall take advantage of recycled water.
7. Compost shall be installed in accordance with Section 492.6(a)(3)(C).
8. Mulch shall be installed in accordance with Section 492.6(a)(3)(D) and organic mulches made from recycled or post-consumer materials are preferred.
9. Clearly show the following items on the plans:
 - a. Identify and label all hydrozones
 - b. Classify hydrozones as low, moderate, high, or mixed water use
 - c. Identify recreational areas
 - d. Identify areas dedicated to edible plants
 - e. Identify areas irrigated with recycled water
 - f. Identify type of mulch and application depth
 - g. Identify soil amendments, type, and quantity
 - h. Identify surface area of water features
 - i. Identify pervious and non-pervious hardscapes
 - j. Identify permanent stormwater best management practices, if applicable
 - k. Identify rain harvesting or catchment
 - l. Identify applicable graywater discharge systems
10. Include the statement "I have complied with the criteria of the ordinance and applied them for the efficient use of water in the landscape design plan."
11. Plans shall bear the signature of a licensed landscape architect, licensed landscape contractor, or any other person authorized to design a landscape.

IRRIGATION DESIGN PLAN GUIDELINES (Section 492.7)

1. Provide a dedicated water service meter or a private submeter for all irrigated landscapes 5,000 sq. ft. or greater.
2. Automatic irrigation controllers utilizing evapotranspiration or soil moisture sensor data shall be required for irrigation scheduling.
3. Install pressure regulating devices as required for optimal performance
4. Rain sensors shall suspend irrigation during unfavorable weather.
5. Manual shut-off valves shall be installed as close as possible to the point of connection.
6. Backflow preventers shall be installed on the irrigation system.
7. Flow sensors shall be installed to detect system damage or malfunction for landscapes 5,000 sq. ft. or larger.
8. Master shut-off valves are required unless specifically exempted by Section 492.7(1)(H).
9. The irrigation systems shall prevent runoff, low head drainage, overspray, etc.
10. All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.
11. Low volume irrigation is required in mulched planting areas.
12. Check valves are required on all sprinkler heads where low point drainage could occur.
13. Areas less than 10 feet in width shall be irrigated with subsurface irrigation to prevent runoff and overspray.
14. Overhead irrigation is not permitted within 24 inches of any non-permeable surface.
15. Slopes greater than 25% shall have a maximum irrigation rate of 0.75 inches per hour.
16. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf.

17. Hydrozones that mix moderate and low water use or moderate and high water use plants are permitted if they meet the requirements of Section 492.7(a)(2)(D). Hydrozones that mix high and low water use plants are not permitted.
18. Show the location, type, and size of all components of the irrigation system including controllers, main and lateral lines, valves, sprinkler heads, sensors, quick couplers, pressure regulators, and backflow prevention devices.
19. Show static water pressure at the point of connection to the public water supply.
20. Include flow rate (gpm), application rate (in/hr), and design operating pressure (psi) for each station.
21. Include the statement "I have complied with the criteria of the ordinance and applied them for the efficient use of water in the irrigation design plan."
22. Plans shall bear the signature of a licensed landscape architect, licensed landscape contractor, or any other person authorized to design a landscape.
23. In large projects or multiple landscape installations (e.g. tract homes), an auditing rate of 1 in 7 lots is acceptable.

GRADING DESIGN PLAN GUIDELINES (Section 492.8)

1. Indicate the finished configurations and elevations of the landscape area including:
 - a. Height of graded slopes
 - b. Drainage patterns
 - c. Pad elevations
 - d. Finish grade
 - e. Stormwater retention improvements (if applicable)
2. It is recommended that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes
3. Avoid the disruption of natural drainage patterns and undisturbed soil
4. Avoid soil compaction in landscape areas
5. Include the statement "I have complied with the criteria of the ordinance and applied them for the efficient use of water in the grading design plan."
6. Plans shall bear the signature of a licensed professional.

IRRIGATION SCHEDULING GUIDELINES (Section 492.10)

1. Irrigation scheduling shall be regulated by automatic irrigation controllers.
2. Overhead irrigation shall be scheduled between 8:00 pm and 10:00 am unless weather prevents it.
3. Total annual applied water shall be less than or equal to Maximum Applied Water Allowance calculated in the Water Efficient Landscape Worksheet. Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference ETo data (e.g. CIMIS) or soil moisture data.
4. Parameters used to set the automatic controller shall be developed and submitted for each of the following:
 - a. Plant establishment period;
 - b. Established landscape; and
 - c. Temporarily irrigated areas
5. Each irrigation schedule shall consider for each station all of the following that apply:

<ol style="list-style-type: none"> a. Irrigation interval; b. Irrigation run times; c. Number of cycle starts required for each irrigation event to avoid runoff; d. Amount of applied water scheduled to be applied on a monthly basis; e. Application rate setting; 	<ol style="list-style-type: none"> f. Root depth setting; g. Plant type setting; h. Soil type; i. Slope factor setting; j. Shade factor setting; and k. Irrigation uniformity or efficiency setting.
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LANDSCAPE AUDIT REPORT GUIDELINES (Section 492.12)

1. Landscape audits shall be conducted by a local agency landscape irrigation auditor or a third party certified landscape auditor. Audits shall *not* be performed by the designer or installer.
2. Audit reports may include but are not limited to inspection, system tune-up, system test with distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure, and any other factors necessary for accurate programming.