



PERFORMANCE BASED LANDSCAPE COMPLIANCE PACKAGE

Purpose

The purpose of this Landscape Documentation Package is to assist the applicant and the City in determining project compliance with the requirements of the Model Water Efficient Landscape Ordinance (MWELO) (§CCR Title 23, Division 2, Chapter 2.7), adopted by the California Department of Water Resources pursuant to Executive Order No. B-29-15. The MWELO can be found online at: <http://www.water.ca.gov/wateruseefficiency/landscapeordinance/>

Applicability

Projects that include new landscaping **over 2,500 square feet**, or smaller projects that wish to submit a landscape documentation package instead of the prescriptive compliance option shall submit a Landscape Documentation Package as detailed below.

The MWELO does not apply to:

- Farming, agriculture, and crop production including vegetable gardens, vineyards, and small orchards;
- Public recreational areas (designated for active play, recreation or public assembly);
- Registered local, state or federal historical sites;
- Habitat restoration projects that do not require a permanent irrigation system;
- Mines-land reclamation projects that do not require a permanent irrigation system; and
- Existing plant collections, as part of botanical gardens and arboretums open to the public.

Complete the following table to determine the total size of your landscape area:

Special Landscape Area (SLA¹)	
Edible Plants/Garden Area	sq. ft.
Area Irrigated with Recycled Water	sq. ft.
Water Feature with Recycled Water	sq. ft.
Total of Special Landscape Area	sq. ft.
Landscape Area (LA) – New or Substantially Rehabilitated¹	
Irrigated Turf	sq. ft.
Mulched Tree and/or Shrub Area (irrigated)	sq. ft.
Annuals (irrigated)	sq. ft.
Future Landscape Areas (future areas to be planted and irrigated)	sq. ft.
Water Features (e.g. fountains)	sq. ft.
Total of Landscape Area	sq. ft.
<i>¹Landscape area means all the planting areas, turf areas, and water features in a landscape design plan. The landscape area does not include footprints of buildings or structures, pervious and non-pervious hardscapes, and other non-irrigated areas designated for non-development such as open spaces and existing native vegetation.</i>	

Total Landscape Area (SLA + LA): _____ sq. ft.



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Elements of the Landscape Documentation Package

Use the checklist below to prepare a Landscape Documentation Package for your submittal with your permit application. The applicable sections of this documentation package are included for reference. If you have any questions about the content of the Landscape Documentation Package, please contact the Community Development Department at (805) 473-5420.

Prior to Permit Issuance

The following information, if applicable, is required to be submitted before a review of the application can be completed. The landscape design plan, irrigation design plan, and grading design plan can be included as part of the same document.

- Landscape Application (Section A)
- Water Efficient Landscape Worksheet (Section B)
- Soil Management Report (Section C)
- Landscape Design Plan (Section D)
- Irrigation Design Plan (Section E)
- Grading Design Plan (Section F)

At Time of Final Inspection

The following information is required to be submitted at the time of the final building inspection and prior to final occupancy.

- Certificate of Completion (Section G)
- Certificate of Installation (Section H)
- Irrigation Scheduling (Section I)
- Landscape and Irrigation Maintenance Schedule (Section J)
- Landscape Irrigation Audit, Irrigation Survey, & Irrigation Water Use Analysis (Section K)

Plans – If any of the information included as part of this application is available in digital format, please enclose the information via digital media in addition to hard copies.

Full-Sized Plans:

Two (2) copies of all drawings in a full-size format (larger than 11” by 17” page).

Reductions:

One (1) copy of all drawings reduced to the size of an 8-1/2” by 11” page.



CITY OF PISMO BEACH
 COMMUNITY DEVELOPMENT DEPARTMENT
 760 MATTIE ROAD, PISMO BEACH, CA 93449
PERFORMANCE BASED LANDSCAPE COMPLIANCE PACKAGE

A. PROJECT INFORMATION SHEET

Submit Prior to Permit Issuance

Project Name (if applicable): _____

Applicant Information (Check box for contact person assigned to this project)	
Landowner Name:	Phone:
Mailing Address:	Zip Code:
Email Address:	
Applicant:	Phone:
Mailing Address:	Zip Code:
Email Address:	
Licensed Architect/Landscaper:	Phone:
Mailing Address:	Zip Code:
Email Address:	License #:
Project Information	
Project Type (check all that apply):	
New	Public
Commercial	Cemetery
Residential	Rehabilitated
Homeowner-installed	
Assessor Parcel Number(s):	Total size of site (acres/square feet):
Address of the Project:	
Project Description:	
Total Landscape Area (new and rehabilitated in square feet):	
Special Landscape Area – from table on Page 1 (square feet):	
Total Landscape Area – from table on Page 1 (square feet):	



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Legal Declaration

I, the owner of record of this property, have completed this form accurately and declare that all statements here are true. I do hereby grant official representatives of the City of Pismo Beach authorization to inspect the subject property. In addition, I agree to comply with the requirements of the Water Efficient Landscape Ordinance and submit a complete Landscape Documentation Package.

Property owner signature _____

Date: _____



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B. WATER EFFICIENT LANDSCAPE WORKSHEET

Submit Prior to Permit Issuance

Water Budget Calculations

Water budget calculations developed for the landscape project shall adhere to the following requirements:

1. The plant factor used shall be from the Water Use Classification of Landscape Species (WUCOLS). Plant factors may also be obtained from horticultural researchers with academic institutions or nursery industry professional associations as approved by the California Department of Water Resources (DWR). The plant factor ranges from 0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.
2. All water features shall be included in the high water use hydrozone and temporarily irrigated areas shall be included in the low water use hydrozone.
3. Special Landscape Areas (SLAs) include edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water. SLAs shall be identified and their water use calculated as described below.
4. ETo Adjustment Factor (ETAF) for Special Landscape Areas shall not exceed 1.0.
5. Use the reference evapotranspiration rates (ETo) values provided below to calculate the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (ETWU).

The ETo values for the City of Pismo Beach are as follows:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
2.0	2.2	3.2	.3.8	4.3	4.7	4.3	4.6	3.8	3.2	2.4	1.7	40.0



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This **worksheet** is filled out by the project applicant and is a required element of the Landscape Document Package. Please complete the hydrozone table(s) for each hydrozone filling in the shaded areas. Use as many tables as necessary to provide the square footage of landscape area per hydrozone.

Hydrozone # & Planting Description ¹	Plant Factor (PF)	Irrigation Method ²	Irrigation Efficiency (IE) ³	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF X Area	Estimated Total Water Use (ETWU) ⁴
Regular Landscape Areas							
Totals:					= (A)	= (B)	
Special Landscape Areas							
				1			
				1			
				1			
Totals:					= (C)	= (D)	
ETWU Total:							
Maximum Allowed Water Allowance (MAWA):⁵							

Notes:

¹ Hydrozone# & Planting Description	² Irrigation Method	³ Irrigation Efficiency (IE)	⁴ ETWU (annual gallons required)	⁵ MAWA (annual gallons allowed)
e.g. 1) Front Lawn 2) Low Water Use Plantings 3) Medium Water Use Plantings	Overhead Spray or Drip	0.75 for Spray Head 0.81 for Drip	$ETWU = ETo \times 0.62 \times ETAF \times Area$	$MAWA = (ETo)(0.62)[(ETAF \times LA) + (1 - ETAF) \times SLA]$ Where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year, LA is the total landscape area in square feet, SLA is the total special landscape area in square feet, and ETAF is 0.55 for residential areas and 0.45 for non-residential areas.



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ETAF Calculations:

Regular Landscape Areas		All Landscape Areas	
Total ETAF x Area	(B)	Total ETAF x Area	(B + D)
Total Area	(A)	Total Area	(A + C)
Average ETAF	$B \div A$	Sitewide ETAF	$(B + D) \div (A + C)$

The average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.



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C. SOIL MANAGEMENT REPORT

Submit Prior to Permit Issuance

The following information regarding the contents of a Soil Management Report is provided by Section 492.5 of the Model Water Efficient Landscape Ordinance (MWEL0).

- A. In order to reduce runoff and encourage healthy plant growth, a Soil Management Report shall be completed by the project applicant, or his/her designee, as follows:
1. Soil Sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.
- B. The soil analysis may include:
1. Soil texture;
 2. Infiltration rate determined by laboratory test or soil texture infiltration rate table;
 3. pH;
 4. Total soluble salts;
 5. Sodium;
 6. Percent organic matter; and
 7. Recommendations.
- C. The project applicant, or his/her designee, shall comply with one of the following:
1. If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the Landscape Documentation Package; or,
 2. If significant mass grading is planned, the soil analysis report shall be submitted to the City as part of the Certificate of Completion.
- D. The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.
- E. The project applicant, or his/her designee, shall submit documentation verifying implementation of soil analysis report recommendations to the City with a Certificate of Completion.



PERFORMANCE BASED LANDSCAPE COMPLIANCE PACKAGE

D. LANDSCAPE DESIGN PLAN

Submit Prior to Permit Issuance

A Landscape Design Plan meeting the following design criteria (where they apply to your site) shall be submitted as part of the Landscape Document Package (per Section 492.6 of the MWEL0):

- A. Exterior boundaries and dimensions of the entire site, utilities and utility easements, streets, driveways, walkways, and other paved areas or hardscapes (pervious or impervious).
- B. Identify buildings and structures including pad elevations(s) if applicable.
- C. Identify natural features to remain, including rock outcroppings, existing oak and ornamental trees, shrubs, etc.
- D. North arrow and scale.
- E. Designation of each hydrozone as low, moderate, high water, or mixed use (temporarily irrigated areas of the landscape shall be included in the low water use hydrozone for the water budget calculation).
- F. Location of recreational areas.
- G. Location of areas permanently dedicated to edible plants.
- H. Areas irrigated with recycled water.
- I. Type, quantity, and application depth and/or rate of soil of mulch and amendments.
- J. Location, type, and surface area of water features (water features, such as fountains, shall be included in the high water use hydrozone for the water budget calculation).
- K. Location of hardscapes (pervious and impervious).
- L. Location, installation details, and 24-hour retention or infiltration capacity of any applicable stormwater best management practices that encourage on-site retention and infiltration of stormwater.
- M. Location and 24-hour retention or infiltration capacity of any rain harvesting or catchment technologies.
- N. Location of any applicable graywater discharge piping, system components, and areas of distribution.
- O. Certification from a licensed landscape architect, licensed landscape contractor, or other person authorized to design a landscape (e.g. licensed engineer) with the following statement: *"I have complied with the criteria of the landscape ordinance and applied them for the efficient use of water in the landscape design plan."*



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E. IRRIGATION DESIGN PLAN

Submit Prior to Permit Issuance

An Irrigation Design Plan meeting the following design criteria (where they apply to your site) shall be submitted as part of the Landscape Document Package (per Section 492.7 of the MWEL0):

- A. Location and size of separate water meters for landscaping.
- B. Location, type and size of all components of the irrigation system, including controllers, main and lateral line, valves, sprinkler heads, moisture sensing devices, rain switched quick couplers, pressure regulators, and backflow devices.
- C. Static water pressure at the point of connection to the public water supply (if applicable).
- D. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station.
- E. Recycled water irrigation systems as specified in MWEL0 Section 492.14.
- F. Certification from a licensed landscape architect, licensed landscape contractor, or other person authorized to design an irrigation system (e.g. licensed engineer) with the following statement: *"I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan."*

F. GRADING DESIGN PLAN

Submit Prior to Permit Issuance

A Grading Design Plan shall, at a minimum, show the finished configurations and elevations and include the following items (where they apply to your site) as part of the Landscape Documentation Package (per Section 492.8 of the MWEL0).

- A. Height of graded slopes.
- B. Drainage patterns.
- C. Pad elevations.
- D. Finish grade.
- E. Stormwater retention improvements.
- F. Certification from a licensed civil engineer or other licensed professional authorized to design a grading plan with the following statement: *"I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the grading design plan."*



G. CERTIFICATE OF COMPLETION

Submit Prior to Final Inspection

This certificate is filled out by the project applicant upon completion of the landscape project (per Section 429.9 of the MWEL0).

Part 1. Project Information Sheet:

Date	Project Name	
Name of Project Applicant	Telephone No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code
Project Address	Project parcel or lot number (if available)	
	Project Assessor Parcel Number	

Property Owner or Designee:

Name	Telephone No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Property Owner

"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."

 Property Owner Signature Date

Please answer the questions below:

1. Date the Landscape Documentation Package was submitted to the City: _____
2. Date the Landscape Documentation Package was approved by the City: _____
3. Date the Water Efficient Landscape Worksheet was submitted to the City: _____



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H. CERTIFICATION OF INSTALLATION ACCORDING TO THE LANDSCAPE DOCUMENTATION PACKAGE

Submit Prior to Final Inspection

“I/we certify that based upon periodic site observations, the work has been substantially 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)	Telephone No.	
Title	Email Address	
License No. or Certification No.		
Company	Street Address	
City	State	Zip Code

*Signer of the landscape design plan, signer of the irrigation plan, or licensed landscape contractor.

Irrigation Scheduling

Attach parameters for setting the irrigation schedule on controller per MWELo Section 492.10.

Schedule of Landscape and Irrigation Maintenance

Attach schedule of Landscape and Irrigation Maintenance per MWELo Section 492.11.

Landscape Irrigation Audit Report (*not required for Prescriptive Compliance*)

Attach Landscape Irrigation Audit Report per MWELo Section 492.12.

Soil Management Report (*not required for Prescriptive Compliance*)

Attach soil analysis report, if not previously submitted with the Landscape Documentation Package per MWELo Section 492.6. Also attach documentation verifying implementation of recommendations from soil analysis report per MWELo Section 492.6.



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I. IRRIGATION SCHEDULING

Submit Prior to Final Inspection

All irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria (per Section 492.1 of the MWELo):

- A. Irrigation scheduling shall be regulated by automatic irrigation controllers.
- B. Overhead irrigation shall be scheduled between 8:00 p.m. and 10:00 a.m.
- C. Implementation of the irrigation schedule must consider irrigation run times, emission device, flow rate, and current reference evapotranspiration, so that applied water meets the Estimated Total Water Use (ETWU).
- D. Total annual applied water shall be less than or equal to the Maximum Applied Water Allowance (MAWA).
- E. Parameters used to set the automatic controller shall be developed and submitted for each of the following:
 - 1. The plant establishment period;
 - 2. The established landscape; and
 - 3. Temporarily irrigated areas.
- F. Each irrigation schedule shall consider for each station all of the following that apply:
 - 1. Irrigation interval (days between irrigation);
 - 2. Irrigation run times (hours or minutes per irrigation event to avoid runoff);
 - 3. Number of cycle starts required for each irrigation event to avoid runoff;
 - 4. Amount of water scheduled to be applied on a monthly basis;
 - 5. Application rate setting;
 - 6. Root depth setting;
 - 7. Plant type setting;
 - 8. Soil type;
 - 9. Slope factor setting; and
 - 10. Irrigation uniformity or efficiency setting.



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J. LANDSCAPE AND IRRIGATION MAINTENANCE SCHEDULE

Submit Prior to Final Inspection

A regular maintenance schedule shall be submitted with the Certificate of Completion (per Section 492.11 of the MWELO). The maintenance schedule shall include but not be limited to:

- A. Routine inspection, auditing, adjustment and repair of the irrigation system and its components.
- B. Aerating and dethatching turf areas.
- C. Topdressing with compost; replenishing mulch; fertilizing; pruning; weeding in all landscape areas; and removing obstructions to emission devices.
- D. Repair of irrigation equipment with the originally installed components or their equivalents or with components with greater efficiency.
- E. A project applicant is encouraged to implement established landscape industry sustainable Best Practices for all landscape maintenance activities.

K. LANDSCAPE IRRIGATION AUDIT, IRRIGATION SURVEY, AND IRRIGATION WATER USE ANALYSIS

Submit Prior to Final Inspection

The project applicant shall submit an irrigation audit report with the Certificate of Completion. The irrigation audit must be performed by a third party certified landscape irrigation auditor*.

- A. The irrigation audit must include the following (as applicable):
 - 1. Inspection
 - 2. System tune-up
 - 3. System test with distribution uniformity
 - 4. Reporting overspray or runoff that causes overland flow
 - 5. 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.
- B. In addition, the irrigation audit report must include the following signed statement: "I certify that I performed an irrigation audit on the property in accordance with Section 492.12 of the Model Water Efficient Landscape Ordinance. The irrigation system meets the requirements of the Ordinance as specified in Section 492.7."

**Certified Landscape Irrigation auditor*: a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the U.S. Environmental Protection Agency's Water Sense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.