



MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELo) TOOLKIT

The State of California's Model Water Efficient Landscape Ordinance promotes efficient water use in new and retrofitted landscapes. The City of West Hollywood requires new landscape areas 500 square feet or larger and rehabilitated landscape areas 2,500 square feet or larger to accurately and fully complete the MWELo Landscape Documentation Package at the start of the project and submit the Certificate of Completion at the end of the project. This toolkit provides the forms and documentation required for permitting.

There are **two** MWELo compliance pathways that will submit the following:

1. PRESCRIPTIVE APPROACH (Projects 500-2,499 sf.)

- MWELo Project Information - pg. 2
- MWELo Project Information Short Form for Prescriptive Compliance - pg. 3
- MWELo Prescriptive Submittal Checklist - pg. 4

2. PERFORMANCE APPROACH (Projects 2,500 sf. or larger)

- MWELo Project Information - pg. 2
- MWELo Performance Submittal Checklist - pg. 5-6
- MWELo Sample Water Efficient Landscape Worksheet - pg. 7
- MWELo Water Efficient Landscape Worksheet - pg. 8

FORMS DUE AT BUILDING PERMIT FINAL INSPECTION

- MWELo Landscape Certification - pg. 9
- MWELo Certificate of Completion - pg. 10-11

The Landscape Documentation Package contained within this Toolkit shall be included as part of the plan check submittal. It shall be embedded onto construction documents. The Landscape Certification and Certificate of Completion shall be attached to plans at the Building Permit Final Inspection. The most current regulations can be found at the following website:

<https://water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/Model-Water-Efficient-Landscape-Ordinance>.



MWELo PROJECT INFORMATION

Applicant Information

Name: _____
Phone: _____
Address: _____
Email: _____

Project

Site Address: _____
Project Type (*new dwelling, commercial, or rehab*): _____

- Currently, this project does not include landscaping. I am aware that future landscape installations may be required to comply with the Model Water Efficient Landscape Ordinance (MWELo) requirements per California Code of Regulations, Title 23, Division 2, Chapter 2.7.
- This project does incorporate landscaping. (*Please provide the information below specific to the landscape area which will be completed as part of this project and specify the compliance method to be used*):

Total Landscape Area (sq. ft.): _____ Turf Area (sq. ft.): _____
Non-Turf Plan Area (sq. ft.): _____ Special Landscape Area (sq. ft.): _____
Water Type (*potable, recycled, well*): _____
Name of water purveyor (*If not served by private well*): _____

Compliance Method

- Performance (Items included in Performance Checklist is included on plans)
- Prescriptive (Items included in Prescriptive Checklist is included on plans)

Signature

I certify the above information is correct and agree to comply with the requirements of the MWELo.

Signature of property owner or authorized representative

Date





MWELO SHORT FORM - PRESCRIPTIVE COMPLIANCE

Applicant Information

Name: _____

Phone: _____

Address: _____

Email: _____

Project

Site Address: _____

Project Type (*new dwelling, commercial, or rehab*): _____

- This project does incorporate landscaping equal to or less than 2,500 sf. and will be using this form to identify prescriptive requirements which will be included as part of the landscape project. (*Please provide the information below specific to the landscape area and identify the location on the plans each design measure can be found using the LANDSCAPE WATER-EFFICIENCY (MWELO) APPENDIX – D CHECKLIST on page 4*):

Total Landscape Area (sq. ft.): _____ Turf Area (sq. ft.): _____

Non-Turf Plan Area (sq. ft.): _____ Special Landscape Area (sq. ft.): _____

Water Type (*potable, recycled, well*): _____

Name of water purveyor (*If not served by private well*): _____

Signature

I certify the above information is correct and agree to comply with the requirements of the MWELO.

Signature of property owner or authorized representative

Date



MWELo PRESCRIPTIVE SUBMITTAL CHECKLIST

Submittal Date: _____

Project Address: _____

Applicant Name: _____ Phone: _____

The following checklist provides a list of information that must be included on the plans before your permit application can be processed. This checklist covers the prescriptive compliance method for landscape areas between 500 and 2,499 square feet. Please provide the appropriate information on construction documents.

Plant Material (Title 23, Chapter 2.7, Appendix D (b) (3))

For residential areas, 75% of landscape, excluding edibles and areas using recycled water, shall consist of plants that average a WUCOLS plant factor of 0.3. WUCOLS plants database can be found online at: <http://ucanr.edu/sites/WUCOLS/>.

For nonresidential areas, 100% of the plants, excluding edibles and areas using recycled water, shall consist of plants that average a WUCOLS plant factor of 0.3.

Add note to plans: "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."

Turf (Title 23, Chapter 2.7, Appendix D (b) (4))

Turf shall not exceed 25% of the landscape area in residential areas.

No turf permitted in nonresidential areas

Turf not permitted on slopes greater than 25%.

Turf is prohibited in parkways less than 10 feet wide.

Irrigation (Title 23, Chapter 2.7, Appendix D (b) (5))

Automatic weather-based or soil-moisture based irrigation controllers shall be installed on the irrigation system.

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

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

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

For nonresidential projects with landscape areas of 500sqft or more, private sub-meter (s) to measure landscape water use shall be installed.

Add note to plans: "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 of landscape and irrigation maintenance."

Add note to plans: "Unless contradicted by a soils test, 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"



MWELo PERFORMANCE SUBMITTAL CHECKLIST

Submittal Date: _____

Project Address: _____

Applicant Name: _____ Phone: _____

The following checklist provides a list of information that must be included on the plans before your permit application can be processed. This checklist covers the performance compliance method for landscape areas 2,500 square feet or larger. Please provide the appropriate information on construction documents.

Landscape Documentation Package (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 that includes a hydrozone information table and water budget calculations shall be submitted for plan check.
- A landscape design plan and irrigation design plan shall be submitted for plan check.

Water Efficient Landscape Worksheet (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) (0.45 for nonresidential 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 hydrozone. All temporary irrigated areas shall be included in the low water use hydrozone.

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 (Title 23, Chapter 2.7 §492.6)

- The landscape design plans, at a minimum, shall:
 - Delineate and label each hydrozone by number, letter, or other methods.
 - Identify each hydrozone 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.
- For hydrozone 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. Hydrozones containing a mix of low and high water use plants is not permitted.



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

- Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape.
- Add note to plans: “Recirculating water systems shall be used for water features”
- Add note to plans: “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.”
- Add note to plans: “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”

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

The irrigation plans, at a minimum, shall contain the following:

Location and size of separate water meters for landscape

Location, type, and size of all components of the irrigation system, including control-ers, 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 to 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 submeter shall be installed for all (nonresidential irrigated landscapes of at least 500sqft) (residential irrigated landscape areas of at least 500sqft).

Add note to plans: “Pressure regulating devices are required if water pressure is below or exceeds the recommended pressure of the specified irrigation devices.”

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.

Add note to plans: “Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur.”

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-in. of any non-permeable surface.

Required Statements and Certification (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”.
- 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.
- Add note to plans: “A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.”
- Add note to plans: “A Certificate of Completion shall be filled out and certified by either the designer of the landscape plans, irrigation plans, or the licensed landscape contractor for the project”.
- Add note to plans: “An irrigation audit report shall be completed at the time of final inspection.”

Sample Water Efficient Landscape Worksheet

EXAMPLE

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package.

Reference Evapotranspiration (ETo) 50.1

Hydrozone # / Planting Description ^a	Plant Factor (PF)	Irrigation Method ^b	Irrigation Efficiency (IE) ^c	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU) ^e
Regular Landscape Areas							
1 / FRONT YARD	.8	Spray	.75	0.94	1,000	940	29,198
2 / SIDE YARD	.5	Drip	.81	0.61	300	183	5,685
3 / REAR YARD	.3	Drip	.81	0.37	3,300	1221	37,927
4 / POOL	1.0	n/a	1	1	400	400	12,425
				Totals	5,000 (A)	2744 (B)	
Special Landscape Areas							
NONE				1	----	----	----
-----				1	----	----	----
-----				1	----	----	----
				Totals	0 (C)	0 (D)	
						ETWU Total	85,234
						Maximum Allowed Water Allowance (MAWA)^e	85,420

^aHydrozone #/Planting Description

E.g

1.) front lawn

2.) low water use plantings

3.) medium water use planting

^eMAWA (Annual Gallons Allowed) = (Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x 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 .55 for residential areas and 0.45 for nonresidential areas.

^bIrrigation Method

overhead spray

or drip

^cIrrigation Efficiency

0.75 for spray head

0.81 for drip

^dETWU (Annual Gallons Required) = Eto x 0.62 x ETAF x Area

where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year.

ETAF Calculations

Regular Landscape Area

Total ETAF x Area	(B)	2744
Total Area	(A)	5000
Average ETAF	B ÷ A	0.549

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for nonresidential areas.

All Landscape Area

Total ETAF x Area	(B+D)	2,744
Total Area	(A+C)	5,000
Sitewide ETAF	(B+D) ÷ (A+C)	0.549

Water Efficient Landscape Worksheet

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package.

Reference Evapotranspiration (ETo)

Hydrozone # / Planting Description ^a	Plant Factor (PF)	Irrigation Method ^b	Irrigation Efficiency (IE) ^c	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU) ^e
Regular Landscape Areas							
				Totals	(A)	(B)	
Special Landscape Areas							
				1			
				1			
				1			
				Totals	(C)	(D)	
						ETWU Total	
						Maximum Allowed Water Allowance (MAWA)^e	

^a**Hydrozone #/Planting Description**

E.g

- 1.) front lawn
- 2.) low water use plantings
- 3.) medium water use planting

^e**MAWA (Annual Gallons Allowed) = (Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x 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 .55 for residential areas and 0.45 for nonresidential areas.

^b**Irrigation Method**

- overhead spray
- or drip

^c**Irrigation Efficiency**

- 0.75 for spray head
- 0.81 for drip

^d**ETWU (Annual Gallons Required) = Eto x 0.62 x ETAF x Area**

where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year.

ETAF Calculations

Regular Landscape Area

Total ETAF x Area	(B)	
Total Area	(A)	
Average ETAF	B ÷ A	

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for nonresidential areas.

All Landscape Area

Total ETAF x Area	(B+D)	
Total Area	(A+C)	
Sitewide ETAF	(B+D) ÷ (A+C)	



LANDSCAPE CERTIFICATION FORM - Required at Final Inspection

Project Information:

Site Address: _____ Permit Number: _____

Section A: Landscape Designer

- I certify that I am qualified by the State of California to perform landscape design services; the landscape design and water use calculations for this project were prepared by me or under my supervision; the landscape design and water use calculations comply with the requirements of the Model Water Efficient Landscape Ordinance, and the Landscape Documentation Package is complete; **OR**
- Interior T.I., no landscape work performed (**do not need to complete sections B or C below**); **OR**
- This project is not subject to the Model Water Efficient Landscape Ordinance.

Name: _____ Relationship to Project: _____
Company Name (if applicable): _____ State License # (if applicable): _____

Signature: _____ Date: _____

Section B: Landscape Installer

- I certify that (a) I am qualified by the State of California to provide landscape design services; the landscape project for this project was installed by me or under my supervision; (b) the landscaping for the identified property has been installed in substantial conformance with the approved Landscape Documentation Package and complies with the requirements of the Model Water Efficient Landscape Ordinance; (c) a diagram of the irrigation plan showing hydrozones is kept with the irrigation controllers; (d) the Certificate of Completion has been completed in compliance with the requirements of the Model Water Efficient Landscape Ordinance and shall be implemented.

Name: _____ Relation to Project: _____
Company Name (if applicable): _____ State License # (if applicable): _____

Signature: _____ Date: _____

Section C: Owner/Representative

- I certify that I am the property owner or an authorized representative and have received copies of all the documents within the Landscape Documentation Package and the Certificate of Completion and that it is my responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule.

Signature: _____ Date: _____

Qualified irrigation service provider: *The following individuals are authorized to provide services required by the Model Water Efficient Landscape Ordinance in the State of California: Landscape Architects, Landscape Contractors, Landscape Designers and Irrigation Consultants. Personal property owners may design and sign plans for work on any property they own. (Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code.)*



CERTIFICATE OF COMPLETION

This certificate is filled out by the project applicant upon completion of the landscape project.

PART 1. PROJECT INFORMATION SHEET

Date		
Project Name		
Name of Project Applicant	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Project Address and Location

Street Address		Parcel, tract or lot number, if available.	
City		Latitude/Longitude (optional)	
State	Zip Code		

Property Owner of his/her designee:

Name	Telephone No.	
	Fax 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
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CERTIFICATE OF COMPLETION

PART 2. CERTIFICATION OF INSTALLATION ACCORDING TO THE LANDSCAPE DOCUMENTATION PACKAGE

“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	Telephone No.	
	Fax 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 a licensed landscape contractor.

PART 3. IRRIGATION SCHEDULING

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

PART 4. SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE

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

PART 5. LANDSCAPE IRRIGATION AUDIT REPORT

Attach Landscape Irrigation Audit Report per ordinance Section 492.12.

PART 6. SOIL MANAGEMENT REPORT

Attach soil analysis report, if not previously submitted with the Landscape Documentation Package per ordinance Section 492.6.

Attach documentation verifying implementation of recommendations from soil analysis report per ordinance Section 492.6.