



Planning Department
168 North Edwards Street
Post Office Drawer L
Independence, California 93526

Phone: (760) 878-0263
FAX: (760) 872-2712
E-Mail: inyoplanning@inyocounty.us

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO) PERFORMANCE COMPLIANCE FORM

FOR PROJECTS WITH GREATER THAN 2,500 SQ FT OF TOTAL LANDSCAPE AREA

Applicant Information

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

Project

Site Address: _____

Project Type Residential Non-residential Rehabilitation

This project does incorporate landscaping greater than 2500 sq. ft. 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 using the MWELO CHECKLIST below):

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 - retail water service
provider (If not served by private well): _____

Note: Landscape area includes all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum applied Water Allowance calculation. The landscape area does not include foot prints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscape, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet to be filled project applicant and it is a required element of the Landscape Documentation Package. The applicant must use the water budget calculator found at the Department of Water Resources webpage:

<https://www.water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency>

Reference Evapotranspiration (ET_o)

Hydrozone # /Planting Description	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

^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.

^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 non-residential areas.

Landscape Design Plan

APPLICANT	ITEM	REVIEWER		LOCATION ON PLANS
		PASS	FAIL	
	1. Plant legend listing common name, botanical name, quantities, mature plant size, water use or plant factor of each plant, and source of information for plant water use			
	2. High water use planting areas			
	3. Moderate water use planting areas			
	4. Low water use planting areas			
	5. Stormwater labeled treatment areas, including type, size and installation details			
	6. Rain harvesting or catchment technologies			
	7. Graywater discharge piping, system components and area(s) of distribution			
	8. Hardscape labeled as pervious or non-pervious			
	9. Recreation areas			
	10. Water features including swimming pools			
	11. Areas irrigated with recycled water			
	12. Areas dedicated solely to edible plants			

Irrigation Design Plan

APPLICANT	ITEM	REVIEWER		LOCATION ON PLANS
		PASS	FAIL	
	1. Automatic irrigation controllers are required and must use evapotranspiration or soil moisture data and utilize a rain, freezing and wind sensors			
	2. Pressure regulators are installed on the irrigation system to ensure dynamic pressure of the components are within the manufacturer's recommended pressure range			
	3. Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur.			
	4. Irrigation system design to prevent runoff, low head drainage, overspray, or the similar conditions where irrigation water flows onto non-targeted areas			
	5. Manual-shut-off valves (such as gate, ball or butterfly valves) are installed as close as possible to the point of connection of the water supply			
	6. Location, type and size of the following:			
	a. Water meters			
	b. Main lines			
	c. Lateral lines			
	d. Quick couplers			
	e. Valves (stations), including:			
	I. Flow rate (gmp)			
	II. Application rates (in/hr)			
	III. Design operating pressure (pounds per square inch) for each station			
	f. Sprinkler heads			
	g. Backflow prevention devices			
	7. All irrigation emission devices must meet the requirements set in the ANSI standard ASABE/ICC 802-2014 "Landscape Irrigation Sprinkler and Emitter Standard." All sprinkler heads installed must have a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.			
	8. Projects with 5,000 square feet or greater total landscape area shall have identified flow sensors			
	9. For non-residential projects with landscape areas of 1,000 square feet or more dedicated water meter or sub- meter(s) to measure landscape water use shall be installed.			
	10. For residential projects with landscape areas of 5,000 square feet or more dedicated water meter or sub- meter(s) to measure landscape water use shall be installed.			
	11. Cross-check landscape plan and irrigation plan to verify low volume irrigation (drip) are used in mulched planting areas (no spray irrigation)			

	12. 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.			
	13. Verify no sprinklers (spray or rotors) are located within 24 inches of non-permeable surface			
	14. Demonstrate trees are on separate valves (separate tree valve is optional, but recommended)			
	15. Verify irrigation design matches hydrozones shown on Hydrozone Plan and/or Landscape Design Plan			

Hydrozones (See Landscape Design Plan or Irrigation Design Plan)

APPLICANT	ITEM	REVIEWER		LOCATION ON PLANS
		PASS	FAIL	
	1. Hydrozone information on the water budget matches landscape plans:			
	a. Hydrozones are delineated and marked by number, letter or other designation			
	b. Hydrozone are identified as low, moderate, high water or mixed water use			
	c. No hydrozone has a mix of high (PF= 0.7 – 1.0) and low (PF= 0.1 -0.3) water use plants			
	d. No plant with a plant factor of 0.7 or greater is located in street medians			
	2. Water features shown on landscape plans are included as high water use hydrozones in the plans and in the water budget			
	3. Temporarily irrigated areas are included in the low water use hydrozones on the plans and on the water budget			

Soil, Compost and Mulch

APPLICANT	ITEM	REVIEWER		LOCATION ON PLANS
		PASS	FAIL	
	1. Incorporate compost at a rate of at least 4 cubic yards per 1,000 square feet to a depth of 6 inches into the landscape area (unless contra-indicated by a soil test).			
	2. A minimum 3-inch layer of recycled mulch shall be applied on all exposed soil surfaces of planting areas except turf areas, or direct seeding applications where mulch is contraindicated, or prohibited by local fire regulations, gravel or stone may be used			
	3. Recycled content mulch is aged tree trimmings, arbor mulch, pallet mulch or composted mulch			

Soil Management Report

APPLICANT	ITEM	REVIEWER		LOCATION ON PLANS
		PASS	FAIL	
	1. Attach soil analysis report of the soil in planting areas from a soil lab if there is no mass grading during construction (otherwise submit report after construction with Certificate of Completion)			
	2. The soil sample follows laboratory protocol and includes:			
	a. Soil texture			
	b. Infiltration rate			
	c. pH			
	d. Total soluble salts			
	e. Sodium			
	f. Percent soil organic matter			
	g. Amendment recommendations: including use of compost at a minimum of 4 cubic yards per 1,000square feet			

Grading Design Plan

APPLICANT	ITEM	REVIEWER		LOCATION ON PLANS
		PASS	FAIL	
	1. Check the grading plan for finished configurations and elevations of the landscape area including			
	a. Height of graded slopes			
	b. Drainage patters			
	c. Pad elevations			
	d. Finish grade			
	e. Stormwater retention improvements (if applicable)			
	2. On slopes greater than 25%, cross-check the Grading Design Plan and Irrigation Design Plan to verify slopes are not irrigated with an application rate exceeding 0.75 inches per hour			

Plants

APPLICANT	ITEM	REVIEWER		LOCATION ON PLANS
		PASS	FAIL	
	1. Plant material shall comply with the following:			
	a. Residential projects only:			
	I. 75% of landscape area shall consist of plants that use little or no summer water (WUCOLS plant factor of 0.3 or lower), excluding edibles or areas using recycled water.			
	II. No more than 25% of the landscape area will be planted with high water using plants			
	b. Non-residential projects only (including multifamily residential):			
	I. 100% of the landscape area shall consist of plants that use little or no summer water (WUCOLS plant factor of 0.3 or lower), excluding edibles or areas using recycled water			
	c. No invasive plants are planted. No plant species listed by the California Invasive Plant Council's "Don't Plant a Pest" brochure as invasive in the San Francisco Bay Area shall be planted.			
	2. The use of turf shall comply with all of the following:			
	a. In nonresidential areas, turf is not used			
	b. In residential areas:			
	I. Turf, high water use plants, and water features shall, combined, not exceed 25% of the landscape area			
	II. Turf shall not be planted on slopes which exceed a slope of 1 foot vertical elevation change for every 4 feet or horizontal length			
	III. Turf is prohibited in parkways less than 10 feet wide. Exception: Parkway is adjacent to a parking strip and used to exit and enter vehicles AND turf is irrigated with subsurface irrigation			
	<p><i>WUCOLS plants database can be found online at:</i></p> <p>http://ucanr.edu/sites/WUCOLS/ "Don't Plant a Pest" brochure can be found at http://cal-ipc.org/landscaping/dpp/</p>			

Signature

I agree to comply with the requirements of the prescriptive compliance option of the Model Water Efficient Landscape Ordinance full performance pathway.

Signature of Applicant or Property Owner or authorized representative

Date



**Planning Department
168 North Edwards Street
Post Office Drawer L
Independence, California 93526**

**Phone: (760) 878-0263
FAX: (760) 872-2712
E-Mail: inyoplanning@inyocounty.us**

CERTIFICATE OF COMPLETION - Performance Path MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO)

Applicant Information

Name: _____
Title & Company: _____
Name: _____
Phone: _____
Address: _____
Email: _____

Project Information

Date: _____
Project Name: _____
Project Site Address: _____
Parcel or Lot Number: _____

Owner Information

Owner Name: _____
Owner Phone Number: _____
Owner Address: _____
Owner Email: _____

Property Owner Certification

"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 my/our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule."

Property Owner Signature

Date



**Planning Department
168 North Edwards Street
Post Office Drawer L
Independence, California 93526**

Phone: (760) 878-0263
FAX: (760) 872-2712
E-Mail: inyoplanning@inyocounty.us

CERTIFICATE OF INSTALLATION MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO)

*To be signed by the signer of the Landscape Design Plan or the Irrigation Design Plan or by the
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. As-built drawings have been provided to document any major modifications of the approved Landscape Documentation Package. Significant changes made during construction comply with the ordinance."

Professional/Contractor Signature: _____

Date: _____

Print Name: _____

License Number: _____

Additional Modifications

Applicant: If major modifications were made in construction from the submitted plans, attach record drawings (as-builts)

No major modifications

As-builts attached

ADDITIONAL ATTACHMENTS

☐ **IRRIGATION SCHEDULING**

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

☐ **SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE**

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

☐ **LANDSCAPE IRRIGATION AUDIT REPORT**

Attach schedule of Landscape and Maintenance per ordinance Section 492.12.*

☐ **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.*

* California Code of Regulations, Title 23, Division 2, Chapter 2.7 Model Water Efficient Landscape Ordinance

[https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=IBBB0A9505B6E11EC9451000D3A7C4BC3&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default))

[guid=IBBB0A9505B6E](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=IBBB0A9505B6E11EC9451000D3A7C4BC3&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default))

[11EC9451000D3A7C4BC3&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=IBBB0A9505B6E11EC9451000D3A7C4BC3&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default))



8) Copy of the worksheet placed in controller cabinet: Yes No

Signature	Date	
Name (print):	Telephone No.	
	Fax No.	
Title:	Email Address;	
License No. or Certification No.		
Company:	Street Address:	
City:	State:	Zip Code:



Planning Department
168 North Edwards St.
Post Office Drawer L
Independence, California 93526

Phone: (760) 878-0263
FAX: (760) 872-2712
Email: inyoplanning@inyocounty.us

SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE

Project Address: _____

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	1. Attach schedule of maintenance for the landscape and irrigation system per ordinance to ensure water efficiency. The attached schedule of landscape maintenance includes:		
	a. Routine inspection, auditing, adjusting and repair of the irrigation system		
	b. Aerating and dethatching turf areas		
	c. Topdressing planting areas with compost as needed		
	d. Replenishing mulch		
	e. Pruning and weeding		
	f. Routine inspection, auditing, adjusting and repair of the irrigation system		
	2. Attach landscape irrigation audit report		
	3. Attach landscape irrigation audit checklist		
	4. The irrigation audit was conducted by a third-party certified Irrigation Auditor professional who is not a part of the design team		
	5. Irrigation items identified for repair in the audit are fixed		
	6. In large project or projects with multiple landscape installations (i.e. production home developments) an auditing rate of 1 in 7 lots or 15% is conducted		



Planning Department
168 North Edwards St.
Post Office Drawer L
Independence, California 93526

Phone: (760) 878-0263
FAX: (760) 872-2712
Email: inyoplanning@inyocounty.us

LANDSCAPE IRRIGATION AUDIT CHECKLIST

A. Project & Auditor Information

Inspection Date _____
Project Name _____
Project Address _____
Application Number _____
Irrigation Auditor Name _____
Irrigation Auditor Company _____
Irrigation Auditor Phone # _____
Irrigation Auditor Email _____

Auditor Certified by EPA Water Sense program:

Irrigation Association
QWEL
CLCA WMCP
G3 Watershed Wise Professional
Other EPA Certified _____

Note: For large projects or projects with multiple landscape installations (i.e. production home developments), an auditing rate of 1 in 7 lots or approximately 15% satisfies the audit requirement.

Meter Type & Location	Static Water Pressure	Manual Shutoff
Customer Service Water Meter Submeter	_____ PSI	Yes No
Location _____		

Backflow Prevention	Master Valve	Flow Sensor
RP AVB Anti-siphon DCVA	Yes No	Yes No
Location _____ _____	Location _____ _____	Location _____ _____
Location _____ _____		Connected to Master Valve? Yes No

Pressure Reducing Valve Yes No	Controller Type	Controller set to Establishment Yes No
Location _____	WBIC Soil	
Mulch Yes No	Total Number of Active Stations	Irrigation Schedule Posted Yes No
	Hydrozone Map kept with controller Yes No	

[illegible]

Controller Station No.	SQ. FT.	Plant Type	Sun Exposure	Slope	Soil Type	Irrigation Method	Zone Pressure	Water Type
							1. 2. 3.	
							1. 2. 3.	
							1. 2. 3.	
							1. 2. 3.	
							1. 2. 3.	
							1. 2. 3.	

Plant Type: Turf (T), High (H), Medium (M), Low (L), VL (VL)

Sun Exposure: Full (F), Mostly (M), Partial Sun (PS), Partial Shade (PSH), Full Shade (FSH), Mostly Shade (MSH)

Slope: None (N), Steep (S), Gentle (G)

Soil Type: Clay (C), Clay/Loam (CL), Loam (L), Sandy (S), Sandy/loam (SL)

Irrigation Method: Drip (D), Spray (S), Rotating Nozzles (RN), Rotor (R), Bubbler (B), Microspray (M)

Water Type: Potable (P), Recycled (R), Graywater (G), Stormwater (S)

Note: Zone Pressure taken at beginning (1), middle (2) and end (3) of audit

Note: Microspray does not comply with MWELO

Distribution Uniformity Test (DU)

Catch-can Test Station Number _____ DU _____

WM _____ IE _____

DU (Condition of System) = Avg. of LQ/Avg. of DU
WM/TRM (Water Management Percentage also called Run Time Multiplier)
IE (Irrigation Efficiency) = DU*WM

B. Audit Report

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	1. Separate landscape customer service water meter or private submeter has been installed as applicable:		
	a. Non-residential projects: Greater than 1,000 sf landscape area		
	b. Residential projects: Greater than 5,000 sf landscape area		
	2. The irrigation audit report includes:		
	a. System inspection		
	b. Inspect for leaks		
	c. System tune-up		
	d. Test the operating pressure of the irrigation system		
	e. Test to determine distribution uniformity		
	f. Test to determine precipitation rate of representative overhead irrigation valves		
	g. Confirm matched precipitation rates on valves with sprinkler heads, rotors and other emission devices		
	h. Report of any overspray or broken irrigation equipment		
	i. Report of overspray or run off that causes overland flow		

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	j. Written recommendations to improve performance of the irrigation system		
	k. 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		
	l. Other: _____		

C. Irrigation Equipment

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	1. Irrigation equipment is installed (location, type and size) as shown in the approved plans:		
	a. Automatic controller is ET-based or soil moisture-based and includes:		
	I. Irrigation scheduling parameters		
	II. Hydrozone map		
	b. Sensors installed include rain, frost (if necessary) and wind sensors (if necessary)		
	c. Point of connection includes:		
	I. Backflow prevention devices (if necessary)		
	II. Manual shut-off valve (gate, ball, butterfly valve)		
	III. Master shut-off valve		
	IV. Flow sensor for landscapes over 5,000 sf only		
	d. Valves (station)		
	I. Flow rate (gpm)		
	II. Application rates (in/hr)		
	III. Design operating pressure:		
	e. If static pressure is above or below required dynamic pressure of the system, pressure-regulating devices are installed		
	2. Main and laterallines		

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	3. Sprinklers		
	a. No spray heads within 24 inches of non-permeable surface		
	b. Sprinkler heads and other emission devices have matched precipitation rates		
	c. Swing joints or other riser protection provided in high traffic areas and areas near hardscape		
	4. Drip		
	a. Emitter type and model match plan		
	b. Emitter location around plants		
	c. Operating pressure checked		
	d. Valve matches plan, specifications, height, flow rate		
	e. Valve box properly set and identified		
	f. Filter installed and serviceable		
	g. Pressure regulator installed		
	h. Wire connections meet specifications		
	i. Proper pipe type and size installed		
	j. Piping is anchored or buried as per specifications		
	k. Flush plugs are installed		
	l. Drip system activated by controller		
	m. Piping is anchored or buried as per specifications		
	5. Low volume irrigation (drip, drip lines, and bubblers) is used in mulched planting areas (no spray irrigation) and in areas less than 10 feet wide		

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	6. Slopes greater than 25% are irrigated with an application rate not exceeding 0.75 inches per hour		
	7. Runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas are prevented		
	8. Check valves or anti-drain valves are installed to prevent low head drainage		
	9. Pressure regulating devices are used if the static water pressure at the connection of the public water system does not match the water pressure needs of the irrigation system		
	10. Check irrigation legend and manufacturer's online data that sprinkler heads and other emission devices have matched precipitation rates		
	11. Confirm that swing joints or other riser protection are provided in high traffic areas and areas near hardscape		

D. Hydrozones

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	1. Match on the landscape plan and irrigation plan		
	2. Are irrigated by valves with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use		
	3. Trees are on separate valves		
	4. Bio-treatment areas are on separate valves		

E. Water Features

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	1. Use recirculating water systems		
	2. Use recycled water if available		

F. Irrigation Schedules

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	1. Irrigation schedules have been developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:		
	a. Irrigation scheduling is regulated by automatic irrigation controllers		
	b. Overhead irrigation is scheduled between 8:00 p.m. and 10:00 a.m. unless weather conditions prevent it		
	c. Irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data		
	2. The irrigation schedules have been developed to include the parameters used to set the automatic controller and are submitted for each of the following:		
	a. Plant establishment period		
	b. Established landscape		
	c. Temporarily irrigated areas		
	3. Each irrigation schedule includes the following that apply for each station (valve):		
	a. Irrigation interval (days between irrigation)		

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	b. Irrigation run times (hours or minutes per irrigation event to avoid runoff)		
	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		
	f. Root depth setting		
	g. Plant type setting		
	h. Soiltype		
	i. Slope factor setting		
	j. Shade factor setting		
	k. Irrigation uniformity or efficiency setting		

G. Reviewer Comments
