

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 - <u>Performance Path</u> MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO)

#### **Applicant Information**

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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



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### 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? guid=IBBB0A9505B6E 11EC9451000D3A7C4BC3&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)



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# **IRRIGATION SCHEDULE**

#### Project Address:

- Irrigation schedules will be regulated using a weather-based irrigation controller / soil moisture sensor based located The controller has a non-volatile memory.
- Irrigation watering will occur typically between the hours of 8pm 10am unless otherwise dictated by weather, drought emergency, system, maintenance, repair and or testing. Drip irrigation typically has longer run times than sprinklers.
- 3) Irrigation schedules will be designed and implemented to meet the California Model Water Efficient Landscape Ordinance or local ordinance's Estimated Total Water Use calculations from approved Landscape Documentation Package. The total annual applied water shall not exceed the Maximum Applied Water Allowance from approved Landscape Documentation package.

4) An establishment irrigation schedule:	Attached	Yes	No
5) A permanent irrigation schedule:	Attached	Yes	No
6) Temporary irrigated areas schedule:	Applicable	Yes	No

7) The following additional parameters are in place for each hydrozone/station:

<ul> <li>a) Interval between watering events:</li> </ul>	Yes	No
b) Station run times to prevent run off:	Yes	No
c) Number of cycle starts to prevent runoff:	Yes	No
d) A monthly water budget:	Yes	No
e) Type of emission device and application rate:	Yes	No
f) Root depth target:	Yes	No
g) Soil type:	Yes	No
h) Slope:	Yes	No
i) Micro-climate:	Yes	No
j) Distribution uniformity:	Yes	No

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:



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# SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE

Project Address: \_

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	<ol> <li>Attach schedule of maintenance for the landscape and irrigation system per ordinance to ensure water efficiency. The attached schedule of landscape maintenance includes:</li> </ol>		
	a. Routine inspection, auditing, adjusting and repair of the irrigation system		
	<ul> <li>b. Aerating and dethatching turf areas</li> <li>c. Topdressing planting areas with compost as needed</li> </ul>		
	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		
	<ol> <li>The irrigation audit was conducted by a third- party certified Irrigation Auditor professional who is not a part of the design team</li> </ol>		
	<ol> <li>Irrigation items identified for repair in the audit are fixed</li> </ol>		
	<ol> <li>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</li> </ol>		



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# 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	Yes	Yes
DCVA	No	No
Location	Location	Location
Location		Connected to Master Valve? Yes No

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

Hydrozone Number	Flow Rate (GPM or GPH)	Precipitation Rate (IPH)

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)

<u>Sun Exposure:</u> 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)

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

<u>Water Type</u>: Potable (P), Recycled (R), Graywater (G), Stormwater (S)

<u>Note</u>: Zone Pressure taken at beginning (1), middle (2) and end (3) of audit <u>Note</u>: Microspray does not comply with MWELO 03/23 - Irrigation Audit

### **Distribution Uniformity Test (DU)**

Catch-can Test Station Numbe	r DL	J
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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:	Item:	Reviewer: Pass	Reviewer: Fail/NA
Write the Plan Sheet Number	Description of Document	r a 3 3	
	<ol> <li>Separate landscape customer service water meter or private submeter has been installed as applicable:</li> </ol>		
	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 reportincludes:		
	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		
	I. Other:		

# C. Irrigation Equipment

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	<ol> <li>Irrigation equipment is installed (location, type and size) as shown in the approved plans:</li> </ol>		
	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 meetspecifications		
	i. Proper pipe type and size installed		
	j. Piping is anchored or buried as per specifications		
	k. Flush plugs are installed		
	I. Drip system activated by controller		
	m. Piping is anchored or buried asper 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
	<ol> <li>Slopes greater than 25% are irrigated with an application rate not exceeding 0.75 inches per hour</li> </ol>		
	7. Runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas are prevented		
	<ol> <li>Check valves or anti-drain valves are installed to prevent low head drainage</li> </ol>		
	<ol> <li>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</li> </ol>		
	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		
	<ol> <li>Are irrigated by valves with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use</li> </ol>		
	3. Trees are on separatevalves		
	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 watersystems		
	2. Use recycled water ifavailable		

# F. Irrigation Schedules

Applicant: Write the Plan Sheet Number	Item: Description of Document	Reviewer: Pass	Reviewer: Fail/NA
	<ol> <li>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:</li> </ol>		
	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		
	<ol> <li>The irrigation schedules have been developed to include the parameters used to set the automatic controller and are submitted for each of the following:</li> </ol>		
	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
	<ul> <li>b. Irrigation run times (hours or minutes per irrigation event to avoid runoff)</li> </ul>		
	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**