



Office of Water Use
Efficiency and Transfers

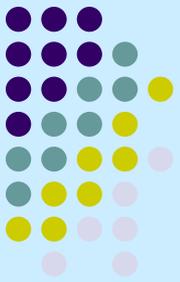
www.owue.water.ca.gov

Model Water Efficient Landscape Ordinance

Landscape Graphic Courtesy of
Sonoma County Water Agency,
Ali Davidson Landscape Architect
David Bunnett Illustrator



Current Events

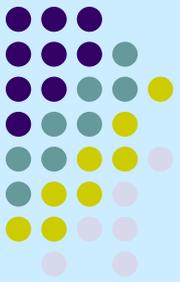


- Drought Proclamation
- 20% per capita reduction by 2020
- Many Local Agencies have Mandatory Rationing

Strong reliance on Model Water Efficient Landscape Ordinance & CIMIS to meet these goals:



Assembly Bill 1881

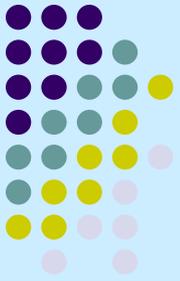


AB 1881 directed DWR to:

- Update the Model Water Efficient Landscape Ordinance
- Submit a report to the legislature on statewide compliance with existing ordinance (AB 325)
- Recommend a new ET Adjustment Factor
- Work with the CEC to develop performance standards



While investigating a New ET Adjustment Factor



- Identified 4 actions that impact irrigation efficiency (this is the backbone to landscape water savings)

1. Design

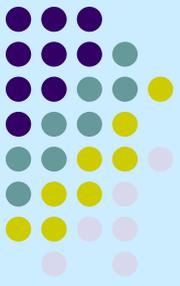
2. Installation

3. Maintenance

4. Management



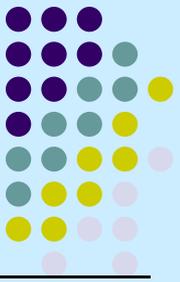
CEC & DWR Working Together



1. DWR supports strong standards that will result in high irrigation efficiency, reflecting the value and increasing scarcity of water, and the many adverse impacts of inefficient irrigation, landscape runoff, and overspray.
2. The standards developed by CEC must be consistent with the MWELO the State is adopting.
3. It is important the CEC standards development be coordinated with the ongoing improvements to the State's CIMIS program.
(Communication & data assimilation)



Important Dates



2008 – Water purveyors will be required to install separate landscape water meters for new development with landscaped area greater than 5,000 square feet; excluding single-family homes.

2010 – CEC is directed to adopt performance standards and labeling requirements for landscape irrigation controllers and moisture sensors.

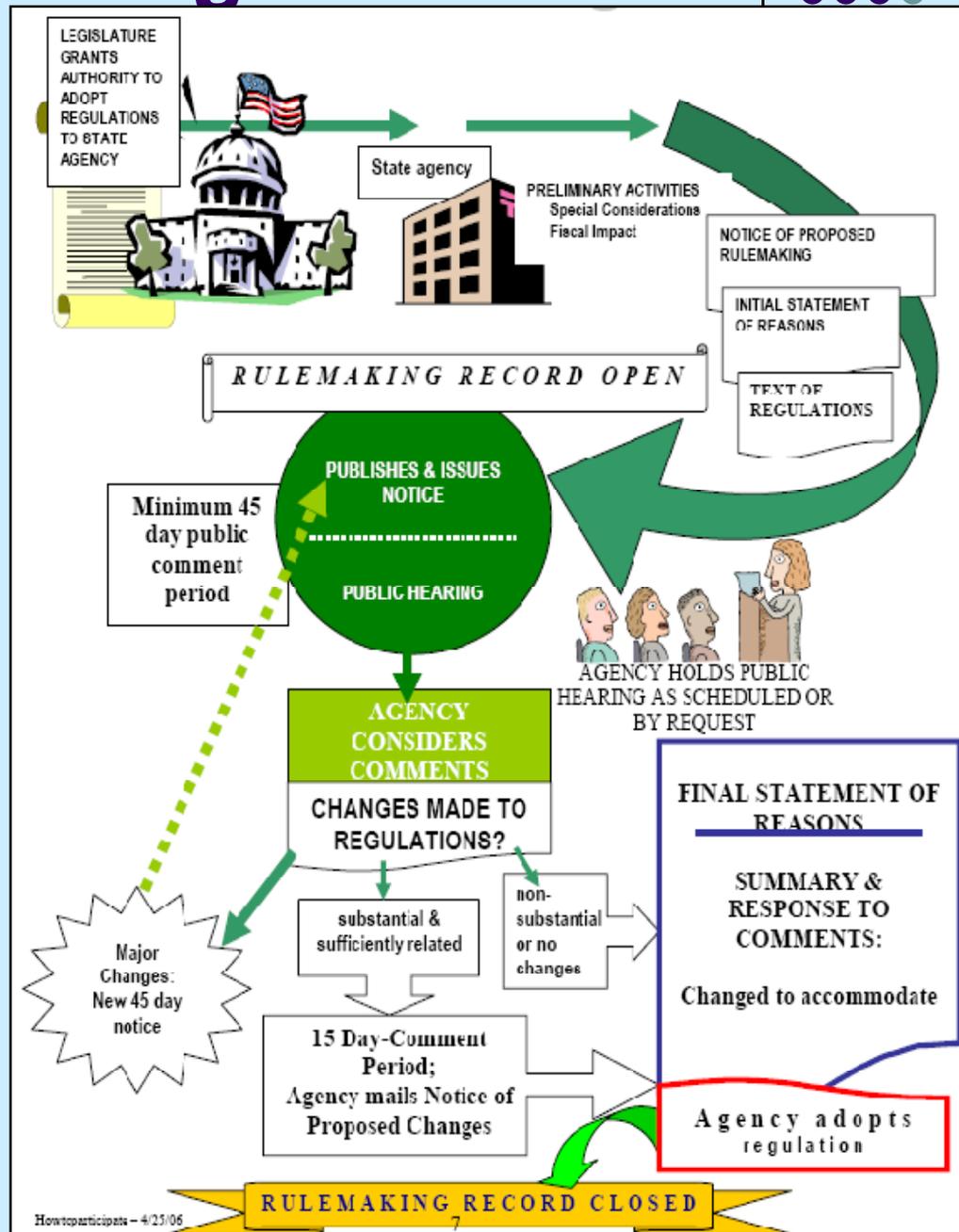
2012 – Sale or installation of irrigation controllers or moisture sensors will be prohibited unless the equipment meets the requirements adopted by CEC.

The Rulemaking Process

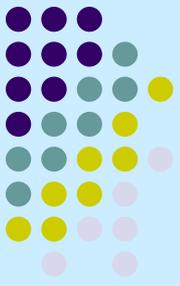


The rulemaking process, set forth in California's Administrative Procedure Act, ensures that:

- the public is informed of *proposed rules* before they take effect
- the public can comment and provide additional information
- DWR analyzes and responds to the public's comments
- DWR creates a permanent record of its analysis and the process

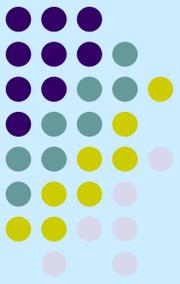


Ordinance Requirements and the Regulation

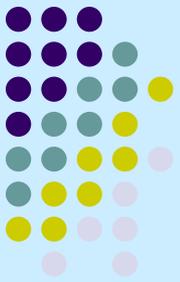


- include provisions to **minimize landscape irrigation overspray and runoff**
- include a **landscape water budget** component
- include provisions for use of **automatic irrigation systems and irrigation schedules** based on climatic conditions
- include provisions for **landscape maintenance practices** that foster long-term landscape water conservation

New Opportunities for Design and Maintenance



MO Applicability



Landscapes requiring a building or landscape permit, plan check or design review

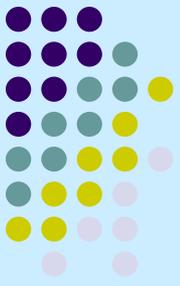
Developer installed , public agency projects, & private development project

- Landscape area over 2,500 square feet

Homeowner-provided or homeowner-hired

- Landscape area over 5,000 square feet

Water Efficient Landscape Worksheet



1. Maximum Applied Water Allowance *
(MAWA)

2. Estimated Total Water Use *
(cannot exceed MAWA)



*Based on 0.7 Evapotranspiration Adjustment Factor. **

Complying with MAWA

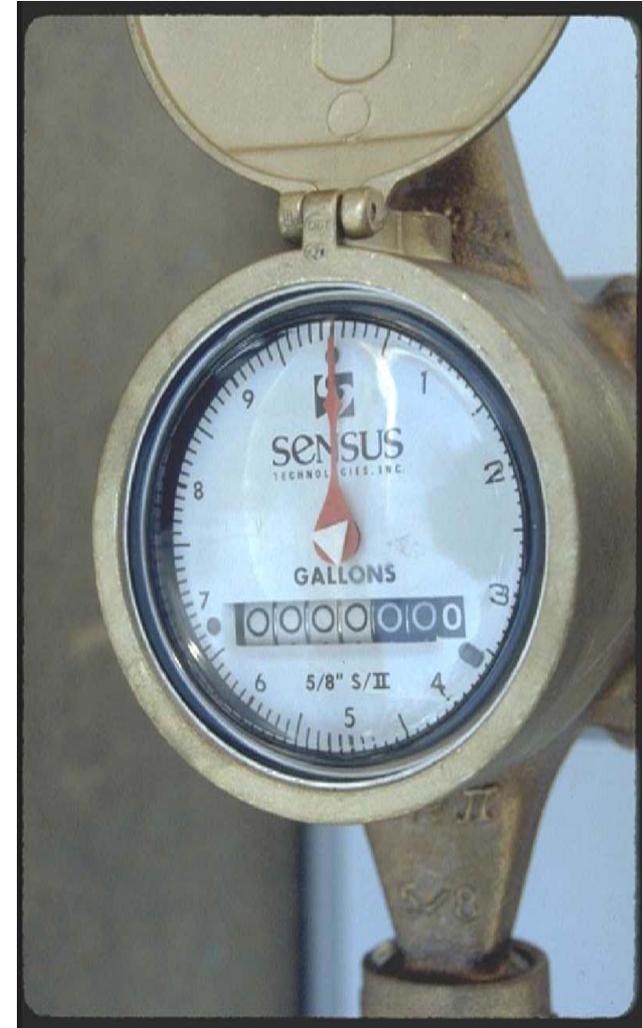
(ALL Landscapes)



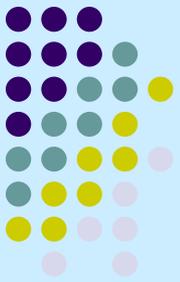
Local agencies shall administer programs for compliance with MAWA.

This may include:

- irrigation water use analysis (tracking)
- irrigation surveys
- irrigation audits



Reference Evapo-transpiration (ET_o) and Plant Factor

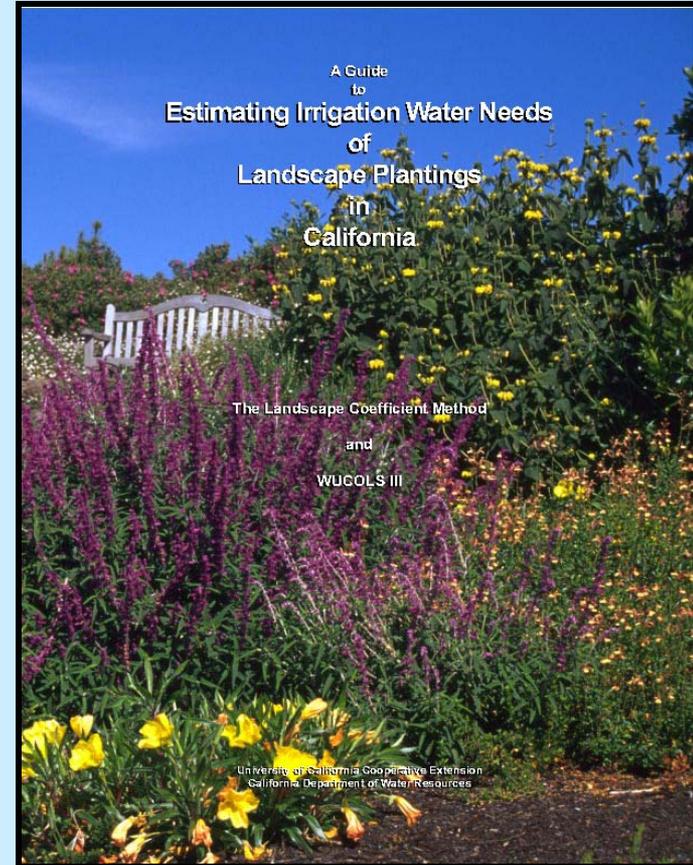


Appendix A - Reference Evapotranspiration (ET_o) Table

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ET _o
ALAMEDA													
Fremont	1.5	1.9	3.4	4.7	5.4	6.3	6.7	6.0	4.5	3.4	1.8	1.5	47.0
Livermore	1.2	1.5	2.9	4.4	5.9	6.6	7.4	6.4	5.3	3.2	1.5	0.9	47.2
Oakland	1.5	1.5	2.8	3.9	5.1	5.3	6.0	5.5	4.8	3.1	1.4	0.9	41.8
Oakland Foothills	1.1	1.4	2.7	3.7	5.1	6.4	5.8	4.9	3.8	2.6	1.4	1.0	39.6
Pleasanton	0.8	1.5	2.9	4.4	5.6	6.7	7.4	6.4	4.7	3.3	1.5	1.0	46.2
Union City	1.4	1.8	3.1	4.2	5.4	5.9	6.4	5.7	4.4	3.1	1.5	1.2	44.2



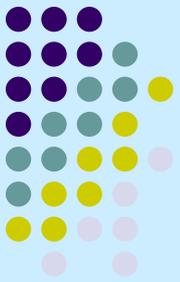
www.cimis.water.ca.gov



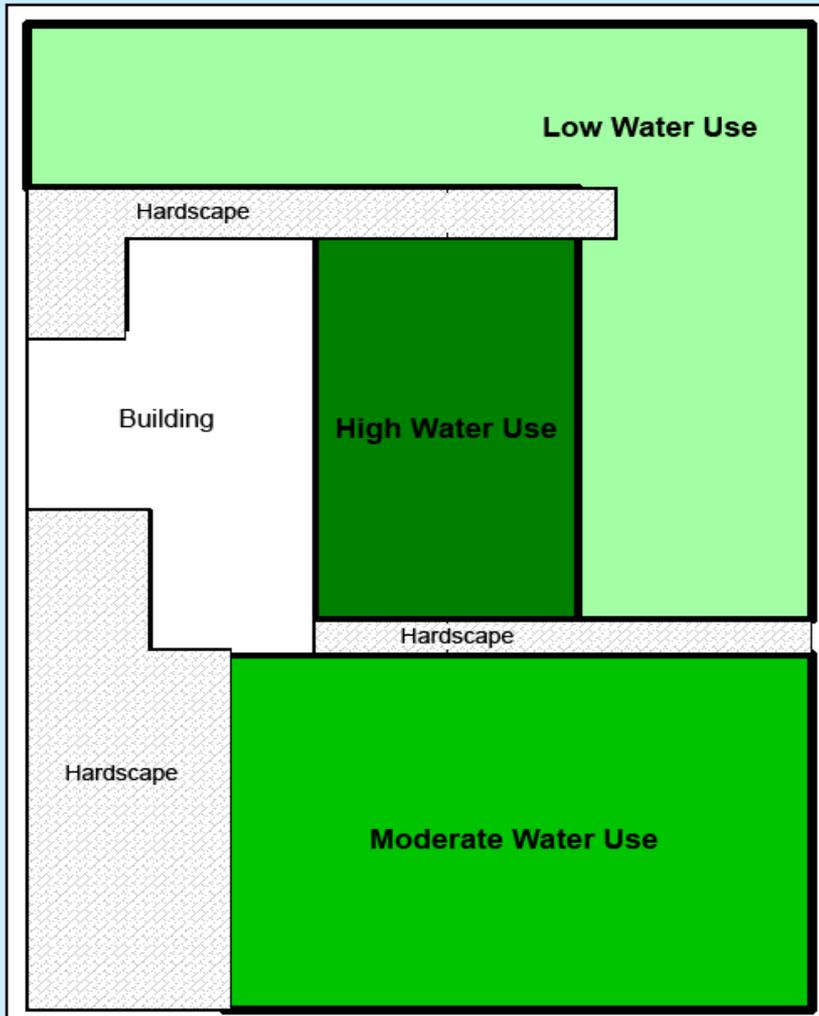
Water Use Classification of Landscape Species
(WUCOLS)

www.owue.water.ca.gov/docs/wucols00.pdf

Landscape Design Plan



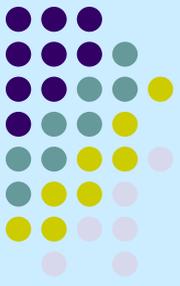
HYDROZONES *



SLOPES



Irrigation Design Plan

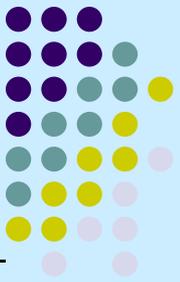


Self-adjusting controllers *

Runoff and Overspray *

- Narrow & irregular shaped Areas
- 24" Setback
- Slopes

Installation Certification

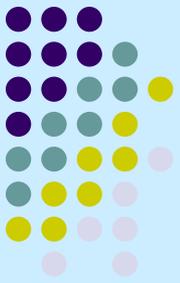


In accordance with the
landscape & irrigation
design plans



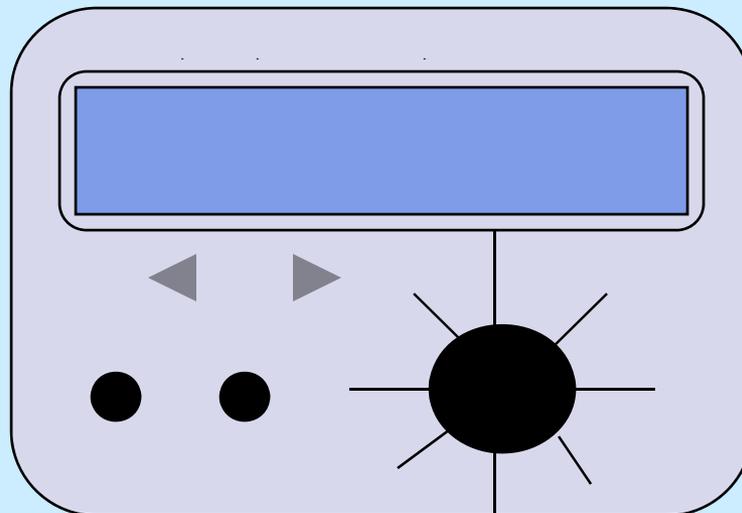
Landscape designer, the irrigation designer, or licensed landscape contractor.

Irrigation Scheduling Parameters

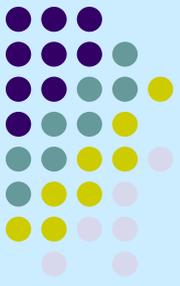


Actual irrigation schedules shall be controlled by controller

SUBMIT INPUTS



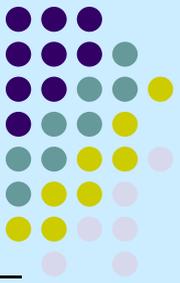
Maintenance Schedules *



Irrigation **and** Landscape



Irrigation Audit Report*

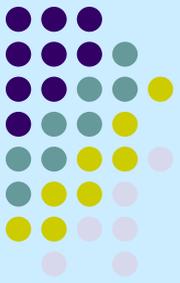


Certified Irrigation Auditor

Irrigation Association
2004 Training Manual

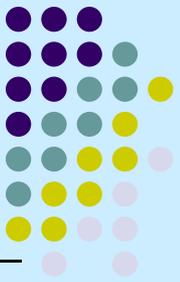


All Landscapes



Cities and counties shall prevent water waste by prohibiting runoff, low head drainage, overspray etc... *

Contact Information



Kent Frame

(916) 651-7030

kframe@water.ca.gov

Simon Eching

(916) 651-9667

seching@water.ca.gov

Office of Water Use Efficiency & Transfers

Department of Water Resources

P.O. Box 942836

Sacramento, CA 94236-0001

www.owue.water.ca.gov

