



Office of Water Use
Efficiency and Transfers

www.owue.water.ca.gov

Model Water Efficient Landscape Ordinance

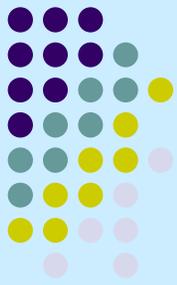
Landscape Graphic Courtesy of
Sonoma County Water Agency,
Ali Davidson Landscape Architect
David Bunnett Illustrator



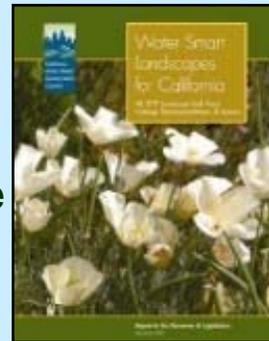
- **History or Background**
- **Elements of the Statute**
- **Regulatory Process**
- **Elements of the Regulation**



Background

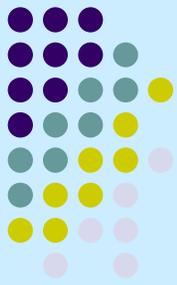


- 1990 Assembly Bill 325 directed DWR to develop a Model Water Efficient Landscape Ordinance.
- 1993 Model Water Efficient Landscape Ordinance becomes law
- 2004 Assembly Bill 2717 directed CUWCC to convene Landscape Task Force
- 2005 “Water Smart Landscapes for California” report released from Landscape Task Force
- 2006 Assembly Bill 1881 directed DWR to update the Ordinance
- 2009 DWR submits updated ordinance to Office of Administrative Law
- 2010 Local Agencies required to adopt Ordinance or write their own that is at least as effective





Assembly Bill 1881



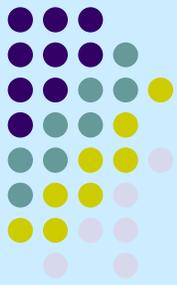
AB 1881 directed DWR to:

- 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



Assembly Bill 1881

Ordinance Requirements



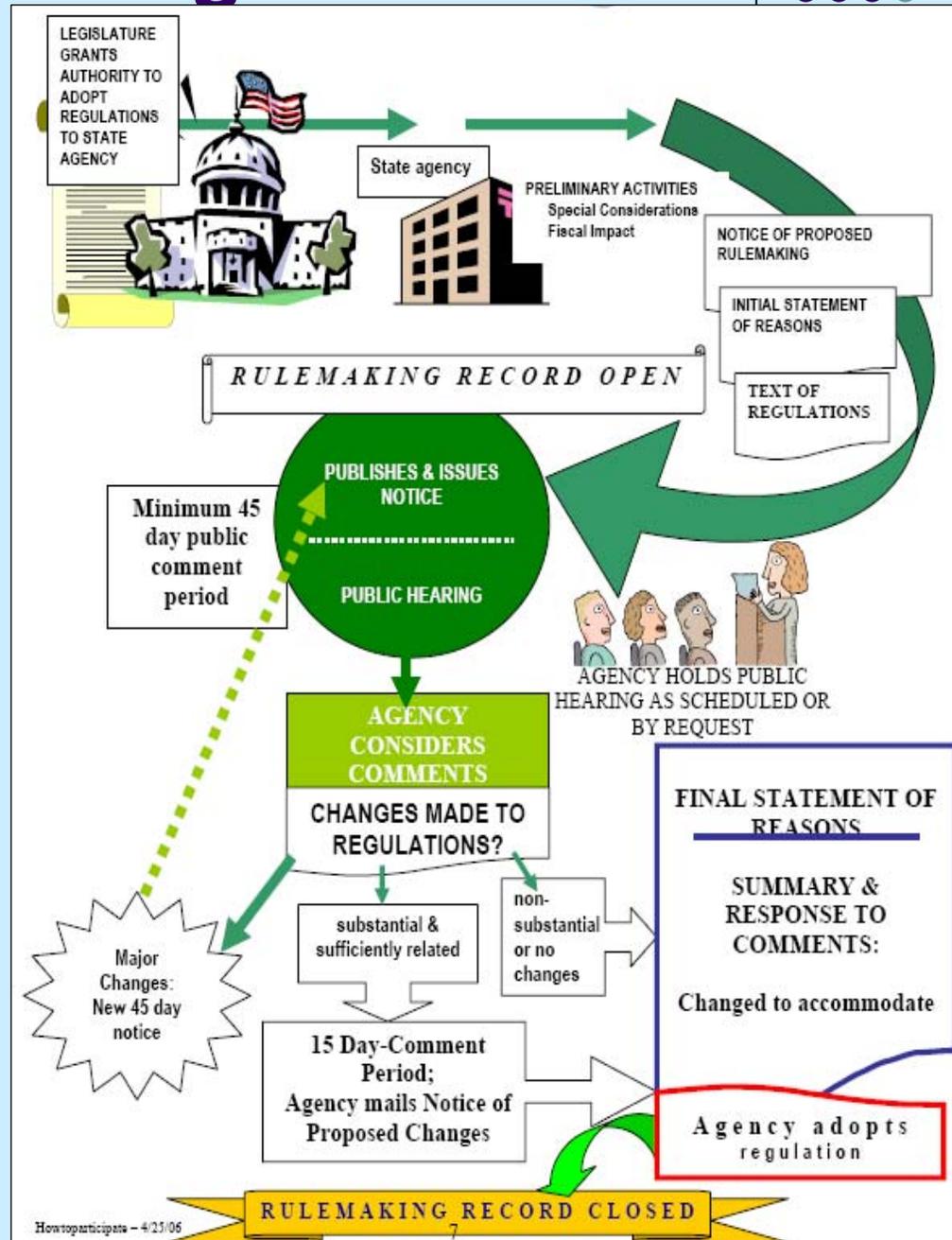
- include provisions to **minimize landscape irrigation overspray and runoff**
- include a **landscape water budget** component
- include provisions for **appropriate use and groupings of plants**
- include provisions for use of **automatic irrigation systems and irrigation schedules** based on climatic conditions
- include provisions for onsite **soil assessment and soil management plans**
- encourage the **capture and retention of storm water onsite**
- encourage the use of **recycled water**
- encourage use of **economic incentives** to promote the efficient use of water
- **educate** water users on the efficient use of water and the benefits
- address regional differences, including **fire prevention** needs
- **exempt** landscaping that is part of a registered historical site
- include provisions for **landscape maintenance practices** that foster long-term landscape water conservation
- promote benefits of **consistent local ordinances**

The Rulemaking Process

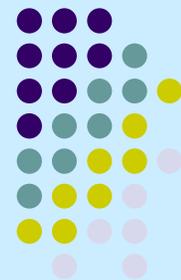


The rulemaking process, set forth in California's Administrative Procedure Act, ensures that:

- 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



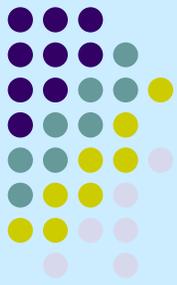
Stakeholder Input



The Department held 13 public discussions or stakeholder meetings in 2007 and three informational meetings and three public comment periods in 2008

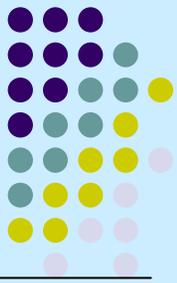
- **Jan. 11, 2007 - ETAF Technical Advisory Committee (Sac, CA)**
- **Jan. 22, 2007 - ETAF Technical Advisory Committee (Sac, CA)**
- **Aug. 7, 2007- ETAF Technical Advisory Committee (Sac, CA)**
- **Oct.18, 2007 - ETAF Technical Advisory Committee (Sac, CA)**
- **Oct. 30, 2007 - Stakeholder Meeting for Plant Group (Sac, CA)**
- **Nov. 14, 2007 - Stakeholder Meeting for Irrigation Group (Sac, CA)**
- **Nov. 15, 2007 - Stakeholder Meeting for Compliance Group (Sac, CA)**
- **Dec. 11, 2007 -Irrigation Association Conference (San Diego, CA)**
- **Dec. 12, 2007 - Stakeholder Meeting for All Groups (Sac, CA)**
- **Dec. 12, 2007 -Turf and Landscape Institute Meeting (Riverside, CA)**
- **Dec. 13, 2007 - Stakeholder Meeting for All Groups (Sac, CA)**
- **Dec. 18, 2007 - ETAF Technical Advisory Committee (Sac, CA)**
- **Jan. 28, 2008 - Final Stakeholder Meeting for All Groups (Sac, CA)**

Department of Water Resources



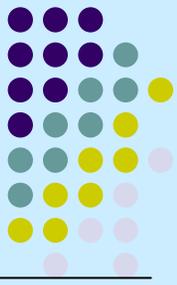
- Considered Input
- Updated the Model Ordinance
- Submitted the Updated Ordinance to the Office of Administrative Law

Important Dates



February 2008	DWR begins rulemaking process for updating ordinance
February 2008	First public Comment Period on the Draft Ordinance.
September 2008	Second Public Comment Period on the Draft Ordinance.
February 2009	DWR submitted the updated Model Ordinance to the Office of Administrative Law (OAL).
Current	Office of Administrative Law reviewing the updated ordinance for compliance with Administrative Procedures Act.
March 2009 <i>Tentative</i>	DWR plans to adopt the updated Model Ordinance.
January 2010	Local agencies shall adopt the Model Ordinance, or one that is “at least as effective as” the Model Ordinance
January 31, 2011	DWR shall submit a report to legislature on the status of adopted ordinances by local agencies

Important Dates cont;

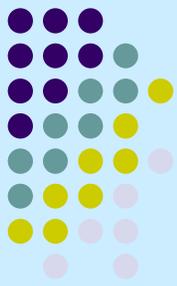


2008 – Water purveyors will be required to install separate landscape water meters for new development with landscaped area greater than 5,000 square feet; excluding single-family homes.

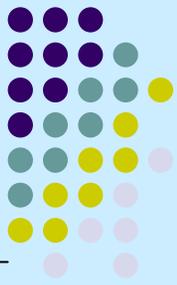
2010 – CEC is directed to adopt performance standards and labeling requirements for landscape irrigation controllers and moisture sensors.

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

New Opportunities for Design and Maintenance



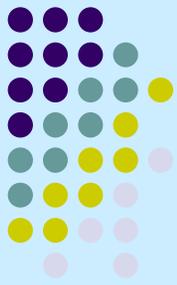
Local Agencies and Water Purveyors



The model ordinance is directed at **local agencies** *



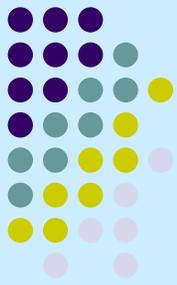
A local agency may designate another agency, such as a water purveyor, to implement requirements of this ordinance.



New and Rehabilitated Landscapes

1. Landscape Documentation Package
2. Certificate of Completion

Applicability



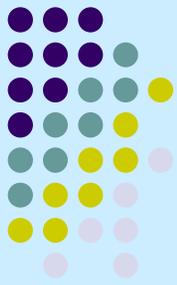
Landscapes requiring a building or landscape permit, plan check or design review

Developer installed , public agency projects, & private development project

- Landscape area over 2,500 square feet

Homeowner-provided or homeowner-hired

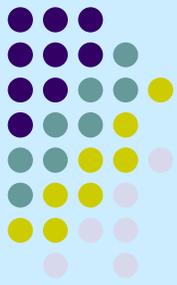
- Landscape area over 5,000 square feet



Elements of the Landscape Documentation Package

1. Project Information
2. Water Efficient Landscape Worksheet
3. Soil Management Report
4. Landscape Design Plan
5. Irrigation Design Plan
6. Grading Design Plan

Water Efficient Landscape Worksheet



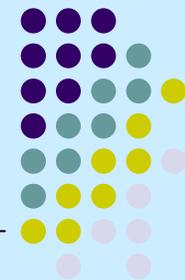
1. Maximum Applied Water Allowance *
(MAWA)

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



*Based on 0.7 Evapotranspiration Adjustment Factor. **

Reference Evapo-transpiration (ET_o) and Plant Factor

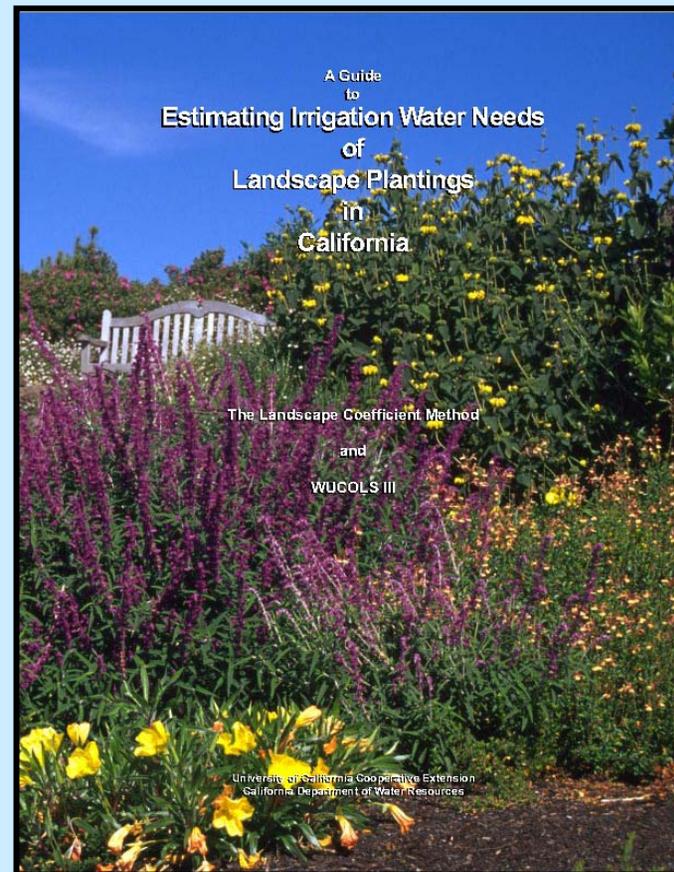


Appendix A - Reference Evapotranspiration (ET_o) Table

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Eto
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	3.6	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



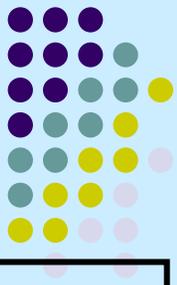
www.cimis.water.ca.gov



Water Use Classification of Landscape Species (WUCOLS)

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

Other Considerations



Special Landscape Areas

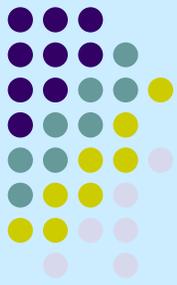
- recycled water *
- active play or recreation
- dedicated to edible plants

Water Features

Use ETAF of
"high water use" plants



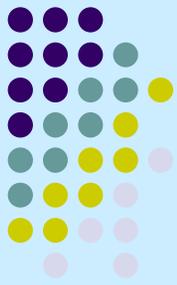
Soil Management Report *



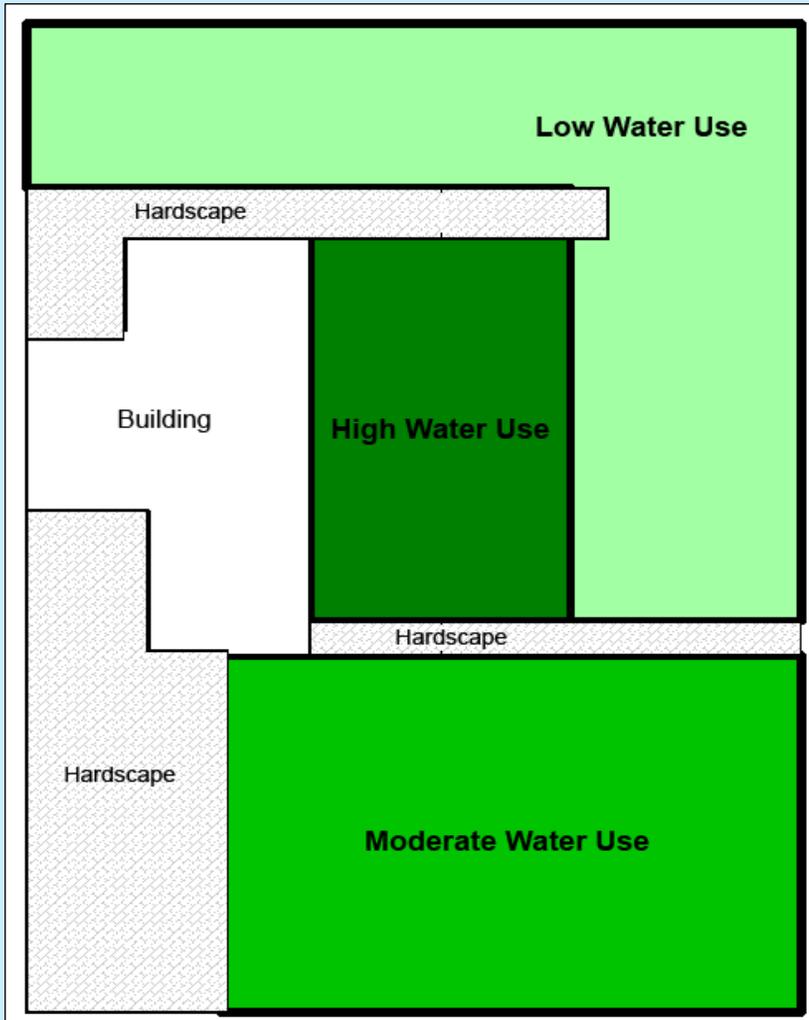
- Laboratory analysis **AFTER** mass grading
- Submit laboratory report to
 - landscape and irrigation designers
 - local agency



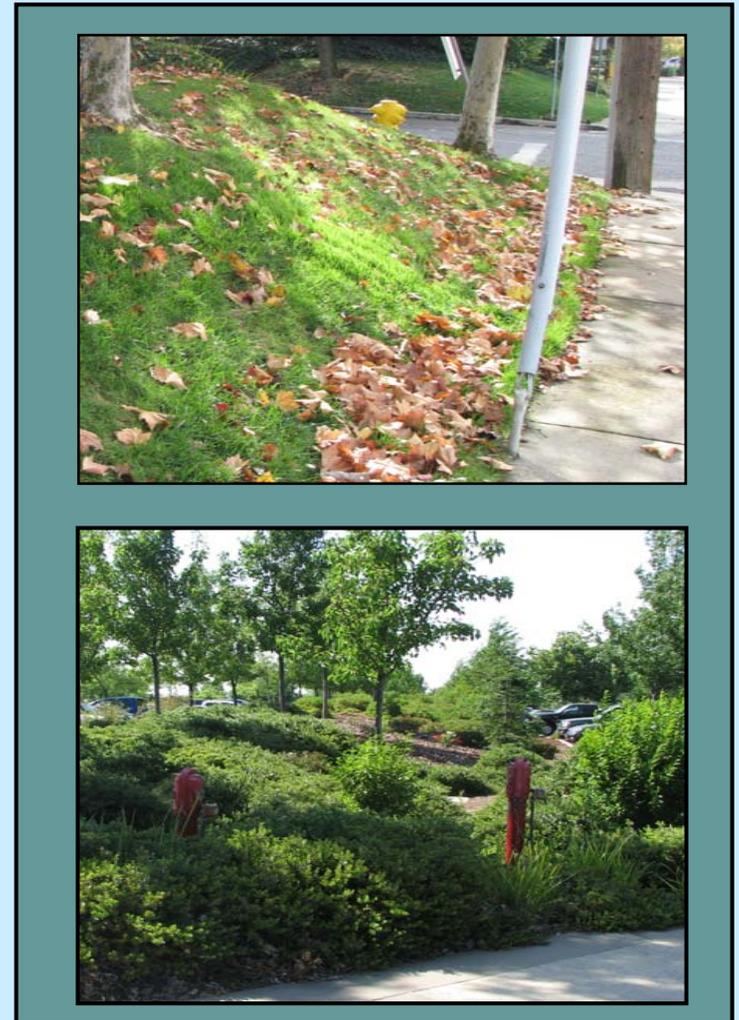
Landscape Design Plan



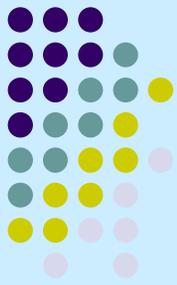
HYDROZONES *



SLOPES



Irrigation Design Plan

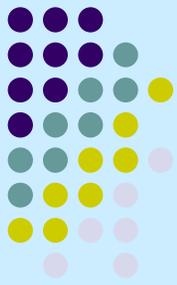


Self-adjusting controllers *

Runoff and Overspray *

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

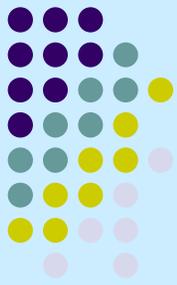
Grading Design Plan



Minimize
soil erosion, runoff and
water waste *



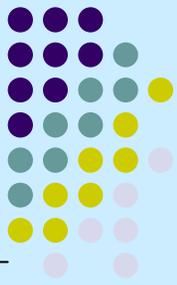
Maximize
infiltration and retention *



Elements of the Certificate of Completion

- 1. Installation Certification**
- 2. Final Soils Information**
- 3. Irrigation Scheduling Parameters**
- 4. Maintenance Schedules**
- 5. Irrigation Audit Report**

Installation Certification

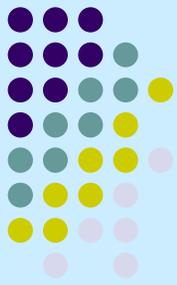


In accordance with the
landscape & irrigation
design plans



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

Final Soils Information *



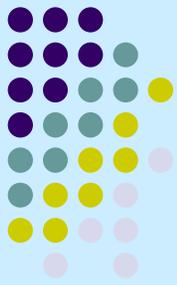
Laboratory Report

*(if not submitted with Landscape
Documentation Package)*

Implement
Recommendations



Irrigation Scheduling Parameters

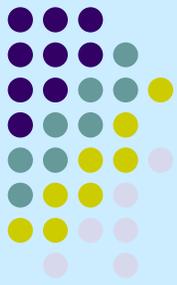


Actual irrigation schedules shall be controlled by controller

SUBMIT INPUTS



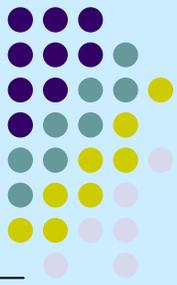
Maintenance Schedules *



Irrigation **and** Landscape



Irrigation Audit Report*

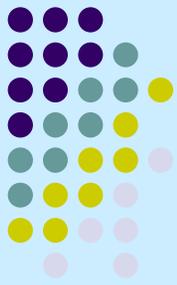


Certified Irrigation Auditor

Irrigation Association
2004 Training Manual



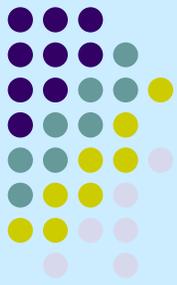
Existing Landscapes



ETAF for Existing Landscapes is 0.8

The local agency shall administer programs to meet the Maximum Applied Water Allowance for existing landscapes.

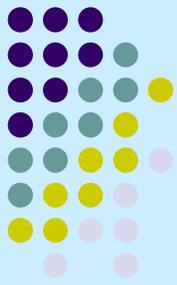
Existing Landscapes



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

Complying with MAWA

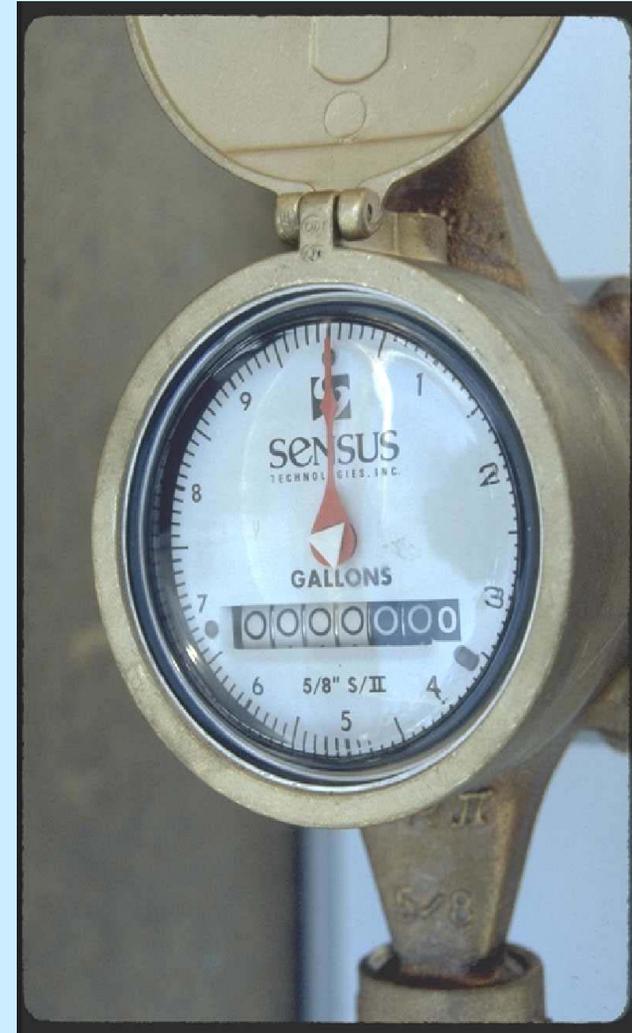
(ALL Landscapes)



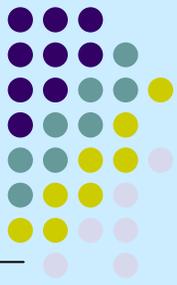
Local agencies shall administer programs for compliance with MAWA.

This may include:

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



Contact Information



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