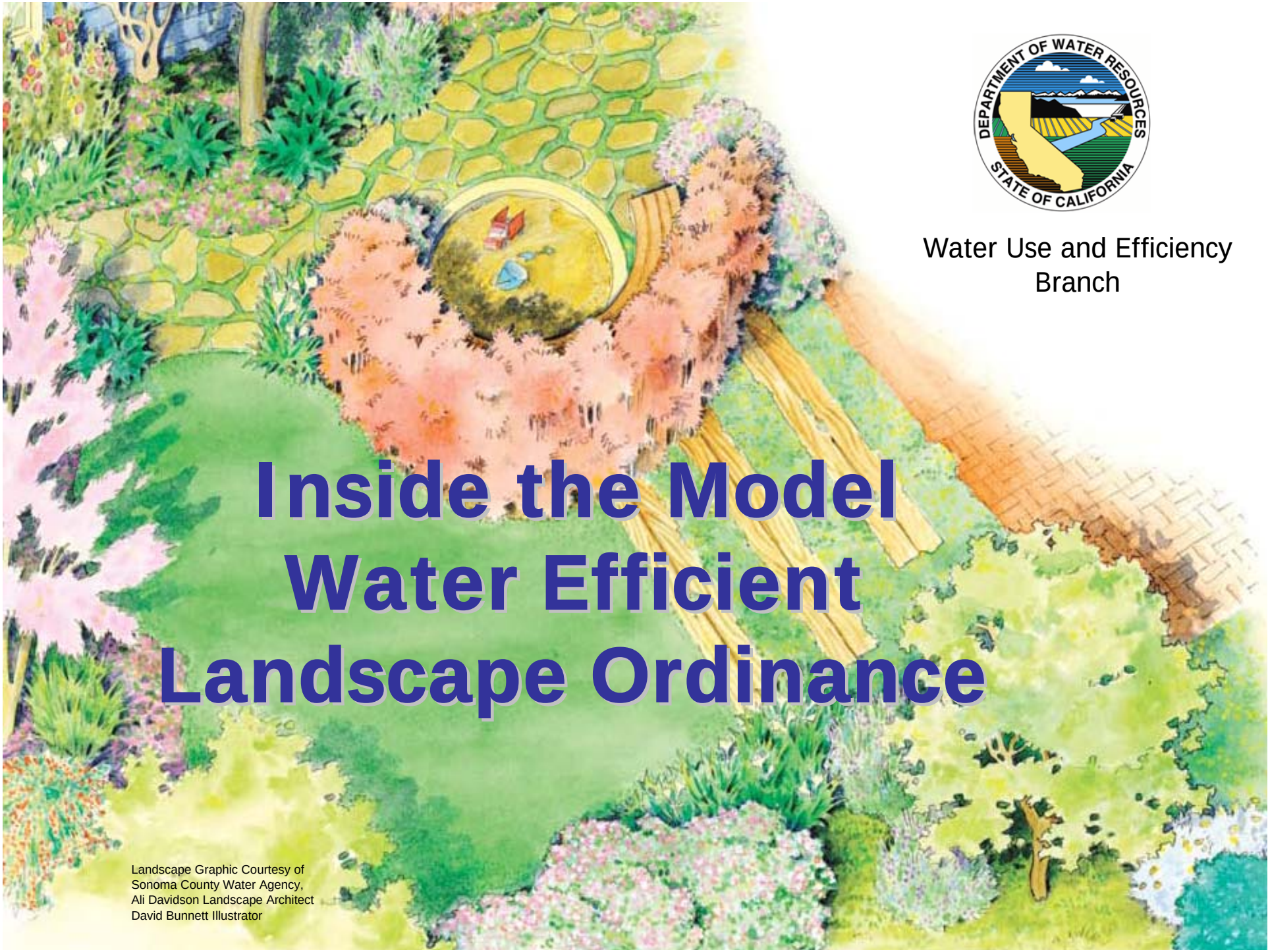


Water Use and Efficiency Branch

Inside the Model Water Efficient Landscape Ordinance

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

Applicability for New and Rehabilitated

- Landscapes that require a building or landscape permit, plan check or design review and are:
  - 2500 sq. ft or more (landscape area)
    - public agency (parks, schools, city properties)
    - private development (retail, industrial, commercial properties)
    - developer-installed single family and multi-family (master-planned communities)
  - No Retrofits required by the Model Ordinance

Applicability for New SFH (non-developer)

- 5000sq ft. or more (landscape area)
  - homeowner-provided (DIY or contractor) single-family and multi-family
- No retrofits are required by the Model Ordinance

Definitions

- Section 491 defines and explains terms and concepts used in the Model Ordinance

Exempt Landscapes

- Registered local, state or federal historical sites.
- Ecological restoration and mined-land reclamation projects that do not require a permanent irrigation system.
- *Collections* of botanical gardens and arboretums open to the public.

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

1.Project Information:

- Project type and applicant information
- Include the **applicant signed statement** " I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package".

2. Water Efficient Landscape Worksheet…

- shall include:
  - Hydro-zone information table
  - Water budget calculations
    - Maximum Applied Water Allowance (MAWA) including water features
    - Estimated Total Water Use (ETWU)

ET Adjustment Factor (ETAF)
in the Water Budget

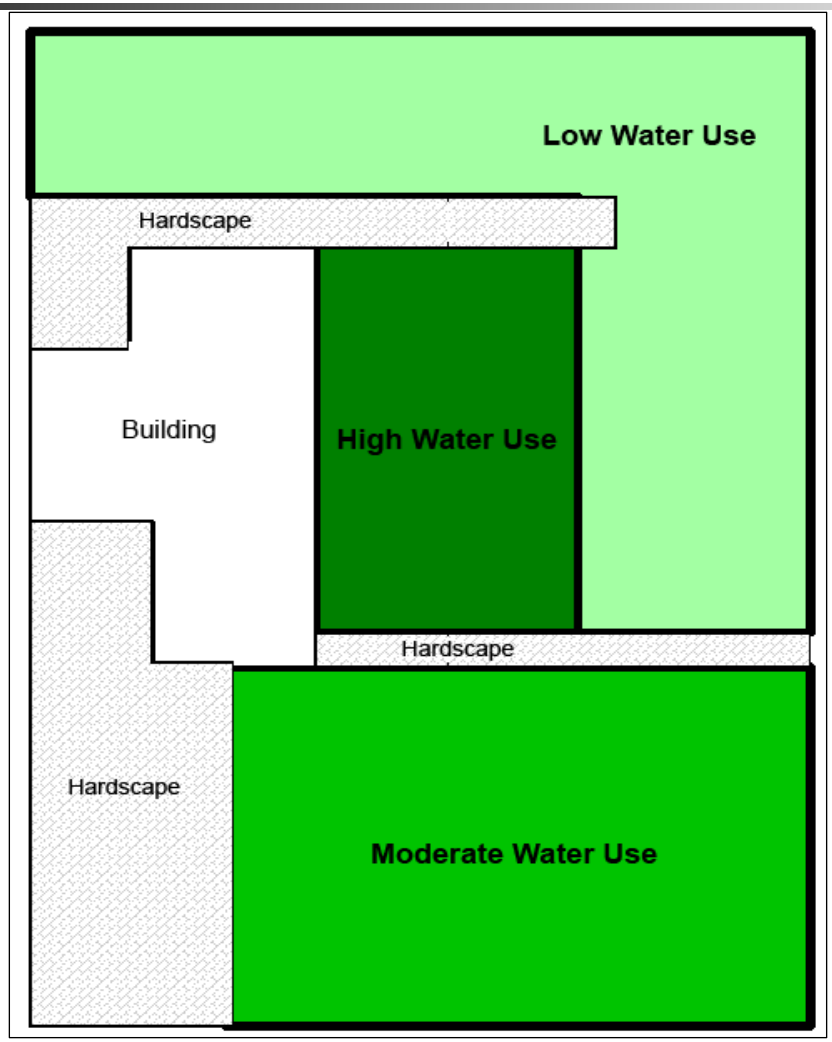
- **0 .7 ETAF** for projects installed after 01/01/10
- **1.0 ETAF for Special Landscape Areas**
  - Recreational turf projects (parks, golf courses, ball fields)
  - projects irrigated with recycled water
  - Edible landscapes
- **0.8 ETAF** for **existing projects larger than one acre** and installed before 01/01/10

3. Soil Management Report

- Laboratory analysis
  - No mass grading-LDP
  - after mass grading-COC

- Submit laboratory report to
  - local agency
  - landscape and irrigation designers

4. Landscape Design Plan



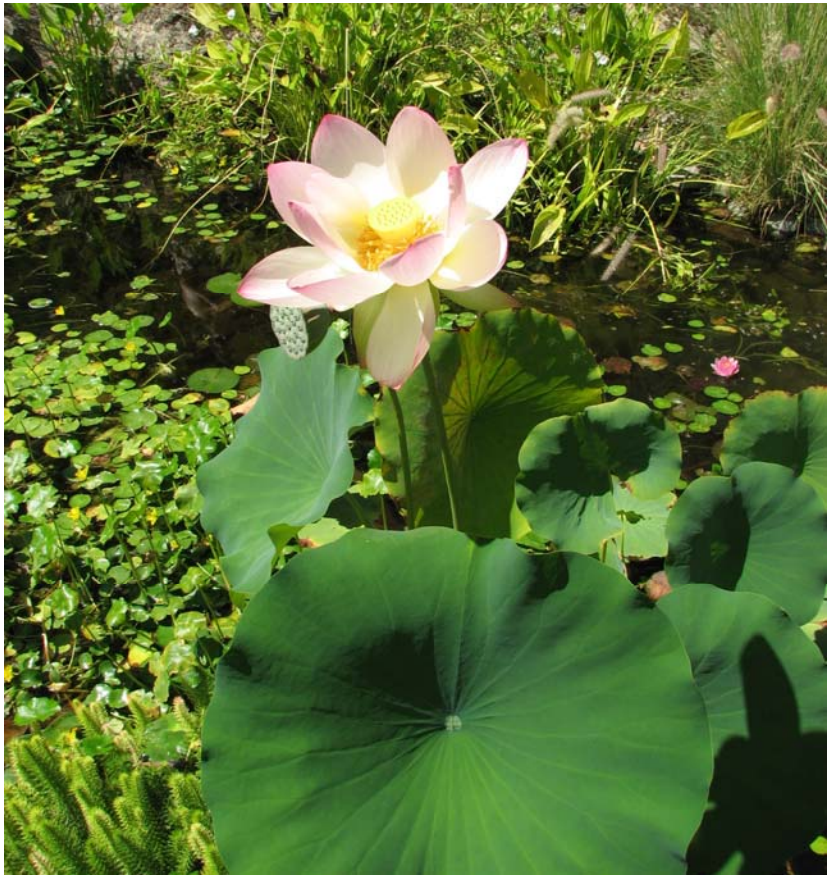
Drawing will identify hydrozones, plant types, hardscapes and other features.

Plant Selection

- Any plants may be used as long as the MAWA is not exceeded
- Adapted to climate and local conditions
- Grouped in hydrozones
- Highly Recommended
  - Natives plants and natural vegetation
  - Water conserving species
  - Pest and disease resistant

Water Features

- High water use hydrozone
- Re-circulated water
- Recycled water, if available

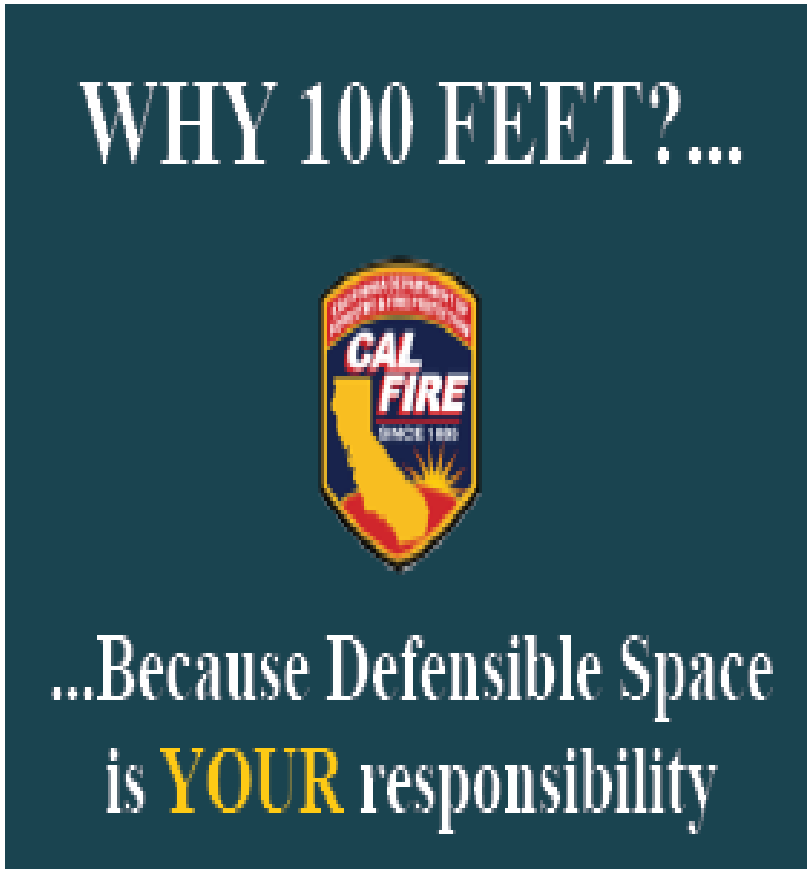


Landscape plan cont…

- No turf on slopes greater than 25% (4:1)
  - Unless toe is permeable

Fire Prevention in the Landscape Plan

- Follow state and local fire codes concerning landscaping in fire hazard areas
- Landscape with defensible space



Mulch

- 2”of mulch required in most planting areas
- Use stabilizing mulching products on slopes

Stormwater BMP's encouraged as Landscape Design Features

- Less runoff
- Cleaner runoff
- Shorter irrigation season
- Retains pulse flows
- Increase Habitat
- Lower maintenance

Landscape Design Plan Signature

"I agree to comply with the criteria of the ordinance and to apply them accordingly for the efficient use of water in the landscape design plan."

Signature of Landscape Designer, per Business and Professions Code, Title 16 of CCR and Food and Agriculture Code

5. Irrigation Design Plan

- Dedicated meters-5000 sq. ft. landscape area (except SFH)
- Controllers that use evapotranspiration or soil moisture data
- Pressure regulation

Irrigation Design Plan

- 24” setback
- Slopes
- Hydrozones
- Shut off sensors

24” setback and hardscapes

- **Overhead irrigation** is not permitted within 24” of non-permeable surface unless...
  - Alternate design or technology to prevent runoff
  - Overspray or runoff flows into the landscaping
- **Swing Joints** prevent riser damage

Irrigation on Slopes

- Precipitation rate of 0.75 inches per hour or less
- **Check valves** to prevent low head drainage

Narrow planting areas

- Areas less than 8’ wide including turf must be irrigated with subsurface or low volume irrigation

Irrigation Plan Signature

- Include the signed statement : "I agree to comply with the criteria of the ordinance and to apply them accordingly for the efficient use of water in the irrigation design plan.
- **Signature of Irrigation Designer**, per Business and Professions Code, Title 16 of CCR and Food and Agriculture Code

#6 Grading Design Plan

Minimize

soil erosion, runoff and water waste

Maximize

infiltration and retention

Grading Design Plan and Signature

- Shall include the signed statement : "I agree to comply with the criteria of the ordinance and to apply them accordingly for the efficient use of water in the grading design plan." **Signature of grading plan designer or Civil Engineer**
- Comprehensive plan prepared by a Civil Engineer to satisfy other permits satisfies this requirement

Elements of the Certificate of Completion

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

Certification of Installation

- Certified that the landscape was **installed per the approved Landscape Documentation Package** signed by:
  - Landscape Designer or..
  - Irrigation Designer or..
  - Landscape Contractor

Final Soils Information

Laboratory Report

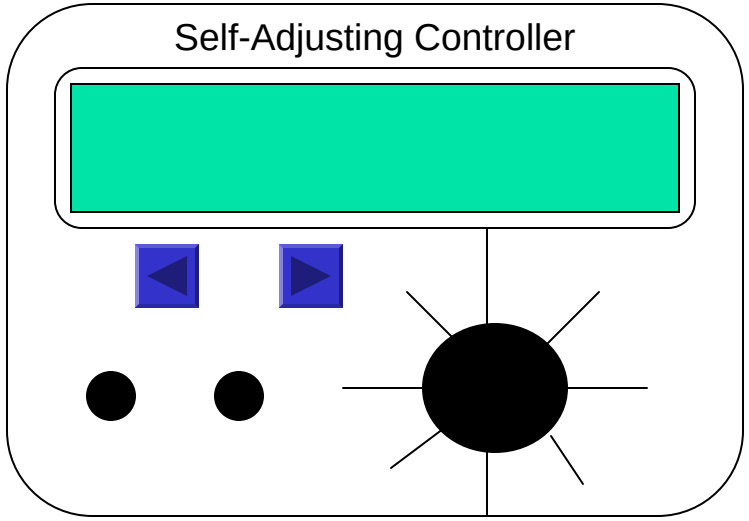
(if not submitted with Landscape Documentation Package)

Implement Recommendations

Irrigation Scheduling Parameters

Actual irrigation schedules shall be controlled by controller

SUBMIT INPUTS



Automatic controllers must use evapotranspiration or soil moisture sensing data

Maintenance Schedules

Irrigation **and** Landscape

- Irrigation repair and maintenance
- Aeration of turf
- Weeding
- Replenish mulch

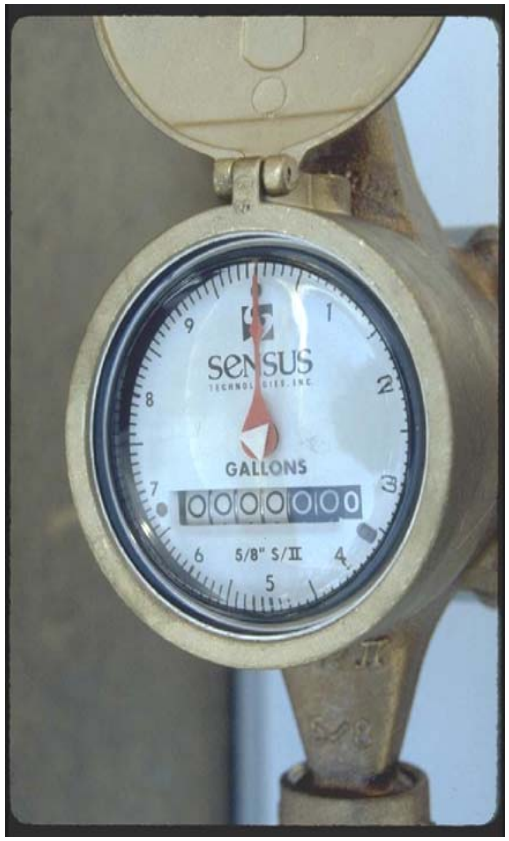
Signature of Property owner in COC

Irrigation Audit Report

- Certified Irrigation Auditor
- Ensures irrigation system functions as designed
- Is the schedule appropriate?
  - time of year
  - plant types
  - irrigation method

Complying with Water Budgets

In newly installed landscapes



The local agency shall administer programs that may include, but not be limited to;

- irrigation water use analysis,
- irrigation audits, and
- irrigation surveys

for compliance with the MAWA

What if Recycled Water is unavailable?

- All projects shall allow for the use of recycled water for irrigation and water features unless a **written exemption** is provided by the local water agency stating that recycled water is not available.

Public Education

- Local agencies are required to provide information to owners of new single-family homes regarding water efficient landscapes.

- All model homes shall distribute information and use signs to communicate the principles of the water efficient landscapes described in the MO.
- **Local Agencies may designate this role to a Water purveyor**

Programs for Existing Landscapes

- Requires local agency to administer programs to existing landscapes greater than **1 acre** to **prevent water waste**:
  - Metered landscapes must meet the existing landscape MAWA of 0.8 ETAF
  - Un-metered landscapes ***and*** metered landscapes: no runoff, no overspray, efficient scheduling

Water Waste Prevention

- California Constitution Section 2 Article X—the right to use water does not extend to waste or unreasonable use or unreasonable method of use
- All landscapes prohibited from wasting water

Water Waste Prevention

- Local agencies shall prohibit runoff, low head drainage and overspray.
- Penalties for violation of these prohibitions shall be established locally.

Reach DWR on the web….

- mweo@water.ca.gov
- http://www.water.ca.gov/wateruseefficiency/landscapeordinance

Or….

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