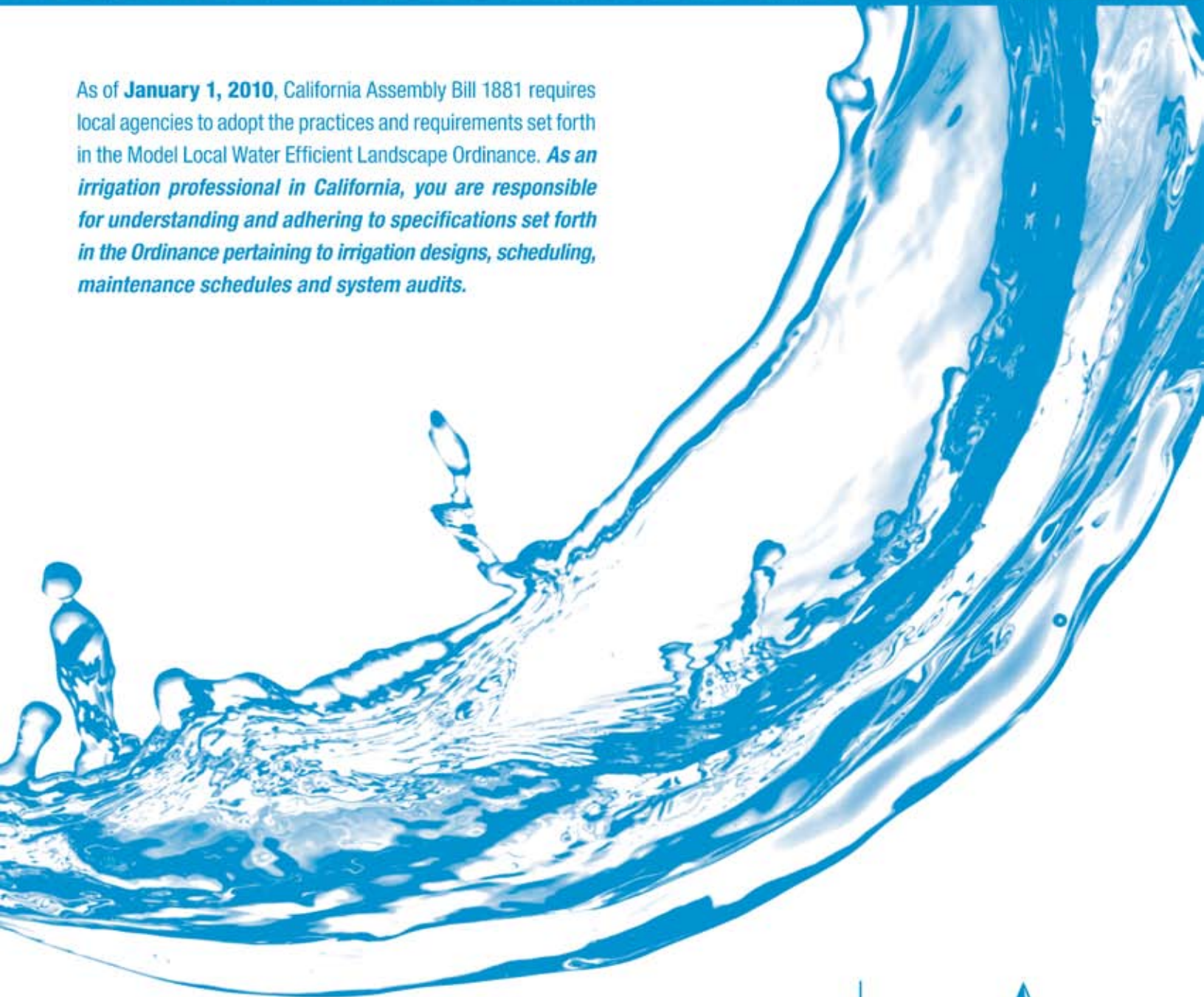


CALIFORNIA STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE



As of **January 1, 2010**, California Assembly Bill 1881 requires local agencies to adopt the practices and requirements set forth in the Model Local Water Efficient Landscape Ordinance. *As an irrigation professional in California, you are responsible for understanding and adhering to specifications set forth in the Ordinance pertaining to irrigation designs, scheduling, maintenance schedules and system audits.*



your source for
conservation
solutions

**EWING**

BEGINNING JANUARY 2010

BACKGROUND:

In 2004, AB 2717 was passed. The convened Task Force adopted a comprehensive set of 43 recommendations, essentially making changes to AB 325 (1990) and updating the Model Local Water Efficient Landscape Ordinance, also called the "Model Ordinance" or the acronym, "WELO."

The Water Conservation in Landscaping Act of 2006 (AB 1881) enacts many of the 43 recommendations. The CA Department of Water Resources was required to update the Model Ordinance (MO) by January 1, 2009 and **local agencies were required to adopt the Model Ordinance, or a version at least as effective as the Ordinance, by January 1, 2010.**

Exploring AB 1881: One issue that received attention was the proposed alteration to the ET Adjustment Factor. Under the previous ordinance, this factor is 0.8. When applied to an overall plant factor of 0.5 (incorporating a mix of one-third each high, medium and low water use plants), the water use formula returns an irrigation efficiency of 62%. Under the revised

Model Ordinance, the ET Adjustment Factor is changed to 0.7, which, with the same plant mix, mandates an irrigation efficiency elevated to 71%.

Certainly individual hydrozone irrigation efficiency could be lower, but only by increasing the ratio of lower water use plant material.

This following information is intended for summary purposes only, and does not reflect the Model Ordinance exactly as it appears in the California Code of Regulations>Title 23. Waters>Division 2. Department of Water Resources>Chapter 2.7. Model Water Efficient Landscape Ordinance.

To review the complete Model Ordinance, visit the California Department of Water Resources at <http://www.water.ca.gov/wateruseefficiency/landscapeordinance>.

SOME OF THE 70 CITED DEFINITIONS CONTAINED IN THE MODEL ORDINANCE INCLUDE:

AUTOMATIC IRRIGATION CONTROLLER means an automatic timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

CHECK VALVE OR ANTI-DRAIN VALVE means a valve located under a sprinkler head, or other locations in the irrigation system, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.

HOMEOWNER-PROVIDED LANDSCAPING means any landscaping either installed by a private individual for a single family residence or installed by a licensed contractor hired by a homeowner. A homeowner, for purposes of this ordinance, is a person who occupies the dwelling he or she owns. This excludes speculative homes, which are not owner-occupied dwellings.

HYDROZONE means a portion of the landscaped area having plants with similar water needs

IRRIGATION AUDIT means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor.

LANDSCAPE AREA means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance (MAWA) calculation.

MICROCLIMATE means the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.

OVERSPRAY means the irrigation water which is delivered beyond the target area.

RUNOFF means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area.

To review all definitions in the complete Model Ordinance, visit the California Department of Water Resources at:
<http://www.water.ca.gov/wateruseefficiency/landscapeordinance>.





APPLICABILITY:

ELEMENTS OF THE LANDSCAPE DOCUMENTATION PACKAGE:

1. Project Information
2. Water Efficient Landscape Worksheet
 - (A) Hydrozone information table
 - (B) Water budget calculation
 1. Maximum Applied Water Allowance (MAWA)
 2. Estimated Total Water Use (ETWU)
3. Soil Management Report
4. Landscape Design Plan
5. Irrigation Design Plan
6. Grading Design Plan

MODEL ORDINANCE PROVISIONS AT-A-GLANCE: The following items pertain to the irrigation requirements set forth in the Ordinance. For the comprehensive list of provisions, please be sure to review the complete Model Ordinance.

Irrigation Design Plan :

- Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data shall be required for irrigation scheduling in all irrigation systems.
- The irrigation system shall be designed to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.
- Sensors (rain, freeze, wind, etc.) that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climactic conditions.
- The irrigation system shall be designed to prevent runoff, low head drainage, overspray or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways or structures.
- The design of the irrigation system shall conform to the hydrozones of the landscape design plan.
- Sprinkler heads and other emission devices shall have matched precipitation rates.
- Swing joints are required on all risers subject to damage that are adjacent to high traffic areas.
- Check valves or anti-drain valves are required for all irrigation systems.
- Narrow or irregularly shaped areas, including turf, less than eight (8) feet in any direction shall be irrigated with subsurface or low-volume irrigation.
- Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface.
- Slopes greater than 25% shall not be irrigated with a precipitation rate exceeding 0.75 inches per hour.
- Individual hydrozones that mix high and low water use plants shall not be permitted.

Irrigation Scheduling: Overhead irrigation shall be scheduled between 8:00 P.M. and 10:00 A.M.

Landscape and Irrigation Maintenance Schedule: A regular maintenance schedule shall be submitted with the Certificate of Completion.

Irrigation Audits:

- All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.
- The project applicant shall submit an irrigation audit report with the Certificate of Completion.

To review all definitions in the complete Model Ordinance, visit the California Department of Water Resources at <http://www.water.ca.gov/wateruseefficiency/landscapeordinance>.

PENALTIES: A local agency may establish and administer penalties to the project applicant for non-compliance with the ordinance to the extent permitted by law.

LOCAL APPLICABILITY: Please be aware that each individual permitting agency may have adopted some or all of the requirements of the proposed Model Ordinance. Some cities, towns or counties may have included in their ordinance project requirements that are more restrictive than what is outlined here. Please check with the appropriate permitting entity in your region to learn about the specific requirements necessary to ensure a successful landscape irrigation project.

AS OF JANUARY 1, 2010, THE STATE ORDINANCE APPLIES TO ALL OF THE FOLLOWING LANDSCAPE PROJECTS REQUIRING A BUILDING OR LANDSCAPE PERMIT, PLAN CHECK OR DESIGN REVIEW:

New construction and rehabilitated landscapes for public agency projects and private development projects:
Greater Than or Equal to 2,500 Square Feet

New construction and rehabilitated landscapes which are developer-installed in single-family and multi-family projects:
Greater Than or Equal to 2,500 Square Feet

New construction landscapes which are homeowner-provided and/or homeowner-hired in single-family & multi-family projects:
Greater Than or Equal to 5,000 Square Feet

There are some exemptions for historical sites, select restoration and reclamation projects, and public botanical gardens and arboretums.