

The 2015 Updated Model Water Efficient Landscape Ordinance

Guidance for California Local Agencies

INTRODUCTION

Governor Brown's Drought Executive Order of April 1, 2015 (EO B-29-15) directed DWR to update the State's Model Water Efficient Landscape Ordinance (MWELO) through expedited regulation. The California Water Commission approved the revised MWELO Ordinance on July 15, 2015. This fact sheet provides guidance to cities and counties (local agencies) in California, who are responsible for adopting and reporting on a water efficient landscape ordinance. The focus is on major changes in the MWELO which must be addressed when local agencies are revising their own local or regional ordinances.

DEADLINES AND OPTIONS FOR LOCAL AGENCY ACTIONS (Section 490.1)

Local agencies have until **December 1, 2015** to adopt the MWELO or to adopt a Local Ordinance which must be at least as effective in conserving water as MWELO. Local agencies working together to develop a Regional Ordinance have until **February 1, 2016** to adopt, but they are still subject to the December 2015 reporting requirements (see Reporting Requirements). A local agency will either integrate MWELO into an existing ordinance or establish a new, separate program. To comply, a local agency must perform one of the following actions:

- Adopt *by reference* Sections 490-495, Chapter 2.7, Division 2, Title 23 in the California Code of Regulations
- Adopt the MWELO *in detail* - Sections 490-495, Chapter 2.7, Division 2, Title 23 in the California Code of Regulations
- Amend an existing or adopt a new Local Ordinance or Regional Ordinance to meet the requirements contained in the regulations
- Take no action and allow the MWELO to go into effect by default

A local agency may choose to allow MWELO to become effective by default and then adopt a Local or Regional Ordinance at a later time. Subsequent reporting must include the details of Local or Regional Ordinances.

Local agencies are not limited to require only the levels of water conservation stipulated by MWELO. The Local or Regional Ordinance can require higher levels of water conservation, as determined appropriate by the local agency to address one of these local conditions:

- climate
- geology
- topography
- environmental conditions.

However, in such situations where a more restrictive requirement is incorporated, the local agency must make express findings that the requirement is reasonably necessary for one or more of the above conditions. Like all ordinance adoption processes, the adoption must follow the applicable rules for a public process including a public comment period and formal public proceeding during adoption.

SIGNIFICANT REVISIONS TO MWELO

Projects Subject to the Ordinance (Section 490.1)

The size of landscapes subject to the ordinance has been lowered from 2500 sq. ft. to 500 sq. ft. The size threshold applies to residential, commercial, industrial and institutional projects that require a permit, plan check or design review.

To reduce the complexity and costs for the smaller landscapes now subject to ordinance, the revised MWELO has a prescriptive compliance approach (Appendix D) for landscapes between 500 and 2500 sq. ft. Landscapes within this size range can comply either through meeting the traditional MWELO approach or through the prescriptive approach in Appendix D. The size threshold for existing landscapes that are being rehabilitated has not changed, remaining at **2500 square feet**. Only rehabilitated landscapes that are associated with a building or landscape permit, plan check, or design review are subject to the Ordinance.

Definitions (Section 491)

The definitions section of MWELO has been expanded to include new terms and concepts. Please see the strike-out version of MWELO at <http://www.water.ca.gov/wateruseefficiency/landscapeordinance/> to review definition changes.

Water Efficient Worksheet and Water Budget (Section 492.4)

The maximum applied water allowance (MAWA) has been lowered from 70% of the reference evapotranspiration (ET_o) to 55% for residential landscape projects, and to 45% of ET_o for non-residential projects. This water allowance reduces the landscape area that can be planted with high water use plants such as cool season turf. For typical residential projects, the reduction in the MAWA reduces the percentage of landscape area that can be planted to high water use plants from 33% to 25%. In typical non-residential landscapes, the reduction in MAWA limits the planting of high water use plants to special landscape areas. The revised MWELO still uses a water budget approach and larger areas of high water use plants can be installed if the water use is reduced in the other areas provided the overall landscape stays within the budget. The use of special landscape areas (SLA) was not changed in the revised MWELO. The SLA provides for an extra water allowance in non-residential areas for specific functional landscapes, such as recreation, areas for public assembly, and edible gardens or for areas irrigated with recycled water.

The revised MWELO allows the irrigation efficiency to be entered for each area of the landscape. The site-wide irrigation efficiency of the previous ordinance (2010) was 0.71; for the purposes of estimating total water use, the revised MWELO defines the irrigation efficiency (IE) of drip irrigation as 0.81 and overhead irrigation and other technologies must meet a minimum IE of 0.75.

The worksheets for Maximum Applied Water Allowance (MAWA) and the Estimated Total Water Use (ETWU) have been combined into one table. (See Appendix B, Water Efficient Landscape Worksheet). As explained above, rather than using a site-wide default IE, irrigation efficiency is calculated for each hydrozone.

The revised ordinance also precludes the use of high water use plants in street median strips.

Also because of the requirement to irrigate areas less than ten feet wide with subsurface irrigation or other means that produces no runoff or overspray, the use of cool season turf in parkways is limited.

Soil Management Report (Section 492.5)

For multi-lot projects, the revised MWELO added clarification that soil testing should be completed using a soil sampling rate of approximately 1 in 7 lots or 15 percent.

Landscape Design Plan (Section 492.6)

The following changes were made to Landscape Design Plan section:

Prior to planting, 4 yards of compost must be incorporated per 1000 sq. ft. of permeable area. Compacted soils must be transformed to a friable condition. The depth of mulch required was increased from 2 to 3 inches. Graywater and storm retention components must be indicated on the landscape plan.

Irrigation Design Plan (Section 492.7)

The following changes were made to the Irrigation Design section:

Dedicated landscape water meters or submeters are required for residential landscapes over 5,000 square feet and non-residential landscapes over 1000 square feet. Dedicated meters or submeters may be either a meter supplied by the local water supplier or a privately owned submeter.

Irrigation systems are required to have ***pressure regulation*** to ensure correct and efficient operation.

All irrigation emission devices must meet the American National Standards Institute standard, American Society of Agricultural and Biological Engineers'/International Code Council's 802-2014 "Landscape Irrigation Sprinkler and Emitter Standard". ***Flow sensors*** that detect and report high flow conditions due to broken pipes and/or popped sprinkler heads are required for landscape areas greater than 5,000 square feet. Master shut-off valves that prevent water waste in case of large failures of irrigation systems due to breakage or vandalism are required on all landscapes except where sprinklers can be individually controlled.

The ***minimum width of areas that can be overhead irrigated was increased from 8 feet to 10 feet***; areas less than 10 feet wide must be irrigated with subsurface drip or other technology that produces no over spray or runoff.

The revised update requires ***the irrigation auditor to be a local agency auditor or third party auditor*** to reduce conflicts of interest. All landscape irrigation auditors must be certified by one of the U.S. EPA WaterSense labeled auditing programs. EPA WaterSense: http://www.epa.gov/watersense/outdoor/cert_programs.html

Graywater Systems (Section 492.15)

The revised MWELO added a graywater section that specifies that landscapes less than 2,500 square feet that are irrigated entirely with graywater or captured rainwater are subject only to the irrigation system requirements of Appendix D, Prescriptive Compliance Option. Graywater is allowed throughout the state under the California Plumbing Code, Ch. 16. Applicants should consult with the local building authority regarding graywater systems.

Stormwater and Rainwater Retention (Section 492.16)

A requirement was added that landscape area should have friable soil to maximize stormwater infiltration. Additional stormwater measures were recommended, but not required.

Reporting (Section 495)

Executive Order B-29-15 and the revised ordinance require that local agencies report on the implementation and enforcement of their single agency Local Ordinances to DWR by December 31, 2015. Local agencies developing a Regional Ordinance must report on adoption by March 1, 2016. Reporting for all agencies is due by January 31st of each year thereafter. The reporting requirement is a new addition to the MWELO.

In the initial reporting, a local agency states whether they are adopting a single agency ordinance or a regional agency ordinance, and specifies the date of adoption or anticipated date of adoption.

The following information is to be included in the first report by the local agency. Once stated, the information does not have to be repeated in subsequent reports unless the information changes.

- State if using a locally modified Water Efficient Landscape Ordinance (Local or Regional Ordinance) or the MWELO. If using a Local or Regional Ordinance, how is it different than MWELO; is it at least as efficient as MWELO; and are there any exemptions specified?
- State the entity responsible for implementing the ordinance.

In subsequent years, all local agency reporting will be for the calendar year. For the initial reporting period after new ordinance adoption and each year thereafter, include the following information during each reporting period:

- Number and types of projects subject to the ordinance
- Total area (in square feet or acres) subject to the ordinance
- Number of new housing starts, new commercial projects, and landscape retrofits

For the initial reporting period after new ordinance adoption and each year thereafter, describe the following:

- The procedure for review of projects subject to the ordinance
- The actions taken to verify compliance- Is a plan check performed; if so, by what entity? Is a site inspection performed; if so, by what entity? Is a post-installation audit required; if so, by whom?
- Enforcement measures
- The challenges to implementing and enforcing the ordinance
- The educational, training, and other needs to properly apply the ordinance

Contact Information:

Julie Saare-Edmonds, DWR Senior Environmental Scientist at Julie.Saare-Edmonds@water.ca.gov or (916) 651-9676