

Model Water Efficient Landscape Ordinance
September 10, 2009
June 12, 2015 (Public Draft) 2

Like to express my concerns about the new updates and suggest some changes.

1st) Planters are sometimes connected to drain systems at the base (lowest spot). This design makes it impossible to measure for excess over watering as define in (mmm) and in some cases (zz). I would like to suggest the following changes.

(zz) (tt) “overspray” means the irrigation water which is delivered beyond the target area or excess of the targeted area. In the case of planters with drains, water is applied beyond the targeted plants in a flood flush watering approach.

(mmm) (fff) “runoff” means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area or in the case of planters into a drain. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate); or when there is a slope or over watering in a planter that is connected to a drain.

2nd) Storm water capture and harvesting is investing into the future by recharging the aquifers today for future use. Under the sections “Stormwater capture and harvesting”, uses the words encourage. I would like to suggest the new guidelines strike the work word encourage and make it a requirement. At some point California needs to capture stormwater at each site and add that water either into the aquifer or use for landscaping.

Larger Cities such as Long Beach & Los Angeles both have LID (Low Impact Design) municipal ordinance on the books. The “Model Water Efficient Landscape Ordinance “can assist other municipalities with direction in this area.

Since the “Model Water Efficient Landscape Ordinance’ references a number of different support documents. It would be great to reference the Federal EISA 438 guideline:

[EPA Technical Guidance on Implementing the Stormwater Runoff](http://water.epa.gov/polwaste/nps/upload/eisa-438.pdf)
<http://water.epa.gov/polwaste/nps/upload/eisa-438.pdf>

(???) Definition for Sub-Irrigation

Addition of definitions for new class of irrigation systems: Sub irrigation or sub-reservoir system; this systems are usually hold 1 – 10 gallons of water, are deeper in the soil structure than drip irrigation pipe (1 – 4’ below the surface). Place one foot below the root zone. Water is feed to the targeted plants by natural soil capillary action.

Addition of sub-irrigation evaporation calculations: Any watering device 6” from the surface will have a factor of (?) surface evaporation and x of plant transportation. The increase in irrigation efficiency due to no surface water lost.

Addition of sub-irrigation evaporation calculations: Any watering device 16” from the surface will have a factor of (?) surface evaporation and x of plant transportation. The increase in irrigation efficiency due to no surface water lost.

(???) Sub-irrigation bladders: means the application of irrigation water into a below ground water tank/bladder/vessel through a fill tube or irrigation valve. The bladder is place 12” below the root ball and is design to allow capillary water transfer to the roots zone of the plants. Beneficial purposes of reducing surface evaporation by eliminating surface watering.

(ccc) (vv) “pervious”

Under this section, I am seeing a number of artificial turf installation, with the substructure is hard pack clay or soil with low infiltration rate, thus under the current definition it is pervious but in reality the water runs off. Like to suggest the changes as follow underlined.

(ccc)-(vv) “pervious” means any surface or material that allows the passage of water through the material and into the underlying soil with a minimum infiltration rate of (inches per hour) 3” inches per hour.

(ddd)-(ww) “plant factor”

WUCOLS III has divided plants in to four categories. The Model Water Efficient Landscape Ordinance only defines 3.

The Model Water Efficient Landscape Ordinance guidance has the opportunity to encourage the use of very low category in no watering landscaping option. This ties in nicely with Green Building Councils LEED point system.

WUCOLS III defines the very low category as such:

“Species factors range from 0.1 to 0.9 and are divided

Into four categories:

Very low < 0.1

Low 0.1 - 0.3

Moderate 0.4 - 0.6

High 0.7 - 0.9

For species in the “very low” category—

It is important to remember that certain species can maintain health and appearance without irrigation after they become established. Such species are grouped in the “very low” category and are assigned a ks of less than 0.1. Essentially this classification means that species in this group do not need to be irrigated unless winter rainfall is abnormally low. Accordingly, if no irrigation is supplied, then there is no need to calculate a landscape coefficient and a ks value is not assigned. In low rainfall years, some irrigation may be needed, however, and a ks value of 0.1 should be sufficient to maintain health and appearance in these species.”

(ddd)-(ww) “plant factor” or “plant water use factor” is a factor, when multiplied by ETo, estimates the amount of water needed by plants. For purposes of this ordinance, the plant factor range for very low water use plants is < 0.1, low water use plants is 0.1 to 0.3, the plant factor range for moderate water use plants is 0.4 to 0.6, and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors cited in this ordinance are derived from the Department of Water Resources 2000 publication “Water Use Classification of Landscape Species”. Plant factors may also be obtained from horticultural researchers from academic institutions or nursery industry professional associations as approved by the California Department of Water Resources (DWR).

§ 492.3 Elements of the Landscape Documentation Package.

Add line item (7) to included LID plan

(7) LID Plan

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§ 492.7 Irrigation Design Plan.

(I) (H) 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, sewer drains or structures.