



## California Association of Nurseries and Garden Centers

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May 26, 2009

Department of Water Resources  
Water Use & Efficiency Branch  
Attention: Gwen Huff  
P.O. Box 942836  
Sacramento, CA 94236-001

IN RE: Model Water Efficient Landscape Ordinance Draft (May 7, 2009)

Dear Ms. Huff,

The California Association of Nurseries and Garden Centers appreciates the opportunity to provide comments on the May 7, 2009 draft of the Model Water Efficient Landscape Ordinance.

**General Comment.** We remain very concerned and critical of the draft's dependence for scientific authority regarding water conservation measures for landscapes relying on "Water Use Classification of Landscape Species ("WUCOLS") and ETAF set at 0.7 for plant water use. WUCOLS restricted and classified plant species, varieties, and cultivars by committee consensus rather than by scientific evaluative research and, by making broad category definitions (e.g. cool-season turfgrasses), it fails to distinguish the differences between water-conserving and water-consuming varieties within a general category. It carries a disclaimer by its authors that it should not be relied upon for regulatory basis. Less than 30 ornamental plant species out of 5,000 or more in cultivation in the horticultural trade have been scientifically evaluated for evapotranspiration data. The technology is well developed for farming crops, but its application via WUCOLS to ornamental landscape plantings is premature and without solid scientific research basis. We urge you to reconsider basing on WUCOLS what will be mandated via the ordinance.

Upstream from WUCOLS, no national ETo equation has been accepted for use in all states and regions of the country, but rather a variety of equations are used to determine ETo. Therefore there can be a large difference in the calculated reference ETo which requires unique modifiers to correctly estimate plant water use. While the term "ETo" would make one think that is the same everywhere, ETo can be calculated using a variety of equations. There can be as much as 30% difference in the calculated ETo depending on what ET equation is used and how a weather station is sited. Although the same weather data can be used, different results are generated.

Crop coefficients have been derived and used to modify the reference ET to fit the needs of plants according to the reference ET equation being used. Since crop coefficients are unique to the reference equation that was used to determine them, they are not necessarily transferable from equation to equation or from region to region within California. Substitute information such as WUCOLS is often used as a best-guess estimate which may or not be precise.

Further, it is questionable scientifically that retroactive application of the WUCOLS and EATF standards set in the ordinance will successfully apply in the case of landscape renovations with established large trees without serious economic and aesthetic consequences beyond the drafter's intentions.

**References.** The University of Arizona has published “Converting Reference Evapotranspiration into Turf Water Use.” (<http://ag.arizona.edu/pubs/water/az1195.pdf>) Looking at peak water demand of July, there is a 30% difference in the corresponding crop coefficient depending on the equation being used although the same weather data is used to calculate the reference ET.

In addition to this general comment, we note the following specifics:

1. On page 5, Definitions, “Invasive Plant Species”: We suggest that the definition follow the science peer-reviewed definition, removing the phrase “...that have a tendency to colonize open spaces, riparian corridors, and other sensitive habitats. ...” and replacing it with “...*that have demonstrated their ability to naturalize aggressively beyond cultivated landscapes into California native habitats, successfully compete with California native species, and have few native predators or climatic restrictions to limit their spread.* ...” Please consult Cal-HIP or Sustainable Conservation regarding their definitions of invasive plants and weed risk assessment toolkit. A broad academic, environmental, industry, and regulatory team has been working with them on the definition and control of invasive plant species in California for several years. To contact them:

PlantRight and Cal-Horticultural Invasives Prevention  
Sustainable Conservation  
98 Battery Street, Suite 302  
San Francisco, CA 94111  
Office: (415) 977-0380, ext. 312  
Fax (415) 977-0381  
[www.plantright.org](http://www.plantright.org)  
[www.suscon.org](http://www.suscon.org)

2. On page 19, §492.6 (b)(13) and page 22 §492.7 (b)(7) and page 24 §492.8 (a) (3): Restricting Landscape, Irrigation, and Grading design to license holders under the quoted sections of the Business and Professions, the California Code of Regulations, and the Food and Agricultural Code is unduly restrictive to unlicensed but competent and knowledgeable individuals of irrigation and garden-design practices who perform landscape design services as employees or contractors of retail and service companies including, but not limited to, residential homebuilders, nurseries, garden centers, home improvement stores, plumbing companies, hardware stores. Such a restriction is also a barrier to skilled private citizens capable of performing landscape work to code requirements which, in any instance, are no more burdensome than typical building codes commonly performed by private homeowners. The three sections should be modified to provide limited definition restricting them to projects of sufficient scope or slope to warrant reasonable cause.
3. On page 20, §492.7 (a) (1) (D) Sensors: Wind sensors are of such limited availability and are economically infeasible for single-family residential landscape installations. This requirement should be downgraded to a recommendation.

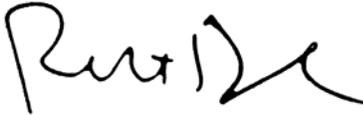
Continuing in section (O): the addition of the words, “the highest possible” in the clause is inappropriate in a setting where the measure should be suitability of application rate and uniformity of coverage. Too often, sprinklers applying water at the “highest possible” distribution instead fog and water overspray results. We recommend replacing the phrase with “*intended*” or “*appropriate*”.

4. On page 27, §492.9 (a) (6) Soil Analysis Report: We suggest based on cost relative to project scope provision for a soil analysis report waiver in the case of non-PUD developed single-family home situations is appropriate except when a builder-developer soil test is on file with the municipality.

On page 29, §492.15 (c) Rain gardens: This is an undefined term subject to many interpretations. It should be included in the definitions section of the document.

5. On Page 31, §493.2 (a) Water Waste Prevention: Zero irrigation runoff sets a very high bar indeed, one that every landscape is likely to experience at some point. The language would be improved by inclusion of modifiers such as “chronic runoff,” “due to improperly maintained and operating irrigation equipment,” and “eliminating site conditions such as soil compaction, erosion water channeling, or excessive turgrass thatch” that are contributing causes leading to runoff. Penalties should be reserved for failure to comply actions and chronic offenders.

Respectfully submitted,



Robert J. Dolezal  
Executive Vice President  
CANGC

CC: Christiana Conser  
PlantRight and Cal-HIP: Horticultural Invasives Prevention