

MWEO

From: Bernard Everling [bernard@ktua.com]
Sent: Tuesday, December 30, 2008 12:33 PM
To: MWEO
Subject: RE: Written Comments Pursuant to Nov. 26, 2008 Modified Proposed State Model Water Efficient Landscape Ordinance
Attachments: State Model Water Ord Ltr 12.08 revw.doc

Please consider the attached comments to the latest draft.

Thank you,

Bernard Everling

Sr. Associate



3916 Normal Street
San Diego, CA 92103
Tel: (619) 294-4477 ext. 116
Fax: (619) 294-9965
bernard@ktua.com

From: MWEO [mailto:mweo@water.ca.gov]
Sent: Wednesday, November 26, 2008 2:09 PM
To: undisclosed-recipients:
Subject:

NOTICE OF MODIFICATIONS TO THE PROPOSED REGULATION (MODEL WATER EFFICIENT LANDSCAPE ORDINANCE) TO CALIFORNIA CODE OF REGULATIONS, TITLE 23 SECTION 490-495

The State of California Department of Water Resources (DWR) is providing notice of the changes for incorporation into the Model Water Efficient Landscape Ordinance (Model Ordinance) (California Code of Regulations, Title 23 Section 490) per Chapter 559 Statutes of 2006 (Government Code, Section 65591), which were the subject of a written comment period and public hearings held on March 25 and 27, 2008. These changes are in response to comments received during the initial 45-day public comment period that began on February 8, 2008 and ended on March 27, 2008. In addition, DWR has prepared summaries and responses for key public comments to assist reviewers with understanding the reasons behind changes to the proposed regulation.

If you have comments on the Modified Text of Proposed Regulation, DWR will accept written

comments between November 26, 2008 and December 30, 2008. Please limit comments to changes to the Modified Text of Proposed Regulation, where added text is displayed in *italicized double underline* and deleted text is displayed in double strikeout. All written comments must be submitted to DWR no later than 5:00 p.m. on December 30, 2008, and addressed to:

DEPARTMENT OF WATER RESOURCES
OFFICE OF WATER USE EFFICIENCY AND TRANSFERS
ATTN: SIMON ECHING
POST OFFICE BOX 942836
SACRAMENTO CA 94236-0001

Written comments may also be emailed to mweo@water.ca.gov no later than 5:00 p.m. on December 30, 2008. Note that instead of having a 15-day comment period as required by law, this public comment period is 34 days.

Please visit the Model Ordinance website for all the rulemaking notices and documents:

<http://www.owue.water.ca.gov/landscape/ord/updatedOrd.cfm/#howto>

- Notice of Modifications to the Proposed Regulation
- Modified Text of Proposed Regulation
- Statement of Availability
- Updated Draft ETAF White Paper

Dear Mr. Eching,

We offer for consideration the following comments regarding the [most recent](#) November 26, 2008 [draft of the Model Water Efficient Landscape Ordinance](#):

Late Comment 068.1

[Page 9, Section 491](#) | [Definitions](#) (42.) (rr) “overspray” means the water which is delivered beyond the landscaped *target* area *and causes overland flow during irrigation events onto non-targeted areas such as, wetting pavements, walks and structures, or other non-landscaped non-targeted areas.*

Comment: Overspray does not automatically cause “overland flow” in every landscape situation. It does not occur only while irrigation systems are operating and delivering water under irrigation events. Overland flow (runoff) can occur following an irrigation event. Suggest removing “causes” and replacing it with “which can cause”. Suggest replacing “during irrigation events” with caused by irrigation events”

Late Comment 068.2

[Page 9, Section 491](#) | [Definitions](#) (47.) (yy) “record drawing” or “as-builts” means a set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

Comment: record drawings may simply mean a drawing of record (drawing of a project without any noted measurements or annotations in addition to the drawing itself when it was created for construction purposes), whereas an “as-built” is a drawing that shows not only “significant changes in the work”, but simply and straightforward, the reflection of construction of the project. Suggest removing “significant changes” and replacing it with “a reflection of the work”

Late Comment 068.3

[Page 9, Section 491](#) | [Definitions](#) (48.) (zz) “recreational area” means areas dedicated to active play or recreation such as *parks, playgrounds, sports fields, golf courses, school yards, picnic grounds, or other areas with intense foot traffic. means portions of areas dedicated to active play such as parks, playgrounds, sports fields, golf courses, or school yards in public and private projects where turf provides a playing surface or serves other high use recreational purposes pedestrian traffic area.*

Comment: recreational areas are not only areas where “play” or “recreation” occurs. If parks or recreational areas are public places where people can go (and will go) to observe birthday parties and events such as this, they should not be considered as “active play” or “recreational”. There are practical reasons for turf in human environments, for example, such as picnics, and should be non-limiting for all ages. Suggest reworking this definition to encompass the numerous uses of this area.

Late Comment 068.4

[Page 10, Section 491](#) | [Definitions](#) (52.) (ddd) “runoff” means water which is not absorbed by the soil or landscape to which it is applied and flows from the *landscape* area. 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 severe slope.

Comment: “or when there is a severe slope” sounds like a severe slope automatically means “runoff.” This definition would be better stated, “or when water is shed off a significantly sloping grade.”

Late Comment 068.5

[Page 24, Section 492.6](#) Landscape Design Plan. (D) *Installation of turf on slopes greater than 25% shall not be permitted where 25% means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).*

Comment: 4:1 slope ratio limit is excessive. 3:1 slope ratio should be permitted.

Late Comment 068.6

[Page 28, Section 492.7](#) Irrigation Design Plan:

Comment 1: There are “sensing” devices indicated that suspend water delivery under unfavorable conditions (and only manual valve means of shutdown!). Under (G) there is recommendation of “flow sensing”. If there is one major component to water management in this day and age that can be suggested regarding water conservation (essentially water management), is that every irrigation system that operates within the size of landscape areas subject to this ordinance, should incorporate flow sensing,

whether basic shut-down capabilities should there be excessive flow on a main line (a flow the control system senses as not a normal flow, and closes a master valve when otherwise the flow would go uninterrupted), or other system which incorporates other important capabilities that read flows in excess of normal valve/station flows (e.g., due to broken sprinklers, risers, missing nozzles, etc.), unusual flows outside of scheduled flow events, flows during non-programmed events such as hand watering or hose bib/quick coupling/fountain fill times, etc. Systems can have visual, audio, audio/visual alerts, produce alert reports, etc. to assist a water manager with some of the best control possible. The flow sensing report gives the water manager and property owner a means of reporting the current conditions that provides a system health check, and a means for addressing unfavorable conditions with manpower. Agencies which police water abuse and mismanagement, and property owners, will have fewer occurrences for water wastage when an available tool such as flow sensing can see minimization of the offending occurrences and also help address them when they happen.

Most irrigation systems are not monitored around the clock, and on-site. People take vacations away. Why shouldn't the control system be the tool used for keeping the irrigation system monitored at all times? It is already required to include weather sensing devices, but what about control at the source? Limiting the effects of a possible disaster flow due to a main line break before the event happens is wise. A case in point we came across was a 100 acre turf project over 15 years ago that had no flow sensing in place. An 8" main line broke in the middle of the night, spilling millions of gallons of water into the gutter, damaging a road, damaging the site, uprooting grave sites, and causing \$43,000 in fines for wasting water. There are other scenarios, such as multiple water sources (or P.O.C.'s) that can compound water management that need consideration when monitoring water use.

Late Comment 068.7

(S) Irrigated areas (including turf) within 24 inches of non-permeable hardscape shall be irrigated with drip irrigation or subsurface irrigation technology. Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel or other porous material. There are no restrictions on the irrigation system type if the landscape area is adjacent to permeable surfacing and no overspray and runoff occurs. Turf may be planted in the setback if irrigated with subsurface drip or other low volume no-spray irrigation technology.

Comment 2: agree with the intention of keeping water off unintended areas. Don't agree with mandating that drip irrigation or subsurface irrigation technology be the sole type of system allowed. There are often many scenarios in the landscape which would make this type of irrigation system unpractical. Where planted landscape areas can vary in size and shape from tens, hundreds, thousands, ten thousands, or hundreds of thousands of square feet or more, this item seems impractical and unnecessary. It is unpractical as in uses of adjacent areas to the non-permeable hardscape. What would be unfavorable with water spraying onto a walk, but not running off site, instead draining into an area that causes the water to stay on site, and causes no damage to the site? Still agreed that the design must be that sprinkler patterns do not overspray onto non-permeable pavement (such as using a part circle pattern sprinkler vs. a full circle) especially within this "setback" or anywhere near it. Another example, in parks where irrigation must occur within a limited water window, if drip irrigation were to be used on a substantial portion of a project site, the water windows would be expanded, and may negatively affect the ability to water everything under time and hydraulic constraints. With wind (an element that one cannot know from which direction it blows every time it occurs), a 2 foot setback requirement is not very relevant to restricting water as it will still move where the wind blows it, and often to unintended areas that don't need water. The key consideration is how the water affects on-site and potentially off-site areas.

Late Comment 068.8

(T) Non-turf areas on slopes greater than 25% shall be irrigated with drip irrigation or other low volume irrigation technology.

Comment 3: It may not be practical to physically place drip irrigation let alone any irrigation on a slope with substantial grade, and/or loose structure, as in a cut or eroded slope. There could be other constraints to its practicality. Many times, and especially in arid/semi-arid climates, a quick cover of plants

must be established, and this may not be feasible with a drip irrigation system. It may be feasible with low flow overhead type irrigation systems that remain outside precarious areas of needed coverage. One must remember that low precipitation can occur via overhead irrigation systems, not drip only. Please include these types of systems in this category for irrigating slopes greater than a 4:1 ratio.

Late Comment 068.9

Comment 4: Overhead irrigation designs should take into consideration all effects of the local weather for the project site, wind included. If we are to consider applying the water most effectively through the air, the ordinance should state that low angle nozzles and other wind-effect minimizing system capabilities shall be used in the design.

Late Comment 068.10

Appendix B, Water Efficient Landscape Worksheet, Section B Water Efficiency Statement, in the Landscape Documentation Package of the earlier draft included a question asking, "Which criteria and specifications did you apply to the landscape design plan?" This could be one of the methods that can be included in this section if wind was a consideration and closer head spacing was built into the design.

Late Comment 068.11

Page 48, *Section D, A. Hydrozone Information Table.*

Comment: The calculation for every valve/station's square footage information should not be required, only the total square footage of each totaled hydrozone (as is used in calculating MAWA and EWU formulas). Project Owners may change the area treatments any time (such as increase non-landscape areas by constructing a gazebo, a patio, etc.) or increasing the total hydrozone area of a higher water use plant species (such as roses). This would change any former landscape area square footage calculations.

Thank you again for this opportunity to provide comments on this important document.