Colvin, Judith

From: mweo-bounces@water.ca.gov on behalf of Mike Huck [mhuck@cox.net]
Sent: Monday, March 03, 2008 11:07 PM
To: mweo@water.ca.gov
Subject: [MWEO] Draft Model Water Efficient Landscape Ordinance Comments
Attachments: Model Ordinance Comment Letter 030308.pdf

Judy Colvin

Please see attached comment letter regarding Draft Model Water Efficient Landscape Ordinance comments.

Mike Huck
Irrigation & Turfgrass Services
34001 Amber Lantern Street - Unit #A
Dana Point, CA 92629-6516

Telephone 949-388-5097
Fax 949-661-4157
Cellular 949-697-4158
email: mhuck@cox.net

Recycled Water, Irrigation & Turfgrass Management Consulting
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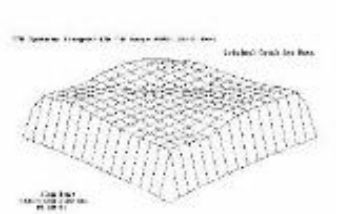

55% Distribution Uniformity VS. 82% Distribution Uniformity

"The only place where success comes before work is in the dictionary." **Vince Lombardi**

From: Saare-Edmonds, Julie Ann [mailto:julieann@water.ca.gov]
Sent: Friday, February 08, 2008 11:27 AM
To: mweo@water.ca.gov
Subject: Draft Model Water Efficient Landscape Ordinance

Public comment is now open (February 8, 2008) until close of the Public Comment Period (March 27, 2008 at 5 pm) for the updated Draft Model Water Efficient Landscape Ordinance.

Please find attached the Notice of Proposed Rulemaking, Initial Statement of Reasons and updated Draft Model Water Efficient Landscape Ordinance

Irrigation & Turfgrass Services
34001 Amber Lantern Street #A, Dana Point, California 92629

3-3-08

Ms. Judy Colvin
Office of Water Use Efficiency and Transfers
Department of Water Resources
PO Box 942386
Sacramento, CA 94236-0001

RE: *AB 1881 - Draft Model Water Efficient Landscape Ordinance Leaching Fraction Provision*

To whom it may concern:

As a turfgrass and landscape consultant often working with managing recycled water sources, I have deep concerns with the wording regarding leaching fractions included in the Draft Model Water Efficient Landscape Ordinance. It appears that science has not been used to develop the guidelines found in paragraph 4 of Section 492.16. Not allowing a leaching fraction until the irrigation source equals or exceeds 3.0 deciSiemens per meter (dS/m) will be place landscapes using recycled water in jeopardy and at serious disadvantage over potable irrigation users.

First, it must be recognized that leaching fractions are not just based upon the electrical conductivity of the irrigation water but also the plant materials threshold tolerance to accumulated soil salinity. Therefore depending upon 1) the tolerance of a specific plant to soil salinity and 2) the level of irrigation water salinity, a different leaching fraction will result for each landscape in order to survive.

A widely accepted leaching fraction formula published by the United States Department of Agriculture's Salinity Laboratory in Riverside California is as follows:

$$LF = ECw / (5ECe - ECi)$$

Where:

- LF = Leaching Fraction
- ECw = Irrigation water electrical conductivity as reported in deciSiemens per meter (or millimhos per centimeter)
- ECe = The plant materials' salinity threshold tolerance electrical conductivity as measured by a saturated soil paste extract and reported in deciSiemens per meter (or millimhos per centimeter)

To illustrate my concern the following table presents various examples of leaching fractions required when using different water salinity and threshold levels typical of turf and landscape plants. Note that the moderate level of water salinity (1.5 dS/m) presented is typical of recycled water found in San Diego and Orange Counties and the low salinity water (0.5 dS/m) is typical of potable water found in the Los Angeles basin.

Irrigation Water Electrical Conductivity (dS/m)	Example Plant Salinity Threshold Levels (dS/m)	Required Leaching Fraction (percent leaching fraction)
0.5 (low)	4.0 (moderately sensitive species)	3%
1.5 (moderate)		8%
3.0 (high)		18%
0.5	6.0 (moderately tolerant species)	2%
1.5		5%
3.0		11%
0.5	8.0 (tolerant species)	1%
1.5		4%
3.0		8%

It is obvious that irrigating with no leaching fraction will place landscapes using recycled water at a disadvantage over sites irrigating with potable water. Also knowing that recycled water salinity levels will continue to increase over time as expanded indoor water conservation efforts further reduce dilution volumes in the waste stream, over time using recycled water will become increasingly challenging for landscape managers.

If the policy is not amended it will discourage future recycled water use. More property owners will be forced to challenge that the recycled water is *of adequate quality for irrigation purposes* as stated in Section 13550 of the California Water Code. This could result in a loss of valuable resources that currently are often dumped into the ocean as waste.

If anything, the model ordinance should promote recycled water by allowing all irrigation sites to receive at least a 10% leaching fraction plus a bonus of an additional 10% (or even more) to discourage potable irrigation water use. Should you take issue with my concerns over the inclusion of a leaching fraction in the model ordinance for all levels of recycled water salinity I would urge you to contact the ultimate authorities on this subject at the USDA Salinity Laboratory, 450 West Big Springs Road, Riverside, California 92507.

Sincerely,

Mike Huck
Agronomist

The Model Water Efficient Landscape Ordinance Webpage:

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

Click on "How to Participate"

Two Public Hearings are scheduled:

1st Public Hearing
March 25, 2008
9:00 AM
Resources Agency Building Auditorium
1416 9th Street
Sacramento, California 95814

2nd Public Hearing
March 27, 2008
9:00 AM
Inland Empire Utilities Agency
6075 Kimball Avenue
Chino, California 91708

If you wish to make Verbal Comments at either of the Public Hearings, **bring a written copy** of your comments so that the meaning of your comments is conveyed accurately. We cannot accept verbal comments over the phone, so please make any comments in an email, by mail or verbally at a hearing with accompanied written comments.

Direct **Email comment** to: mweo@water.ca.gov

Direct **written comment** to:
Attention: Judy Colvin
Office of Water Use Efficiency and Transfers
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Julie Saare-Edmonds
Landscape Program
Office of Water Use Efficiency
California Dept. Water Resources
(916) 651-9676
Fax (916) 651-9849
julieann@water.ca.gov

Mail: P.O. Box 942836
Sacramento, CA 94236-0001

visit us on the web:
http://www.owue.water.ca.gov/index.cfm