Huff, Gwen

From: Fiona Sanchez [Sanchezf@irwd.com]
Sent: Monday, June 07, 2010 4:35 PM
To: Water Use Efficiency
Subject: USC Draft Methodology Papers – Comments
Attachments: FS_DraftMethodologyComments_June72010.pdf

Please see attached comments on the draft methodology papers.

Regards,
Fiona

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June 7, 2010

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Subject: USC Draft Methodology Papers – Comments

Dear Mr. Brostrom:

DWR staff and its consultants have done an excellent job in preparing the various papers. I appreciate the thoroughness and detailed work that went into developing the papers. The comments offered herein, for your consideration, focus on Methodologies 2, 7 and 6.

Methodology 2: Service Area Population

Add language that agencies have flexibility to use own locally developed data previously used in UWMPs.

Also, whichever method is selected, the key is that the agency uses the same methodology consistently throughout the baseline and compliance reporting years.

Under Category2 water suppliers – Add language clarifying that water retailers do have the flexibility to commission their own study, and don't necessarily need to rely on data from local government associations or wholesale suppliers (in that situation, retailers can provide their data to their wholesaler to ensure consistency in reporting). Service connection scaling is not the only available approach. Data can be derived from census block and TAZ information.

Under Adjustment to Population Estimates 2(i) - note that population and connections data **may** be available for each water supplier. If not, the agency will need to develop estimates using the approaches described elsewhere in the paper. *(It has been our experience that the data for annexed areas is not always readily available).*

Methodology 6: Landscape Area Water Use

In addition to the methods described in the draft paper, it should be recognized that agencies may have been collecting measurement data over time through on-site surveys, landscape irrigation plans etc., and may already have the landscape data available through its billing system or other customer information system. In that case, agencies should be able to use that data for purposes of determining irrigated acreage.

The paper states that it was not the intent to include water features in the calculation (*Definition of Landscape Area Water Use, page 6-1*). That is the case for the dedicated irrigation meters, which by definition only serve irrigation uses. However, in the case of *residential outdoor use*, it *was the intent* that water features and pools be incorporated into the landscape area for several reasons. First, water feature and pool is not captured elsewhere. The other piece of residential use applies to indoor use only. Secondly, it is generally assumed that evaporative loss for pools is approximately at the same rate at ETo, and therefore it can be incorporated into the landscape equation. Agencies should be given discretion as to whether they break down the water features and apply a special factor (equivalent to the Special Landscape Adjustment) or for ease of implementation and data simplicity, assume the appropriate ET Adjustment factor based on date of installation of the landscape.

Agencies can use date of service establishment as a proxy for date of landscape establishment. It is not necessary to know the exact date for each landscape, just the pre and post January 2010 threshold. That delineates new landscape subject to the provisions of the 2010 Model Ordinance (or at least as equivalent as).

Another option not discussed is the use of GIS-based information to develop total landscaped area. Agencies can then deduct irrigated area associated with mixed use meters. The legislation allows agencies to use the best available technology, and this approach meets that criteria. There is no requirement to individually measure each landscape. Again, as with many other calculations, the key is consistency in the approach.

Methodology 7: Base CII Water Use (*and Option 2 Calculations*)

There has been discussion within the USC regarding Option 2, and how to calculate targets and determine compliance for the approach. Below is an effort to clarify some of the intent and describe an approach to address those questions.

The Baseline CII Use calculated for Option 2 should use a date range consistent with the agency's overall gpcd baseline period. CII use includes any use not residential and not dedicated landscape. Multi-family residential that an agency cannot exclude from CII, may be included in CII use. The agency would also still need to use the entire population to calculate its residential target if Option 2 were selected. Whether an agency includes multi-family or mixed use landscape in CII is less of an issue if the agency consistently uses the same methodology. Consistency is key.

There has been discussion as to whether agencies selecting Option 2 can calculate a gpcd target. Agencies can calculate an initial target based on baseline use, as described below. The target may be adjusted or refined each compliance period to account for changes in

irrigated acreage. Residential gpcd and CII target gpcd would remain constant, unless the legislature modifies the indoor use target, or the agency has a substantial change in CII use. The target is the sum of:

i) Residential indoor = 55 gpcd;

Plus

ii) Dedicated landscape and residential irrigated landscape. Residential irrigated landscape may include water features. Dedicated landscape, by definition, does not. Any non-residential landscape that is mixed use should be included with CII. After calculating water budget allocation, result is divided by population to give a gpcd target.

Plus

iii) 10% reduction in CII use from baseline period. Multiply the CII use in the baseline period by 90% and divide by population to calculate the CII gpcd target. The same gpcd target is applied in the compliance period. This may be adjusted if there are substantial changes in CII use, as specified in the law.

The sum of these calculations results in a combined gpcd target. Compliance is determined by comparing gpcd usage in the compliance period. Compliance would be calculated using:

i) Residential indoor = 55 gpcd
ii) Recalculate/update landscape area, apply water budget and calculate landscape efficiency target. Divide by population = compliance landscape gpcd
iii) CII use in compliance period divided by population = compliance CII gpcd

The sum of the three gpcd calculations = the compliance gpcd. Agencies do not need to comply in each area; compliance is based on the sum of the three, and then compared with the target developed. The landscape portion of the target may change due to an increase in acreage. Newer/additional acreage is subject to the Model Ordinance of 2010, so that may change the percentage mix of landscape. The residential and the CII gpcd would remain the same.

Substantial CII Use: In developing this definition, much of the focus has been on increased use due to economic growth. However, in today's economy agencies have relatively low CII (and overall gpcd) use due to the economic recession. DWR should consider developing criteria based on economic indicators to adjust for the swings (both up and down).

Thank you for the opportunity to provide comments. If you have any questions, please contact me at 949-453-5325.

Yours truly,

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