3/18/08 Bd, Mtg. Item 13
Recycle Water Policy
Deadline: 3/10/08 by 12 p.m.

California Section of the WateReuse Association
Association of California Water Agencies
California Association of Sanitation Agencies

March 10, 2008

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Via Electronic and U.S. Mail

Tam Doduc
Chair, and Members
State Water Resources Control Board
1001 I Street
Sacramento, California 95814

ATTN.: Jeanine Towsend, Clerk to the Board
commentletters@waterboards.ca.gov

Re: Comment Letter - proposed Recycled Water Policy
March 18, 2008 Board Meeting

Dear Chair Doduc and Members of the Board:

The Association of California Water Agencies, California Section of the WateReuse Association, and California Association of Sanitation Agencies (collectively, "Associations") have actively participated in the efforts of the State Water Resources Control Board ("State Water Board" or "Board") over the past year to develop a workable recycled water policy. We greatly appreciate the State Water Board's support for the use of recycled water. We also appreciate the efforts of the Board to implement the recommendations of the Recycled Water Task Force and establish consistent statewide interpretation of regulatory requirements for recycled water use. We wholeheartedly agree with the intended outcome of this effort and hope that our comments will lead to the removal of impediments to water recycling in California. In this era of increasing water shortages, the increasing the use of recycled water is critical to a long-term sustainable water supply for our State.

However, the current draft policy does not advance the use of recycled water. The draft does not adequately address the constructive comments offered in our October 26, 2007 letters. The draft policy continues to introduce significant uncertainty related to the use of recycled water. Instead of adopting the policy proposed, we urge the State Water Board to facilitate a series of discussions among environmental groups and our Associations to develop an acceptable and workable framework for removing impediments to the use of recycled water.

- The draft policy allows regional water quality control boards ("Regional Water Boards") to establish recycled water limits based on narrative toxicity objectives, which are more stringent than drinking water standards, without a basis in science. The draft policy undermines agencies' abilities to plan for projects by introducing a level of uncertainty as to what limits might be established and costs.

- The draft policy requires Regional Water Boards to establish effluent limitations in permits for irrigation projects at concentrations equivalent to or more stringent than maximum contaminant levels, or other limits recommended for public health protection by California Department of Public Health (CDPH). Current laws and regulations do not require that limits for irrigation projects be set this way. The proposed approach is not necessary to protect public health or other beneficial uses of groundwater and may result in shutting down existing water recycling projects.

- The draft policy relies upon the current MOA process to resolve conflicts between CDPH and the Regional Water Board. This does not advance cooperation between CDPH and the State Water Board, which will be absolutely necessary to reach the State's established goals for recycled water use.

- While we appreciate the legitimate need for salinity management, we continue to believe that using a recycled water project application as a trigger for the preparation of salinity management plans is ineffective. The salt management plans required by the draft policy are to be done in five years with the possibility of a five-year extension if significant progress is made. However, there is no framework for determining progress, and our experience shows that it will take more than five years to do the plans.

- The draft policy's approach to groundwater monitoring is unclear. One provision seems to imply monitoring is not needed, but other provisions give Regional Water Boards the authority to require monitoring under certain circumstances. This further contributes to the lack of clarity which will frustrate project planning. In addition, this lack of clarity could undermine the cohesive development of the monitoring plans needed to truly support regional salinity management.

- The draft policy establishes a 3 mg/L nitrogen threshold in recycled water for implementation of nutrient management practices and again, the draft policy lacks clarity as to what is meant by "nutrient management practices." Many water recyclers produce water that exceeds this threshold and again, without clarity agencies' planning efforts are impeded by uncertainty as to treatment requirements and costs.

- The draft policy presumes that local agencies can control water softeners to limit salts, which is not accurate – there are legal limitations and obstacles for prospective controls and no ability to retrospectively ban residential softeners. This real limitation on a local agency's authority to conduct source control efforts must be recognized if the policy is to truly advance water recycling.

- The anti-degradation language of the draft policy does not adequately address the components of the Anti-degradation Policy, particularly with regard to defining prevention of nuisance and pollution, maximum benefit, and best practical treatment and control. Without addressing this issue, the draft policy cannot ensure that it will not unreasonably affect beneficial uses.

- The draft policy includes numerous references to the Clean Water Act without explaining how it is relevant or applicable to recycled water irrigation and recharge. Once again this uncertainty about the draft policy's intent and what is intended by Clean Water Act compliance creates a regulatory environment that can frustrate the development of recycled water projects.

During our discussions with the State Water Board regarding the appropriate interim approach to addressing TDS in recycled water, the Associations volunteered to provide the Board with data regarding TDS levels in recycled water from producers around the State. This information is provided in Attachment A.

We strongly believe that the State Water Board should postpone approval of the proposed policy to give time for facilitated discussions among the stakeholders. We believe facilitated discussions would benefit from and be valuable to the members of the State Water Board and invite and encourage the Board members to participate. Such a collaborative effort would be instrumental in crafting consistent and workable strategies to maximize the use of recycled water.

The Associations appreciate the opportunity to provide these comments and look forward to working as part of a drafting team with the Board members to remove impediments to the use of recycled water. If we can be of further assistance, please contact Bobbi Larson at blarson@sommachlaw.com or Dave Bolland at daveb@acwa.com.

Very truly yours,

Bill Jacoby

Bill Jacoby
California Section, WateReuse Association

Bert Michalczyk

Bert Michalczyk, Chair
ACWA Water Recycling Subcommittee

Roberta L Larson

Roberta Larson
CASA Director of Legal and Regulatory Affairs

Attachment

NOVEMBER 2007

Survey of Recycled Water Producers Regarding Differential TDS between Water Supply and Recycled Water

Prepared for:

Los Angeles County Sanitation Districts
and
WateReuse Association

Prepared by:

Larry Walker Associates
Davis, CA

INTRODUCTION

As part of a voluntary statewide survey, water recyclers and wastewater treatment agencies were requested to submit the following data:

- Monthly average recycled water TDS and Hardness data for most recent two years
- Monthly average recycled water TDS and Hardness data for 2003 (most recent drought year)
- Concurrent monthly flow-weighted water supply TDS and Hardness data (or annual average data if monthly data are not available)

The data were analyzed to estimate the variation in observed differences between water supply Total Dissolved Solids (TDS) and recycled water/effluent TDS. Water supply hardness data were requested to explore whether a positive correlation exists between differential TDS and water supply hardness. Such a positive correlation could indicate that use of self-regenerating water softeners in areas with hard water supply is major contributing factor to higher differential TDS values.

FINDINGS AND RESULTS

A total of 57 agencies submitted data, from a total of 74 separate facilities. Responses are listed by Regional Board region in Table 1.

Table 1. List of Responses Collected and Used by Region

Region No.	No. of Responses	No. of Responses Used		Total number of annual average values collected for TDS
		TDS	Hardness	
1	2	2	0	3
2	14	11	8	28
3	4	4	4	14
4	17	13	14	34
5	16	15	7	36
6	2	2	2	8
7	0	0	0	0
8	16	15	8	67
9	2	2	1	4
Total	74	65	44	194

Not all data could be used for the analysis because some were missing either the recycled water TDS values or the water supply TDS values. Differential TDS values calculated using annual average data are used in all the figures. Monthly values were not used in the statistical analysis because they were provided in only a few responses. In general, if the water supply is from groundwater sources, only triennial measurements are performed because monthly variations in quality are typically small and the California Department of Public Health only requires groundwater sampling once every three years.

Box plots of calculated differential TDS values are presented for each region in Figure 1. The numbers of actual annual average values used for each region are listed in Table 1. The 90th

percentile value of differential TDS is above 500 mg/L. Figure 2 presents box plots of total recycled water/effluent TDS values for each region. A similar pattern of regional variability is seen when Figure 1 and Figure 2 are compared.

Average water supply hardness values are plotted together with average differential TDS values by region in Figure 3 in column format. A scatter plot of water supply hardness versus associated differential TDS values is presented in Figure 4 with data differentiated by region. Results indicate no strong correlation between water supply hardness and the corresponding differential TDS.

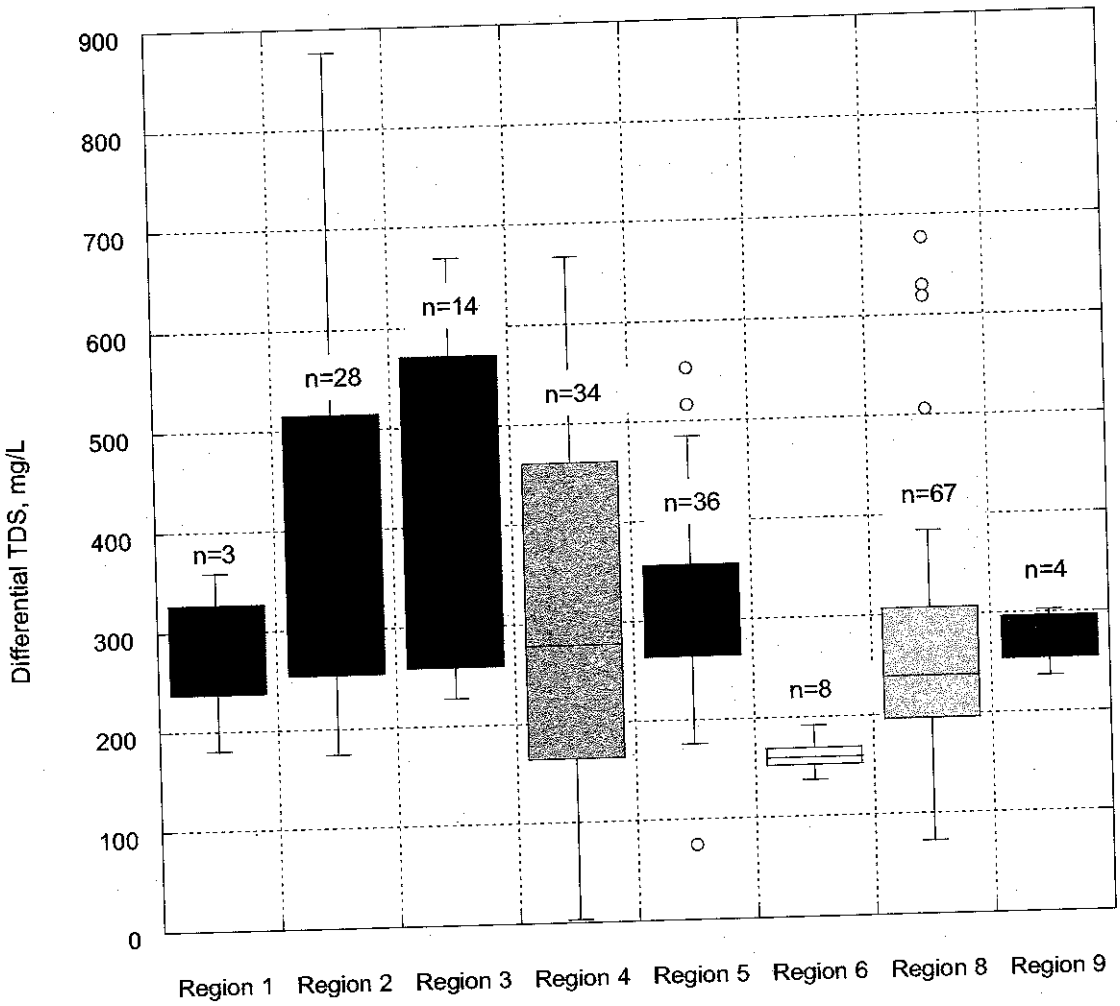

Figure 1. Box plots of differential TDS values by region using all annual average values. n indicates the number of data points for each region.

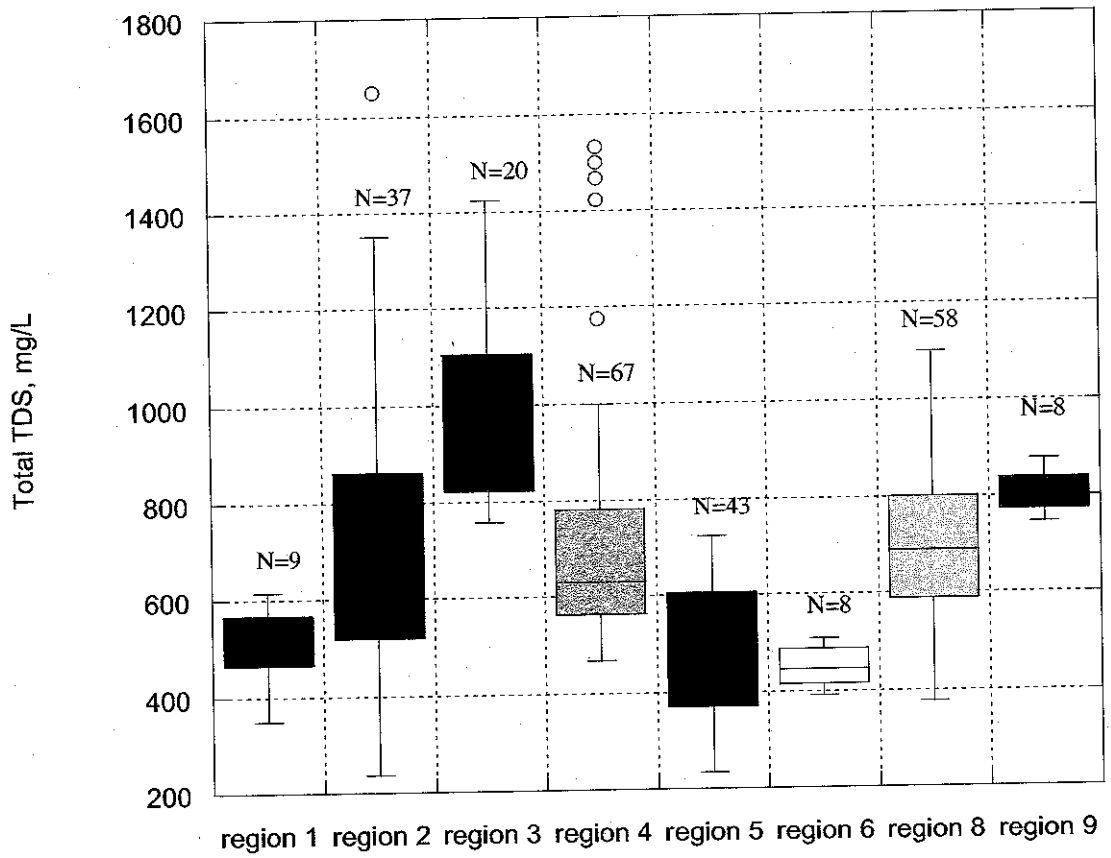

Figure 2. Box plots of total TDS values by region using all annual average values. N indicates the number of data points for each region.

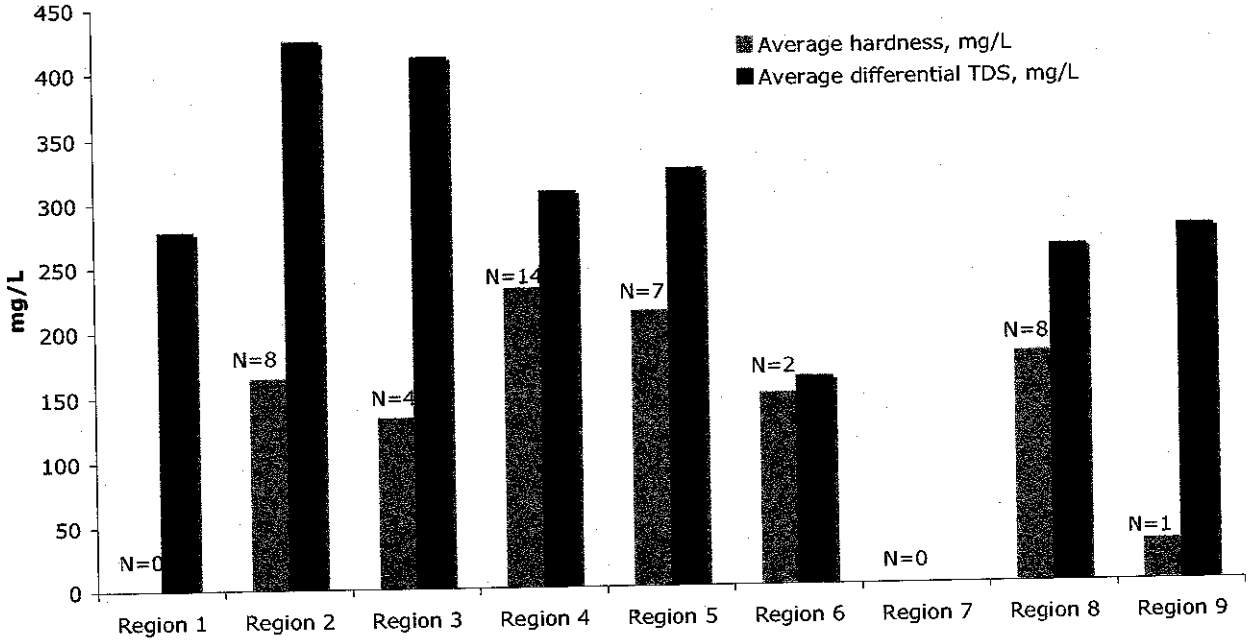

Figure 3. Average values of water supply hardness and associated differential TDS values by region. N indicates the number of water supply hardness values provided by each region

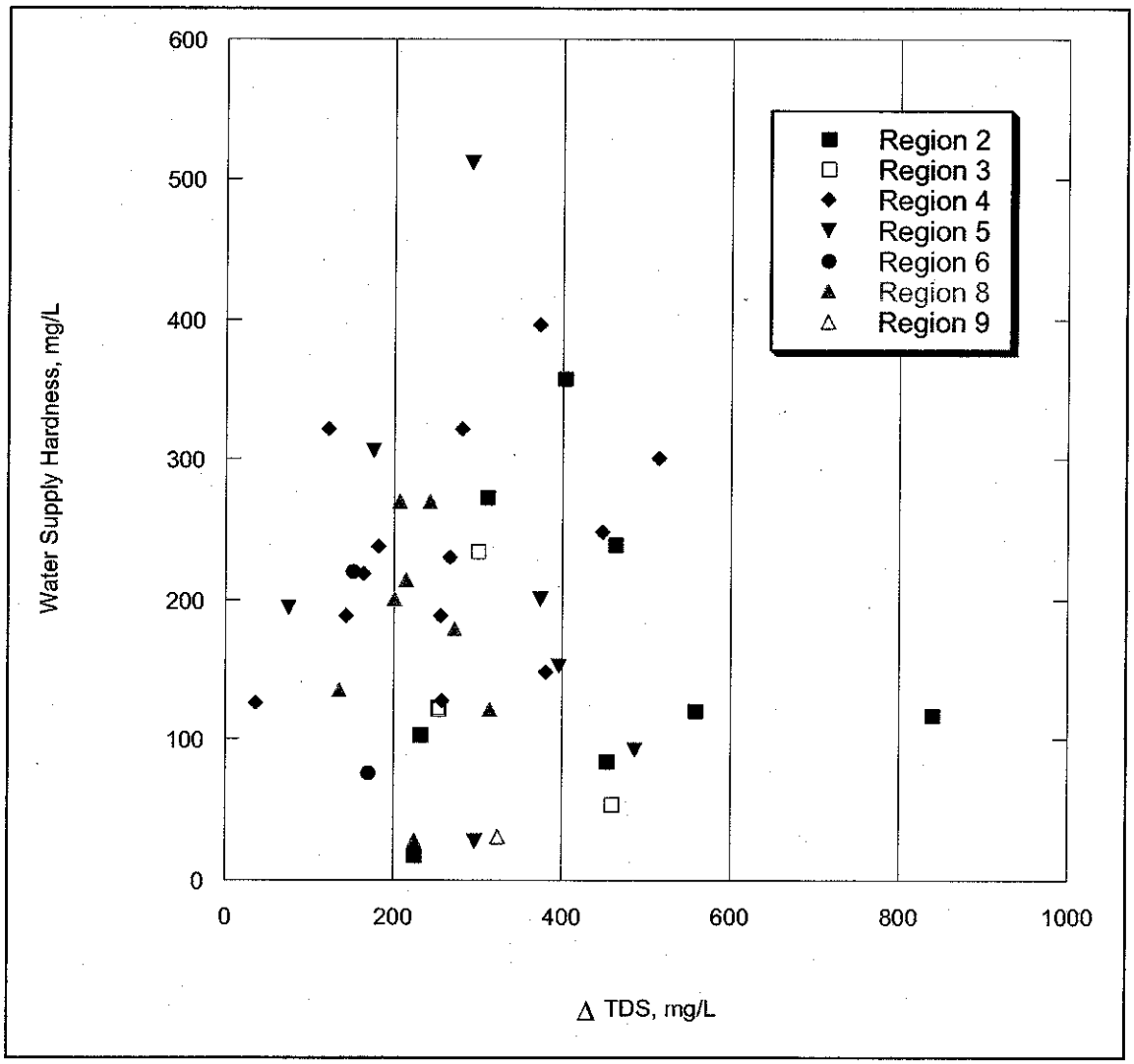

Figure 4. Water Supply Hardness vs. Differential TDS by Region

CONCLUSIONS

1. The TDS differential was highly variable, ranging from less than 100 mg/L to close to 900 mg/L. Total TDS values in recycled water/effluent also exhibit a very wide range, with regional variability similar to the differential TDS dataset.
2. Use of monthly average values to calculate differential TDS in recycled water is not practical due to the lack of monthly sampling for TDS in groundwater used as a water supply..
3. No strong correlation was observed between water supply hardness and differential TDS for the data set analyzed.
4. The 90th percentile value for differential TDS for responding agencies was approximately 530 mg/L.