

May 28, 2010

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
California Environmental Protection Agency
1001 I Street, 24th Floor
Sacramento, CA 95814

Submitted via email: commentletters@waterboards.ca.gov

Subject: **2010 Integrated Report / Section 303(d) List.**

Dear Ms. Townsend:

The County of Orange, OC Public Works Department (OC Public Works), has reviewed the proposed 2010 Integrated Report for Clean Water Act Sections 303(d) and 305(b). We appreciate the opportunity to provide comments to the State Water Resources Control Board (State Board).

We would like to commend State Board staff for their diligent efforts to properly assess copious amounts of data on a multitude of water bodies across the state. The evaluation and listing process is a recognizably daunting task. In a number of instances, however, we have identified misapplications of the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List. Outlined below are our general policy and listing-specific technical issues, and recommendations for changes to the proposed 2010 303(d) list.

- 1. Changes to Region 8 "do not list" recommendation for Bolsa Chica Channel, Borrego Creek (Irvine to Barranca), Buck Gully Creek, Peters Canyon Channel, Santa Ana Delhi Channel, Santa Ana River Reach 2, San Diego Creek Reach 1, San Diego Creek Reach 2 and Serrano Creek for e. coli.**

In the 2010 Integrated Report, State Board staff proposed to add the following waterbodies to the 303(d) list because they "exceeded the current U.S. EPA freshwater standard for bacteria". This recommendation is in error and should be removed. With the sole exception of the Great Lakes, U.S. EPA ("EPA") has never adopted water quality standards for bacteria in freshwater. And, EPA explicitly stated that the Great Lakes rule should not be considered binding on other inland freshwaters.¹ EPA has published recommended water quality

¹ U.S. EPA. 69 Fed. Reg. 220, 67222 (Nov. 16, 2004)

criteria for pathogen indicator bacteria pursuant to Section 304(a) of the Clean Water Act.² However, according to EPA, these "non-regulatory" criteria are merely advisory until states formally act to adopt them as water quality standards.

EPA's recommended criteria for *E. coli* should not be used to determine whether ambient water quality met the standard for protecting REC-1 uses in the Santa Ana watershed because the Santa Ana Regional Water Quality Control Board (Santa Ana Regional Board) has only authorized the use of fecal coliform as a water quality standard for bacteria in freshwaters.³ State Board staff notes in the 2010 Integrated Report, the listing process must be based on the water quality standards currently identified in the Basin Plan and may not consider proposed changes that may occur at some future date. Doing so violates the State Board's published listing policy

In addition, EPA's recommended *E. coli* criteria should not be used to evaluate attainment of the REC-1 standard for the following reasons:

- a. State Board staff assumed that the surrogate *E. coli* criteria should be applied as a geometric mean of 126 cfu / 100 mL. Federal guidance advises States that EPA considers any geometric mean value between 126 and 206 cfu / 100 mL to provide a level of protection functionally-equivalent to the current fecal coliform standard.⁴ By selecting the lower end of the allowable range, the State is acting on its own discretion to impose new bacteria standards that are more stringent than required by federal law. This decision effects all subsequent calculations and estimates used by State Board staff to support the proposed listings.
- b. It appears there was insufficient *E. coli* data to assess attainment based on 30-day geometric means. Therefore, State Board staff elected to evaluate compliance using estimated Single Sample Maximum (SSM) values. However, this decision goes beyond what federal regulations require. The BEACH Act applies only to the Great Lakes and not to any other inland freshwaters. Therefore, by electing to use the SSM values as surrogate estimates of compliance with an unadopted *E. coli* criteria, staff is recommending that the State Board impose requirements that are more restrictive than necessary under federal law.
- c. In addition to assuming that the underlying geometric mean should be 126 cfu/100 ml, staff also assumed that the log standard of deviation was only 0.4 rather than calculating a true value from the actual data as EPA guidance recommends. Numerous studies throughout the Santa Ana watershed indicate that the log standard of deviation

² U.S. EPA. Ambient Water Quality Criteria for Bacteria – 1986. EPA440/5-84-002 (Jan., 1986) pg. iii

³ California Regional Water Quality Control Board – Santa Ana Region (8). Water Quality Control Plan Santa Ana River Basin (8). Jan. 24, 1995 (updated February, 2008); pg. 4-9.

⁴ U.S. EPA. 69 Fed. Reg. 220 (Nov. 16, 2004). See also U.S. EPA. Implementation Guidance for Ambient Water Quality Criteria for Bacteria. EPA-823-B-04-002 (March, 2004).

varies between 0.8 and 1.2 for both *E. coli* and fecal coliform.⁵ Consequently, the estimated SSM value should be 200% to 400% higher than represented in the 2010 Integrated Report. Even if one must presume the hypothetical pre-existence of an *E. coli* objective in the Santa Ana Regional Board Basin Plan, there is no legal or scientific justification to assume that the standard deviation is 50-75% lower than shown by the actual data used to support the listing. If local water quality monitoring data are available, federal guidance indicates that a site-specific estimate of statistical variability should be preferred over using a generic default value.

At a minimum, assuming the log standard deviation is only 0.4, the surrogate *E. coli* criteria should have been more than double the value estimated by State Board staff (576 organisms per 100 mL rather than 236 organisms per 100 mL). And, if a true measure of variability was calculated from the local stream monitoring data as EPA guidance recommends, then the SSM would have been at least ten times higher (2,633 organisms per 100 mL) than shown in the 2010 Integrated Report.

- d. It should be noted that other representatives on State Board's staff have previously instructed the Santa Ana Regional Board that SSMs cannot be used until first subjected to formal peer review. We are informed that this is required by state law and the fact that the SSMs are derived from EPA's 304(a) criteria document does not waive this mandatory obligation. Therefore, the SSMs should not be used as part of the State's 303(d) listing process until the necessary peer review has been completed.

2. Changes to Region 9 "delisting" recommendations

In our review of State Board staff recommended changes to the San Diego Regional Water Quality Control Board's 303(d) lists for the 2010 Integrated Report we found three decisions that do not match our data analysis findings. In an e-mail dated May 13, 2010 we provided information on these three decisions and the conflicting data findings to Shakoora Azimi-Gaylon, Senior Environmental Scientist TMDL Program, Division of Water Quality, State Water Resources Control Board. The three decisions were as follows:

Water Body	Decision ID	LOE ID	Pollutant	State Water Board Findings	County of Orange Findings
Pacific Ocean Shoreline, Aliso HSA at Aliso Beach - North	16936	31085	Total Coliform	Do Not Delist (14 exceedances of 56 monthly geomeans)	Delist (0 exceedances of 56 monthly geomeans)
Pacific Ocean Shoreline, Laguna Beach HSA at Bluebird Canyon	16853	31079	Total Coliform	Do Not Delist (8 exceedances of 56 monthly geomeans)	Delist (0 exceedances of 56 monthly geomeans)

⁵ Camp, Dresser & McKee. Middle Santa Ana River Bacterial Indicator TMDL Data Analysis Report. March 19, 2009.

Pacific Ocean Shoreline, San Clemente HA at San Clemente City Beach at Pier	16612	30985, 28457	<i>Enterococcus</i>	Do Not Delist (6 exceedances of 20 monthly geomeans and 6 exceedances of 32 monthly geomeans)	Delist 3 exceedances of 20 monthly geomeans and 3 exceedances of 32 monthly geomeans
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In an e-mail dated May 24, 2010 Ms. Azimi-Gaylon indicated that a re-review of the data by State Board staff had found errors in their data analysis of two of three decisions (16936, 16853) that were consistent with our findings. It is our understanding that these decisions will be revised as follows:

Water Body	Decision ID	LOE ID	Pollutant	Original State Water Board Findings	Revised State Water Board Findings
Pacific Ocean Shoreline, Aliso HSA at Aliso Beach - North	16936	31085	Total Coliform	Do Not Delist (14 exceedances of 56 monthly geomeans)	Delist (0 exceedances of 56 monthly geomeans)
Pacific Ocean Shoreline, Laguna Beach HSA at Bluebird Canyon	16853	31079	Total Coliform	Do Not Delist (8 exceedances of 56 monthly geomeans)	Delist (0 exceedances of 56 monthly geomeans)

3. Calculation of fecal coliform geomeans

Fecal coliform geomeans in some instances are being calculated inappropriately with FIB geomeans being calculated for set monthly periods, regardless of the number of samples collected within that period. To be consistent with the fecal coliform geomean portion of the standard (fecal coliform concentration: log mean less than 200 MPN/100 mL, based on five or more samples/30 day period, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period), the geomean should be calculated on a rolling 30-day basis where a minimum of 5 samples have been collected. Geomeans should not be calculated for periods where less than 5 samples have been collected.

4. Listing of channels with no assigned beneficial uses and which are not waters of the United States

In the proposed Integrated Report, Santa Ana-Delhi Channel is listed for e. coli and East Garden Grove-Wintersburg Channel is listed for ammonia. These listings are inappropriate given that the channels are not included in the Basin Plan of the Santa Ana Regional Board, have no designated uses and have no applicable water quality standards. Additionally, these stormwater channels were man-made as irrigation/drainage canals, not waters of the

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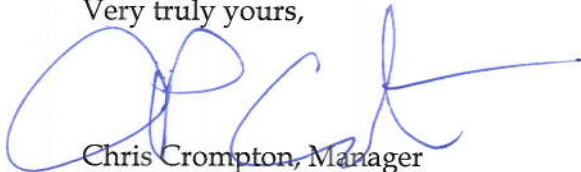
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United States. The presumptive uses (fishable/swimmable) derived from the Clean Water Act do not apply to these waterbodies.

By listing Santa Ana Delhi and East Garden Grove-Wintersburg Channels, State Board staff is improperly assuming: 1) The channels are waters of the U.S.; and 2) Primary Contact Recreation (for Santa Ana-Delhi) and Aquatic Life (for is East Garden Grove-Wintersburg) are designated uses.

Thank you for the opportunity to provide comments on the 2010 Integrated Report. We look forward to working with the State Board staff in resolving these issues and producing an accurate and comprehensive list of impaired water bodies in the state of California. Please contact Amanda Carr at (714) 955-0650 or via e-mail at amanda.carr@ocpw.ocgov.com if you have any questions regarding these comments.

Very truly yours,



Chris Crompton, Manager
Environmental Resources