



August 16, 2017

submitted electronically

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
PO Box 100  
Sacramento, CA 95812-2000

**RE: Comment Letter-Bacteria Provisions**

*Dear Ms. Townsend:*

Thank you for the opportunity to review the Draft Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California-Bacteria Provisions and a Water Quality Standards Variance Policy. The following comments are submitted on behalf of the Middle Santa Ana River Bacteria TMDL Task Force administered by the Santa Ana Watershed Project Authority (SAWPA). In general, the Task Force supports the proposed revisions to the statewide Water Quality Control Plan but would like to offer some additional suggestions for the State Board's consideration.

- 1) The proposed policy should explain that the EPA and the State have not yet developed or approved water quality objectives for pathogen indicator bacteria in waterbodies designated REC-2 (Non-Contact Recreation). The policy should also explain that, at present, EPA has determined that there is insufficient scientific information for establishing bacteria objectives for secondary contact conditions.
- 2) The proposed policy should recommend a scientific procedure for developing appropriate water quality objectives for waterbodies designed Limited REC-1. It is important to note that, in some cases, it may not be possible to evaluate a sufficient number of cases to rely on the epidemiological approach traditionally used to derive such standards. An alternate approach will be needed when this occurs.
- 3) It would be helpful if the State Board could provide some specific examples of waterbodies that should be designated Limited REC-1 rather than REC-1. We suggest that the State Board use an approach similar to that found in the Sources of Drinking Water Policy (88-63) which describes the specific conditions for an exception from the presumptive MUN designation.

- 4) The proposed policy should provide a more detailed description of what constitutes “natural sources.” We recommend that the State Board consider using the definition of “natural, uncontrollable sources” that was developed by the Santa Ana Regional Board (Res. No. R8-2012-0001) and subsequently approved by both the State Board and U.S. EPA . Since Section 13241 of the California Water Code requires consideration of all water quality conditions “that can be controlled” it is important to specify the natural conditions that the Board does not believe can be controlled in order to properly interpret and apply the proposed policy in future water quality assessments (e.g. 303D listings).
- 5) As written, the proposed policy only allows Regional Board to authorize a natural source exclusion in the context of an approved TMDL. However, where an exceedance occurs due solely to natural sources, no TMDL may be needed. The State Board should consider adopting the language found in the Central Valley Basin Plans which specifies that, where the natural concentration of pollutants is higher than the water quality objective, that natural concentration becomes the objective. The Central Valley Basin Plans also include a provision that explicitly states that there is no obligation to reduce the natural concentration of pollutants in order to comply with the default water quality objective.
- 6) The proposed policy should provide additional guidance on how the bacteria objectives should be applied when developing a TMDL. Traditionally, a TMDL is the sum of point sources (WLA), non-point sources (LA), natural sources and a Margin of Safety (MOS). However, if natural sources (by themselves) cause an exceedance of the applicable objectives, this can result in an allocation of “zero” bacteria to point sources such as MS4 discharges. The policy should make clear that, where there is no assimilative capacity available, waste discharge requirements should be set equal to the water quality objective. The mass-based approach for developing TMDLs does not work well for bacteria.
- 7) The policy should provide guidance on how compliance is to be computed and reported when data from multiple sample points in the same lake or stream segment are collected on the same day. Is compliance evaluated on a waterbody-wide basis or is compliance judged independently for each and every sampling location?
- 8) Because the proposed policy establishes a new water quality objective that is more stringent than the current water quality objectives for pathogen indicator bacteria, it should make clear that dischargers are entitled to a new compliance schedule in order to meet the new standard.

- 9) The proposed policy should include a provision that allows dischargers to make an alternate compliance demonstration by showing that the incidence of actual illness does not exceed the acceptable risk level even if the measured concentration of pathogen indicator bacteria is higher than the water quality objective. It is the risk-level that is the actual water quality standard; the pathogen indicator bacteria is merely one translator mechanism for evaluating probable compliance with that standard. There are other valid translators as well.
- 10) There is no evidence offered to support the claim made in the Economic Analysis that the level of effort required to meet the more stringent risk standard is the same as the level of effort required to meet the less stringent risk standard. If a waterbody was actually in compliance with the latter, any additional effort/cost required to achieve the former should be considered an unfunded state mandate because the additional implementation obligations were not required in order to comply with the Clean Water Act.
- 11) It appears that the Economics Analysis performed by Abt Associates does not understand the critical distinction between EPA's 1986 bacteria criteria and EPA's 2012 bacteria criteria. The 1986 criteria does not require that a waterbody demonstrate simultaneous compliance with BOTH the geometric mean and the single sample maximum (SSM). The geometric mean is the preferred compliance metric and the SSM is only used if there is insufficient data to compute a geomean. The SSM is also recommended as a mechanism for triggering public notifications. The 2012 criteria does require that a waterbody demonstrate simultaneous compliance with BOTH the geomean and the Statistical Threshold Value (STV) and, as such, is considerably more stringent than the 1986 approach. Abt's assumption that the new criteria impose no additional compliance burden compared to the old criteria is incorrect and, as such, greatly undermines the validity of the subsequent economic analysis.
- 12) The Economic Analysis performed by Abt Associates relies on an obsolete and invalid version of the Santa Ana Region's Basin Plan. The Economic Analysis states that fecal coliform are used as the pathogen indicator bacteria. This is not correct. The Santa Ana Regional Board deleted the fecal coliform objective from the Basin Plan and replaced them with E. coli objectives in 2012. The State Board approved this change in 2014 and EPA approved the change in 2015. The updated Basin Plan has been posted on the Regional Board's website since February of 2016.
- 13) Abt's Economic Analysis also inaccurately describes the TMDL compliance obligations for the San Bernardino County MS4 program. San Bernardino's obligations are substantively identical to those described for the Riverside MS4 program. Both counties must implement the Comprehensive Bacteria Reduction Plan (CBRP) approved by the Regional Board.

- 14) The Economic Analysis should be revised to provide an estimate of the expected number of illnesses avoided by adopting the proposed water quality objective and compare that to the expected number of illnesses avoided if the (slightly) less stringent pathogen indicator objective were adopted. It is not enough to evaluate only the risk-rate, the probability of illness is also a function of the number of people exposed. Requiring strict compliance at stream locations where there is little (if any) actual water contact recreation provides no measurable improvement in public health even if the theoretical risk is lower. We recommend that the State Board instruct Abt to carefully consider the detailed Cost-Benefit Analysis now being prepared by the San Diego Regional Board (in collaboration with local stakeholders). Preliminary results show that focusing implementation efforts on areas where bacteria objectives are being exceeded AND there is a strong indication of human sources provides the highest reduction in actual illnesses. The San Diego analysis shows the cost-per-illness avoided for various implementation alternatives. This is a more useful and pragmatic approach for considering "Economics" as required in section 13241 of the California Water Code.

Once again, thank you for the opportunity to review the proposed policy. Please contact me if you have any questions regarding the comments made in this letter.

*Respectfully submitted,*

A handwritten signature in blue ink, appearing to read 'T. Moore', with a long horizontal flourish extending to the right.

Timothy F. Moore  
(on behalf of the MSAR TMDL Task Force)

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