



MARK PESTRELLA, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
<http://dpw.lacounty.gov>

Public Comment
Bacteria Provisions
Deadline: 8/16/17 by 12 noon



ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

August 16, 2017

IN REPLY PLEASE
REFER TO FILE: WM-9

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Dear Ms. Townsend:

BACTERIA PROVISIONS COMMENT LETTER

The County of Los Angeles and the Los Angeles County Flood Control District appreciate the opportunity to provide input on the proposed Statewide Bacteria Provisions. Enclosed are our comments for your review and consideration.

If you have any questions, please contact me at (626) 458-4300 or dlaff@dpw.lacounty.gov or your staff may contact Mr. Paul Alva at (626) 458-4325 or palva@dpw.lacounty.gov.

Very truly yours,

MARK PESTRELLA
Director of Public Works


DANIEL J. LAFFERTY
Assistant Deputy Director
Watershed Management Division

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Enc.

cc: County Counsel (Lillian Salinger, Mark Yanai)

**THE COUNTY OF LOS ANGELES AND THE LOS ANGELES COUNTY FLOOD
CONTROL DISTRICT COMMENTS ON THE PROPOSED BACTERIA PROVISIONS
AND A WATER QUALITY STANDARDS VARIANCE POLICY**

- I. For waterbodies with traditionally low level of recreational use, the bacteria criteria corresponding to 36 per 1,000 illnesses rate should be used.**

As indicated in the staff report¹, the U.S. Environmental Protection Agency's (USEPA) 2012 recreational water quality criteria (RWQC)² recommendations include criteria based on two estimated illness rates — 32 and 36 per 1,000 primary contact recreators. The determination of which to use is left to the States' discretion. The 2012 RWQC states:

"EPA recommends that states make a risk management decision regarding illness rate which will determine which set (based on illness rate selected) of criteria values are most appropriate for their waters. The designated use of primary contact recreation would be protected if either set of criteria is adopted into the state [water quality standards (WQS)] and approved by EPA. " (Office of Water 820-F-12-058)

The State Water Quality Control Board (State Water Board) is currently recommending the use of criteria corresponding to the 32 per 1,000 illness rate for all waterbodies. While this is the most conservative approach, we are concerned that it is overly conservative and can inadvertently drive up compliance costs. An alternate approach would be incorporating criteria corresponding to the 32 per 1,000 illness rate in waterbodies that have high level of recreational use, such as public beaches, and using the 36 per 1,000 illness rate for waterbodies with low or minimal water contact recreation, such as flood control channels. This approach can be equally protective of public health and more cost-effective over time.

It is worth noting that USEPA's 2012 RWQC are based on studies conducted at coastal beaches where the intensity of recreational use is high relative to that at urban flood control channels. As a result, the criteria corresponding to the 32 per 1,000 illness rate is overly conservative for waterbodies that have a low level of recreational use. As acknowledged by USEPA, recreational waterbodies that are predominantly impacted by non-human fecal sources (such as stormwater discharges) have relatively lower public health risk than those impacted by wastewater discharges. This suggests that the criteria corresponding to the 36 per 1,000 illness rate can be appropriate for waterbodies that do not have a high level of recreational use and are not predominately impacted by sources of human fecal matter.

¹ http://www.waterboards.ca.gov/bacterialobjectives/docs/draft_staff_report.pdf

² <https://www.epa.gov/sites/production/files/2015-10/documents/rwqc2012.pdf>

Therefore, we request that State Water Board adopt a criteria corresponding to the 36 per 1,000 illness rate for waterbodies that have low level of recreational use and criteria corresponding to the 32 per 1,000 illness rate for waterbodies with high level of recreational use.

II. The State's Bacteria Provisions should allow the development of site-specific bacteria objectives using quantitative microbial risk assessment (QMRA) and provide appropriate guidance for implementing the QMRA.

In its 2012 RWQC document, USEPA indicated that the source of microbial contamination is an important factor to be considered in determining human health risk in recreational waters. The risk to humans by fecal contamination from non-human sources has been shown to be less than those from human sources. Consequently, USEPA has provided scientific tools, such as QMRA for developing alternative site-specific bacteria criteria for waterbodies that are predominantly impacted by non-human fecal sources.

State Water Board's position on the issue of site-specific objectives requires clarification. The development of site-specific objectives is not included in the options considered, nor is it addressed elsewhere in the staff report. As discussed above in comment I, the cost of complying with overly conservative standards could be much higher than the cost of developing site-specific objectives.

In Southern California, many stormwater agencies, as well as regulatory agencies, including the Los Angeles Regional Water Quality Control Board and USEPA Region 9, have shown interest in utilizing QMRA to develop site-specific bacteria criteria for sites where sources are characterized predominantly as non-human. It is important that the State Water Board recognize and allow the use of QMRA, as well as provide a guidance for purposes of site-specific criteria development in California.

Accordingly, we request the addition of a new element on QMRA, as well as a guidance on how to implement the QMRA to the proposed bacteria provisions.

III. Exceedances of geometric mean objectives should be allowed under the reference system/antidegradation and natural sources exclusion approaches.

The proposed amendment of the State's Bacteria Provisions only allows an exceedance of the statistical threshold value (STV) but not the geometric mean (GM) under the reference system/antidegradation and natural sources exclusion approaches. This inconsistent application of reference

system and natural sources exclusion approaches is not based on science and potentially would require the treatment of non-anthropogenic sources of bacteria. Given the fact that non-anthropogenic sources can cause significant exceedances of the GM, State Water Board should re-assess its approach on the implementation of the GM standards.

Studies^{3,4} conducted at non-human source-impacted waterbodies in southern California show that the GM objectives are frequently exceeded in these waterbodies as is the case for STV objectives. Based on the findings of these studies, on average, *E. coli* exceeds the GM objectives 16 percent of the time at freshwater reference sites in southern California. Further, at Leo Cabrillo Beach, one of the reference sites commonly used in the Los Angeles Region, the GM objectives exceeded at a rate of over 20 percent. These exceedances correlate with the STV exceedances. However, the proposed amendment does not consider these exceedances of GM that are caused by natural sources despite their correlation with exceedances of STV.

Therefore, we request that GM exceedances be allowed, similar to STV, based on local reference systems where naturally generated bacteria sources are known to cause exceedances.

IV. Allow the application of the reference system/antidegradation and the natural sources exclusion approaches outside of a TMDL.

The proposed amendment of the State's Bacteria Provisions only allows the reference system/antidegradation approach and the natural sources exclusion approach to be used in the context of a TMDL. Consequently, for a waterbody that has no bacteria TMDL, these approaches would not be available for use under the current proposal. The application of these approaches should not be limited to waterbodies with TMDLs; it should apply to all waterbodies with or without a TMDL.

V. The State should provide guidance for the implementation of the natural sources exclusion approach.

Currently, no guidance exists on how to implement the natural sources exclusion approach, despite amendments in both the Los Angeles Region's and San Diego Region's Basin Plans allowing the use of the natural sources exclusion approach. In the Los Angeles Region, all Bacteria TMDLs address natural sources of bacteria using the reference system/antidegradation approach. This is partly due to the confusion

³ Assessment of water quality concentrations and loads from natural landscapes. SCCWRP Tech Report 500, 2007.

⁴ Fecal indicator bacteria levels during dry weather from southern California reference streams. SCCWRP Tech Report 542, 2008.

behind implementing the natural sources exclusion approach. Thus, rather than dealing with the ambiguity of this approach, all Bacteria TMDLs utilized the better-defined reference system/antidegradation approach. To avoid a repeat of this problem Statewide, the State Water Board should provide a guidance or clarification regarding the implementation of the natural sources exclusion approach to remove the confusion behind its use and to allow the natural sources exclusion approach to be a useable tool for all regions.

VI. The State should provide guidance for implementation of seasonal suspension of REC-1 beneficial use.

The proposed amendment of the State's Bacteria Provisions allows the seasonal suspension of REC-1 beneficial use if a use attainability analysis determines certain factors prevent the attainment of the use. As indicated in the staff report, some examples of these factors include:

- Naturally occurring pollutant concentrations prevent the attainment of the use; or
- Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or
- Human caused conditions or source of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place.

However, the proposed amendment does not go into further detail regarding how any of these factors would be evaluated. For instance, it is unclear as to what water level would be considered low flow for allowing season suspension of the REC-1 beneficial use.

We request that State Water Board provides detail guidance on the implementation of seasonal suspension. This guidance would help prevent confusion at the regional level and ensure consistency in the implementation of the seasonal suspension policy throughout the State.

VII. Clarify that the bacteria objectives for REC-1 beneficial use would not apply to LREC-1 beneficial use.

The water quality objectives in the proposed amendment of the State's Bacteria Provisions are defined for REC-1 beneficial use. The State Water

Board should clarify that the objectives are applicable only to REC-1 beneficial use and do not apply to Limited REC-1 (LREC-1) beneficial use to prevent misapplication of the objectives for the wrong beneficial use.

VIII. High flow suspension and seasonal suspension should also apply to LREC-1 beneficial use.

The proposed amendment includes the application of high flow suspension and seasonal suspension, where appropriate, for REC-1 beneficial use. The application of these suspensions should also include LREC-1 beneficial use.

IX. The proposed amendment should include a provision that requires the reconsideration of existing Bacteria TMDLs to ensure consistency with the State's Bacteria Provisions.

In the proposed amendment of the State's Bacteria Provisions, there is currently no language requiring the Regional Boards to reopen their respective region's Bacteria TMDLs. Previously, the State put language in the Statewide Trash Amendment⁵, requiring the Los Angeles Regional Board to reopen all their trash TMDLs within their region, except for two watersheds, within one year. This has helped all the Trash TMDLs become consistent with the State's standards. Thus, we are seeking similar language requiring the Regional Boards to reopen Bacteria TMDLs to ensure consistency with the State's Bacteria Provisions.

⁵https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/trash_implementation/trash_amend.pdf