Heal the Bay

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February 20, 2015

Ms. Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor [95814]
P.O. Box 100
Sacramento, CA 95812-0100
*Submitted via email: commentletters@waterboards.ca.gov; Stephanie.Rose@waterboards.ca.gov; stacy.gillespie@waterboards.ca.gov*

**Re: Comment Letter – Statewide Bacteria Objectives – Scoping Comments**

Dear Ms. Townsend:

On behalf of Heal the Bay, we submit the following comments to the State Water Resources Control Board ("State Board") on scoping for amendments to Water Quality Control Plans for Inland Surface Waters, Enclosed Bays and Estuaries, and the Ocean Waters of California for statewide water contact recreation bacteria objectives ("Scoping Bacteria Amendment"). Heal the Bay is an environmental organization with over 15,000 members dedicated to making Southern California coastal waters and watersheds safe, healthy, and clean for people and aquatic life. We appreciate this opportunity to provide comments on the Scoping Bacteria Amendment.

On an annual basis, millions of Californians recreate in our inland and coastal waters. Taking a precautionary approach to managing these waters is necessary to protect human health. We understand in 2012 U.S. EPA issued new recreational water quality criteria recommendation for protecting human health in coastal and non-coastal waters, however, Heal the Bay believes that these recommendations are not as protective as existing statewide bacteria approaches. In addition, Heal the Bay has previously expressed concern with many of the elements contained in the Scoping Bacteria Amendments as noted in the State Board April 25, 2014 Proposed Statewide Bacteria Amendment Focus Group Meeting-Environmental Groups document. Although we see a need for updating statewide bacteria objectives for consistency, we do not believe the direction the State Board is currently pursuing is appropriate to protect public health. Several staff recommendations contained in the informational document[1] created for the Scoping Bacteria Amendment does not ensure best available public health protections are being implemented. Please see our comments below as they relate to the 11 elements being considered by the State Board for draft water contact recreation ("REC 1") bacteria objectives amendments.

## I. Element I: Bacteria Indicators

Fresh water: ***Recommend Option 1, but would be ok with Option 3***

Marine water: ***Disagree with State Board staff recommendation-Option 2. Recommend Option 1.*** California Department of Public Health ("CDPH") uses three indicator bacteria (enterococcus, total coliform, and fecal coliform) and seven standards to protect water contact recreation in coastal waters. If the State Board pursues Option 2, water quality objectives for bacteria in marine waters

[1] Informational Document – Public Scoping Meeting for Proposed Statewide Water Contact Recreation Bacteria Objectives Amendments to Water Quality Control Plans for Inland Surface Waters, Enclosed Bays and Estuaries and the Ocean Waters of California (January 7, 2015), Division of Water Quality, State Water Resources Control Board.

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would contradict CDPH. To amend bacteria objectives before State Board and CDPH are in agreement with bacteriological standards is premature. Furthermore, Option 2 uses only enterococci, and requires just two objectives compared to the current approach that uses three indicator bacteria and requires seven objectives to identify pathogens. Has the State Board conducted a cost-benefit analysis to determine the economic trade-offs between monitoring reduction and increased health impacts from swimming in potentially contaminated water? We feel the current approach of using three indicator bacteria has higher potential to identify human health risks in marine waters. We suggest the State Board to leave existing indicator bacteria in place (Option 1) as this approach would be best at identifying contaminated waters and be most protective of human health.

## II. Element II: Level of Public Health Protection for Illness Rate

***Disagree with State Board staff recommendation-Option 3. Recommend Option 1.*** Staff recommendation to use U.S. EPA estimated illness rate of 32 per 1,000 places the public at risk more often than what is currently used throughout the state. The 1986 Recreational Water Quality Criteria ("RWQC") were established assuming 8 swimmers out of 1,000 would get sick in fresh water and 19 swimmers out of 1,000 would get sick at marine beaches. These illness rates were defined by gastrointestinal ("GI") symptoms with fever and were based on epidemiology studies from the 1970's and 1980's. EPA 2012 guidance changed the definition of highly credible gastrointestinal illness ("HCGI"), which was previously defined as any one of the following combinations: vomiting, diarrhea with fever or a disabling condition, or stomachache or nausea accompanied by a fever. EPA's new definition failed to include fever, and therefore led to an increase in the number of illness occurrences compared to the more narrow 1986 criteria definition. In order to determine an appropriate illness rate based on NGI, EPA estimated the GI illness rate by comparing the difference between (a) non-swimmer (HCGI) illness rates from the 1986 epidemiological data (14 illnesses per 1,000) and (b) non-swimmer (NGI) illness rates from the NEEAR studies (63 illnesses per 1,000). Thus, a freshwater illness level of 8 HCGI per 1,000 recreators is estimated to be equal to 36 NGI per 1,000 recreators (a translation factor of 4.5 NGI per HCGI). EPA states that the HCGI metric was used in order to maintain comparability to the 1986 criteria. This was an inappropriate approach to take to determine new risk factors. EPA should not have based a new GI illness rate on the 1986 criteria. It made no sense to estimate a new illness rate based on only pre-1986 criteria simply for consistency's sake. To this end, there is no justification stated by the State Board that moving to adopting EPA's new illness rate is more protective. The 1986 bacteriological objectives criteria uses a lower threshold and is more protective of human health-we suggest the 1986 criteria be used for the statewide approach.

## III. Element III: Address Natural Sources of Bacteria Levels

***Disagree with State Board staff recommendation-Option 2. Recommend Option 1.*** It is difficult to identify natural sources of bacteria when an area already has anthropogenic impacts. In addition, it would be extremely resource intensive to develop, a currently non-exist, guidance document to help measure natural sources of bacteria. How accurately could Regional Water Boards decipher natural sources from anthropogenic sources of bacteria? Every waterbody is different, thus a guide to identify natural sources of bacteria could not be extrapolated to all waters in California. We recommend Option 1-No Action, as this approach would allow Regional Boards that have already developed reference sites and natural source exclusions to remain in effect, but would not streamline or make it the status quo for other Regional Board to implement this approach. Reference site and natural source exclusion should be treated on a

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case-by-case basis, requiring extensive study and Use Attainability Analyses to ensure public health is not being placed at risk from anthropogenic bacteria sources.

## IV. Element IV: High Flow Suspension of Objectives for Fresh Water

***Disagree with State Board staff recommendation-Option 2. Recommend Option 3.*** There is no justification for allowing high flow suspension of bacteria objectives for engineered and non-engineered channels. Each Regional Board has much different topography, precipitation patterns, and REC 1 uses. Implementing a statewide "blanket approach" for high flow suspension of objectives for fresh water is inappropriate; many REC 1 uses involve high flow scenarios (e.g. rafting, kayaking, surfing, etc.). In addition, what occurs when a high flow suspension fresh waterbody enters marine waters? Do marine waters therefore have high flow suspension of REC 1 bacteria water quality standards? Thus, we disagree with using Option 2 as it is not protective of human health in all scenarios. Furthermore, developing guidance for high flow suspension at State Board and Regional Water Board levels requires extensive staff resources and study. Heal the Bay has long advocated against high flow suspension of objectives for fresh water as there are serious downstream human health impacts. In addition, it creates a confusing and inconsistent network of water quality standards in areas discharging to marine waters.

## V. Element V: Compliance Schedules and Interim Requirements

***Agree with State Board staff recommendation-Option 1***

## VI. Element VI: Calculation of Effluent Limits for POTWs

***Agree with State Board staff recommendation-Option 1***

## VII. Element VII: Mixing Zones for Point Sources

***Recommend Option 3, but would be ok will Option 1.*** Heal the Bay takes a strong stance on not allowing mixing zones as this is a slippery slope for water quality standards. How are mixing zones for bacteria decided upon? No statewide policy currently exists for mixing zones, thus it would be unjustified to have a statewide mixing zone bacteria objective at this time. Option 3-Do not allow mixing zones is most protective of REC 1 uses and we urge the State Board to pursue this option.

## VIII. Element VIII: Averaging Period to Determine Compliance

***Disagree with State Board staff recommendations-Option 3. Recommend Option 2.*** Using the geometric mean as a rolling average is most protective of human health in both fresh and marine waters. A rolling geometric mean calculation can track specific deviations and exceedances, giving a more accurate depiction of water quality. Staff recommendation, option 3, does not contain any specificity in regards to the averaging period. Thus, it would be inappropriate at this time to support an approach that does not contain any time periods or minimum sampling requirements.

## IX. Element IX: Effluent Monitoring and Reporting Frequency

***Recommend Option 2, but would be ok with Option 1.*** Establishing a minimum monitoring frequency for all dischargers would create statewide consistency and be most protective of REC 1 uses. We believe monitoring frequencies should correspond to discharge quality and origin; thus creating a monitoring framework that ensures bacteria monitoring frequencies correspond to discharge characteristic best protects human health and should be implemented. Regional Water Boards currently specify monitoring frequencies in permit requirements, however having a

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statewide policy would help streamline this process and relieve Regional Water Board's resource demands.

**X. Element X: Analytical Methods to Measure Bacteria Indicators**

***Agree with State Board staff recommendations-Option 1***

**XI. Element XI: Allow for Variance, Seasonal Suspension or Limited REC 1**

***Agree with State Board staff recommendation-Option 1***

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Thank you for this opportunity to provide comments at this time. If you have any questions please contact Peter Shellenbarger or James Alamillo at (310) 451-1500.

Sincerely,

Peter Shellenbarger, MESM
Water Resources Manager
Heal the Bay

James Alamillo
Urban Programs Manager
Heal the Bay