

California Regional Water Quality Control Board
Santa Ana Region

June 15, 2012

ITEM: 16

SUBJECT: Public Hearing – Basin Plan Amendments: Recreational Standards for Inland Surface Waters (continuation of March 16, 2012 and April 27, 2012 hearing on the proposed amendments) – Supplemental Staff Report

DISCUSSION:

At the March 16, 2012 Regional Board meeting, Board staff and a consultant to the Stormwater Quality Standards Task Force presented in detail the proposed recreation standards amendments to the Basin Plan. Consideration of approval of those amendments was postponed to allow further discussion with staff of the U.S. Environmental Protection Agency, Region 9 (USEPA) to resolve concerns expressed by USEPA.

At the April 27, 2012 Regional Board meeting, Board staff described the results of the discussion with USEPA and identified proposed changes to the amendments that were shown in an Errata Sheet (dated April 23, 2012). Additional comments on the proposed amendments were provided by Heal the Bay (oral comments) and USEPA (written comments dated April 25, 2012). Other speakers provided additional information regarding BMP implementation in the Region and certain clarifications to address comments from other parties on the Use Attainability Analysis components of the proposed amendments. These other speakers indicated their support for the proposed amendments. Regional Board staff provided the recommendation to approve the proposed amendments, as revised by the Errata sheet and with an additional change in the position of an asterisk in the name of the REC1 and REC2 beneficial uses. However, Regional Board consideration of the amendments, with the changes identified in the Errata Sheet and with the additional modification of the asterisk, was postponed due to the lack of a quorum.

Regional Board staff has prepared a revised Errata sheet to incorporate the change in the asterisk discussed at the April 27, 2012 meeting. Further, Board staff has prepared responses to the additional oral comments presented by Heal the Bay at the April 27, 2012 meeting, and to the April 25, 2012 written comments submitted by USEPA. The oral comments from Heal the Bay are summarized in the attached response to comments document. The USEPA written comments are attached to this report, together with Board staff's response.

RECOMMENDATION:

Board staff recommends that the Regional Board adopt Resolution No. R8-2012-0001, thereby:

- (1) Confirming the preliminary determination by Regional Board staff that the proposed amendments could not have a significant effect on the environment and certifying the environmental checklist and analysis document (Attachment C to the January 12, 2012 staff report); and,
- (2) Adopting the Basin Plan amendments delineated in Attachment 1 and Attachment 2 to Resolution No. R8-2012-0001, as modified by the Errata Sheet.

- Attachments:**
- (1) Errata Sheet (dated May 29, 2012)
 - (2) USEPA comments dated April 25, 2012
 - (3) Board staff responses to the USEPA comments dated April 25, 2012.
 - (4) Board staff responses to Heal the Bay oral comments, presented on April 27, 2012.

ITEM 16

Errata

Attachments 1 and 2 to Resolution No. R8-2012-0001

1. **Attachment 1 to Resolution No. R8-2012-0001, p. 2 of 76: Modify the text proposed to be added to CHAPTER 3 – BENEFICIAL USES, BENEFICIAL USES section. (Deleted text is in strikethrough type; added text is shown in bold italics.)**

In response to recommendations from the Stormwater Quality Standards Task Force, formed in response to the 2002 triennial review of the Basin Plan, changes to recreation water quality standards were approved by the Regional Board in 2012 (RWQCB Resolution No. R8-2012-0001). These modifications included ~~revision~~ ***the addition of “Primary Contact Recreation” as an alternative name for*** of the name of the REC1 beneficial use from “Water Contact Recreation” to “Primary Contact Recreation” (see BENEFICIAL USE DEFINITIONS, below) and ***added narrative clarifying the nature of REC1 activities and the bacteria objectives established to protect them.*** ~~a clearer definition of this use (see also RECREATION BENEFICIAL USES, below). , for further discussion of the changes in the REC1 definition.)~~ The changes also included differentiating inland surface REC1 waters on the basis of frequency of use and other characteristics for the purposes of assigning applicable single sample maximum values (see Chapter 5). The REC1/REC2 designations for specific inland surface waters were revised based on the results of completed Use Attainability Analyses (see RECREATION BENEFICIAL USES, below). Revised water quality objectives to protect the REC1 use of inland freshwaters were also approved (see Chapter 4), and criteria for temporary suspension of recreation use designations and objectives were identified (see RECREATION BENEFICIAL USES , below, and Chapter 5, Implementation, Recreation Water Quality Standards, *High Flow Suspension*). The 2012 Basin Plan revisions to incorporate the changes in recreation standards included the addition of certain waters to the list of the Region’s waters in Table 3-1 and the designation of beneficial uses for those waters. Where appropriate, the added waters were excepted from the MUN designation. Laguna and Lambert reservoirs, which no longer exist, were deleted from the list.

Attachment 2 to Resolution No. R8-2012-0001, p. 2 of 77: Modify the text proposed to be added to CHAPTER 3 – BENEFICIAL USES, BENEFICIAL USES section. (Deleted text is in strikethrough type; added text is shown in bold italics.)

In response to recommendations from the Stormwater Quality Standards Task Force, formed in response to the 2002 triennial review of the Basin Plan, changes to recreation water quality standards were approved by the Regional Board in 2012 (RWQCB Resolution No. R8-2012-0001). These modifications included ~~revision~~ ***the addition of “Primary Contact Recreation” as an alternative name for*** of the name of the REC1 beneficial use from “Water Contact Recreation” to “Primary Contact Recreation” (see BENEFICIAL USE DEFINITIONS, below) and ***added narrative clarifying the nature of***

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~~**REC1 activities and the bacteria objectives established to protect them**~~—a clearer definition of this use (see also RECREATION BENEFICIAL USES, below), for further discussion of the changes in the REC1 definition.) The changes also included differentiating inland surface REC1 waters on the basis of frequency of use and other characteristics for the purposes of assigning applicable single sample maximum values (see Chapter 5). The REC1/REC2 designations for specific inland surface waters were revised based on the results of completed Use Attainability Analyses (see RECREATION BENEFICIAL USES, below). Revised water quality objectives to protect the REC1 use of inland freshwaters were also approved (see Chapter 4), and criteria for temporary suspension of recreation use designations and objectives were identified (see RECREATION BENEFICIAL USES, below, and Chapter 5, Implementation, Recreation Water Quality Standards, *High Flow Suspension*). The 2012 Basin Plan revisions to incorporate the changes in recreation standards included the addition of certain waters to the list of the Region's waters in Table 3-1 and the designation of beneficial uses for those waters. Where appropriate, the added waters were excepted from the MUN designation. Laguna and Lambert reservoirs, which no longer exist, were deleted from the list.

2. **Attachment 1 to Resolution No. R8-2012-0001, p. 2-3 of 76, and Attachment 2 to Resolution No. R8-2012-0001, p.2 of 77, CHAPTER 3 – BENEFICIAL USES, BENEFICIAL USE DEFINITIONS, Water Contact Recreation (REC1*):**

- a. **Delete proposed revisions to the name and definition of the Water Contact Recreation (REC1*) beneficial use.**
- b. **Modify the name of the Water Contact Recreation (REC1*) beneficial use as follows: (added text is shown in bold italics):**

Water Contact Recreation (**REC1: *Primary Contact Recreation****)

3. **Add the following modification of the name of the Non-contact Water Recreation (REC2*) beneficial use (CHAPTER 3 – BENEFICIAL USES, BENEFICIAL USE DEFINITIONS) as follows: (added text is shown in bold italics)**

Non-contact Water Recreation (**REC2: *Secondary Contact Recreation****)

4. **Attachment 1 to Resolution No. R8-2012-0001, p. 3-4 of 76, and Attachment 2 to Resolution No. R8-2012-0001, p. 3 of 77, CHAPTER 3 – BENEFICIAL USES: revise the proposed section “RECREATION BENEFICIAL USES” as follows:**

- a. **Delete the first three proposed paragraphs in this section.**
- b. **Add the following text at the start of the proposed RECREATION BENEFICIAL USES section, preceding the paragraph that begins “Pursuant to the federal Clean Water Act and implementing regulation...”: (added text is shown in bold italics)**

As part of the work that led to the adoption of recreation standards amendments in 2012, the Stormwater Quality Standards Task Force considered the merits of and various alternatives for modifying the REC1 definition to improve clarity and precision. This was based on careful consideration of the scientific basis of the 1986 USEPA bacteria criteria for REC1 waters and earlier criteria guidance. Specifically, as discussed in the 1986 criteria document and other USEPA guidance and regulation (see, for example, USEPA 2004), USEPA's recommended bacteria quality criteria were intended to reduce the risk of waterborne illness to acceptable levels for those engaged in swimming or similar recreational activities where immersion and ingestion of water are likely. The Stormwater Quality Standards Task Force documentation, which essentially comprised the administrative record for the 2012 recreation standards amendments, includes a memorandum to the Task Force that was prepared by Camp Dresser and McKee, Inc. (CDM), one of the Task Force consultants ("Scientific Basis for EPA Recommended Water Quality Objectives for Bacteria", CDM, April 10, 2006). This memorandum discusses the scientific basis of the criteria, as well as that of the Basin Plan water quality objectives for fecal coliform in freshwaters that were replaced by the E. coli objective in the 2012 Basin Plan amendments. The administrative record also documents the extensive consideration of alternatives appropriate to clarify the REC1 definition to reflect the underlying scientific assumptions of the USEPA criteria, and expectations regarding the likelihood of immersion and ingestion.

In response to State Board staff comments that a consistent statewide definition for REC1 should be maintained absent statewide consideration of revisions to the definition, the specific recommendations developed by the Task Force for refining the definition of that use were not included in the recreation standards amendments adopted by the Regional Board in 2012. These Task Force recommendations should be considered on a statewide basis. Until such time as such statewide consideration occurs, it was thought sufficient for the purposes of the 2012 amendments to add reference to "primary contact recreation" in the name of the REC1 use (see BENEFICIAL USE DEFINITIONS) and to incorporate the following clarifying discussion.

USEPA has provided explicit direction regarding the types of recreational activities to which the USEPA bacteria guidance should be applied. Specifically, USEPA's 1986 criteria (and prior bacteria criteria guidance) are intended for "Bathing (Full Body Contact) Recreational Waters". The 1986 criteria document states:

"In 1986, EPA published Ambient Water Quality Criteria for Bacteria-1986. This document contains EPA's current recommended water quality criteria for bacteria to protect people from gastrointestinal illness in recreational waters, i.e. waters designated for primary contact recreation or similar full body contact uses. States and Territories typically define primary contact recreation to encompass recreational activities that could be expected to result in the ingestion of, or immersion in, water, such as swimming, water skiing, surfing, kayaking or any other recreational activity where ingestion of, or immersion in, the water is likely."

As defined statewide, the REC1 use includes recreational activities involving body contact with water where ingestion of water is reasonably possible including, but not limited to: swimming, wading, water-skiing, skin and scuba diving, surfing, whitewater activities, fishing and use of natural hot springs.

The Regional Board has always considered the REC1 designation as functionally equivalent to USEPA's description of primary contact recreation. In practice, the phrase "reasonably possible" is synonymous with the term "likely" when evaluating the probability of ingestion when persons swim or engage in similar body contact recreation. To reflect this, reference to "primary contact recreation" in the REC1 nomenclature was incorporated as part of the 2012 recreation standards amendments, as noted above.

USEPA's rule promulgating E. coli objectives for recreational freshwaters in certain Great Lakes states (USEPA 2004, p. 67222) provides that the pathogen indicator objectives apply "only to those waters designated by a State or Territory for swimming, bathing, surfing or similar water contact recreation activities, not to waters designated for uses that only involve incidental contact." USEPA defines this "secondary contact" recreation as "those activities where most participants would have very little direct contact with the water and where ingestion of water is unlikely. Secondary contact activities may include wading, canoeing, motor boating, fishing, etc." (USEPA 2002, p. 39).

The Basin Plan definition of the REC 2 beneficial use is functionally-equivalent to that described by USEPA as "Secondary Contact Recreation." Therefore, the 2012 recreation standards amendments added "Secondary Contact Recreation" to the REC2 nomenclature (see BENEFICIAL USE DEFINITIONS). The Regional Board will rely on federal regulation and guidance to determine which waterbodies should be designated REC 2. Relatively brief incidental or accidental water contact that is limited primarily to the body extremities (e.g., hands or feet) is generally deemed REC 2 because ingestion is not considered reasonably possible.

Some confusion may arise as to whether wading and fishing should be considered primary contact recreation (REC1) activities or secondary contact recreation (REC2) activities. Wading and fishing cover a multitude of activities involving a wide range of potential water contact. To avoid misapplication of the E. coli objectives, it is important to apply USEPA's recommended criteria for primary contact recreation only where ingestion of water is reasonably possible. For example, fly-fishing in the middle of a stream or fishing from a float tube would be considered REC-1 activities as it is likely that the person fishing may ingest water. On the other hand, fishing from a riverbank or lake dock is more appropriately deemed REC-2 activity because ingestion, while conceivable, is not considered reasonably possible. Similarly, walking beside or crossing through a shallow creek and getting ones feet wet is also not considered water contact

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recreation (REC-1.) This activity is more akin to beachcombing, a recognized "non-contact recreation" (or REC-2) activity. It is not reasonably possible to ingest appreciable quantities of water by merely touching or being splashed by the water. The E. coli objectives established in this Basin Plan are not intended or needed to protect this and similar incidental contact. However, a child sitting in the middle of a low flow creek playing in the water represents the sort of activity that is encompassed by the REC-1 use designation. The Basin Plan E. coli objectives properly apply to this type of activity. (State Board staff spoke to and confirmed these views in a message to Regional Board staff on April 12, 2012. This message is part of the administrative record for the recreation standards amendments approved in 2012.)

The Regional Board's longstanding approach to determining appropriate recreational use classifications is entirely consistent with federal guidance. A review of historical records indicates that USEPA relied heavily on pre-existing definitions to describe primary and secondary contact recreation:

"The Subcommittee defines primary contact recreation as activities in which there is prolonged and intimate contact with the water involving considerable risk of ingesting water in quantities sufficient to pose a significant health hazard. Examples include wading and dabbling by children, swimming, diving, water skiing, and surfing. Secondary contact sports include those in which contact with the water is either incidental or accidental and the probability of ingesting appreciable quantities of water is minimal." ("Report of the Committee on Water Quality Criteria" (aka "Green Book"), US Department of Interior, Federal Water Pollution Control Administration, 1968, p. 11)

In summary, some forms of wading and fishing are considered REC-1 because immersion is likely and ingestion is reasonably possible. Other forms of wading and fishing, involving only limited incidental or accidental water contact (primarily to hands and feet) are considered REC-2 because immersion is unlikely and ingestion is not reasonably possible.

Acknowledging that California's REC1 definition has always been considered synonymous with the federal definition of Primary Contact Recreation ensures that the E. coli objective, adopted as part of the 2012 recreation standards amendments, is applied in a manner that is neither more nor less stringent than the federal Clean Water Act requires.

- 5. Attachment 1 to Resolution No. R8-2012-0001, p. 6 of 76 and Attachment 2 to Resolution No. R8-2012-0001, p. 6 of 77: add the following references:**

United States Department of Interior. Federal Water Pollution Control Administration. Report of the Committee on Water Quality Criteria (aka "Green Book"). 1968.

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United States Environmental Protection Agency. "Implementation Guidance for Ambient Water Quality Criteria for Bacteria [Draft]. May 2002.

6. **Attachments 1 and 2 to Resolution No. R8-2012-0001: Table 3-1 BENEFICIAL USES, p. 25 and p. 27: Change the proposed MUN designation for Goodhart Canyon, St. John's Canyon and Cactus Valley Creeks (all listed on p. 25) and Mystic Lake (listed on p. 27) from "+" to "I".**
7. **Attachment 1 to Resolution No. R8-2012-0001: CHAPTER 4 WATER QUALITY OBJECTIVES, Pathogen Indicator Bacteria, Bays and Estuaries, REC-1, p. 35-36: delete the last sentence of the Note, as shown (deleted sentence in strikeout-type):**

Note: The USEPA promulgated enterococci criteria for coastal recreation waters, including enclosed bays and estuaries, in 2004 (40 CFR 131.41). The established geometric mean enterococci value is 35/100mL. No averaging period was specified, leaving that determination to the state's discretion. USEPA also identified single sample maximum enterococci values, which vary based on the frequency of use of the REC1 waters. The Regional Board intends to consider a Basin Plan amendment in the future to formally recognize the enterococci criteria established for enclosed bays and estuaries, to define an appropriate averaging period for the application of the geometric mean criterion, and to define appropriate application of the single sample maximum values to varying areas within enclosed bays and estuaries in the Region. Until the Basin Plan amendment process is completed, the Regional Board will implement the USEPA enterococci criteria for coastal recreation waters on a best professional judgment basis, with full opportunity for public participation and comment.

- Attachment 2 to Resolution No. R8-2012-0001: CHAPTER 4 WATER QUALITY OBJECTIVES, Pathogen Indicator Bacteria, Bays and Estuaries, REC-1, p. 35: delete the last sentence of the Note, as shown (deleted sentence in strikeout-type):**

Note: The USEPA promulgated enterococci criteria for coastal recreation waters, including enclosed bays and estuaries, in 2004 (40 CFR 131.41). The established geometric mean enterococci value is 35/100mL. No averaging period was specified, leaving that determination to the state's discretion. USEPA also identified single sample maximum enterococci values, which vary based on the frequency of use of the REC1 waters. The Regional Board intends to consider a Basin Plan amendment in the future to formally recognize the enterococci criteria established for enclosed bays and estuaries, to define an appropriate averaging period for the application of the geometric mean criterion, and to define appropriate application of the single sample maximum values to varying areas within enclosed bays and estuaries in the Region. Until the Basin Plan amendment process is completed, the Regional Board will implement the USEPA enterococci criteria for coastal recreation waters on a

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best professional judgment basis, with full opportunity for public participation and comment.

8. Attachment 1 to Resolution No. R8-2012-0001: Recreation Water Quality Standards, p. 53 of 76: modify the second proposed paragraph as follows: (deleted text is shown in strike-out type; added text is shown in bold italics)

In 2012, the Regional Board adopted changes to the recreation standards, based on the work and recommendations of the Stormwater Quality Standards Task Force (Resolution No. R8-2012-0001). These changes included revised bacteria quality objectives applicable to freshwaters (see Chapter 4), ~~and~~ **and** changes to the recreation use designations for specific fresh waters, ~~and clarification of the definition of REC1 (see Chapter 3).~~ Specific implementation strategies pertaining to the revised standards for freshwaters were also approved. This section describes those implementation strategies, which include the following:

Attachment 2 to Resolution No. R8-2012-0001: Recreation Water Quality Standards, p. 52 of 77: modify the second proposed paragraph as follows: (deleted text is shown in strike-out type; added text is shown in bold italics)

In 2012, the Regional Board adopted changes to the recreation standards, based on the work and recommendations of the Stormwater Quality Standards Task Force (Resolution No. R8-2012-0001). These changes included revised bacteria quality objectives applicable to freshwaters (see Chapter 4), ~~and~~ **and** changes to the recreation use designations for specific fresh waters, ~~and clarification of the definition of REC1 (see Chapter 3).~~ Specific implementation strategies pertaining to the revised standards for freshwaters were also approved. This section describes those implementation strategies, which include the following:

9. Attachment 1 to Resolution No. R8-2012-0001: *Application of Single Sample Maximum values in REC1 freshwaters*, p. 55 of 76: revise the following paragraph as shown in bold italics:

Tier A, B, C and D waters are listed in Table 5-REC1-Tiers. Table 5-REC1-Tiers includes a "Comments" column that provides information regarding factors considered in making Tier assignments. An additional, *qualifying* notation, "N", is also included in this table for certain waters ***assigned to Tier A, B, C or D based on the known or anticipated frequency of use***. It is recognized that there are waters within the Region that are in undeveloped areas and are expected to have low natural bacteria levels. While use of these waters for primary contact recreation may or may not occur or may be limited due to difficulties in access, channel characteristics, flow conditions and the like, ***as reflected in the Tier assignments***, it is also necessary and appropriate to assure the protection of the high quality of these waters. Accordingly, these "***N***" ***listed*** waters are assigned Single Sample Maximum values using the 75% confidence factor in the calculation, which is the same approach utilized with Tier A, heavily-used waters. "N" listed waters are defined as follows:

Attachment 2 to Resolution No. R8-2012-0001: *Application of Single Sample Maximum values in REC1 freshwaters*, p. 54 of 76: revise the following paragraph as shown in italics:

Tier A, B, C and D waters are listed in Table 5-REC1-Tiers. Table 5-REC1-Tiers includes a "Comments" column that provides information regarding factors considered in making Tier assignments. An additional, *qualifying* notation, "N", is also included in this table for certain waters *assigned to Tier A, B, C or D based on the known or anticipated frequency of use*. It is recognized that there are waters within the Region that are in undeveloped areas and are expected to have low natural bacteria levels. While use of these waters for primary contact recreation may or may not occur or may be limited due to difficulties in access, channel characteristics, flow conditions and the like, *as reflected in the Tier assignments*, it is also necessary and appropriate to assure the protection of the high quality of these waters. Accordingly, these "*N*" listed waters are assigned Single Sample Maximum values using the 75% confidence factor in the calculation, which is the same approach utilized with Tier A, heavily-used waters. "N" listed waters are defined as follows:

10. Attachments 1 and 2 to Resolution No. R8-2012-0001, Table 5-REC1-Tiers, p. 56-62:

Make the following modifications:

- a. Add the new table notation symbol "x" at the end of the title of the table (**Table 5-REC1-Tiers**) on each page of the table.
- b. Move the text shown in table notes 1 and 4 to "x" and remove the numbering.
- c. Re-number the other existing table notes.
- d. Revise the text in the new table note "x" describing N waters as follows: (deleted text is shown in strikethrough type; added text is underlined)

Natural (N) refers to a natural or pristine conditions waters, typically in largely natural condition, that are expected to have good ambient bacterial quality. Natural-N waters will be assigned SSMs based on the 75% confidence level, like Tier A waters, even if designated Tier B, C or D based on the intensity of REC1 use.

- e. Change "n" to "N" where "n" appears in this table.

These changes are shown in the revised Table 5-REC1-Tiers attached at the end of this errata sheet. (Since this table has multiple pages, only the underline/strikethrough version is attached for simplicity. These changes will be reflected also in the "clean" version (Attachment 2 to Resolution No. R8-2012-0001)).

11. Attachments 1 and 2 to Resolution No. R8-2012-0001, *Application of Single Sample Maximum Values in REC1 freshwaters*, p. 63: remove second paragraph, as shown (deleted text is shown in strike-out type):

~~This Basin Plan attempts to list and designate appropriate recreation (and other) beneficial uses for all the significant inland freshwater bodies in the Region. The Clean Water Act and implementing federal regulations establish the rebuttable presumption that all surface waters are REC1. While surface water bodies in the Region that are not listed in the Basin Plan will be considered REC1 unless and until demonstrated to be otherwise through a Use~~

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Attainability Analysis, there is no requisite presumption that all such waters belong to any specific REC1 Tier. Until formal consideration, through the Basin Planning process, of the appropriate Tier for any unlisted inland freshwater bodies in the Region is provided, the Regional Board will employ discretion based on its knowledge of those waters and information provided by interested parties to determine the appropriate Tier for those water bodies for regulatory purposes.

12. Attachments 1 and 2 to Resolution No. R8-2012-0001, p.65, Table 5-REC1-ssv “Alternative Method for Assessing Probable Compliance with the *E. coli* Objective in Freshwaters Designated REC1 when Insufficient Data are Available to Calculate a Geometric Mean”: Revise the symbol in the column header “Maximum Expected Single Value for *E. coli*...” from “>” to “=”.
13. Attachment 1 to Resolution No. R8-2012-0001, *High Flow suspension of recreation standards*, p. 70-71: revise the text as follows: (added text is shown in bold italics)(Only the underline-strikeout version of the text is shown, for simplicity. The changes shown will also be included in the “clean” version of the amendments (Attachment 2 to Resolution No. R8-2012-0001))
- a. **Second paragraph, first two sentences:**
These hazards are exacerbated in urban streams that have been engineered or **heavily** modified to provide essential flood protection during and immediately following storm events. Channel straightening, bank stabilization, **substantial** vegetation removal and flow diversions are all intended to convey stormwater runoff to a suitable discharge location as rapidly as possible while minimizing the risk of flooding and erosion.
 - b. **Third paragraph:**
This Plan recognizes these circumstances and specifies that the recreational use designations (REC1 and REC2), the narrative pathogen objective and the numeric pathogen indicator objectives shown in Table 4-pio are temporarily suspended when high flows preclude safe recreation in or near freshwater stream channels that have been engineered, **heavily** modified or maintained to serve as temporary flood control facilities. Temporary suspensions of recreation standards do not apply to freshwater lakes, ocean beaches or enclosed bays or estuaries.
 - c. **Paragraph “Definition of Unsafe Flows”, first paragraph:**
Flow conditions in freshwater streams in the Santa Ana watershed are presumptively unsafe if either of the following conditions occurs: (1) stream velocity is greater than 8 feet-per-second (fps); or, (2) the product of stream depth (feet) and stream velocity (fps) (the depth-velocity product) is greater than 10 ft²/s*. Where representative stream gauge data are not available, unsafe flows are presumed to exist in stream channels that have been engineered or **heavily** modified for flood control purposes when rainfall in the area tributary to the stream is greater than or equal to 0.5 inches in 24 hours. Rainfall measurements may be estimated using gauges, Doppler radar data, or other scientifically defensible methods.

* *The depth-velocity product criterion is not intended to apply to normal dry weather flows contained within low-flow pilot channels within engineered or heavily modified channels.*

- d. Paragraph “Definition of Engineered or Modified Channels, Modify paragraph as follows:

Definition of Engineered or *Heavily Modified Channels.* The temporary suspension of recreational uses and related water quality objectives during unsafe flow conditions applies only to streams that have been engineered or *heavily modified* to enhance flood control protection. Engineered streams include all man-made flood control facilities with a box-shaped, V-shaped or trapezoidal configuration that have been lined on the side(s) and/or bottom with concrete or similar channel-hardening materials. *Heavily modified* channels include once natural streams that have been *substantially* re-engineered, using levees, bank stabilization (rip-rap), channel straightening, vegetation removal and other similar practices, to facilitate rapid evacuation of increased urban runoff during storm events.

- e. Paragraph “Delineation of Engineered or Modified Channels”, add second paragraph as follows: (added text is shown in italics)

Delineation of Engineered or Modified Channels. The very large number of engineered and modified flood control facilities in the Santa Ana Region makes it difficult to identify all such channels individually by name. Therefore, Appendix VIII provides maps of the waterbody segments that have been engineered or modified in the manner described above and that, therefore, qualify for the temporary suspension of recreational standards under specific high flow conditions. Appendix IX contains ArcGIS files that identify each of these same waterbodies in a more precise, high-resolution format. The engineered flood control channels identified in these Appendices will be updated annually via the annual report submitted by the MS4 permittees for each county in the Region. Additions or deletions to the list of waters identified in these Appendices will also be considered during the triennial review process or on a case-by-case basis upon request by an interested party to do so. Any such request must be supported by substantial evidence. Appendix VIII and Appendix IX can be viewed at the Regional Board’s website:

http://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/rec_s_tandards/BPA_REC_Standards_Staff_Rpt_AttA_AppVIII.pdf, and

http://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/rec_s_tandards/BPA_REC_Standards_Staff_Rpt_AttA_AppIX.zip.

It is important to recognize that while these channels have been engineered or modified for flood control purposes, these changes do not necessarily preclude the support of habitat in and adjacent to the channels, or the use of that habitat by aquatic, avian and terrestrial wildlife. There may be opportunities for habitat and/or species restoration projects in or adjacent to

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these channels. The temporary suspension of recreation standards in these channels would have no effect on the ability to implement such projects.

14. Attachment 1 to Resolution No. R8-2012-0001, p. 67- 68, *Antidegradation targets for REC2 only freshwaters*: revise text and tables to reflect that the antidegradation targets will be based on the upper 75th percentile, rather than the upper 95th percentile, as shown below (deleted text is struck out; added text is shown in bold italics. Numeric values in the tables are revised accordingly.) (Only the underline/strike-out version of the revised section is shown, in its entirety, for simplicity. The changes shown will be incorporated also in the “clean” version of the proposed amendments presented in Attachment 2 to Resolution No. R8-2012-0001, p. 67-68, *Antidegradation targets for REC2 only freshwaters*.)

Antidegradation targets for REC2 only freshwaters

As discussed in Chapter 4 (Pathogen Indicator Bacteria, *REC2 Only Freshwaters*), this Plan does not specify bacteria quality objectives for freshwaters designated REC2 only. However, it is appropriate to take steps to assure that bacteria quality conditions in these waters do not degrade as the result of controllable water quality factors, consistent with antidegradation policy requirements.

For waters designated REC2 only pursuant to approved Use Attainability Analyses (UAAs; see discussion in Chapter 3 and Table 3-1), bacteria quality targets will be calculated and used to provide a baseline for expected water quality conditions in these waters. If future monitoring provides credible evidence that these targets are being exceeded and that quality conditions may have declined, then additional monitoring and investigation will be initiated and corrective action taken if and as appropriate. Requirements pertaining to monitoring and follow-up investigation and action are identified below (*Monitoring Plan for Pathogen Indicator Bacteria in Freshwaters*).

The baseline condition (antidegradation target) for each REC2 only water will be established through a comprehensive statistical analysis of ambient bacteria quality data that is conducted as part of the UAA used to justify the REC2 only designation. The statistical analysis must be designed to characterize the entire distribution of the dataset. This includes determination of the **geometric** mean, median, standard deviation, coefficient-of-variation, maximum value, upper ~~75th~~ ~~95th~~ percentile value and sample size for the dataset. The upper ~~75th~~ ~~95th~~ percentile density will serve as the antidegradation target, that is, the trigger threshold for further investigation and possible corrective action. As new data become available pursuant to requisite monitoring, they will be compared to this antidegradation target to determine whether further investigation or action is needed. The additional monitoring results must be sufficiently robust to assess whether a lowering of water quality has occurred.

In general, the following method will be used to estimate the upper ~~75th~~ ~~95th~~ percentile densities:

- Step 1) Log-transform the existing data
- Step 2) Calculate the mean of the log-transformed data
- Step 3) Calculate the standard deviation of the log-transformed data
- Step 4) Multiply the standard deviation of log-transformed data by **0.675** ~~1.65~~
- Step 5) Add result from Step 4 to the mean value calculated in Step 2
- Step 6) Calculate the anti-log for the value derived in Step 5; this is the **75th** ~~95%~~ Upper Confidence Level.

Using the **75th** ~~95th~~ percentile to assess water quality trends and as a trigger for further monitoring is conceptually similar to U.S. EPA's recommended approach for using Single Sample Maximums (see *Application of Single Sample Maximum values in REC1 freshwaters*, above), and to the approach used to characterize ambient TDS and nitrogen quality in the groundwater management zones throughout the Santa Ana Region (see Chapter 4, Management Zone TDS and Nitrate-nitrogen Water Quality Objectives).

Where **75%** ~~95%~~ of the new data is less than or equal to the antidegradation target, no degradation will be inferred. However, if more than **25%** ~~5%~~ of the samples exceed the target, additional samples must be collected and analyzed to determine whether the elevated values ~~is an anomaly~~ **are anomalous** (verified by formal outlier analysis) or if **there is** ~~it~~ indicates a true trend toward water quality degradation.

Use Attainability Analyses have been completed to justify the designation as REC2- only the specific freshwater stream segments listed in Table 5-REC2 Only Targets-FW. For each of these waters, this Table shows the antidegradation indicator bacteria targets, based on the **75%** ~~95%~~ upper confidence level of data obtained as part of the UAAs:

Table 5-REC2 Only Targets-FW¹

<u>REC2 Only Waterbody</u>	<u><i>E. coli</i> Densities (cfu/100 mL)</u>				
	<u>Geometric Mean</u>	<u>Std. Dev.</u>	<u>N</u>	<u>Max. Observed</u>	<u>75 95% UCL³</u>
<u>Temescal Creek, Reach 1b</u>	<u>198</u>	<u>34</u>	<u>119</u>	<u>9,200²</u>	<u>374 933</u>
<u>Santa Ana Delhi Channel, Reach 2</u>	<u>448</u>	<u>110</u>	<u>63</u>	<u>12,590</u>	<u>1231 5,269</u>

UCL= Upper Confidence Level; **75 95% upper confidence level is the antidegradation target.**

¹ CDM, Inc. Technical Memorandum. Calculation of Antidegradation Targets for REC2 Only Freshwaters. December 30, 2011. **April 24, 2012.**

² A value of 1,800,000 cfu/100 mL, from the sample collected on 9/8/2007, was excluded as an outlier.

³ **Targets calculated for dry weather baseflow conditions only; do not apply to samples collected during wet weather conditions.**

Use Attainability Analyses have also been completed for two tidal prisms (Santa Ana Delhi and Greenville-Banning channels). Antidegradation targets for these waters, though not freshwater bodies, are shown in Table 5-REC2 Only Targets-Other Waters, below.

Table 5-REC2 Only Targets- Other Waters¹

<u>REC2 Only Waterbody</u>	<u>Enterococcus Densities (cfu/100 mL)</u>				
	<u>Geometric Mean</u>	<u>Std. Dev.</u>	<u>N</u>	<u>Max. Observed</u>	<u>75% 95% UCL²</u>
<u>Greenville-Banning Channel, Tidal Prism</u>	<u>44 116</u>	<u>2041</u>	<u>116108</u>	<u>22,000</u>	<u>133 660</u>
<u>Santa Ana-Delhi Channel, Tidal Prism</u>	<u>4391900</u>	<u>4852</u>	<u>65</u>	<u>28,600</u>	<u>1320 6466</u>

UCL= Upper Confidence Level; 75% 95% upper confidence level is the antidegradation target

¹ California Regional Water Quality Control Board, Santa Ana Region. Memorandum prepared by David Woelfel. Calculation of Antidegradation Targets for REC2 Only Waters-Tidal Prisms. December 30, 2011-April 24, 2012.

² Targets calculated for dry weather baseflow conditions only; do not apply to samples collected during wet weather conditions.

15. Attachment 1 (p. 76) and Attachment 2 (p. 77) to Resolution No. R8-2012-0001, Revise the date for two references (#34 and 35) proposed to be added to Chapter 5 from December 30, 2011 to April 24, 2012.

(Revised) Table 5- REC 1-Tiers^x

<u>INLAND SURFACE STREAMS</u>	<u>TIER A, B, C, OR D</u>	<u>Rationale for Tier Assignment</u>
<u>LOWER SANTA ANA RIVER</u>		
<u>Santa Ana River</u>		
<u>Reach 1</u>	<u>D</u>	<u>Intermittent, low flow¹ limited access²</u>
<u>Reach 2</u>	<u>C</u>	<u>Low flows, limited access</u>
<u>Aliso Creek</u>	<u>D (N)</u>	<u>Natural condition, limited access</u>
<u>Carbon Canyon Creek</u>	<u>D</u>	<u>Low, intermittent flow, limited access</u>
<u>Santiago Creek Drainage</u>		
<u>Santiago Creek</u>		
<u>Reach 1</u>	<u>D</u>	<u>Intermittent flow</u>
<u>Reach 2 – Irvine Lake (see Lakes)</u>		
<u>Reach 3 -</u>	<u>D (N)</u>	<u>Low flow</u>
<u>Reach 4 -</u>	<u>D (N)</u>	<u>Low flow</u>
<u>Silverado Creek</u>	<u>D (N)</u>	<u>Low flow</u>
<u>Black Star Creek</u>	<u>D (N)</u>	<u>Low flow</u>
<u>Ladd Creek</u>	<u>D (N)</u>	<u>Low flow, limited access</u>
<u>San Diego Creek Drainage</u>		
<u>San Diego Creek</u>		
<u>Reach 1</u>	<u>C</u>	<u>Low flow, no observed REC1 use³; however fishing and children observed near water</u>
<u>Reach 2</u>	<u>D</u>	<u>Low flow, limited access</u>
<u>Tributaries: Bonita Creek, Serrano Creek, Peters Canyon Wash, Hicks Canyon Wash, Bee Canyon Wash, Borrego Canyon Wash, Agua Chinon Wash, Laguna Canyon Wash, Rattlesnake Canyon, Sand Canyon Wash and other tributaries to these creeks.</u>	<u>D</u>	<u>Low flow, limited access</u>
<u>San Gabriel River Drainage</u>		
<u>Coyote Creek</u>	<u>D</u>	<u>Low flow/access prohibited</u>
<u>Upper Santa Ana River</u>		

^x Tiers based on USEPA’s “Ambient Water Quality Criteria for Bacteria – 1986” and “Water Quality Standards for Coastal and Great Lakes Recreation Waters, Final Rule” (40 CFR 131.41), November 2004. Natural (N) refers to waters, typically in largely natural condition, that are expected to have good ambient bacterial quality. N waters will be assigned SSMs based on the 75% confidence level, like Tier A waters, even if designated Tier B, C or D based on the intensity of REC1 use.

¹ Low, intermittent or ephemeral flows limit opportunity for REC1 use.

² Access limited or precluded by prohibitions by agency/party with jurisdiction and/or physical constraints (fencing and signage, riprap/concrete/natural steep slopes, impenetrable vegetation in/adjacent to the fresh water body, remote location, and the like).

³ Photographic survey showed no REC1 use. (See CDM Recreation Use Survey Reports)

Table 5- REC 1-Tiers^X (Continued)

<u>INLAND SURFACE STREAMS</u>	<u>Tier A, B, C, OR D</u>	<u>Rationale for Tier Assignment</u>
<u>Reach 3</u>	A	<u>High use, wading and soaking, Reference condition for Tier A waters</u>
<u>Reach 4</u>	B	<u>Access restricted, some water contact REC use observed</u>
<u>Reach 5</u>	D	<u>Low/intermittent flow</u>
<u>Reach 6</u>	B (N)	<u>Natural condition, fishing stream</u>
<u>San Bernardino Mountain Streams</u>		
<u>Mill Creek Drainage</u>		
<u>Mill Creek</u>		
<u>Reach 1</u>	A	<u>High use, wading and soaking</u>
<u>Reach 2</u>	A (N)	<u>Natural condition, wading and soaking</u>
<u>Mountain Home Creek</u>	D (N)	<u>Natural condition, infrequent water contact REC use</u>
<u>Mountain Home Creek, East Fork</u>	D (N)	<u>Natural condition, remote</u>
<u>Monkeyface Creek</u>	D (N)	<u>Natural condition, remote/low flow, light to infrequent water contact REC use</u>
<u>Alger Creek</u>	D (N)	
<u>Falls Creek</u>	D (N)	
<u>Vivan Creek</u>	D (N)	
<u>High Creek</u>	D (N)	
<u>Other Tributaries: Lost, Oak, Cove, Green, Skinner, Hatchery, Rattlesnake, Slide, Snow, Bridal Veil, and Oak Creeks and tributaries to these Creeks</u>	D (N)	
<u>Bear Creek Drainage</u>	C (N)	
<u>Bear Creek</u>		
<u>Siberia Creek</u>		
<u>Slide Creek</u>		
<u>Johnson Creek</u>		
<u>All other tributaries to these Creeks</u>		
<u>Big Bear Lake Tributaries</u>		
<u>North Creek</u>	D (N)	<u>Natural condition/low flows, infrequent water contact REC activities</u>
<u>Metcalf Creek</u>		
<u>Grout Creek</u>		
<u>Rathbone Creek</u>		
<u>Meadow Creek</u>		
<u>Summit Creek</u>		
<u>Knickerbocker Creek /Reach 1</u>	D	<u>Access prohibited, low flow, no REC 1 use observed⁴</u>
<u>Reach 2</u>	D (N)	<u>Natural condition, low flow</u>
<u>Other tributaries: Minnelusa Canyon, Poligue, Red Ant Creeks and Tributaries to these Creeks</u>	D (N)	<u>Natural condition, low flow</u>

^X Tiers based on USEPA's "Ambient Water Quality Criteria for Bacteria – 1986" and "Water Quality Standards for Coastal and Great Lakes Recreation Waters, Final Rule" (40 CFR 131.41), November 2004. Natural (N) refers to waters, typically in largely natural condition, that are expected to have good ambient bacterial quality. N waters will be assigned SSMs based on the 75% confidence level, like Tier A waters, even if designated Tier B, C or D based on the intensity of REC1 use.

⁴ Photographic survey for one year period showed no REC1 use.

Attachments 1 and 2 to Resolution No. R8-2012-0001

Table 5- REC 1-Tiers^X
(Continued)

<u>INLAND SURFACE STREAMS</u>	<u>Tier A, B, C, OR D</u>	<u>Rationale for Tier Assignment</u>
<u>Other Tributaries to Baldwin Lake: Sawmill, Green, and Caribou Canyon Creeks and other Tributaries to these Creeks</u>	<u>D (N)</u>	<u>Natural condition, low flow, remote</u>
<u>Other Streams Draining to Santa Ana River (Mountain Reaches)</u>		
<u>Cajon Canyon Creek</u>	<u>C (N)</u>	<u>Natural condition, low flow</u>
<u>City Creek</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>Devil Canyon Creek</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>East Twin and Strawberry Creeks</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>Waterman Canyon Creek</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>Fish Creek</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>Forsee Creek</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>Plunge Creek</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>Barton Creek</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>Bailey Creek</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>Kimbark Canyon, East Fork Kimbark Canyon, Ames Canyon and West Fork Cable Canyon Creeks</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>Valley Reaches of Above Streams</u>	<u>D (N)</u>	<u>Natural condition, low, flow, limited access</u>
<u>Other Tributaries (Mountain Reaches): Alder, Badger Canyon, Bledsoe Gulch, Borea Canyon, Breakneck, Cable Canyon, Cienaga Seca, Cold, Converse, Coon, Crystal, Deer, elder, Fredalba, Frog, Government, Hamilton, Heart Bar, Hemlock, Keller, Kilpecker, Little Mill, Little Sand Canyon, Lost, Meyer Canyon, Mile, Monroe Canyon, Oak, Rattlesnake, Round Cienaga, Sand, Schneider, Staircase, Warm Springs Canyon and Wild Horse Creeks, and other tributaries to those Creeks.</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>San Gabriel Mountain Streams</u>		
<u>San Antonio Creek</u>	<u>A (N)</u>	<u>Natural condition, wading and soaking in summer months</u>

^X Tiers based on USEPA's "Ambient Water Quality Criteria for Bacteria – 1986" and "Water Quality Standards for Coastal and Great Lakes Recreation Waters, Final Rule" (40 CFR 131.41), November 2004. Natural (N) refers to waters, typically in largely natural condition, that are expected to have good ambient bacterial quality. N waters will be assigned SSMs based on the 75% confidence level, like Tier A waters, even if designated Tier B, C or D based on the intensity of REC1 use.

Attachments 1 and 2 to Resolution No. R8-2012-0001

Table 5- REC 1-Tiers^x
(Continued)

<u>INLAND SURFACE STREAMS</u>	<u>Tier A, B, C, OR D</u>	<u>Rationale for Tier Assignment</u>
<u>Lytle Creek (Middle and North Forks)</u>	<u>A (N)</u>	<u>Natural condition, wading and soaking in summer months, fishing streams</u>
<u>Tributaries to Lytle Creek (South Fork and Coldwater Canyon Creek)</u>	<u>D (N)</u>	<u>Natural condition, low flow</u>
<u>Day Canyon Creek</u>	<u>D (N)</u>	<u>Natural condition, low flow, remote, limited access</u>
<u>East Etiwanda Creek</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>Valley Reaches of Above Streams</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access</u>
<u>Cucamonga Creek / Reach 2 (Mountain Reach) – 23rd St. in Upland to headwaters</u>	<u>B (N)</u>	<u>Natural condition, limited access</u>
<u>Mill Creek (Prado Area)</u>	<u>C</u>	<u>limited access, low flow</u>
<u>Other Tributaries (Mountain Reaches) San Sevaine, Deer Canyon, Duncan Canyon, Henderson Canyon, Bull, Fan, Demens, Thorpe, Angalls, Telegraph Canyon, Stoddard Canyon, Icehouse Canyon, Cascade Canyon, Cedar, Falling Rock, Kerkhoff, and Cherry Creeks and other Tributaries to these Creeks</u>	<u>C (N)</u>	<u>Natural condition, low flow, limited access, most creeks in remote areas</u>
<u>Valley Reaches of Above Streams</u>	<u>D</u>	<u>Low flow, limited access</u>
<u>San Timoteo Creek</u>		
<u>Reach 1A – Santa Ana River Confluence to Barton Road</u>	<u>D</u>	<u>Low flow, limited access</u>
<u>Reach 1B – Barton Road to Gage at San Timoteo Canyon Rd.</u>	<u>D</u>	<u>Low flow, limited access</u>
<u>Reach 2 – gage at San Timoteo to confluence with Yucaipa Creek</u>	<u>C</u>	<u>Low flow, limited access</u>
<u>Reach 3 – Confluence with Yucaipa Creek to confluence with little San Gorgonio and Noble Creeks</u>	<u>C</u>	<u>Low flow, limited access</u>
<u>Oak Glen, Potato Canyon, and Birch Creeks</u>	<u>D (N)</u>	<u>Natural condition, low flow, limited access</u>
<u>Little San Gorgonio Creeks</u>	<u>C (N)</u>	<u>Natural condition, low flow, limited access, remote</u>
<u>Yucaipa Creek</u>	<u>D</u>	<u>Low flow, limited access</u>
<u>Other Tributaries to these Creeks- Valley Reaches</u>	<u>D</u>	<u>Low flow, limited access</u>

^x Tiers based on USEPA's "Ambient Water Quality Criteria for Bacteria – 1986" and "Water Quality Standards for Coastal and Great Lakes Recreation Waters, Final Rule" (40 CFR 131.41), November 2004. Natural (N) refers to waters, typically in largely natural condition, that are expected to have good ambient bacterial quality. N waters will be assigned SSMs based on the 75% confidence level, like Tier A waters, even if designated Tier B, C or D based on the intensity of REC1 use.

Table 5- REC 1-Tiers^x
(Continued)

<u>INLAND SURFACE STREAMS</u>	<u>Tier A, B, C, OR D</u>	<u>Rationale for Tier Assignment</u>
<u>Other Tributaries to these Creeks (Mountain Reaches)</u>	<u>C (N)</u>	<u>Natural condition</u>
<u>Anza Park Drain</u>	<u>C</u>	<u>Low flow</u>
<u>Sunnyslope Channel</u>	<u>C</u>	<u>Low flow, limited access, Santa Ana sucker habitat</u>
<u>Tequesquite Arroyo (Sycamore Creek)</u>	<u>C</u>	<u>Low flow, limited access</u>
<u>Prado Area Streams</u>		
<u>Chino Creek</u>		
<u>Reach 1A – Santa Ana River confluence to downstream of confluence with Mill Creek (Prado Area)</u>	<u>D</u>	<u>Low flow, limited access</u>
<u>Reach 1B – Confluence with Mill Creek (Prado Area) to beginning of concrete lined channel south of Los Serranos Rd.</u>	<u>C</u>	<u>Low flow, limited access</u>
<u>Reach 2 – Beginning of concrete-lined channel south of Los Serranos Rd. to confluence with San Antonio Creek</u>	<u>D</u>	<u>Low flow, limited access</u>
<u>Temescal Creek</u>		
<u>Reach 2 – 1400 ft. upstream of Magnolia Ave. to Lee Lake</u>	<u>D</u>	<u>Low flow, limited access</u>
<u>Reach 3 – Lee Lakes (see Lakes)</u>		
<u>Reach 4 – Lee Lake to Mid-section Line of Section 17</u>	<u>D</u>	<u>Low flow, limited access</u>
<u>Reach 5 – Mid-section line of Section 17 to Elsinore Groundwater Management Zone Boundary</u>	<u>D</u>	<u>Low flow, limited access</u>
<u>Reach 6 – Elsinore Groundwater Management Zone Boundary to Lake Elsinore Outlet</u>	<u>D</u>	<u>Low flow</u>
<u>Coldwater Canyon Creek</u>	<u>C (N)</u>	<u>Natural condition, limited access, remote</u>
<u>Bedford Canyon Creek</u>	<u>C (N)</u>	<u>Natural condition, limited access, remote</u>
<u>Dawson Canyon Creek</u>	<u>C (N)</u>	<u>Natural condition, limited access, remote</u>

^x Tiers based on USEPA's "Ambient Water Quality Criteria for Bacteria – 1986" and "Water Quality Standards for Coastal and Great Lakes Recreation Waters, Final Rule" (40 CFR 131.41), November 2004. Natural (N) refers to waters, typically in largely natural condition, that are expected to have good ambient bacterial quality. N waters will be assigned SSMs based on the 75% confidence level, like Tier A waters, even if designated Tier B, C or D based on the intensity of REC1 use.

Attachments 1 and 2 to Resolution No. R8-2012-0001

Table 5- REC 1-Tiers^x
(Continued)

<u>INLAND SURFACE STREAMS</u>	<u>Tier A, B, C, OR D</u>	<u>Rationale for Tier Assignment</u>
<u>Other Tributaries to these Creeks</u>	<u>C (N)</u>	<u>Natural condition, limited access</u>
<u>San Jacinto River</u>		
<u>Reach 1 – Lake Elsinore to Canyon Lake</u>	<u>C</u>	<u>Low flow</u>
<u>Reach 2 – Canyon Lake (see Lakes)</u>		
<u>Reach 3 – Canyon Lake to Nuevo Road</u>	<u>D</u>	<u>Low / ephemeral flow, limited access</u>
<u>Reach 4 – Nuevo Road to North-South Mid-Section Line, T4S/R1W-S8</u>	<u>D</u>	<u>Low / ephemeral flow, limited access</u>
<u>Reach 5 – North-South Mid-Section Line, T4S/R1W-S8, to Confluence with Poppet Creek</u>	<u>D</u>	<u>Low / ephemeral flow, limited access</u>
<u>Reach 6 – Poppet Creek to Cranston Bridge</u>	<u>C</u>	<u>Low flow</u>
<u>Reach 7 – Cranston Bridge to Lake Hemet</u>	<u>C (N)</u>	<u>Natural condition, limited access, remote</u>
<u>Bautista Creek - Headwaters to Debris Dam</u>	<u>D (N)</u>	<u>Low flow, agricultural lands in lower section</u>
<u>Strawberry Creek and San Jacinto River, North Fork</u>	<u>C (N)</u>	<u>Low flow, limited access, some areas remote</u>
<u>Fuller Mill Creek</u>	<u>C (N)</u>	<u>Low flow, limited access, remote</u>
<u>Stone Creek</u>	<u>C (N)</u>	<u>Low flow, limited access, remote</u>
<u>Other Tributaries: Logan, Black Mountain, Juaro Canyon, Indian, Herkey, Poppet, and Potrero Creeks and other Tributaries to these Creeks</u>	<u>D (N)</u>	<u>Low flow, limited access, remote</u>
<u>Salt Creek</u>	<u>D</u>	<u>Low / ephemeral flow</u>
<u>Goodhart Canyon Creek, St. John's Canyon, and Cactus Valley Creeks</u>	<u>D</u>	<u>Low / ephemeral flow, remote</u>
<u>Lakes and Reservoirs</u>		
<u>Baldwin Lake</u>	<u>D (N)</u>	<u>Ephemeral / intermittent</u>
<u>Big Bear Lake</u>	<u>A</u>	<u>Designated swimming areas</u>
<u>Erwin Lake</u>	<u>D</u>	<u>Ephemeral / intermittent</u>
<u>Evans Lake</u>	<u>D</u>	<u>Swimming prohibited by City Park officials</u>
<u>Jenks Lake</u>	<u>B (N)</u>	<u>Mt. fishing lake, REC body contact activities discouraged</u>
<u>Lee Lake</u>	<u>C</u>	<u>Swimming prohibited, float tube fishing allowed</u>
<u>Lake Mathews</u>	<u>D</u>	<u>Drinking water reservoir, access prohibited</u>

^x Tiers based on USEPA's "Ambient Water Quality Criteria for Bacteria – 1986" and "Water Quality Standards for Coastal and Great Lakes Recreation Waters, Final Rule" (40 CFR 131.41), November 2004. Natural (N) refers to waters, typically in largely natural condition, that are expected to have good ambient bacterial quality. N waters will be assigned SSMs based on the 75% confidence level, like Tier A waters, even if designated Tier B, C or D based on the intensity of REC1 use.

Table 5- REC 1-Tiers^x
(Continued)

<u>LAKES AND RESERVOIRS</u>	<u>Tier A, B, C, OR D</u>	<u>Rationale for Tier Assignment</u>
<u>Mockingbird Reservoir</u>	<u>D</u>	<u>Limited access/ fenced and locked</u>
<u>Lake Norconian</u>	<u>D</u>	<u>Access prohibited by U.S. Navy, no water contact REC activities allowed</u>
<u>Anaheim Lake</u>	<u>C</u>	<u>Fishing, GW recharge basin, water contact REC activities prohibited</u>
<u>Irvine Lake</u>	<u>B</u>	<u>Fishing Lake, water contact REC activities prohibited. Float tube fishing allowed.</u>
<u>Peters Canyon, Rattlesnake, Sand Canyon and Siphon Reservoirs</u>	<u>D</u>	<u>Water contact REC activities and/or access prohibited</u>
<u>Canyon Lake</u>	<u>A</u>	<u>Water contact activities allowed</u>
<u>Lake Elsinore</u>	<u>A</u>	<u>Water contact activities allowed</u>
<u>Lake Fulmor</u>	<u>C</u>	<u>Fishing allowed</u>
<u>Lake Hemet</u>	<u>C</u>	<u>Fishing Lake, float tube fishing and water contact REC activities prohibited.</u>
<u>Mystic Lake</u>	<u>C</u>	<u>Ephemeral lake, water fowl hunting allowed</u>
<u>Lake Perris</u>	<u>A</u>	<u>Water contact activities allowed, designated swimming areas</u>
<u>WETLANDS (INLAND)</u>		
<u>San Joaquin Freshwater Marsh</u>	<u>D</u>	<u>Access prohibited</u>
<u>Shay Meadows</u>	<u>D (N)</u>	<u>Natural conditions, low flows</u>
<u>Stanfield Marsh</u>	<u>D</u>	<u>Access prohibited</u>
<u>Prado Basin Management Zone</u>	<u>C</u>	<u>Access prohibited, thick vegetation limits accessibility</u>
<u>San Jacinto Wildlife Preserve</u>	<u>C</u>	<u>Hunting ponds filled with treated effluent</u>
<u>Glen Helen</u>	<u>C</u>	<u>Low flow, County Park</u>

^x Tiers based on USEPA's "Ambient Water Quality Criteria for Bacteria – 1986" and "Water Quality Standards for Coastal and Great Lakes Recreation Waters, Final Rule" (40 CFR 131.41), November 2004. Natural (N) refers to waters, typically in largely natural condition, that are expected to have good ambient bacterial quality. N waters will be assigned SSMs based on the 75% confidence level, like Tier A waters, even if designated Tier B, C or D based on the intensity of REC1 use.

**California Regional Water Quality Control Board
Santa Ana Region**

RESOLUTION NO. R8-2012-0001

Resolution Approving Amendments to the Basin Plan Pertaining to Bacteria Quality Objectives and Implementation Strategies, Recreation Beneficial Uses, the Addition and Deletion of Certain Waters Listed in the Basin Plan and Designation of Appropriate Beneficial Uses, and Other Minor Modifications

WHEREAS, the California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. An updated Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) was adopted by the Regional Board on March 11, 1994, approved by the State Water Resources Control Board (SWRCB) on July 21, 1994, and approved by the Office of Administrative Law (OAL) on January 24, 1995. Subsequent amendments to the Basin Plan have been approved.
2. The Basin Plan identifies ground and surface waters within the Santa Ana Region (Region), designates beneficial uses for those waters, establishes water quality objectives for the protection of those uses, prescribes implementation plans whereby the objectives are to be achieved, and establishes monitoring and surveillance programs.
3. Designated beneficial uses of surface waters in the Basin Plan include Water Contact Recreation (REC1) and Non-contact Water Recreation (REC2). REC1 is essentially equivalent to "primary contact recreation", the terminology employed by many states and accepted and used by the U.S. Environmental Protection Agency (USEPA). Similarly, REC2 is effectively equivalent to "secondary contact recreation", as this use is recognized and used by USEPA.
4. The federal Clean Water Act and implementing regulations establish the presumption that all surface waters support primary contact (water contact) recreation and should be designated REC1. This presumption can be rebutted for one or more specific surface waters by demonstrating that: (a) REC1 is not an "existing" use, as defined in federal regulations (40 Code of Federal Regulations (CFR) 131.3); and, (b) a structured scientific assessment, known as a Use Attainability Analysis, demonstrates that attaining the use is not feasible based on one or more of the six factors identified in federal regulations (40 CFR 131.10(g)).
5. The Basin Plan establishes water quality objectives intended to protect both REC1 and REC2 uses of surface waters. These objectives were established in the 1975 Basin Plan, relying on federal guidance at that time that recommended

that fecal coliform bacteria be used to assess the sanitary quality of recreational waters and to assure the protection of public health and recreational uses. Fecal coliform are surrogate bacterial indicators of the presence of pathogens, such as viruses, that may cause disease in persons exposed, primarily via the ingestion of water.

6. In 1986, USEPA published revised guidance (“Ambient Water Quality Criteria for Bacteria – 1986”) regarding the surrogate pathogen indicator bacteria that States should employ to assure the protection of primary contact recreation (REC1). For freshwaters, the revised guidance recommends that States adopt objectives based on *E. coli* or enterococcus. USEPA has acknowledged that there is no scientific basis for establishing pathogen indicator bacteria objectives to protect secondary contact (REC2) recreation, since the epidemiological data used by USEPA to derive the bacteria criteria were associated with swimming-related activities involving immersion, where the ingestion of water was likely. However, USEPA recommends that States set numeric objectives for secondary contact recreation based on multiplication (5X or 10X) of their primary contact recreation objectives.
7. USEPA expects States to adopt bacteria quality objectives that provide public health protection in primary contact recreation waters that is at least equivalent to that provided by the criteria in USEPA’s 1986 criteria document. In 2004, USEPA promulgated bacteria criteria based on the 1986 guidance for the Great Lakes and for coastal recreation waters in those states that had not adopted equally protective objectives (Water Quality Standards for Coastal and Great Lakes Recreational Waters – Final Rule. 40 CFR 131.41).
8. Working with the Stormwater Quality Standards Task Force (SWQSTF, or Task Force), Regional Board staff developed recommendations for revising the Basin Plan fecal coliform objectives to implement USEPA’s 1986 recommended criteria. As part of this process, the Task Force carefully considered the scientific basis of both the established fecal coliform objectives and the 1986 recommended bacteria criteria. Based on detailed understanding of the scientific basis for these objectives and criteria, the Task Force determined that it would be appropriate to consider also the need for and nature of amendments to the Basin Plan recreational use definitions, recreational use designations for certain surface waters in the Region, and bacteria indicator objective implementation strategies, including monitoring. The suite of Basin Plan amendments delineated in Attachments 1 (underline-strikeout version) and 2 (“clean”version) to this resolution are the product of this consideration.
9. The proposed Basin Plan amendments include recommendations for changes to pathogen indicator bacteria objectives in freshwater. These include: (1) establishing new, numeric pathogen indicator objectives, based on *E. coli*, for

freshwaters designated both REC1 and REC2; (2) deleting the Basin Plan fecal coliform objectives for REC1 and REC2 in freshwaters; (3) establishing a new, narrative pathogen indicator objective; (4) establishing single sample maximum (SSM) values for *E. coli* that will be used, in part, to assess compliance with geometric mean objectives in the absence of sufficient data to calculate geometric means (and, principally, as public notification tools); (5) establishing numeric, antidegradation pathogen indicator bacteria targets (in lieu of objectives) for waters designated REC2 only, as justified by Use Attainability Analyses; and, (6) deleting the established total coliform objective for freshwaters designated MUN (municipal and domestic supply).

10. Water Code Section 13241 requires that certain factors, including economics, be evaluated, at a minimum, when the Regional Board considers changes to water quality objectives. Pursuant to this requirement, analysis was conducted of the proposed changes to pathogen indicator objectives in freshwater described in the preceding Finding (#9). This analysis was conducted in the context of the proposed strategies for the application and implementation of the revised objectives. These implementation strategies include: the de-designation of the REC1 use for certain surface waters, based on Use Attainability Analyses; implementation of *E. coli* SSMs principally as public notification tools or to provide a surrogate measure of attainment when insufficient data are available to calculate a representative geometric mean; and, implementation of the proposed temporary, high flow suspension of pathogen indicator objectives. The costs of compliance with the proposed objectives are not likely to be significantly different than the cost of meeting the established fecal coliform objectives, provided that the proposed objectives are applied and implemented in accordance with the suite of strategies proposed in these amendments. If the suite of amendments is approved and the proposed objectives are applied and implemented in that context, then the costs of compliance may be reduced since the need for bacteria control facilities is expected to be reduced. The costs associated with meeting the proposed objectives are necessary to ensure the reasonable protection of beneficial uses and the prevention of nuisance. Should one or more elements of the suite of amendments proposed in the attachments to this resolution not be approved, then the Section 13241 analysis may be invalid and any future reliance on this analysis for regulatory purposes would be improper. Under these circumstances, additional Section 13241 analysis would be appropriate.
11. Analysis of the proposed Basin Plan amendments was conducted to determine consistency with the antidegradation policy (SWRCB Resolution No. 68-16 "Statement of Policy with Respect to Maintaining High Quality Waters in California" and 40 CFR 131.12). None of the proposed amendments is expected to result in the lowering of water quality. Thus, the proposed amendments conform to antidegradation policy requirements.

12. Pursuant to the requirements of the California Environmental Quality Act (CEQA) and implementing regulations, including those established by the SWRCB, analyses were conducted of the potential environmental effects of the proposed amendments. These analyses are presented in “Environmental Checklist and Analysis - Substitute Environmental Document for Proposed Amendments Related to Recreational Use Standards for Inland Fresh Waters within the Santa Ana Region”, November 30, 2011, which is attached (Attachment C) to the staff report prepared to describe the proposed Basin Plan amendments (“Staff Report, Basin Plan Amendments, Revisions to Recreational Standards for Inland Fresh Surface Waters in the Santa Ana Region”, January 12, 2012) and the Supplemental Staff Report (dated April 27, 2012). The 2012 staff reports, including a second Supplemental Staff Report (dated June 15, 2012), the draft Basin Plan amendments included as attachments to this resolution, and the environmental checklist and analysis document collectively comprise the Substitute Environmental Document (SED) required under CEQA for Basin Plan amendments.
13. The analyses of the potential environmental effects of the proposed amendments were conducted on a programmatic level. Those entities subject to the amendments, if approved, are responsible for identifying specific compliance strategies and conducting required project-level CEQA analyses of the implementation of those strategies.
14. Based on the environmental analyses described in the preceding Findings (#12 and 13), Regional Board staff made the preliminary determination that the proposed amendments could not have a significant effect on the environment, and, therefore, no alternatives or mitigation measures are proposed. This includes the determination that the Basin Plan amendments would not have an impact on biological resources. On February 16, 2012, the California Department of Fish and Game issued a “No Effect Determination”, confirming that the Basin Plan amendments have no potential effect on fish, wildlife and habitat.
15. Health and Safety Code Section 57004 requires that all proposed rules, such as the proposed Basin Plan amendments, that have a scientific basis or components must be submitted for scientific peer review. The proposed amendments were submitted for scientific peer review in accordance with this requirement. The review was conducted in accordance with California Environmental Protection Agency guidelines. Peer reviewer comments were considered in recommendations regarding the proposed amendments.
16. The proposed amendments meet the necessity standard of the Administrative Procedures Act, Government Code Section 11353, subdivision (b). The proposed amendments are required to fulfill the Regional Board’s obligation pursuant to the California Water Code to exercise its full power and jurisdiction to protect the

quality of waters in the state, including the duties to establish such objectives as will assure the reasonable protection of beneficial uses and to identify the program of implementation, including monitoring, needed to achieve those objectives.

17. A CEQA Scoping Meeting was held on January 28, 2010 to provide interested parties the opportunity to comment on the appropriate scope and content of the SED to be prepared for the proposed Basin Plan amendments. Written responses to comments provided were prepared and attached to the staff report (Attachment B). Periodic presentations to the Regional Board regarding the proposed amendments were made during the Board's regularly scheduled public meetings. Public and agency participation in the consideration of the proposed amendments was actively sought.
18. A Notice of Public Hearing/Notice of Filing and the SED, including the staff report, draft Basin Plan amendments and environmental checklist and analysis document, were prepared and distributed to interested individuals and public agencies for review and comment on January 12, 2012. Written responses to comments received by the date specified in the Public Hearing notice (February 27, 2012) were prepared and attached to the staff report (Attachment F). Attachment F also includes written responses to oral and written comments received after February 27, 2012.
19. On March 16, 2012, the Regional Board held a Public Hearing to consider the proposed Basin Plan amendments. The Regional Board considered all testimony offered at the hearing and the written comments submitted by interested parties and public agencies. In order to obtain clarification of the February 23, 2012 written comments on the proposed amendments that were submitted by the USEPA Region 9, the Board continued the public hearing. Regional Board staff and members of and consultants to the Stormwater Quality Standards Task Force met with USEPA Region 9 and State Water Board staff on April 10, 2012. Based on that discussion and further consideration of the proposed amendments, an Errata Sheet showing recommended changes to the proposed recreation standards amendments was prepared and presented at the continuation of the Public Hearing on the amendments at the Regional Board's April 27, 2012 meeting. This Errata sheet was attached to the Supplemental Staff Report (dated April 27, 2012) prepared for the proposed amendments. Action on the proposed amendments was delayed due to the lack of a quorum. Approval of the proposed amendments was considered at the continuation of the Public Hearing at the Regional Board's June 15, 2012 meeting. All oral and written comments were considered by the Regional Board before taking any final action.
20. The Basin Plan amendments must be submitted for review and approval by the SWRCB, OAL and USEPA. The Basin Plan amendments will become effective upon approval by USEPA. A Notice of Decision will be filed.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The Regional Board has reviewed and considered the record of this matter, including the information contained in the SED, all written comments, and all oral testimony provided at the public hearing of this matter held on March 16, 2012, April 27, 2012 and June 15, 2012.
2. The Regional Board confirms the preliminary determination by Regional Board staff that the proposed amendments could not have a significant effect on the environment and hereby certifies the environmental checklist and analysis document that is part of the SED.
3. The Regional Board hereby adopts the Basin Plan amendments delineated in Attachment 1 (underline/strike-out version) and Attachment 2 (“clean” version) to this Resolution, as modified by the Errata Sheet.
4. The Executive Officer is directed to forward copies of the Basin Plan amendments to the SWRCB in accordance with the requirements of Section 13245 of the California Water Code.
5. The Regional Board requests that the SWRCB approve the Basin Plan amendments in accordance with the requirements of Sections 13245 and 13246 of the California Water Code and, thereafter, forward the amendments to OAL and USEPA for their approval.
6. If during its approval process the SWRCB or OAL determine that minor, non-substantive corrections to the language of the amendments are needed for clarity or consistency, the Executive Officer may make such changes and shall inform the Regional Board forthwith.
7. The Executive Officer is directed, at the time of filing and posting the Notice of Decision, to file the No Effect Determination received from the Department of Fish and Game.

I, Kurt V. Berchtold, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of a resolution adopted by the California Regional Water Quality Control Board – Santa Ana Region on June 15, 2012.

Kurt V. Berchtold
Executive Officer

EPA REGION 9 COMMENTS TO THE SANTA ANA REGIONAL WATER QUALITY
CONTROL BOARD REGARDING THE ERRATA TO THE PROPOSED AMENDMENT TO
THE WATER QUALITY CONTROL PLAN FOR RECREATIONAL USES

April 25, 2012

Members of the Board: We have reviewed the errata document provided by the Regional Board on April 24, 2012 and would like to make a few comments. EPA appreciates the discussion at the meeting in San Francisco on April 10, 2012 between EPA, Santa Ana Regional Water Quality Control Board, and members of the Storm Water Quality Task Force to clarify the proposed amendment and supporting documents. The errata document addresses many of our earlier concerns, and we appreciate the effort that staff has made to accommodate changes to the proposed amendment. We have not as yet completed reviewing the UAAs, but appreciate that the scope is limited to redesignation of REC1 to REC2 in 4 waterbodies.

We agree with the Regional Board's decision to retain the current state-wide name and definition of the core Beneficial Use of Water Contact Recreation (REC1). As we commented previously, it is important for California to have consistent definitions in their regulations. We have no objection to the modification "Water Contact Recreation (REC1*: Primary Contact Recreation)", nor with the modification "Non-contact Recreation (REC2*: Secondary Contact Recreation)".

EPA recommends that the 13 paragraphs in bold, on Pages 3-5, be deleted in full. We find the language to be unnecessary Basin Plan language. It may be more appropriate in a staff report. If the added language is deleted, so should the references to the added language.

EPA recommends that the entire paragraph in section 7 of the errata document, on page 6, be deleted, as it is unnecessary to include future "intent" to consider a Basin Plan Amendment for enterococcus. Furthermore, the enterococcus criterion is already promulgated under the BEACH Act.

EPA generally prefers numeric water quality objectives over narrative objectives. However, we appreciate that staff has changed the proposed REC2 antidegradation standard from being based on the 95th percentile to the 75th percentile, which is more protective than the previous proposal. We also appreciate the added clarification that the data from these distributions will be based on dry-weather data only. We believe that the implementation of the proposed REC2 standard depends on a proper monitoring program and that the adequacy of said monitoring programs should be reviewed by the State Board and EPA.

We would like to point out that though the tiering of uses (in Table 5) is placed in the implementation chapter of the Basin Plan, EPA considers such tiering as a standards change, and thus actionable under the Clean Water Act.

Finally, EPA would like to make it clear that de-designation of Clean Water Act Section 101(A)(2) uses must be on a case-by-case and site-specific basis. We are particularly apprehensive with de-designations that render standards less stringent, as this is counter to the goal of the Clean Water Act. This proposed amendment should in no way be considered precedential. Each UAA will be considered separately.

Responses to USEPA Region 9 Comments – April 25, 2012

Comment	Response
<p>1. EPA appreciates the discussion at the meeting in San Francisco on April 10, 2012 between EPA, Santa Ana Regional Water Quality Control Board, and members of the Storm Water Quality Task Force to clarify the proposed amendment and supporting documents. The errata document addresses many of our earlier concerns...We have not as yet completed reviewing the UAAs, but appreciate that the scope is limited to redesignation of REC1 to REC2 in 4 waterbodies.</p>	<p>Comments noted. No further response required.</p>
<p>2. We have no objection to the modifications to add “Primary Contact Recreation” to the REC1 name and “Secondary Contact Recreation” to the REC2 name.</p>	<p>Comment noted. No further response required.</p>
<p>3. EPA recommends that the 13 paragraphs in bold, on pages 3-5, be deleted in full. The language is unnecessary Basin Plan language. It may be more appropriate in a staff report.</p>	<p>EPA makes reference to paragraphs proposed in the Errata sheet, p. 3-5, for addition to the Basin Plan. This language is proposed in lieu of changes to the REC1 definition itself. EPA had earlier expressed concern about the proposed changes in the definition, specifically, that the changes to the definition itself would result in statewide inconsistency.</p> <p>The narrative language proposed to be added to the Basin Plan is intended to provide the clarification initially sought in the proposed refinements to the REC1 definition itself. This clarification is necessary to assure that recreation standards are applied and implemented in a manner consistent with federal guidance and with the conditions and assumptions underlying the epidemiology studies that USEPA relied on to derive the recommended national bacteria criteria. Thus, the proposed language is significant and an appropriate part of the Basin Plan itself.</p>
<p>4. EPA recommends that the entire paragraph in section 7 of the errata document, on p.6, be deleted, as it is unnecessary to include future “intent” to consider a Basin</p>	<p>EPA refers to the paragraph in the Errata sheet that is proposed to be included in the Basin Plan to take note of the USEPA promulgation of enterococci criteria for coastal recreation waters,</p>

<p>Plan amendment for enterococcus. The enterococcus criterion is already promulgated under the BEACH Act.</p>	<p>including enclosed bays and estuaries, in 2004. The proposed language takes note of the facts that (1) in promulgating these criteria, USEPA did not specify an averaging period for the expression of the criteria and (2) that while USEPA identified single sample maximum values for enterococcus that vary based on the intensity of REC1 use, USEPA did not define the specific areas to which the varying numbers would apply. The proposed language simply clarifies these pertinent facts and indicates that a future Basin Plan amendment will be appropriate to address these current issues. Once such an amendment is approved, then this explanatory paragraph, if approved as part of the proposed amendments, would be removed.</p> <p>We are surprised by this comment since, during our April 10, 2012 meeting, EPA staff commented that the inclusion of most of this explanatory language would be useful.</p>
<p>5. We appreciate that staff has changed the proposed REC2 antidegradation standard from being based on the 95th percentile to the 75th percentile, which is more protective than the previous proposal. We believe that the implementation of the proposed REC2 standard depends on a proper monitoring program and that the adequacy of said monitoring programs should be reviewed by the State Board and EPA.</p>	<p>The proposed antidegradation targets for REC2-only waters are intended to provide evidence concerning water quality degradation over time. Per the proposed Basin Plan language, where credible evidence indicates that there may be water quality degradation, then follow-up actions, including increased monitoring and source investigations/corrective actions (where shown to be necessary) would be implemented. See the proposed amendments to Chapter 5, Implementation, <i>Antidegradation targets for REC2 only freshwaters</i>, and <i>Monitoring Plan for Pathogen Indicator Bacteria in Freshwaters</i>.</p> <p>We appreciate EPA's acknowledgement that the number of waters that would be designated REC2 only (through UAAs) and to which the antidegradation targets only, not the recommended <i>E. coli</i> objectives, would apply, is very limited. Even without the proposed re-designations, monitoring in these waters is likely to be very limited given what is known about the nature of their use for water contact recreation; in light of resource constraints, monitoring efforts are more properly directed to and focused on areas where recreational use is more likely to occur and where,</p>

	<p>therefore, the threat to public health is most significant. We believe that it would be an inappropriate use of both State Water Board and EPA staff resources to focus time and effort on the review of monitoring programs designed to address REC2 only waters. That said, Regional Board staff would consider any comments that either State Water Board or EPA staff choose to provide on such monitoring efforts.</p>
<p>6. We would like to point out that though the tiering of uses (in Table 5) is placed in the implementation chapter of the Basin Plan, EPA considers such tiering as a standards change, and thus actionable under the Clean Water Act.</p>	<p>EPA refers to Table 5-REC1-Tiers, which is proposed to be added to Chapter 5 Implementation, of the Basin Plan. For the purposes of assigning appropriate single sample maximum <i>E. coli</i> values, the table assigns each fresh surface water in the Region to a tier based on the known or anticipated intensity of REC1 use.</p> <p>EPA's comment is noted; no further response is required.</p>

Responses to Heal the Bay's Oral Comments at 4-27-2012 Regional Board Meeting – Item 9¹

Comment	Response
1. We are concerned that there has been an inadequate effort put forth towards effectively trying to meet the actual water quality standards prior to implementing a UAA. Specifically, documentation on actual BMP implementation and subsequent performance criteria is lacking.	Considerable effort has been and continues to be made to achieve recreation water quality standards. These efforts are documented in reports submitted by responsible parties in the watershed. See responses to comments # 3, 18, 26 and 27 in the "Responses to Heal the Bay's Supplemental Comments (4-20-12) Concerning the Use Attainability Analyses".
2. Dry weather diversions are stated as 100 percent effective. Yet, as quoted in the UAA, that treatment agencies do not like them. Simply not liking a BMP is an unacceptable reason not to meet bacteria objectives.	None of the UAA reports states that treatment agencies "do not like" dry weather diversions. Rather, the UAA reports identify constraints on the use of dry weather diversions; these constraints are noted in the response to comment #4 in the "Responses to Heal the Bay's Supplemental Comments (4-20-12) Concerning the Use Attainability Analyses". It is recognized nevertheless that dry weather diversions are likely to be a key component of achieving recreation standards.
3. An additional factor that should have been considered is how will receiving water bodies downstream from the UAAs achieve recreational water quality standards.	Board staff responded to this comment orally at the April 27, 2012 meeting (see transcript, p. 58-59). It is well recognized that downstream recreational water quality standards must be achieved and protected. See also response to comment #6 in the "Responses to Heal the Bay's Supplemental Comments (4-20-12) Concerning the Use Attainability Analyses".
4. Why not wait to explore de-designation until December 2015, the compliance deadline for the middle Santa Ana River bacteria TMDL, to see if bacteria standards could actually be met by that deadline?	It is important to consider whether revisions to recreation water quality standards (including beneficial use designations) are appropriate and justified so that control measure expenditures and efforts are likewise appropriate and justified. Waters for which the REC1 use is de-designated, through a Use Attainability Analysis, must be reviewed at least once every three years to determine whether conditions (including water quality conditions)

¹ A verbatim transcript of the April 27, 2012 proceedings was prepared and includes Heal the Bay's oral comments, which are summarized in this response document. The oral comments focused on Use Attainability Analyses (UAAs). Heal the Bay had earlier expressed concerns regarding the Use Attainability Analyses in supplemental written comments dated April 20, 2012. Board staff prepared written responses to these supplemental comments; these responses were part of the documentation prepared, posted and distributed for the April 27, 2012 Regional Board meeting on the recreation standards amendments.

	<p>have changed such that the REC1 designation has become appropriate. If so, the Basin Plan would need to be modified accordingly.</p>
<p>5. According to Clean Water Act Section 131.10(g), the State must be able to demonstrate that attaining the water body's beneficial use is not feasible due to one of six factors before implementing a UAA. However, all efforts to uphold a water body's highest beneficial use must be exhausted. This includes the implementation and performance analysis of actual BMPs, explored integrated water management opportunities, and low impact development.</p>	<p>Some clarification of terminology may be appropriate here. A Use Attainability Analysis is conducted to determine whether a designated beneficial use (e.g., REC1) is not attainable due to one or more of the six factors identified in the federal water quality standards regulations at 40 CFR 131.10(g). The legal/regulatory basis for UAAs is described in detail in the January 12, 2012 staff report for the proposed recreation standards amendments (see Sec. 5.6.2.1).</p> <p>It is not clear whence the concept of "highest" beneficial use derives, nor is it clear whether Heal the Bay believes that recreational use constitutes the "highest" beneficial use. Federal regulations (40 CFR 131.11(a)) make clear that the most <i>sensitive</i> beneficial use must be protected when establishing and implementing water quality criteria. There is nothing in the UAAs or proposed amendments implementing them that violates this requirement.</p> <p>It may be noted that there is no explicit statement in the UAA regulations of the specific controls or actions that must be taken to achieve standards. As stated above (see response to comment #1), substantial efforts have been and are being made to achieve water quality standards.</p>
<p>6. Moreover, it is critical to seriously consider section 101(a) and (b) of the Clean Water Act, which states that the objective of this act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters, as well as it is the primary responsibility and rights of states to prevent, reduce and eliminate pollution before removing a water's beneficial use.</p>	<p>These provisions of the Clean Water Act, including the "fishable/swimmable" goal expressed in 101(a)(2), are well understood. It is in the context of these (and other) provisions of the Clean Water Act that the federal water quality standards regulations were written, including regulations pertaining to Use Attainability Analyses. These regulations essentially create the rebuttable presumption that "fishable/swimmable" uses, including REC1, should be designated for surface waters. The UAA</p>

	<p>regulations were established to provide the framework whereby that rebuttable presumption may be reviewed and reversed. The UAAs conducted and reported as part of the development of the proposed recreation standards amendments conform to the applicable regulations. As the administrative record for this matter makes clear, very serious consideration has been given to the goals and requirements of the Clean Water Act and implementing regulations.</p>
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