

California Regional Water Quality Control Board
Santa Ana Region

April 27, 2012

ITEM: 9

SUBJECT: Public Hearing – Basin Plan Amendments: Recreational Standards for Inland Surface Waters (continuation of March 16, 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. This included discussion of comments received from interested agencies and parties, including the U.S. Environmental Protection Agency, Region 9 (USEPA). In light of the USEPA comments, which were unclear and unsubstantiated, Board staff recommended that no action on the proposed amendments be taken at the March meeting. Staff recommended a delay to allow for discussion and resolution of the USEPA concerns. The Board agreed with this recommendation.

Discussion of concerns regarding the proposed amendments took place on April 10, 2012. Regional Board staff and members of and consultants to the Stormwater Quality Standards Task Force met with USEPA staff and State Water Board staff. In response to this discussion, and based on further review of the proposed amendments, some changes to those amendments are now proposed.

This report supplements the Basin Plan amendment documentation, dated January 12, 2012, that included a staff report, environmental analysis document and checklist, and the proposed Basin Plan amendments. The purpose of this supplemental report is to describe the changes now proposed to the amendments and the rationale for those changes. The recommended changes to the amendments are shown in the Errata Sheet attached to this report.

Also attached to this report are: (1) a copy of a message from Vicky Whitney (State Board Deputy Director, Division of Water Quality) to Kurt Berchtold *et al re* "RB 8 Rec 1 Objectives" (see discussion of items 1-4, below); (2) Board staff's responses to USEPA's written comments on the proposed amendments, dated February 23, 2012; (3) Board staff's responses to written comments provided by Heal the Bay on March 15, 2012. **Note:** On April 20, 2012, Heal the Bay submitted additional comments concerning the Use Attainability Analyses components of the proposed amendments. These additional comments were appended to the March 15, 2012 comment letter. The amended comment letter was not signed. Responses to the additional comments will be prepared and provided at the April 27, 2012 hearing.

ERRATA SHEET:

Items 1- 4, p.1-5): REC1 Beneficial Use Nomenclature and Definition:

The amendments presented on March 16, 2012 include recommended changes to the name and definition of the REC1 use. New narrative discussion was also proposed to be added to describe briefly the rationale for these changes.

USEPA and State Water Board staff recommended that any changes to the REC1 definition and name be considered on a statewide basis, rather than in region-specific amendments. State Board staff provided written clarification of their understanding of the types of REC1 activities and associated likelihood of ingestion. State Board staff recognized that ingestion is not reasonably possible with all forms of wading and fishing, a concept addressed in the amendments to the REC1 definition presented on March 12, 2012. A copy of the April 12, 2012 message from Vicky Whitney, Deputy Director, Division of Water Quality at the State Board, providing this clarification is attached to this report.

Taking this written clarification into account, Board staff now proposes not to include the proposed REC1 name change and refinements to the definition of this use in the recreation standards amendments. Rather, Board staff now recommends that: (1) the term “Primary Contact Recreation” be added to the REC1 beneficial use name; (2) the term “Secondary Contact Recreation” be added to the REC2 beneficial use name; and, (3) that the narrative discussion regarding REC1 activities and the application of bacterial quality objectives to those activities be revised to provide the clarification previously sought in the refinements to the definition itself.

Board staff believes that these revised recommendations are consistent with applicable federal guidance, provided that the new *E. coli* objectives are not applied to waterbodies where only incidental or accidental water contact is likely to occur. These revised recommendations should not result in concerns with respect to statewide consistency, since the revisions supplement but do not modify agreed-upon statewide nomenclature.

Item 5, p. 5 - 6: Addition of References:

The proposed revised REC1 narrative described above includes citations to references not previously included in the Basin Plan. Amendment of the list of references is necessary to include these new references.

Item 6, p. 6: MUN Designations for Goodhart Canyon, St. John’s Canyon and Cactus Valley Creeks and Mystic Lake:

The amendments presented at the March 16, 2012 meeting included recommendations for the addition of these waters to the Basin Plan and for the exception of these waters from the MUN (municipal and domestic supply) beneficial use designation. The recommended exceptions were based on the exception criterion specified in the State

Board’s Sources of Drinking Water Policy that “the water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.”

The waters listed above are ephemeral and it is considered unlikely that they could serve as a source of drinking water supply, specifically, that they could provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day. However, since quantitative data to support this finding are limited, Board staff now recommends that these waters be designated with the MUN beneficial use, intermittent (“I”). This designation should be reviewed in the future based on additional, relevant data and revised if needed.

Item 7, p.6 - 7: Note re Pathogen Indicator Bacteria in Bays and Estuaries:

This note was proposed in order to provide pertinent information concerning the manner in which the Regional Board will implement the enterococci criteria promulgated by the USEPA in 2004 for coastal waters. The promulgation left to state discretion the determination of: (1) the appropriate averaging period for the criteria; and (2) the assignment of coastal recreation waters to one or more recreational use tiers for the purposes of determining the applicable single sample maximum values. The last sentence in the proposed note speaks to the use of best professional judgment to make these determinations until a formal Basin Plan amendment process can be completed to address them. USEPA and State Board staff objected to this approach. They indicated their belief that until a Basin Plan amendment process is completed, the assumptions must be made that (a) the averaging period for the objectives is a 30-day rolling average and (b) that the most stringent single sample maximum value, applicable to designated beaches with high REC1 use, applies to these waters. While Board staff is not persuaded of the merits of this position, it appears appropriate to remove the proposed last sentence pending further deliberation and confirmation of this matter. Accordingly, the last sentence of this note is now proposed for deletion.

Item 8, p. 6 - 7: Narrative re Recreation Water Quality Standards

Consistent with the recommended changes identified in Item 1, above, Board staff recommends deletion of the proposed reference to the clarification of the REC1 definition.

Item 9, p. 7- 8: Narrative regarding the “N” notation in Table 5-REC1-Tiers:

As a matter of clarity, Board staff proposes to include some additional explanatory language regarding the intent of the “N” notation in Table 5-REC1-Tiers.

Item 10, p. 8: Table 5-REC1-Tiers:

Clarification of the notation employed in this table is proposed. The revised table (underline-strikeout version (Attachment 1 to Resolution No. R8-2012-0001)) is shown at the end of the errata sheet (p. 14-20).

Item 11, p. 8 - 9: Narrative re *Application of Single Sample Maximum Values in REC1 freshwaters*:

See discussion of item 7. Board staff proposes to delete the proposed narrative regarding the Regional Board's approach to the assignment of REC1 tiers to fresh surface water streams that are not now included in the Basin Plan. The proposed language speaks to the use of Regional Board discretion based on local knowledge of these streams to make interim tier decisions, until the Basin Planning process is used to formalize those decisions. Once again, it appears appropriate to defer the addition of this language pending further discussion and determination of the appropriate way to proceed.

Item 12, p. 9: Table 5-REC1-ssv notation:

As noted by Board staff during the March 16, 2012 hearing on the proposed amendments, a typographical error in the notation in one of the column headers needs to be corrected.

Item 13, p. 9 - 11: *High Flow suspension of recreation standards*:

Changes to the proposed text describing and defining the applicability of the high flow suspension are proposed. The recommended changes are intended, in part, to make clear that the suspension would apply to engineered channels, as defined, and to channels that are **heavily** modified. The word "**heavily**" would be added at several appropriate places in the proposed text in order to address concerns that the suspension might be applied inappropriately to channels that have had only minor modifications that would not appreciably alter the flow regime, resulting in unsafe conditions that preclude recreational use.

Further, in response to a comment by USEPA staff, text is proposed to be added to specify that the depth-velocity product suspension criterion would not apply to the low-flow pilot channels sometimes constructed in larger channels. Normal dry weather flows in these pilot channels may meet the depth-velocity product suspension criterion, but not necessarily preclude recreational use.

Finally, as discussed at the March 16, 2012 hearing, a paragraph is proposed to be added to the section entitled "Delineation of Engineered or Modified Channels". The intent of this added paragraph is to address concerns expressed by Orange County Coastkeeper that the delineation of the channels to which the suspension would apply

might limit the ability to fund and support habitat and species restoration projects in these channels. The proposed added paragraph makes clear that this is not the intent.

Item 14, p. 11-13: *Antidegradation targets for REC2 only freshwaters:*

The antidegradation targets for REC2 Only waters recommended in the January 12, 2012 proposed amendments are based on the 95th percentile upper confidence level (UCL). As shown in Table 5-REC2 Only Targets – FW and Table 5-REC2 Only Targets – Other Waters, the numeric values are generally high. While these values are calculated using standard mathematics, the inherent variability of the data renders the numbers generally very high. This may result in the perception that water quality is not being adequately protected. As discussed at the March 16, 2012 public hearing, a revised approach, using the 75th percentile upper confidence level is proposed. There is no substantive effect with respect to the intent to prevent water quality degradation, but the lower 75th percentile values may reduce the potential public perception problem.

The recommended text and tables have been revised to reflect this alternative approach. A table note is proposed to be added to each of the tables to reflect that the targets are calculated for dry weather baseflow conditions only and do not apply to samples collected during wet weather conditions. Further, minor changes in the narrative are recommended to clarify follow-up in case of exceedances of the targets.

Item 15, p. 13: References to antidegradation target calculation documentation.

To address the change in antidegradation targets from the 95th to 75th percentile upper confidence level, the relevant documentation prepared by CDM and Regional Board staff has been revised and re-dated. The appropriate changes to those references are shown in the Errata Sheet.

Errata Sheet, p. (14-20): revised Table 5-REC1-Tiers

CEQA Consideration:

Regional Board staff has considered whether the changes to the proposed amendments identified in the Errata Sheet would have any effect on the environmental checklist and analysis document and the preliminary determination by Board staff that the proposed amendments would not have a significant effect on the environment. Board staff concludes that the changes recommended in the Errata Sheet would not substantively affect implementation of the revised recreation standards and therefore, would have no effect on the environment. Board staff's preliminary determination, as specified in the environmental analysis document dated November 30, 2011 (Attachment C to the January 12, 2012 staff report concerning the amendments), remains proper.

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
- (2) Copy of April 12, 2012 message from Vicky Whitney (State Board staff) to Kurt Berchtold *et al* re “RB 8 Rec 1 Objectives”
- (3) Board staff responses to the USEPA comments dated February 23, 2012.
- (4) Board staff responses to Heal the Bay comments dated March 15, 2012.

ITEM 9

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***

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

~~**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 BENEFCIAL 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

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

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.

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

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

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~~

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

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 m*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

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.

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.

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.

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.

Thursday - April 12, 2012 8:58 AM

From: Vicky Whitney
To: Kurt Berchtold
CC: Joanne Schneider; Jonathan Bishop; Rik Rasmussen; Tom Howard;
kemmerer.john@epa.gov
Subject: RB 8 Rec 1 Objectives

Kurt,

Per your request State Board staff wanted to clarify the types of activities that are **not intended** to be covered by the beneficial use definition of contact recreations (REC-1). The current definition in your Basin Plan (and through-out the state) is:

*“Water Contact Recreation (**REC 1***) waters are used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses may include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, whitewater activities, fishing and use of natural hot springs.”*

Some of the listed activities that may be covered under the definition can have overly broad interpretations. Two are particularly prone to misapplication since they cover a multitude of activities. They are “fishing” and “wading”. The key to interpretation of the activities is where “ingestion of water is reasonably possible”. Therefore at one extreme, fishing from the bank of a river or lake would be covered under the non-contact recreation beneficial use as well as the Commercial and Sports Fishing use (at least until the person falls into the water at which point they cease to fish and--hopefully--are now swimming). On the other extreme, fishing from a float tube in a river or lake would likely be covered under REC-1 as the fisherperson is likely to ingest water. Likewise wading can take various forms. Walking a dog along a very shallow creek and getting ones feet wet crossing the creek is not likely covered under the definition while a small child sitting in the middle of a low flow creek playing in the water is likely covered by the REC-1 definition. Again the key is the possible ingestion of water.

State Board Staff appreciates your willingness to consider not re-defining this core beneficial use definition on a regional basis at this time. We would encourage your staff to engage the Basin Planning roundtable and MCC to bring forward a proposal to examine the current definition to explore possibilities of clarifying the definition on a statewide basis.

I hope this email is helpful. Please let me know if you need anything further,

Vicky

Responses to February 23, 2012 Comments - EPA-Region 9¹

<p>#1. p. 1, ¶ 1: “The Regional Board’s submission arrives at an inopportune time. As you know, the United States Environmental Protection Agency (USEPA), as required by the Clean Water Act (CWA), developed and published draft Recreational Water Quality Criteria (Office of Water 820-D-11-002) in 2011. This document provided USEPA’s recommended CWA Section 304(a) Recreational Water Quality Criteria.”</p>	<p>The draft 2011 Recreational Water Quality Criteria published by the Office of Water includes the following disclaimer: “This information is distributed solely for the purpose of obtaining scientific views on the content of this document. It does not represent and should not be construed to represent any final agency determination or policy.” [emphases added] Furthermore, in subsequent commentary in its February 23, 2012 letter, EPA Region 9 refers to the USEPA’s “Ambient Water Quality Criteria for Bacteria – 1986” as the “current” guidance, and to the draft 2011 Recreational Water Quality Criteria document as “proposed” guidance, or “draft proposed guidance”. Regional Board staff agrees that the applicable guidance is currently found in the approved and published 1986 guidance.</p>
<p>#2. p.1, ¶ 1: "EPA Region 9 has concerns with some of the Regional Board's proposed amendments. Our primary concern is that human health may not be adequately protected under the proposed revisions."</p>	<p>EPA Region 9 does not explain or substantiate the basis of this public health concern and does not identify the specific proposed amendments that trigger it. The proposed amendments implement USEPA’s 1986 Ambient Water Quality Criteria for Bacteria – 1986 (1986 criteria) in a manner consistent both with USEPA guidance (e.g., EPA Fact Sheets concerning the selection of risk levels and using single sample maximum values (both August 2006; see references in the January 12, 2012 staff report, Section 12)) and with EPA regulation implementing the 1986 criteria for the Great Lakes and coastal recreation waters (BEACH Act Rule, 2004). The federal guidance explicitly states that adoption of EPA’s recommended criteria will adequately protect human health. Presumably, EPA’s promulgation of these criteria in the BEACH Act Rule fulfilled or was intended to fulfill this purpose. In addition, EPA has previously approved nearly identical standards in numerous other states. Is it now EPA Region 9’s contention that the criteria recommended in EPA’s 1986 guidance, promulgated in the BEACH Act Rule and approved in other states, are not fully protective of human health?</p> <p>Board staff believes that the proposed amendments, if approved and implemented, would provide superior public health protection to the recreation standards now</p>

¹ Note: On two occasions shortly after receipt of the EPA Region 9 comments, Regional Board staff requested that EPA Region 9 staff retract their February 23, 2012 comment letter on the grounds that many of the comments provided were not clear or substantiated, making responses by Regional Board staff speculative. These requests were declined (see March 1, 2012 e-mail correspondence between Joanne Schneider (Regional Board staff) to Janet Hashimoto (EPA Region 9)). A meeting of Regional Board, State Board and EPA Region 9 staff was held on April 10, 2012 to discuss the comments. In part, this discussion formed the basis for a number of the changes to the January 12, 2012 draft Basin Plan amendments that are shown in an Errata Sheet (dated April 23, 2012). These responses are directed to the February 23, 2012 comment letter. However, where appropriate, references to changes made in response to further consideration, including the April 10, 2012 discussion, are also included.

Responses to February 23, 2012 Comments – EPA Region 9

	<p>established in the Basin Plan, for two main reasons. First, the Basin Plan bacteria quality objectives based on fecal coliform, now disavowed by USEPA (as reflected in USEPA's 1986 bacteria guidance), would be replaced with objectives based on one of the bacteria indicators (<i>E. coli</i>) now recommended by USEPA. Second, the proposed amendments include a suite of other recommended recreation standards changes (e.g., changes in REC1 designations, supported by Use Attainability Analyses) and implementation strategies (including the temporary, high flow suspension of recreation standards) that would allow and encourage priority actions to protect public health and recreation uses where people are most likely to be exposed.</p> <p>Assertions regarding a possible failure to protect public health are serious and not responsible unless accompanied by specific and detailed substantiation, which EPA Region 9 failed to provide.</p>
<p>#3. p. 1, ¶ 2, re REC1 definition: "We recommend that the Regional Board not change the Beneficial Use name from "Water Contact Recreation" to "Primary Contact Recreation." Retaining the current name and definition would be consistent with the SWRCB name and definition for REC1. The current REC1 definition was developed through an extensive collaborative effort between the State Board and USEPA in order to have a consistent statewide definition of REC1."</p>	<p>Recommendation noted. Based on discussion with EPA Region 9 staff, Regional Board staff understands that EPA Region 9 would not object to the revised definition proposed in the January 12, 2012 Basin Plan amendment documentation, provided that the revised definition would be applied on a statewide basis. We agree that the REC1 definition should be revised on a statewide basis: the changes to the definition proposed in the January 12, 2012 documentation provide clarification of terms that may otherwise be misinterpreted. We believe that the January 12, 2012 recommended changes should be considered on a statewide basis. It should be noted that the amendments proposed in the January 12, 2012 Basin Plan amendment documentation would not result in any substantive changes to the definition of REC1. Board staff believes that the phrase "reasonably possible" in the current statewide definition has long been understood to convey the same level of probability and is synonymous with the term "likely" in the definition of primary contact recreation used in federal guidance and regulation. However, in practice, the latter term has been shown to be more precise and less vulnerable to misinterpretation. Therefore, the sole purpose of the revisions proposed in the January 12, 2012 Basin Plan amendment documentation is to express the original meaning and intent of the original definition more clearly. Doing so would ensure that USEPA's recommended bacteria criteria are applied 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 <i>E. coli</i> criteria. Board staff believes that more precise language is needed to "avoid different definitions, interpretations and implementation" just as EPA Region 9 suggests in the last paragraph of its comment letter.</p>

Responses to February 23, 2012 Comments – EPA Region 9

	<p>[Note: At the April 10, 2012 meeting, EPA Region 9 staff acknowledged that the principal party with regard to approval of the proposed revisions to the REC1 definition is the State Board. In response to comments provided by State Board staff at the April 10, 2012 meeting that consideration of changing the definition should be considered on a statewide basis to assure consistency, a revised approach is now being recommended, as reflected in the Errata Sheet. The name “Primary contact recreation” would be added as an optional way to identify this use, rather than as a replacement to the current name of the REC1 use (i.e., Water contact recreation). No clarifications of the definition itself would be made. Instead, narrative language is proposed to clarify what is understood with regard to the nature of recreational activities that constitute REC1 use.]</p>
<p>#4. p.1, ¶ 3, re re-designation based on UAAs: "EPA is not opposed to reclassification of recreational water bodies. However, we find that the rationale in most instances was not clear or substantiated."</p>	<p>EPA Region 9 does explain or substantiate this finding. This statement raises the question of what documentation associated with the proposed amendments implementing UAAs has been reviewed by EPA Region 9. A comprehensive Use Attainability Analysis (UAA) was performed on all waterbodies where the Regional Board proposes to revise the designated recreational uses. UAA Technical Reports, providing basic technical data (channel morphology, water quality, flow characterization, recreational use survey information (including the results of extensive photographic surveys), etc.) were prepared by CDM, one of the Task Force consultants. These reports are part of the administrative record for this matter. CDM was charged with assembling the relevant data and information, but <u>not</u> to draw any conclusions regarding the propriety of the designated uses. Interpretation of the data was left to Regional Board staff. Using the information provided in each of these technical reports, Regional Board staff prepared stand-alone UAA staff reports for each of the waters considered, with appropriate cross-references to other detailed reports in the administrative record. These UAA reports are subsections to the January 12, 2012 staff report for the proposed amendments. Each of these UAA staff reports identifies the specific factor(s) used to justify the reclassification as required by 40 CFR 131.10(g). The UAA Technical and Board staff Reports also provide extensive evidentiary support for each factor cited. Historical records were reviewed and extensive video surveys were conducted at each location to confirm that, in fact, REC1 is not an existing use, as defined in federal regulation, and that no water contact recreation was occurring in the stream segments recommended for re-designation. The level of UAA documentation collected and reviewed by the Santa Ana Regional Board is equal to or exceeds that which the State</p>

Responses to February 23, 2012 Comments – EPA Region 9

	<p>Board relied on to reclassify Ballona Creek. It may be noted that EPA Region 9 approved the redesignations for Ballona Creek without reservation.</p>
<p>#5. p. 1, last ¶, p.2, first ¶, re MUN exceptions: "Federal regulations prohibit removal of designated uses which are existing uses, as defined in 40 CFR Sect. 130.3, unless a use requiring more stringent criteria is added, or another provision of 40 CFR Sect. 131.11(h) is shown to be applicable. Documentation is lacking showing the newly excepted waterbodies do not have existing MUN use designations."</p>	<p>It should be self-evident that the significant influence of marine waters makes certain of the waters proposed to be added to the list of surface waters identified in the Basin Plan unsuitable as a source for municipal drinking water supply, now and historically. These waters include: the tidal prisms of the Santa Ana Delhi and Greenville-Banning channels, the Huntington Beach wetlands, and the Los Cerritos wetlands. As indicated in the January 12, 2012 staff report, there is no evidence that MUN is an existing use in any of the other waters proposed to be added, i.e., other reaches of the Santa Ana Delhi and Greenville-Banning channels, Mystic Lake, Goodhart Canyon Creek, St. John's Canyon Creek and Cactus Valley Creek.</p> <p>[Note: At the April 10, 2012 meeting, EPA Region 9 staff expressed their belief that the matter of the MUN designations for the waters proposed to be added to the Basin Plan rests with the State Board, pursuant to the Sources of Drinking Water Policy. State Board staff indicated their concurrence with the recommendations regarding the marine-influenced waters and advised that the State Board is considering carefully exceptions based on the exception criterion for channels modified to convey stormwater runoff that is specified in the Sources of Drinking Water Policy. (This criterion is one basis for recommended MUN exceptions for the Santa Ana Delhi Channel and Greenville-Banning Channel.) Board staff advised that we propose to revise the recommendation to except the MUN designation for Mystic Lake, Goodhart Canyon Creek, St. John's Canyon Creek and Cactus Valley Creek to specify intermittent MUN as an existing or potential use since we lack adequate data to assert a compelling case that these waters are incapable of supplying a water supply well that can produce a minimum of 200 gallons per day on a sustained basis (this is another of the exception criteria specified in the Sources of Drinking Water Policy). The propriety of this MUN designation for these waters should be re-evaluated based on additional data in the future.]</p>

Responses to February 23, 2012 Comments – EPA Region 9

<p>#6. p.2, ¶ 2, re deletion of fecal coliform and addition of <i>E. coli</i> objectives: "EPA's 1986 guidance recommends that states and tribes replace existing fecal coliform bacteria standards with <i>E. coli</i> criteria. We support the criteria submitted for the <i>E. coli</i> geometric mean. We support the use of UAAs to classify waters as REC2. However, we do not support the elimination of the REC2 objectives."</p>	<p>Regional Board staff propose to replace existing fecal coliform bacteria objectives with <i>E. coli</i> objectives based on USEPA's 1986 recommended criteria. EPA Region 9's support for the proposed <i>E. coli</i> geometric mean is noted. However, EPA Region 9 does not explain the basis for declining to support the elimination of the REC2 objectives. This position is inconsistent with the explicit acknowledgment by USEPA that there are insufficient scientific data to establish an appropriate <i>E. coli</i> (or any other bacterial indicator) standard for REC2 (effectively, 'secondary contact' waters in federal parlance).</p> <p><i>"EPA explored the feasibility of scientifically deriving criteria for secondary contact waters and found it infeasible for several reasons. In reviewing the data generated in the epidemiological studies conducted by EPA that formed the basis for its 1986 recommendations, EPA found these data would be unsuitable for development of a secondary contact criterion. Secondary contact recreation activities generally do not involve immersion in the water, unless it is incidental (e.g. slipping and falling into the water or water being inadvertently splashed in the face). While the main illness likely to be contracted during primary contact recreation is gastrointestinal illness, illness contracted from secondary contact recreation activities may just a likely be diseases and conditions affecting the eye, ear, skin, and upper respiratory tract. Because of the different exposure scenarios and the different exposure routes that are likely to occur under the two different types of uses, EPA is unable to derive a national criterion for secondary contact recreation based upon existing data."</i>²</p> <p>The REC2 objectives currently included in the Basin Plan are based on arbitrary multiplication of the fecal coliform objectives for REC1 waters. Applying this approach to the establishment of REC2 objectives would not now likely pass requisite scrutiny by independent peer reviewers. Further, per EPA's criteria guidance, reliance on fecal coliform objectives to protect even REC1 waters is no longer appropriate. Because EPA has repudiated the relationship between fecal coliform and exposure-related illness among swimmers, there is no defensible scientific basis to retain the current REC2 objectives.</p>
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2 U.S. EPA. Implementation Guidance for Ambient Water Quality Criteria for Bacteria [Draft]. May, 2002; pg. 39; draft document was cited by EPA in 69 FR 220, 67218 (Nov. 16, 2004). Moreover, EPA offers this as a statement of fact not policy and later reaffirmed this factual conclusion in the BEACH Act Rule.

Responses to February 23, 2012 Comments – EPA Region 9

<p>#6. p.2, ¶ 2: (continued)</p>	<p>"In EPA's view, it would not be reasonable to rely on the equivocal discussion regarding after-the-fact approximation of an illness rate for fecal coliform in light of the unequivocal conclusion of the entire document [Ambient Water Quality Criteria for Bacteria – 1986]: That the fecal coliform criteria for recreation is (<i>sic</i>) not a reliable indicator of illness to swimmers."³</p> <p>It should be noted that 2 of the nine Regional Boards in California have not specified numeric bacteria objectives in their respective Basin Plans to protect REC2 uses. To date, EPA Region 9 has apparently accepted these omissions.</p>
<p>#7. p. 2, ¶ 3, re REC1 Tiers: "EPA's current guidance allows for the adjustment of single sample maxima for waters where use is not frequent. However, in the 2011 Recreational Water Quality Criteria Guidance we are no longer recommending multiple "use intensity" values, in an effort to increase national consistency across bodies of water and ensure equivalent health protection in all waters. EPA's proposed criteria remove the tiering component partly because of confusion by the states on its application."</p>	<p>Comment noted. See also response to comment #1. The draft 2011 guidance to which EPA Region 9 refers is a draft document that has no legal authority. In addition, although the draft 2011 guidance no longer recommends multiple use intensity values, the draft guidance also does NOT prohibit the states from continuing to do so. USEPA promulgated the exact same use intensity values in the BEACH Act Rule that the Regional Board staff now recommends. EPA Region 9 staff advised Regional Board staff that the BEACH Act Rule provided the most relevant guidance with respect to USEPA's expectations regarding implementation of the current and applicable 1986 criteria guidance.</p> <p>The argument for "national consistency" does not comport with explicit, contrary language in the BEACH Act Rule:</p> <p><i>"EPA does not consider the benefits of identical standards in the States and Territories covered by this rule to outweigh the negative effects of unnecessarily constraining the flexibility that the Clean Water Act and EPA's rules give States and Territories in establishing water quality standards..."⁴</i></p> <p>This conflict should be addressed explicitly in any final, revised bacteria quality criteria guidance that is issued.</p>

3 U.S. EPA. Water Quality Standards for Coastal and Great Lakes Recreational Waters – Final Rule. 69 FR 220, 67230 (Nov. 16, 2004).

4 U.S. EPA. Water Quality Standards for Coastal and Great Lakes Recreational Waters – Final Rule. 69 FR 220, 67227 (Nov. 16, 2004).

#7. p. 2, ¶ 3 (continued):

Moreover, USEPA/EPA Region 9's supposition that using only one single sample maximum value (proposed in the draft 2011 guidance to be called a "Statistical Threshold Value" (STV)) for all waters will provide "equivalent health protection for all waters" is only true if the underlying variability in bacteria densities in all waters is the same as that identified in USEPA's original epidemiology studies. Site-specific data from numerous creeks and streams throughout the Santa Ana Region show this assumption is demonstrably false. This should come as no surprise because the original epidemiology studies were conducted on freshwater lakes and reservoirs where bacteria levels vary far less than in the flashy western streams common to the Santa Ana Region. Application of a single "STV" that is derived after severely underestimating the true log standard deviation will result in water quality standards that are far MORE restrictive than intended as watersheds with naturally high levels of variability in bacteria densities will be forced to achieve much lower geometric means in order to assure compliance with BOTH the geomean and STV criteria that USEPA is proposing in the draft 2011 guidance. The practical effect will be anything but "equivalent" between states with vastly different stream characteristics.

USEPA's desire to address confusion in OTHER states does not provide a technical or legal basis to disapprove the application of use intensity tiers in the Santa Ana Region. The sole question for USEPA at this time is whether the proposed tier definitions are consistent with the applicable federal guidance. Since Regional Board staff proposes to rely on definitions essentially the same as those provided by USEPA in the BEACH Act Rule, there can be no question that the proposed Basin Plan amendments meet federal requirements. In addition, the Board staff has recommended to interpret USEPA's tier definitions very conservatively so that high intensity streams need not reflect the same level of use as nearby ocean beaches in order to qualify for the same tier protection. Specifically, as described in the January 12, 2012 staff report, Reach 3 of the Santa Ana River was used to define a high intensity (Tier A) REC1 water. Reach 3 of the River was then used as the baseline for determination of relative use intensity in other freshwater streams. An alternative and arguably appropriate approach would have been to assign Tier A status to ocean beaches, with actual REC1 use that is orders of magnitude greater than Reach 3 of the River, and to rank inland freshwater streams with lower use intensity (including Reach 3 of the River itself) accordingly. Thus, if anything, the proposed Basin Plan amendments provide greater health protection than might be accepted if EPA's definitions of high intensity use were applied more literally.

Responses to February 23, 2012 Comments – EPA Region 9

<p>#8, p.2, ¶4, re temporary suspension: "We support lifting the REC uses for a specified amount of time after storms, but only at certain intensities and durations of rainfall and only in concrete-lined channels."</p>	<p>EPA Region 9 does not specify the "certain intensities and durations of rainfall" that it believes would support lifting REC uses. Regional Board staff is proposing a high flow suspension that is specified for a limited amount of time, under specified flow and/or rainfall conditions that result in hazardous conditions that, in turn, prevent attainment of REC uses on a temporary basis. While the suspension could arguably apply to any surface water when such hazardous conditions exist, the recommended suspension would apply to engineered channels, including concrete-lined channels, and other stream channels that have been heavily modified to convey flow downstream as quickly as possible.</p>
<p>#9, p. 2, ¶4, re temporary suspension: "The language the Regional Board uses to define where lifting of REC uses will occur is too broad. The definition of 'modified channels' can lead to use suspension in any water body where any vegetation has been removed or had any small modifications."</p>	<p>The language was not meant to convey that the suspension would apply to any surface stream that had minor modification or vegetation removal. As described to the Regional Board at the March 16, 2012 public hearing (no EPA Region 9 representative was present) and reflected in the Errata sheet, Board staff proposes to modify the terminology to indicate that the suspension would apply to streams that have been heavily modified so as to hasten downstream flow such that hazardous conditions that preclude attainment of REC uses occur. The manner in which the high flow suspension has been applied to Reach 2 of the Santa Ana River, a segment that is concrete-lined and very heavily modified, provides strong evidence of the Regional Board's good faith intent to be both reasonable and responsible on this matter.</p>
<p>#10, p.2, ¶4, re temporary suspension: "The maps provided by the Regional Board in Appendix VIII are riddled with red delineations and lack sufficient justification for selecting these waterbodies."</p>	<p>The large number of red delineations in the maps provided in Appendix VIII accurately reflects the very large number of concrete-lined flood control channels found throughout the Santa Ana Region. These are relatively low resolution maps comparable to some other figures in the Basin Plan and are intended to give a reader a general idea. Far more detailed maps are found in Appendix IX, which provides ArcGIS files of the streams to which the temporary suspension would apply. The decision criteria used to determine the streams to which the suspension should apply are nearly identical to those adopted by the Los Angeles Regional Board and subsequently approved by EPA Region 9. As noted in the accompanying staff report, federal guidance explicitly recommends the use of broad categorical exceptions where waterbodies share substantially similar characteristics.</p>
<p>#11, p. 2, ¶5, re enterococcus criteria: "The proposed amendment indicates that the Regional Board would implement the 2004 EPA enterococci criteria for coastal recreation waters (40 CFR 131.41)[BEACH Act rule] promulgation "on a best</p>	<p>Regional Board staff understands that the BEACH Act rule established numeric enterococcus objectives for coastal recreation waters, and nothing in the proposed amendments is intended to suggest otherwise. Rather, the use of the phrase "best professional judgment" is intended to reflect the fact that the BEACH Act rule did not provide specificity regarding the averaging period for those criteria, nor did the rule identify the REC1 use tiers to which each of the coastal recreation waters should be</p>

Responses to February 23, 2012 Comments – EPA Region 9

<p>professional judgment basis". The enterococci criteria were promulgated as numeric objectives and are applicable for all designated marine recreational waters."</p>	<p>assigned for the purposes of identifying applicable single sample maximum (SSM) values. (Numeric SSM values are identified in the BEACH Act rule for four tiers of REC1 waters, which vary based on known or anticipated REC1 use.) Therefore, until such time as an appropriate averaging period and REC1 use tiers are assigned through a formal Basin Plan amendment process, it is necessary to apply best professional judgment to the application of the promulgated enterococcus criteria. The proposed amendment simply states this basic fact.</p> <p>[Note: During the April 10, 2012 meeting, EPA Region 9 staff indicated their expectation that the averaging period employed to express the enterococcus objective would be the same as that now typically employed, i.e., as a 30 day running average. This expectation is itself based on best professional judgment since, as stated above, there is no explicit statement of the appropriate averaging period in the BEACH Act rule. Further, both EPA Region 9 and State Board staff opined that in the absence of a standards setting process, tier decisions could not be made on a best professional judgment basis. Rather, under these circumstances, the applicable SSM would need to be assumed to be that for designated beaches/heavily used REC1 areas, i.e., the most stringent SSM. The Errata sheet proposes the removal of the reference to the application of best professional judgment, but Board staff has requested that State Board staff (and/or EPA Region 9 staff) provide the explicit statutory, regulatory or policy basis for the presumption that REC1 waters are designated beaches unless it is determined otherwise through a standards setting process. Such a presumption can lead to clearly inappropriate results. For example, part of Upper Newport Bay is an ecological reserve and REC1 activities are prohibited in the interest of wildlife/habitat preservation. It is not logical to presume that this area is a designated beach area, unless determined otherwise through a standards process.]</p>
<p>#12, p. 2, ¶5, p.3 top, re enterococcus criteria:"The 2011 EPA proposed guidance for marine waters suggests that the applicable criteria protective of recreation are: cultural enterococci at a geometric mean of 35 cfu per 100 mL and a Statistical Threshold Value (STV) of 104 cfu per 100 mL."</p>	<p>See response to comment #1, above.</p>
<p>#13, p.3, ¶1, re REC2 targets: "The procedures for the use of antidegradation to</p>	<p>This comment is not clear. Both the proposed amendments and the accompanying January 12, 2012 staff report make clear the expectation that the proposed REC2</p>

Responses to February 23, 2012 Comments – EPA Region 9

<p>maintain water quality in REC2 waters is (<i>sic</i>) not clearly specified. Given the variability in bacterial counts, it is unclear how these waterbodies would be monitored to assess compliance with the narrative objective, or how the Regional Board could assure that this would be protective."</p>	<p>targets will be used to assess whether water quality conditions in REC2 only waters (of which there would be a very limited number, assuming that the UAA-based recommendations for these designations are approved) are declining over time. The specific procedures for calculating the targets are identified in both the staff report and proposed amendments. Monitoring will be required to assess whether these targets are being met (see the proposed monitoring language to be added to Chapter 5 IMPLEMENTATION of the Basin Plan – <i>Monitoring Plan for Pathogen Indicator Bacteria in Freshwaters</i>). This proposed language also speaks to the steps the Regional Board will follow should there be credible evidence that the targets are being exceeded. This follow-up is the appropriate and typically employed method to address evidence of water quality problems. It is not clear in what manner EPA Region 9 believes that this approach would not implement antidegradation requirements or fail to be protective of water quality conditions.</p> <p>It should be noted that the Regional Board approved a detailed bacteria monitoring and source identification program as part of the Middle Santa River bacteria TMDL, now being implemented, and more recently (February 2012) approved monitoring programs that are part of Comprehensive Bacteria Reduction Plans for Riverside and San Bernardino counties (part of the MS4 permit requirements). These are examples of the type of monitoring effort we expect to see expanded to protect REC1 uses throughout the watershed. Results to date have demonstrated the efficacy of these programs in directing control efforts.</p>
<p>#14, p.3, ¶ 2, re establishing REC2 targets: "The [antidegradation] procedures outlined do not provide assurance that water quality will be attained."</p>	<p>See response to comment #13. It should be noted that a similar antidegradation policy implementation approach has been used by the Santa Ana Regional Board to successfully prevent degradation in local groundwaters. Regional Board staff are not aware of any procedure adopted elsewhere to prevent water quality degradation by bacteria. Arguably then, the proposed Basin Plan amendment provides the highest level of assurance in the state.</p>
<p>#15, p.3, ¶ 2, re establishing REC2 targets: "Exceedence of the antidegradation-based objectives is when at least 5% of the samples exceed the 95% upper confidence interval of the data used in the original UAA. As water quality data are highly variable, this can lead to extremely high upper</p>	<p>First, Regional Board staff proposes that antidegradation targets, not objectives, apply to REC2- only waters. As USEPA and EPA Region 9 have acknowledged, there is no scientific basis for setting objectives to protect REC2 uses.</p> <p>It is well recognized that bacteria data are highly variable, which is what can result in very high, calculated 95% upper confidence level values. The values shown in the</p>

Responses to February 23, 2012 Comments – EPA Region 9

<p>confidence limits (UCLs). For instance, for the Santa Ana River- New Delhi Channel tidal prism the UCL is greater than 6,000 cfu per 100 mL." To establish exceedances of this number, 5% of samples must exceed this value and the exceedance is only established after removal of outliers and establishment of a true trend."</p>	<p>proposed amendments, including those for the Santa Ana Delhi Channel tidal prism (this reach is mis-cited by EPA Region 9 as the "Santa Ana River – New Delhi Channel tidal prism"), are mathematical calculations based on the available data for this channel and reflect the variability of those data. Given the highly variable nature of bacteria concentrations in the flashy flows of local streams, it is not surprising that the 95% UCL is often quite high.</p> <p>The high degree of variability is presumably the basis for the preference stated in USEPA's 1986 bacteria criteria document for the use of site-specific log standard deviations when calculating applicable single sample maximum values. The procedure used to calculate the antidegradation targets is comparable.</p> <p>Regional Board staff does not understand EPA Region 9's apparent concern about establishing a true trend. The point of the targets and subsequent monitoring is to establish a true trend so that the need for corrective action can be ascertained properly. The inclusion of outliers in the target calculation would be likely to drive the upper confidence levels higher and mask the true trend, which would be counterproductive.</p> <p>[Note: as discussed at the March 16, 2012 Regional Board hearing concerning the proposed recreation standards amendments, Regional Board staff recognizes that very high upper confidence levels/REC2 targets, though calculated through a straightforward mathematical process using actual ambient quality data, can create the perception that water quality is not being adequately protected. Therefore, Board staff advised the Board at the March 16, 2012 hearing that we would revise the targets to reflect the 75% upper confidence level. This approach results in lower target values. From an implementation perspective, there is no substantive difference. The revised targets are shown in the April 23, 2012 Errata sheet]</p>
<p>#16, p. 3, ¶2 re establishing REC2 targets: "It is unclear how [the proposed antidegradation-based] standard could be evaluated when only periodic monitoring of REC2 waters is recommended."</p>	<p>Pursuant to the proposed amendments, a monitoring program would be developed and implemented upon Regional Board approval. The monitoring program must identify specific recommendations re REC2 targets. Where the results of periodic monitoring indicate that an antidegradation target is being exceeded, the Regional Board would require appropriate follow-up action, including supplemental accelerated monitoring to determine whether water quality degradation has, in fact, occurred. If there is credible evidence of a declining trend, then further investigation would be required. See also response to comment # 13.</p>

Responses to February 23, 2012 Comments – EPA Region 9

<p>#17, p. 3, ¶3, additional comments: "EPA recommends the STV in the 2011 proposed criteria, rather than the term 'single sample maximum' to resolve previous inconsistencies in implementation."</p>	<p>See response to comment #1. If USEPA believes that some states are implementing the SSM improperly, it is incumbent upon USEPA to correct the error. If and when finalized as the official 304(a) criteria, the 2011 proposed criteria would serve as guidance to the states. There is no requirement that states be consistent with one another provided that each is implementing the standard in accordance with federal guidance.</p>
<p>#18, p.3, ¶3, additional comments: "Identical to the derivation of the SSM in the 1986 criteria document, the STV corresponds to an upper percentile (e.g. 75th percentile) of a water-quality distribution around the geometric mean."</p>	<p>EPA Region 9 is correct in noting that the "STV" recommended in the draft 2011 criteria document was calculated using the exact same data and equations that were previously used to derive the SSM values in the 1986 criteria document. As such, there is no new scientific data or analysis that underpins EPA's more recent (2011) recommendations. Nor does USEPA make any claim that the 1986 guidance is in error. Rather, it appears that USEPA merely wishes to standardize on one approach to be used by all states despite previously acknowledging (in the BEACH Act Rule) that the Clean Water Act does not require national consistency with regard to this issue (see response to comment #7). Further, applying the same SSM (or "STV") to all waters does not necessarily provide equivalent water quality and public health protection to all waters (see also response to comment # 7).</p>
<p>#19, p.3, ¶3, additional comments: "In order to be consistent with EPA's recommended criteria, the State standards should include both the geometric mean and STV."</p>	<p>Per published USEPA guidance, it is not necessary to include the SSM (or "STV", if included in final 304(a) guidance on this subject) as a compliance measure provided that the state implementation procedures explicitly describe how compliance will be assessed when there are insufficient data to calculate a geometric mean.⁵ EPA Region 9's assertion is in direct conflict with previous USEPA guidance that states the SSMs (or proposed "STVs") were never intended to be applied as independent water quality standards when there were sufficient data to calculate a proper geometric mean.⁶</p>
<p>#20, p. 3, ¶4 and p. 4, top, additional comments: "The formulation of the SSM the Regional Board uses is a misapplication of the USEPA criteria. The SSM in this formulation is dependent on the variability of the sample which can be very large which is partially why USEPA has abandoned the tiered approach in favor of a statistical approach consistent with the</p>	<p>EPA Region 9 does not explain how the formulation of the SSM in the proposed amendments is a misapplication of the USEPA criteria. Further, it is not clear whether EPA Region 9 refers to the established 1986 criteria or to the proposed 2011 draft criteria. The status of the 2011 draft criteria is described in the response to comment #1. Application of these proposed criteria in making SSM recommendations would be inappropriate at this time.</p> <p>In the established 1986 criteria guidance, USEPA explicitly recognizes sample variability and its importance in determining SSMs. First, USEPA states the preference for use of</p>

5 USEPA. Water Quality Standards for Coastal Recreation Waters: Using Single Sample Maximum Values in State Water Quality Standards. EPA-823-F-06-13 (Aug., 2006)

6 USEPA. Water Quality Standards for Coastal Recreation Waters: Using Single Sample Maximum Values in State Water Quality Standards. EPA-823-F-06-13 (Aug., 2006). Pg. 5

Responses to February 23, 2012 Comments – EPA Region 9

<p>original epidemiology study."</p>	<p>site-specific data to determine the value of the log standard deviation to be used in the SSM calculation equation. A default value based on USEPA's epidemiology studies is to be used only where data are insufficient to calculate a site-specific value. Second, the SSM calculation equation itself is included in the 1986 guidance document. The BEACH Act rule also includes this equation and provides guidance on the number of samples that should be collected to determine a site-specific log standard deviation. The BEACH Act rule states further that sufficient guidance is provided by USEPA to allow calculation of site-specific SSMs without a standards-setting process. We note that other EPA regions have approved SSMs higher than those based on the default standards deviation values in other states (e.g., Texas). These SSMs were based on real-world data with higher variability. These SSMs were calculated in conformance with the method described in the BEACH Act rule.</p> <p>Consistent with the BEACH Act guidance, the proposed amendments include the SSM equation and require the minimum number of samples identified in the BEACH Act rule in order to justify the site-specific derivation of the log standard deviation (see Table 5-REC1-ssv, notes #2 and 5). Use of a site-specific log standard deviation would be considered through the Regional Board's normal public comment/participation process. (see Table 5-REC1-ssv, note #5).</p> <p>The nature of the argument in the last phrase ("which is partially why USEPA....original epidemiology study") is not clear. Is EPA Region 9 suggesting that the tiered approach that was previously recommended in the 1986 304(a) bacteria criteria document and that USEPA promulgated in the BEACH Act Rule was actually inconsistent with the original epidemiology studies? Regional Board staff understands that USEPA has been unable to locate the original study data when asked to provide copies under the Freedom-of-Information Act (FOIA). If EPA Region 9 is now in possession of that data we hereby request complete copies so that we may confirm what level of variability was present at the time the studies were conducted and how the variability compares to that observed in the Santa Ana Region.</p>
<p>#21, p. 4, top, additional comments: "EPA Region 9 is also concerned that the SSM values are in the implementation section of the Basin Plan. Any derivation of the SSM from the default values are a standards change and should be included in the water</p>	<p>As USEPA explains in its 2006 guidance memorandum concerning the application of SSMs, SSMs should only be used when there are insufficient data available to calculate a proper geomean. The SSM is not a new or different water quality standard, it is an alternative method for evaluating compliance with a geometric mean under certain data-limited conditions. The proposed Basin Plan amendments establish an <i>E. coli</i> objective expressed as a geomean and set forth a mandatory procedure to assess compliance</p>

Responses to February 23, 2012 Comments – EPA Region 9

<p>quality objectives section and would be subject to EPA approval."</p>	<p>when there are insufficient data to calculate a geomean. This procedure entails the use of SSM values. This proposed procedure is identified both in the water quality objectives chapter of the Basin Plan (see Table 4-pio, note #3) and in the implementation chapter (see Table 5-REC1-ssv, note #1). This approach is entirely consistent with federal guidance which states:</p> <p style="text-align: center;"><i>"States retain discretion to determine whether and how to use the Single Sample Maximums in other Clean Water Act programs"</i></p> <p>The BEACH Act rule makes clear that the derivation of site-specific SSMs is not subject to a standards setting process. (see p. 67227 of the rule; see also the response to comment #20).</p>
<p>#22, p. 4, 1st full ¶, "EPA observes that the Regional Board has struck some language regarding site specific objectives (SSO) for copper, cadmium and lead in the middle Santa Ana River..."EPA Region 9 would like to make clear that EPA did not approve [the metals] SSOs (letter to the Regional Board dated May 30, 2000)."</p>	<p>Substantive changes to the Basin Plan regarding metals objectives for the Santa Ana River are beyond the scope of the proposed amendments. Changes to this language are proposed simply in order to (1) correct the spelling of one word ("formulas" to "formulae") and (2) change footnote notation. The latter change is necessary to accommodate new footnotes that are proposed to be added to the Basin Plan after the metals footnote.</p> <p>In the interest of clarity, it should be noted that EPA Region 9 offered the Santa Ana Region the option of approving the SSOs or accepting the standards proposed in the California Toxics Rule. EPA Region 9 made it very clear that they could and would approve either approach for the Santa Ana. The Santa Ana Regional Board staff consulted with local stakeholders and informed EPA Region 9 that either approach would be acceptable provided that the site-specific metals translators that were developed and approved by the Regional Board at the same time the SSOs were adopted could continue to be used to derive appropriate effluent limits in NPDES permits. EPA agreed and the State Implementation Policy contains a specific provision allowing continued use of metals translators that were developed and approved prior to the adoption of the SIP.</p>
<p>#23, p. 4, ¶2, additional comments: "In 2007, we provided the Regional Board with</p>	<p>EPA Region 9 does not specify those parts of the Strawman proposal that it believes were not addressed. The Strawman Proposal previously submitted for EPA Region 9's</p>

7 USEPA. Water Quality Standards for Coastal Recreation Waters: Using Single Sample Maximum Values in State Water Quality Standards. EPA-823-F-06-13 (Aug., 2006). Pg. 1

Responses to February 23, 2012 Comments – EPA Region 9

<p>comments on the "Strawman Document: Recommended Revision to Santa Ana Region's Basin Plan for Recreational Use Classification and Related Water Quality Objectives". Many of our comments and recommendation have not yet been addressed."</p>	<p>consideration was substantially revised in direct response to EPA Region 9's comments. A separate document is appended to this response that describes the specific changes made in response to each of the comments we received from EPA Region 9 in 2008 (see below). As reflected therein, Board staff believes that all of the comments and recommendations provided by EPA Region 9 were considered seriously and resulted in substantive changes that are reflected in the proposed amendments.</p>
<p>#24, p. 4, ¶3, additional comments: "EPA supports the State Board's effort to adopt statewide standards for recreational beneficial uses that are consistent statewide. We strongly recommend that the Regional Board work with the State Board on this statewide effort to avoid different definitions, interpretation and implementation of standards to protect human health."</p>	<p>Recommendation noted. Regional Board staff have provided comments to State Board and other regional board staff on preliminary proposals for establishing and implementing bacteria objectives, and we anticipate continuing to participate in this effort.</p> <p>Board staff firmly believes that the proposed amendments are fully consistent with applicable guidance and will result in public health and beneficial use protection that is superior to the established Basin Plan standards. For this reason, it is imperative that consideration and approval of these amendments proceed without delay and ahead of the statewide effort, which has been and will likely be delayed as we await the outcome of USEPA's development of revised bacteria criteria guidance.</p> <p>For the record, we note that the Clean Water Act requires that uses be protected, not that the specific approach to providing that protection be consistent from place to place.</p>

**Comparison of 2007 Strawman Proposal and revised 2012 Recreation Standards Amendments Proposal
Revising the Definition of REC1**

2007 Strawman Proposal	EPA Comments on Strawman Proposal	2012 Basin Plan Amendment	Revisions Made to Address EPA Concern
<p><i>"REC1 - Primary Contact Recreation: waters used for recreational activities involving frequent and prolonged water contact, especially by children, where ingestion of water is likely. Examples of Primary Contact Recreation include, but are not limited to: swimming, water-skiing, surfing, whitewater rafting, float-tubing, bathing in natural hot springs, skin and scuba diving. All defined waters of the U.S. are presumed to be capable of supporting primary contact recreation unless a Use Attainability Analysis (UAA) demonstrates that this use has not been attained and is not attainable and the Basin Plan is revised accordingly."</i></p>	<p>The proposed changes have the effect of altering the thresholds for REC1 use designations, rendering them less protective...</p> <p>1) By using the phrase "frequent and prolonged use" to define REC1...</p> <p>2) By removing "fishing and wading" from the current definition of REC1 activities...</p> <p>3) By changing the threshold for water ingestion from "reasonably possible" to "likely."</p> <p>EPA also notes that:</p> <p>"The current REC1 definition was the product of an intense collaborative effort by the State Water Resources Control Board and the Regional Water Quality Control Boards and the USEPA to develop a consistent statewide definition for the REC1 use."</p>	<p><i>"Primary Contact Recreation (REC 1*) waters are used for recreational activities involving deliberate water contact, especially by children, where ingestion is likely to occur. Examples of REC1 activities may include, but are not limited to, swimming, water-skiing, surfing, whitewater rafting, float tubing, bathing in natural hot springs, skin diving, scuba diving and some forms of wading and fishing. Brief incidental or accidental water contact that is limited primarily to the body extremities (e.g. hands and feet), is not generally deemed Primary Contact Recreation because ingestion is not likely to occur."</i></p> <p><i>"The definition of the REC1 use was also updated to improve clarity and precision, and new bacteria quality objectives, based on USEPA's recommended E. coli criteria (1986), were adopted for fresh inland surface waters (see Chapter 4, pathogen indicator bacteria objectives for inland surface waters). The minor revisions to the REC1 definition neither broadened nor reduced the intended scope of the prior REC1 definition. Rather, the sole purpose was to ensure that objectives based on the USEPA bacteria quality criteria are applied in a manner that is consistent with the specific exposure assumptions (including the nature of recreational activities) described in USEPA's criteria document and related guidance."</i></p>	<p>1) The phrase "frequent and prolonged" use was deleted at EPA's suggestion.</p> <p>2a) All types of fishing where ingestion is likely to occur (e.g. instream fly-fishing) will continue to be included in the definition of REC1 activities as they always have been. Dock-fishing, boat-fishing and shoreline fishing involving only brief incidental water contact to the hands and feet will continue to be considered REC2-type activities as they always have been.</p> <p>2b) Any form of wading where ingestion is likely to occur will continue to be included in the definition of REC1 activities as it always has been. Activities such as beachcombing, tide-pool study, dog-walking, rock-skipping, and similarly brief incidental or accidental water contact limited primarily to the hands and feet will continue to be considered REC2 activities as they always have been.</p> <p>3) The word "reasonably" in the phrase "reasonably possible" was originally intended to convey a level of probability that was synonymous with the term "likely." So, substituting the term "likely" is not meant to alter the threshold for water ingestion but, rather, to use the more precise language suggested in federal guidance to more accurately convey the original meaning and reduce the potential for misinterpretation. Additional explanation was added to the text of the proposed Basin Plan amendment to make this very clear.</p>

Responses to February 23, 2012 Comments – EPA Region 9

2007 Strawman/2012 BPA Comparison: Use Attainability Analyses (UAA)

2007 Strawman Proposal	EPA Comments on Strawman Proposal	2012 Basin Plan Amendment	Revisions Made to Address EPA Concern
<p><i>"The Regional Board will consider a suite of factors when determining how best to classify a waterbody to protect recreational uses. The factors may include but are not limited to: flow conditions, ease of access, adjacent land uses, proximity to parks and/or residences, channel morphology and modifications, naturally-occurring sources of pollution or aesthetic restrictions, public safety concerns, the probable risk of ingesting water, parks and recreation plans, and the type of recreational activities that are occurring or have occurred in the waterbody since November 28, 1975 (i.e. 'existing uses'). Where the Regional Board determines, through a Use Attainability Analysis, that a waterbody cannot support any recreational uses (REC1 or REC2), that stream segment will be designated REC-X."</i></p>	<p>1) RB8 should identify which factors would be used in UAAs and how these relate to the six factors in 40CFR131.10(g).</p> <p>2) Under Factor 1, RB8 would need to show that natural sources prevent attainment of the use. This is similar to the approach used in RB4. For EPA approval, there must be a demonstration that the exceedances are due to natural sources (i.e. all human sources have been controlled).</p> <p>3) Under Factor 4 [EPA] would expect an analysis as to how hydromodification precludes the attainment of the use and why it is not feasible to restore the use to its "original" (i.e., the use that existed in November, 1975) condition.</p> <p>4) Under Factor 6 [EPA] would expect a demonstration that attainment would result in widespread economic and social impact.</p> <p>5) Land use by itself is not a factor in the UAA process.</p>	<p><i>"Pursuant to the federal Clean Water Act and implementing regulation, all defined waters of the United States are presumed to be capable of supporting Primary Contact Recreation and shall be designated REC 1 unless a Use Attainability Analysis (UAA) demonstrates that this use is not an existing use and is not attainable and the Basin Plan is revised accordingly. A suite of factors must be considered when UAAs are conducted to determine whether to downgrade or delete the REC 1 use from any waterbody. The relevant factors are identified in federal and state regulations."</i></p>	<p>1) The Basin Plan now states that the relevant factors that must be considered when conducting a UAA are identified in federal regulations as EPA suggested. The technical support document for each UAA now describes which of the six federal factors, and the specific scientific evidence, that were used to justify downgrading or deleting a recreational use.</p> <p>2) No revisions necessary because none of the UAA's recommended for approval relied on Factor #1 (naturally-occurring sources of pollution) to justify downgrading or deleting a REC1 use.</p> <p>3) The technical support document for each UAA now describes the specific hydromodifications that preclude attainment of the use in any given channel. Many of these channels were modified prior to November, 1975 or were man-made conveyances constructed after that date. In both cases, the current condition is the original condition.</p> <p>4) No revisions were necessary because none of the UAA's recommended for approval relied on Factor #6 (widespread economic and social impact) to justify downgrading or deleting a REC1 use.</p> <p>5) None of the UAA's cite land use, by itself, to justify downgrading or deleting a REC1 use. Land use is only considered as an element of Factor #3 (human caused conditions prevent attainment of the use) and the likelihood of future potential use.</p>

2007 Strawman/2012 BPA Comparison: *E. coli* Objectives for REC1

2007 Strawman Proposal	EPA Comments on Strawman Proposal	2012 Basin Plan Amendment	Revisions Made to Address EPA Concern												
<p>"Pathogen indicator concentrations shall not exceed the values specified in Table 1 (below) as a result of controllable water quality factors unless it is demonstrated to the Regional Board's satisfaction that the elevated indicator concentrations do not result in excessive risk of illness (i.e. greater than 8 gastrointestinal illnesses per 1000 swimmers) among people recreating in or near the water.</p> <p style="text-align: center;">Table 1: Pathogen Indicator Bacteria Objectives for Fresh Waters</p> <table border="1" data-bbox="191 732 630 1190"> <thead> <tr> <th data-bbox="191 732 394 833">Recreational Use Designation</th> <th data-bbox="394 732 630 833">Pathogen Indicator Objective</th> </tr> </thead> <tbody> <tr> <td data-bbox="191 833 394 971">REC1 and REC2</td> <td data-bbox="394 833 630 971"><126 <i>E. coli</i>/100 ml (30-day geometric mean of at least 5 samples)</td> </tr> <tr> <td data-bbox="191 971 394 1190">REC2-only</td> <td data-bbox="394 971 630 1190"><2000 fecal coliform/100 ml (30-day average of at least 5 samples) and <10% of samples >4000 fecal coliform/100ml</td> </tr> </tbody> </table> <p>The water quality objectives specified in Table 1 do not apply when designated uses are temporarily suspended due to unsafe flow conditions in the waterbody.</p>	Recreational Use Designation	Pathogen Indicator Objective	REC1 and REC2	<126 <i>E. coli</i> /100 ml (30-day geometric mean of at least 5 samples)	REC2-only	<2000 fecal coliform/100 ml (30-day average of at least 5 samples) and <10% of samples >4000 fecal coliform/100ml	<p>1) We [EPA] do not believe we can approve the standards change being proposed without a single sample standard for <i>E. coli</i>. In other EPA approvals, we have required adding single sample standards where only a geometric mean has been adopted.</p> <p>2) EPA guidance allows adjustment of single sample maxima for areas where use is less frequent.</p>	<p><i>"Lakes and Streams: Waste discharges shall not cause or contribute to excessive risk of illness from microorganisms pathogenic to human beings. Pathogen indicator concentrations shall not exceed the values specified in Table 4-pio below as a result of controllable water quality factors: [excerpt of Table; all the notes not included]</i></p> <table border="1" data-bbox="1043 505 1547 976"> <thead> <tr> <th data-bbox="1043 505 1262 695">Table 4-pio - Pathogen Indicator Bacteria Objectives for Fresh Waters¹ Recreational Use</th> <th data-bbox="1262 505 1547 695">Pathogen Indicator Objective (geometric mean of at least 5 samples in a 30-day period (running))²</th> </tr> </thead> <tbody> <tr> <td data-bbox="1043 695 1262 751">REC1-only or REC1 and REC2</td> <td data-bbox="1262 695 1547 751"><126 <i>E. coli</i> organisms per 100 mL³</td> </tr> <tr> <td data-bbox="1043 751 1262 976">REC2-only⁴</td> <td data-bbox="1262 751 1547 976">N/A; see <i>REC2 Only Freshwaters</i>, below, and Chapter 5, Recreation Water Quality Standards, <i>Antidegradation targets for REC2 only freshwaters</i></td> </tr> </tbody> </table> <p>³ ...For all other purposes related to implementing the Clean Water Act, if there are insufficient data to calculate a representative geometric mean for <i>E. coli</i>, "X%" of the representative sample data collected over a 30 day period (running) shall be less than the applicable Single Sample Maximum value, where X% is the statistical confidence level assigned to a particular waterbody. Where there are sufficient data to calculate a representative geometric mean for <i>E. coli</i>, the applicable Single Sample Maximum value shall not be used to assess compliance with the <i>E. coli</i> objective in Table 4-pio. The intent of Single Sample Maximum values is to inform public notification decisions and to trigger additional follow-up monitoring (see Chapter 5, Recreation Water Quality Standards, Application of Single Sample Maximum Values in REC1 Freshwaters).</p>	Table 4-pio - Pathogen Indicator Bacteria Objectives for Fresh Waters ¹ Recreational Use	Pathogen Indicator Objective (geometric mean of at least 5 samples in a 30-day period (running)) ²	REC1-only or REC1 and REC2	<126 <i>E. coli</i> organisms per 100 mL ³	REC2-only ⁴	N/A; see <i>REC2 Only Freshwaters</i> , below, and Chapter 5, Recreation Water Quality Standards, <i>Antidegradation targets for REC2 only freshwaters</i>	<p>1) The proposed <i>E. coli</i> objective is expressed as a geometric mean of at least 5 data points collected over a 30-day period (rolling average). The amendments now include EPA's recommended procedure for evaluating compliance with that objective when there are insufficient data to calculate a proper geometric mean (see Table 4-pio, note 3; see also Table 5-REC1-ssv, notes 2 and 5)). This approach is consistent with EPA's 2006 guidance regarding the use and application of Single Sample Maximum values. The SSM is not a "separate" water quality standard because none is needed. The SSM is a statistical translation of the geometric mean and is fully enforceable when there are insufficient data to calculate a representative geometric mean. The SSMs thus serve as both a standard (where there are insufficient data to determine a geometric mean) and a public notification tool, as was intended.</p> <p>2) The proposed Basin Plan amendment now includes different SSM values using the adjustments EPA recommended where use is less frequent. Tier assignments based on the known/anticipated frequency of REC1 use are proposed. The equation used to calculate SSMs is also included, with specifics regarding the number of samples that must be collected to justify</p>
Recreational Use Designation	Pathogen Indicator Objective														
REC1 and REC2	<126 <i>E. coli</i> /100 ml (30-day geometric mean of at least 5 samples)														
REC2-only	<2000 fecal coliform/100 ml (30-day average of at least 5 samples) and <10% of samples >4000 fecal coliform/100ml														
Table 4-pio - Pathogen Indicator Bacteria Objectives for Fresh Waters ¹ Recreational Use	Pathogen Indicator Objective (geometric mean of at least 5 samples in a 30-day period (running)) ²														
REC1-only or REC1 and REC2	<126 <i>E. coli</i> organisms per 100 mL ³														
REC2-only ⁴	N/A; see <i>REC2 Only Freshwaters</i> , below, and Chapter 5, Recreation Water Quality Standards, <i>Antidegradation targets for REC2 only freshwaters</i>														

Responses to February 23, 2012 Comments – EPA Region 9

			<p>a site-specific log standard deviation (a variable in the SSM equation).</p> <p>3) The SSM method may also be used as an implementation procedure for evaluating compliance with the proposed narrative pathogen objective.</p>
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2007 Strawman/2012 BPA Comparison: Fecal Coliform Objectives for REC2

2007 Strawman Proposal	EPA Comments on Strawman Proposal	2012 Basin Plan Amendment	Revisions Made to Address EPA Concern
<p><i>"The current fecal coliform objective established to protect beneficial uses designated REC2-only should not be changed. However, some clarification from U.S. EPA is required regarding the most appropriate method for calculating an "average" for bacterial data.</i></p> <p><i>The historical record is unclear as to how the term "log-mean" was suggested for the Primary Contact criteria while the word "average" was selected for the Secondary Contact criteria. It is uncertain whether this was a deliberate choice intended to recommend different methods of calculation or not. Nor is it clear why, if the Secondary Contact criteria as originally derived by multiplying the Primary Contact criteria by 5x or 10x, the units should change. Therefore, the Task Force seeks some clarification from EPA:</i></p> <p><i>1) What is the most mathematically correct procedure for calculating the "average" for fecal coliform in order to assess compliance with the Secondary Contact criteria if the underlying data are log-normally distributed?</i></p> <p><i>2) If a footnote is added to the Basin Plan to describe the most mathematically correct procedure for calculating the fecal coliform average, does that constitute a revision of water quality standards or merely a clarification of an existing water quality objective in order to avoid confusion and misinterpretation during the implementation process?"</i></p>	<p>1) It is unclear why RB8 is not replacing the REC2 fecal objective with an E. coli objective.</p> <p>2) Having different indicators for different uses would seem to confuse the issue and could result in increased monitoring costs.</p> <p>3) We [EPA] believe that the term "average" for REC2 can be interpreted as a geomean. This would be consistent with the existing REC1 fecal standard. Such a clarification of the standards language would constitute a standards change.</p> <p>4) Use of the single sample maxima [solely] as a trigger for monitoring would require a standards change. We suggest that the language in the California Ocean Plan regarding single sample maxima could be used as a model.</p>	<p>The current fecal coliform objectives adopted for freshwaters designated REC2 are deleted from the Basin Plan.</p> <p>No numeric pathogen indicator bacteria objectives are proposed to replace the deleted fecal coliform objectives for freshwaters designated REC2.</p> <p>Waters designated both REC1 and REC2 would be governed by the proposed <i>E. coli</i> objectives (see Table 4-pio). For waters designated REC-2 only, bacteria quality targets are proposed in conformance with antidegradation policies. Exceedances of these targets would trigger additional monitoring and investigation.</p>	<p>1) The Regional Board is replacing the REC2 fecal coliform objectives with an E. coli objective because EPA has not yet recommended such a criterion pursuant to Section 304(a) of the Clean Water Act and there are insufficient scientific data available for the Regional Board to develop such an objective.</p> <p>2) The Regional Board agrees that having different pathogen indicators for different recreational uses may confuse the issue. Therefore, the Regional Board now proposes to delete the obsolete fecal coliform objectives from the Basin Plan.</p> <p>3) The clarification previously suggested in the Strawman document is no longer necessary because the obsolete fecal coliform objectives are being deleted in their entirety.</p> <p>4) The proposed Basin Plan amendments no longer limit the use of single sample maxima solely to serve as a trigger for additional monitoring. Instead, the proposed Basin Plan amendment would employ the SSMs as EPA recommends in the 1986 Bacteria criteria and the additional federal guidance published in 2006.</p> <p>5) Fecal coliform data can continue to be used to assess compliance with federal and state antidegradation policies.</p>

2007 Strawman/2012 BPA Comparison: Temporary High Flow Suspension

2007 Strawman Proposal	EPA Comments on Strawman Proposal	2012 Basin Plan Amendment	Revisions Made to Address EPA Concern
<p>"A footnote should be added to all freshwater rivers and streams designated as REC1 or REC2 in Table 3-1 of the Basin Plan; said footnote to state:</p> <p>"The REC1 and REC2 use designations are temporarily suspended when high flows, caused by stormwater runoff, preclude safe recreation in the stream channel. The temporary suspension is automatically terminated when flow conditions have returned to a safe level."</p> <p>The footnote would <u>not</u> be applied to lakes, reservoirs or ocean waters designated REC1 and/or REC2. The Regional Board will define what constitutes unsafe flow conditions using one or more of the following thresholds: 1) the U.S. Geological Survey's safe sampling standard, 2) the Swift Water Rescue safe access standard, 3) the Los Angeles Regional Water Quality Control Board's use suspension standard for temporary high flows, 4) or other objective indicators."</p>	<p>1) This is a reasonable approach, however the proposal is too vague as to what criteria would be used to define high flow... RB8 must provide the threshold hydrologic event values that would be used to initiate the high flow suspension...</p> <p>2) RB8 must provide the threshold values or duration limits that would signal the return of the use.</p> <p>3) We [EPA] are concerned that the high flow exclusion is not confined to specific engineered channels.</p> <p>4) We [EPA] agree that flow and velocity are important factors in estimating potential use of the waterbody for swimming but this is but one factor that should be considered. However, high flows may not preclude other recreational uses of the water where ingestion is possible (e.g. kayaking).</p>	<p><i>"Recreational use of certain inland surface waters is precluded under certain flow conditions that make recreational activities unsafe. Recreation use designations (and the applicable pathogen and pathogen indicator objectives) are temporarily suspended when such conditions exist.</i></p> <p><i>Definition of Unsafe Flows. 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 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.</i></p> <p><i>Termination of Temporary Suspension. Stream flows will be presumed to return to safe conditions and the temporary suspension of recreation standards will cease 24-hours after the end of the storm event, unless actual flow data demonstrate that the suspension should terminate sooner or later than the default period. In such cases, the suspension terminates once stream flows (measured as cubic-feet/second or (cfs) have returned to the range of normal pre-storm conditions (cfs<98th percentile as calculated from a calibrated hydrograph for the stream).</i></p>	<p>1) The proposed Basin Plan amendment now includes specific threshold values that would be used to initiate the high flow suspension.</p> <p>2) The proposed Basin Plan amendment now includes specific duration limits and specific threshold values for stream flow that would terminate the temporary suspension of water quality standards for recreational uses.</p> <p>3) The proposed Basin Plan amendment now limits application of the temporary high flow suspension to specific channels that have been substantially modified to protect people and property from flooding.</p> <p>4) High flows like those that would trigger a temporary suspension of water quality standards represent such an extreme hazard that they effectively preclude safe recreational water contact of any kind. Kayaking is not known to occur under such conditions in creeks and streams of the Santa Ana region. The intrinsic risk associated with kayaking in channels during high flow conditions is far greater than the potential health hazard associated with temporarily suspending water quality standards during significant storm events.</p>

Responses to March 15, 2012 Comments from Heal the Bay^{1, 2}

<p>#1. Rename the REC1 Use from “Water Contact Recreation” to “Primary Contact Recreation”: “We urge the Regional Board to retain the current definition.”</p>	<p>Please see the response to 2-23-12 comments from EPA Region 9, # 3</p>
<p>#2. Delete fecal coliform objectives and replace with <i>E. coli</i> objectives: The Basin Plan should specify that a rolling geometric mean be calculated based on five samples collected over the last thirty days or the five most recent samples.</p> <p>“In addition, the Regional Board must include a single-sample limit of <i>E. coli</i> density of 235/100ml. This single sample is critical for both public health protection and compliance purposes. There is no justification as to why this criterion is absent in this proposal.”</p>	<p>The proposed amendments included a recommended objective for <i>E. coli</i> expressed as the geometric mean of at least 5 sample in a 30-day period (running). (“Running” is the equivalent of “rolling” in the context of the expression and implementation of the objectives). See proposed Table 4-pio-Pathogen Indicator Bacteria Objectives for Fresh Water.</p> <p>Single sample maximum values, including 235/100ml <i>E. coli</i>, are included in the proposed amendments. Single sample maximum values and their application are described in detail in the proposed amendments (see “<i>Application of Single Sample Maximum values in REC1 freshwaters</i>”, including Table 5-REC-ssv (Chapter 5), and Table 4-pio- Pathogen Indicator Bacteria Objectives for Fresh Water (table note 3)). The detailed rationale for these amendments is described in the January 12, 2012 staff report for the amendments. The proposed single-sample maximum related amendments are wholly consistent with established USEPA guidance and regulation, including the Water Quality Standards for Coastal and Great Lakes Recreation Waters; Final Rule (BEACH Act rule) (2004) and, as such, will assure public health and beneficial use protection. Please see also the responses to 2-23-12- comments from EPA Region 9, #19-21.</p>

¹ Heal the Bay acknowledges in their March 15, 2012 letter that the comments provided focus on the proposals as described in the Executive Summary of the proposed amendments only, due to time constraints.

² On April 20, 2012, Heal the Bay submitted additional comments concerning the Use Attainability Analyses components of the proposed amendments. These additional comments were appended to the March 15, 2012 comment letter. The amended comment letter was not signed. Responses to the additional comments will be prepared and provided at the April 27, 2012 hearing.

Responses to March 15, 2012 Comments from Heal the Bay

<p>#3. Establish narrative pathogen objective: “It is unclear why the Regional Board would propose a narrative pathogen objective. The numeric recreational water quality criteria are based on health impacts. These numeric criteria should be sufficient to protect public health.”</p>	<p>The rationale for the proposed narrative pathogen objective is discussed in the January 12, 2012 staff report and explicitly in the proposed amendments (see the proposed narrative in CHAPTER 4 WATER QUALITY OBJECTIVES, INLAND SURFACE WATERS, Pathogen Indicator Bacteria, third paragraph). In short, the intent of the narrative objective is to provide the Regional Board an additional regulatory tool to employ in situations where data on pathogens or other bacterial indicators of the presence of pathogens, numeric objectives for which are not specified in the Basin Plan, provide evidence of actual or threatened impacts to public health and recreational uses. Board staff is at a loss to understand why Heal the Bay would object to such an objective; indeed, we believe that Heal the Bay should applaud it and encourage its adoption by other regional boards in the state.</p>
<p>#4 and #5: “Subdivide REC1 standards into tiers based on intensity of use”: “We urge the Regional Board to reject the proposal of a tiered approach based on intensity of use....USEPA states that “the 2012 RWQC [proposed Recreational Water Quality Criteria, published in draft in 2011] are no longer recommending multiple “use intensity” values, in an effort to increase national consistency...and ensure equivalent health protection in all waters”. Thus, one set of standards based on the same health protection is appropriate.”</p> <p>“..we are concerned with the Regional Board’s assessment that the single sample value is for posting purposes only...Both the single sample and the geomean standards play an important role in public health protection and compliance assurance. The Regional Board cannot simply decide to use one or the other. “</p>	<p>Please see the response to 2-23-12 comments from EPA Region 9 , #1 and 7.</p> <p>As specified in the proposed amendments (see “<i>Application of Single Sample Maximum values in REC1 freshwaters</i>”, including Table 5-REC-ssv (Chapter 5), and Table 4-pio- Pathogen Indicator Bacteria Objectives for Fresh Water (table note 3)), the principal use of the SSMs would be as a beach posting/closure decision-making tool. This is entirely consistent with the express purpose of the SSMs, as described in USEPA guidance and regulations (e.g., USEPA’s 1986 bacteria criteria document and the USEPA 2006 Fact Sheet concerning SSMs (see references in the January 12, 2012 staff report)). However, pursuant to the proposed amendments, SSMs would be used also for compliance purposes where there are insufficient data to calculate a</p>

Responses to March 15, 2012 Comments from Heal the Bay

<p>“Any derivation of the single sample or geomean from default values are (<i>sic</i>) a standards change and would be subject to EPA approval.”</p>	<p>geometric mean for comparison to the geometric mean objective (once again, please see see “<i>Application of Single Sample Maximum values in REC1 freshwaters</i>”, including Table 5-REC-ssv (see note1) (Chapter 5), and Table 4-pio- Pathogen Indicator Bacteria Objectives for Fresh Water (table note 3)). The proposed amendments include both recommended geometric mean objectives and SSMS.</p> <p>This is not the case. Explicit confirmation to the contrary is provided in the BEACH Act rule (p.67227). See also response to 2-23-12- comment from EPA Region 9, #21.</p>
<p>#6. Temporary suspension of bacteria objectives. “The term “high flow suspension” is very misleading. Did the Regional Board collect flow data over an extended period of time in the waterbodies proposed for temporary suspension of bacteria objectives? Without rain gauges on a specific waterbody, it is impossible to know if the flow is truly significantly elevated. ...Given the lack of understanding about flow, it is impossible to predict when individuals could be recreating in a waterbody. People who swim or surf in wet or winter weather are entitled to the same health protection and water quality standards as those that swim at beaches during the Fourth of July. ...Of note, high bacteria concentrations from upstream waterbodies could contribute to exceedances of water quality standards in downstream waterbodies. Thus we urge the Regional Board to not include a temporary suspension of bacteria objectives.</p>	<p>The January 12, 2012 staff report for the proposed amendments, and supporting technical documentation in the administrative record for this matter, describe in detail the technical bases for the recommended high flow suspension, the criteria to be used to trigger the suspension, and the criteria for termination of the suspension. Flow conditions in a number of streams considered representative of the types of channels to which the suspension criteria would apply were carefully evaluated. The flow response in these streams to storm events of different sizes, and the time required to return to base flow conditions, were evaluated. Further, the criteria employed by flood control agencies to determine when access to channels by the public should be prohibited in the interest of safety and the criteria employed by agencies engaged in stream monitoring (e.g., the United States Geological Survey) to determine when samplers are placed at undue risk were also evaluated and used to define the recommended suspension criteria. The suspension criteria proposed in the amendments identify those conditions in which flow conditions in the streams effectively preclude recreational uses because of safety considerations. To the extent that an individual chooses to recreate in such waters during unsafe conditions, the characteristics of the flow rather than bacteria quality are the principal public health and safety concern. In theory, the suspension should be applied to any surface stream</p>

Responses to March 15, 2012 Comments from Heal the Bay

<p>The definition of “modified channels” can lead to use suspension in any water body where any vegetation has been removed or had any small modifications. This is completely inappropriate.</p>	<p>when the suspension criteria are met. However, Board staff recommends that the suspension be limited to engineered or heavily modified channels.</p> <p>It is recognized that bacteria concentrations from upstream waterbodies could contribute to exceedances of water quality standards downstream. Water quality standards in waters downstream of those for which the suspension is in temporary effect must be met, unless the suspension also applies to the downstream waters. In fact, the application of the temporary suspension to certain waters could facilitate the protection of downstream waters where recreation use may continue to occur (e.g., ocean beaches) by making it feasible to focus control efforts on those downstream waters, rather than in the upstream waters themselves. This approach would enhance rather than preclude public health and beneficial use protection.</p> <p>Please see the response to EPA Region 9 comment # 9.</p>
<p>#7. Re-designate specific waters to remove REC1 or REC1 and REC2 uses. “...the proposal sets an incentive to channelize inland waters in order to dedesignate beneficial uses and have less stringent requirements. The additional regulatory incentive of dedesignation will only lead to more efforts to channelize creeks and streams...rather than more ecologically friendly flood control efforts...More natural, bioengineered approaches to flood control will likely result when beneficial use designations are maintained.”</p> <p>“In addition, waterbodies dedesignated from a REC1 to a REC2 or complete dedesignation from water quality standards could stall restoration efforts.</p>	<p>The Regional Board exercises authority pursuant to the federal Clean Water Act (section 401 (water quality standards certifications)) and the California Water Code (e.g., consideration of the issuance of waste discharges requirements and enforcement of adopted waste discharge requirements) to regulate proposed discharges, such as those associated with stream modification projects, to assure that water quality and beneficial uses will be protected. The exercise of that authority does not negate the Regional Board’s responsibilities and authorities for determining the water quality standards that properly apply to waters of the state and the United States. The Regional Board’s determinations in surface water quality standards matters are subject to review and approval by the State Water Board and EPA Region 9.</p>

Responses to March 15, 2012 Comments from Heal the Bay

<p>“The Regional Board states that dedesignated waters would be reviewed at least once every three years during the Triennial Review process. Given resource constraints, it is impossible that this review would be given the enormous amount of time needed to review all of the data and science.”</p>	<p>The recommendations in the proposed amendments for de-designation of REC1 or REC1 and REC2 uses for certain waters were based on detailed analyses described at length in the January 12, 2012 staff report (see the UAA sections of this staff report) and supporting documents in the administrative record. These analyses fully comply with relevant federal regulations for the consideration of de-designations.</p> <p>We understand that Heal the Bay is cognizant of, and disagrees at least in part with, the de-designations of some recreational uses for portions of Ballona Creek, which is in the Los Angeles Region. These de-designations were based on a Use Attainability Analysis performed by staff of the Los Angeles Regional Board. Of particular relevance in response to this Heal the Bay comment is the fact that the State Board took up the matter of the re-designations for Ballona Creek on its own motion. The Los Angeles Regional Board had declined to approve the recommendations of its staff for the de-designations, on the grounds that it would be appropriate to await consideration of future restoration efforts that might affect the attainability of recreational uses in the Creek. However, the State Board found instead that it would be appropriate to proceed with the re-designations, recognizing that changes could be made in the future if justified by restoration efforts. Federal regulations require the re-consideration of water quality standards that do not include “swimmable” (i.e., REC1) uses (and “fishable” uses) at least once every three years to determine whether conditions have changed such that the REC1 designation has become appropriate. This requirement applies to Ballona Creek, and to the waters in Region 8 that are proposed for de-designation. We appreciate the fact that Heal the Bay recognizes the resource constraints that confront the Board. These constraints confront virtually every agency and organization, and they make all the more essential sound decisions regarding applicable water quality standards. With appropriate standards established, resources can then be used in the most appropriate and effective manner to improve and</p>
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Responses to March 15, 2012 Comments from Heal the Bay

	<p>protect water quality, beneficial uses and public health</p> <p>It should be noted that the level of UAA documentation collected and reviewed by the Santa Ana Regional Board in recommending the de-designations in the proposed amendments is equal to or exceeds that which the State Board relied on to reclassify Ballona Creek. It may be noted that EPA Region 9 approved the re-designations for Ballona Creek without reservation.</p>
<p>#9. (note, there is no #8 in the Heal the Bay letter): Delete the bacterial quality objective for MUN. The Regional Board should not remove the MUN use without adequate documentation that MUN is not an “existing” use.</p>	<p>See response to 2-23-12 comments by EPA Region 9, #5</p>
<p>Conclusion: “ The Regional Board’s proposal has major implications on public health protection...many elements of the proposal will put recreators at greater risk and will not protect beneficial uses. At the same time, the proposal will likely stall restoration and water quality improvement efforts... The proposed Basin Plan amendment is the wrong action at the wrong time...Heal the Bay opposes the proposal as discussed above.</p>	<p>In contrast to the position expressed by Heal the Bay, and for the reasons described in part above, Regional Board staff believes that the proposed amendments, if approved and implemented, will result in public health and beneficial use protection. In fact, that the level of protection provided would exceed that now provided by the Basin Plan since (1) revised bacteria quality objectives based on an indicator organism now recommended by USEPA to protect public health would be established and (2) the suite of amendments, including changes to REC1 designations for certain waters and implementation strategies such as the temporary suspension of recreational standards, would enable and encourage responsible parties to implement control actions in prioritized and most appropriate fashion, thereby allowing limited resources to be applied first where the risks to public health and beneficial uses are most acute.</p>

**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, 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).
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. 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 and April 27, 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 April 27, 2012.

Kurt V. Berchtold
Executive Officer