

Draft Comment Summary and Responses

Comment Deadline: October 1, 2012

Amendment to the Santa Ana Region Basin Plan to Revise Recreational Standards for Inland Fresh Waters

List of Commenter's:

Comment Reference	Organization	Representative
1	California Department of Fish and Game, Inland Deserts Region	Jeff Brandt
2	California Stormwater Quality Association	Richard Boon
3	Calleguas Creek Watershed Management Plan	Lucia McGovern
4	City of Ontario	Chris Hughes
5	City of Orange	Joe DeFrancesco
6	Heal the Bay	Amanda Griesbach Kirsten James
7	Orange County Public Works	John Moorlach
8	Orange County Water District	Michael Markus
9	Riverside County Flood Control and Water Conservation District	Jason Uhley
10	United States Environmental Protection Agency, Region IX	Nancy Woo
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No.	Author	Comment
1	Jeff Brandt	The California Department of Fish and Game (Department) has reviewed the amendment to the Basin Plan and has extensive comments pertaining to the following Beneficial Use categories: COLD, BIOL, WILD, RARE, and SPWN. Department staff discussed these comments with SARWQCB staff who requested that the Department postpone the submittal of these comments until the public comment period for the Triennial Review. The Department has agreed to postpone comments on the above-mentioned beneficial use categories as requested, but will like to submit for public record that comments were prepared. The comments will be submitted following notice of the public comment period for the SARWQCB Triennial Review.
<p>Response, 1 As noted, Santa Ana Regional Board staff discussed the Department's concerns re beneficial use designations and determined that the concerns did not pertain to the recreation standards amendments. Thus, Regional Board staff suggested that these comments would be better addressed during the upcoming Triennial Review. Board staff stated that input from the Department would be very much appreciated in developing criteria to designate these beneficial uses appropriately.</p>		
No.	Author	Comment
2,3,4,5 7,8,9	Multiple	These comments stated support for the adoption of the proposed Basin Plan Amendments to Revise Recreational Standards for Inland Fresh Waters in the Santa Ana Region. The comments generally stated that the proposed Amendments would provide greater public health and beneficial use protection because they properly prioritize the water bodies most likely to be used for recreation. This will allow stakeholders to focus their limited resources to maximize human health and beneficial use protection. In addition, the comments praised the comprehensive stakeholder task force process in developing the amendments.
<p>Response, 2,3,4,5,7,8,9 Comments noted</p>		
No.	Author	Comments
6.0	Amanda Griesbach, Kirsten James	<p>The following comments specifically address the de-designation of the REC-1 use for certain waters, based on Use Attainability Analyses (UAAs), as adopted by the Regional Board, and briefly discuss our additional written and verbal concerns left inadequately addressed in the Draft Amendments.</p> <p>Our primary concern is the proposed beneficial use de-designation of four water-bodies [REC-1] (primary contact recreation) to REC-2 (non-contact water recreation)] by means of UAA. We are also</p>

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6.0 (con'td)	Amanda Griesbach, Kirsten James	concerned with the Draft Amendment's failure to adequately protect public health, inadequate effort to address water quality problems, and inappropriate rationale for de-designation of a water-body's beneficial use. Our concerns were addressed verbally at the Regional Board hearings on March 16 and April 27, 2012, and detailed written comments were submitted to the Regional Board on March 15 and April 20 of this year. We strongly recommend that the State Board remand the proposed Draft Amendments to the Regional Board so our concerns can be appropriately addressed.
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Response, 6.0

As a matter of record and clarification, Heal the Bay submitted to the Regional Board written comments on the proposed recreation standards amendments on March 15, 2012. This letter explicitly acknowledged that the comments provided focused on the proposals as described in the Executive Summary of the proposed amendments only, due to time constraints. On April 20, 2012, Heal the Bay submitted supplemental comments concerning the Use Attainability Analysis (UAA) components of the proposed amendments. These additional comments were appended to the March 15, 2012 comment letter. The amended comment letter was not signed. Santa Ana Regional Board staff provided detailed written responses to the March 15, 2012 comments and the April 20, 2012 supplemental comments. Regional Board staff also prepared written responses to the oral comments by Heal the Bay at the April 27, 2012 Regional Board meeting. Heal the Bay (Ms. Griesbach) provided oral testimony at the March 16, 2012 Regional Board meeting; this testimony merely re-stated parts of the March 15, 2012 written comments, to which Regional Board staff prepared written responses as noted.

Many of the comments provided in the September 28, 2012 letter from Heal the Bay are essentially the same as those previously presented and for which the Regional Board provided detailed written responses. The State Water Board's Notice of Opportunity to Comment concerning this Basin Plan amendment accurately informs interested persons of the procedural requirements used to implement the State Water Board's regulatory programs. According to the State Water Board's CEQA Regulations (23 Cal. Code Regs. § 3779, subd. (f)): The state board, when considering approval of a regional board's adoption of an amendment to its water quality control plan or guideline, shall prescribe a comment period of not less than 30 days. The state board may refuse to accept any comments received after the noticed deadline. All comments submitted to the state board must be specifically related to the final amendment adopted by the regional board. If the regional board previously responded to the comment, the commenter must explain why it believes that the regional board's response was inadequate. The commenter must include either a statement that each of the comments was timely raised before the regional board, or an explanation of why the commenter was unable to raise the specific comment before the regional board. The state board may refuse to accept any comments that do not include such a statement. The state board is not required to consider any comment that is not in compliance with this section.

Heal the Bay has not fulfilled these requirements specified in the Notice of Opportunity to Comment for re-submittal of these comments. Rather, Heal the Bay argues that their concerns were "left inadequately addressed in the Draft Amendments". Heal the

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Bay confuses the Regional Board's responsibility to respond to comments, which has been fulfilled, from the Regional Board's discretion to consider changes to the amendments based on those comments.

Nevertheless, additional responses and/or references to prior responses to the concerns expressed by Heal the Bay are provided below.

As described in detail in response to the October 1, 2012 comments from EPA Region 9, it would be contrary to water quality, public health and beneficial use protection to delay consideration of the amendments. Please see responses to comments 10.2 and 10.11.

6.1	Amanda Griesbach, Kirsten James	Comment <u>UAA should not substitute for adequately addressing water quality issues:</u> UAAs should only be used in exceptional cases and where they would not impact or weaken existing or potential beneficial uses. Inappropriately de-designating a water-body's beneficial use can have long lasting negative impacts on public health and water quality. Due-diligence must occur to determine if a UAA should be pursued at all and to ensure that a UAA is completed appropriately.
Response, 6.1 UAAs are used to determine whether or not beneficial uses are attainable and should be designated or de-designated for waterbodies. We agree that unless UAAs are properly conducted, such that all relevant factors are considered and applicable regulations satisfied, inappropriate de-designations may result that may have adverse public health and water quality consequences. For this reason, and because Regional Board staff recognized the potentially precedential nature of the UAAs given the limited number of recreational use UAAs conducted and approved in California to date, extensive, thorough data collection and analyses were conducted to support UAA decision-making. These efforts are documented in the extensive administrative record for this matter. The UAAs and recommendations for recreational use designations derived therefrom conform to all applicable requirements and result from a remarkable level of due-diligence. We do not understand the argument that due-diligence must be applied to the decision to conduct a UAA at all. Federal and state regulations require states to adopt water quality standards, including beneficial uses, to periodically review those standards, and to revise them, if and as appropriate. Federal UAA regulations specify the bases for de-designating beneficial uses. UAAs are thus an appropriate and allowable part of the standards setting and revision process. EPA advocates the use of UAAs to assure that uses are properly identified: "EPA realizes that deciding what uses are attainable is critical, and views the UAA process, properly applied and implemented, as a vital tool in making those decisions." (EPA Memorandum, "Improving the Effectiveness of the Use Attainability Analysis (UAA) Process, March 13, 2006) Again, we agree that UAAs must fulfill all applicable requirements and be based on thorough evaluation of all relevant factors.		

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6.2	Amanda Griesbach, Kirsten James	Comment Use Attainability Analyses (UAAs) are not suitable for a water-body when water quality improvements efforts like TMDLs are in place or when BMPs have not been appropriately explored and evaluated. Two of the four UAAs (Cucamonga Creek and Santa Ana Delhi Channel) are in areas where Bacteria TMDLs are in the implementation phase with future compliance deadlines of December 2019. Why are UAAs being pursued, while water quality improvements efforts towards meeting future compliance deadlines have not been completed and/or fully explored? This is inappropriate as efforts have not been given a chance to succeed (of note, a factor in determining if an UAA should proceed is a determination that attaining the use is not feasible.) It is unacceptable for an area to undergo a UAA when a TMDL has been implemented or is underway.
Response, 6.2 First, the purpose of a UAA is to determine whether a use is attainable. A UAA is not preceded by an attainability determination; it is used to make it. Heal the Bay's assertion that "UAAs are not suitable for a water-body when water quality improvements like TMDLs are in place," is inconsistent with federal guidance wherein EPA advises that UAAs are an integral element of sound TMDL implementation (see, for example, the EPA Memorandum entitled: "Improving the Effectiveness of the Use Attainability Analysis Process, March 13, 2006; see also EPA's Water Quality Standards Academy guidance to regulators regarding the coordination of UAAs and TMDLs; January 14, 2009 powerpoint presentation, Module 4: UAAs, p. 3 (excerpt is attached as Appendix 1; see also response to comment 6.1 and EPA R9 comments 10.8). Further, Heal the Bay's recommended approach is contrary to the recommendations of the National Research Council (NRC) stressing the importance of assuring that water quality standards (uses and objectives) have been properly assigned before imposing significant regulatory obligations through the TMDL process (National Research Council - Water Science and Technology Board, "Assessing the TMDL Approach to Water Quality Management," 2001). The NRC correctly stated that "water quality standards are the foundation on which the entire TMDL process rests; if the standards are flawed, all subsequent steps in the TMDL process will be affected." The General Accounting Office agreed with the NRC and made similar recommendations to Congress in its 2003 report entitled: "Water Quality: EPA Should Improve Guidance and Support to Help States Develop Standards that Better Target Cleanup Efforts" (GAO-03-881T). The existing TMDL process presumes that appropriate uses and objectives have been established. If this is the case, then Heal the Bay is correct, and the TMDL process should proceed with all due haste. However, if there are questions regarding the propriety of established standards, then the first step in the TMDL process is or should be to review and revise the standards as necessary. As EPA has pointed out in its Water Quality Standards Academy guidance, UAAs and TMDLs may also proceed simultaneously, and UAA results may point to the need to revise an established TMDL. Heal the Bay does not explain why it is inappropriate to conduct UAAs when water quality improvement efforts are underway, nor does Heal the Bay justify why a UAA should not proceed while a TMDL is being implemented. As stated above and in the response to EPA Region 9's comment 10. 8, appropriate revisions to water quality standards should proceed irrespective of TMDLs, and ideally in advance of identifying waters for which TMDLs are needed, such that requirements for the expenditure of public resources		

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are justified, responsible and fair.

Heal the Bay's underlying premise appears to be that water quality conditions, which are expected to be addressed by TMDLs, are or should be the sole determinant of whether a use is attainable (see also comments 6.3 and 6.4, below), despite the fact that Heal the Bay has listed the six UAA factors in its September 28, 2012 comment letter.

UAAs are used to determine whether or not recreational (or other) beneficial uses are attainable based on the factors identified in federal regulations (40 CFR 131.10(g)) and taking into consideration the suite of other factors recommended by EPA. (Please see response to EPA Region 9's comment # 10.10). The federal UAA factors explicitly recognize that beneficial uses may not be attainable for reasons other than water quality. In fact, the UAAs completed for waters in the Santa Ana Region demonstrate that REC1 uses (and, in some cases also REC2 uses) are not attainable because of flow conditions and hydrological modifications (40 CFR 131.10(g)(2) and (4)).

Board staff responded to similar comments presented orally by Heal the Bay at the 4-27-2012 Regional Board meeting (see Responses to Heal the Bay's Oral Comments at 4-27-2012 Regional Board Meeting, #1 and 4) and to Heal the Bay's supplemental written comments on the UAAs (4-20-12) (see, for example, Responses to Heal the Bay's Supplemental Comments (4-20-12) Concerning the Use Attainability Analyses, 3, 18, 26, 29, 42,44) . The overall goal of the recreation standards amendments is to develop a pathogen control strategy that would not only protect public health and meet statutory and regulatory water quality standards requirements but that would also allow finite public resources to be invested in prioritized fashion. The recreational beneficial use changes incorporated in the amendments will allow the responsible parties to implement strategically placed BMPs, such as dry weather flow diversions, while protecting public health and recreational uses in areas where those uses occur or are most likely to occur. Such a diversion is already in place in the Greenville-Banning channel to protect intense REC1 use in downstream ocean waters at Huntington Beach. A similar diversion is planned for the Santa Ana Delhi Channel (also addressed by a UAA for the purposes of these amendments), which flows into Upper Newport Bay. Strategic BMP implementation is already contemplated in the Comprehensive Bacteria Reduction Plans approved by the Regional Board and now being implemented by San Bernardino and Riverside counties to address the Middle Santa Ana River Bacteria Indicator TMDL (which includes Cucamonga Creek). This approach will assist TMDL implementation and compliance. Please see also the responses to EPA Region 9 comments 10.7 and 10.9.

As discussed in the January 12, 2012 staff report to support the amendments, the UAA-based recreational beneficial changes must be reviewed at least once every three years to determine whether conditions have changed such that the REC1 designation has become appropriate.

Heal the Bay's statement that "it is unacceptable for an area to undergo a UAA when a TMDL has been implemented or is underway" also incorrectly assumes that UAAs are done on an area-wide basis. UAAs are conducted on individual waterbodies or stream segments not watershed areas. Consequently, it is entirely appropriate to evaluate uses in individual flood control channels that are tributary to the Middle Santa Ana River at the same time a TMDL is being implemented in Reach 3 of that river. This is particularly true for tributary streams, such as Temescal Creek, that are tributary to the middle Santa Ana River but are not themselves included on the 303(d) list of impaired waterbodies for pathogens. This case-by-case approach is essential to support a TMDL implementation strategy that rests heavily on treatment and diversion BMPs to protect downstream waters.

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<p>6.3</p>	<p>Amanda Griesbach, Kirsten James</p>	<p>Comment The proposed UAAs fail to investigate a variety of BMPs in order to truly understand if water quality objectives are achievable. This analysis should take priority before pursuing a UAA. The Regional Board failed to collect and analyze comparative monitoring data BMPs (<i>sic</i>) in order to affectively (<i>sic</i>) understand BMP effectiveness.</p>
<p>Response, 6.3 Please see the response to the preceding comment. The January 12, 2012 staff report prepared to support the amendments includes a summary of the potential bacteria reduction BMPs, their efficacy and cost (Table 6-1 - Comparative Efficacy of Reducing Bacteria Levels in Urban Stormwater Using Best Management Practices; p. 104 of 126). The evaluation of the efficacy of BMPs is an ongoing part of the implementation of bacteria indicator TMDLs, MS4 permits and Comprehensive Bacteria Reduction Plans. BMP-related efforts are documented in reports submitted to the Santa Ana Regional Board by responsible parties in the watershed. These reports are available for review at the Regional Board's office. See responses to comments #3, 18, 26 and 27 in Regional Board staff's Responses to Heal the Bay's Supplemental Comments (4-20-12) Concerning the Use Attainability Analyses.</p>		
<p>6.4</p>	<p>Amanda Grisbach, Kirsten James</p>	<p>Comment <u>UAAs must provide sufficient evidence to justify de-designations:</u> A UAA should be an extremely rigorous process. To ensure that water quality standards are not being weakened, the regional boards, State Board and USEPA must require that the UAA be a high quality analysis. However, the UAAs fail to adequately meet EPA's water quality guidelines, specifically by not proving that naturally occurring pollutant concentrations prevent the attainment of a water-body's use.</p>
<p>Response, 6.4 As described in the response to comment 6.1, the UAAs conducted to support the recreational standards changes in the amendments were both rigorous and high quality. Heal the Bay's assertion that the UAAs fail to meet EPA's water quality guidelines, specifically by not demonstrating that naturally occurring pollutant concentrations prevent the attainment, is incorrect. First, the UAA factors identified by EPA as the basis for concluding that a use is not attainable are part of the federal water quality standards regulations; they are not guidelines. As already noted, these factors are cited in an attachment to Heal the Bay's comment letter. As explicitly stated therein, naturally-occurring pollutant concentrations define only <u>one</u> of the factors that preclude use attainment. Alternatively, other identified factors may preclude attainment and justify the de-designation of a use. These factors are independent of one another. The UAAs conducted to support recreational use changes in the amendments demonstrate that two of the factors (low-flow conditions and hydrologic modifications) prevent recreational use attainment. Again, it is not necessary to determine if the UAA waters meet the first factor (i.e., naturally occurring pollutant concentrations prevent the attainment of the use).</p>		

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6.5	Amanda Griesbach, Kirsten James	Comment In addition, the proposed UAAs also fail to protect receiving waters downstream which are still required to meet REC-1 standards. How does the Regional Board plan to ensure that these downstream (REC1) standards are met?
Response, 6.5 This question is addressed in our response to 6.2 and in responses to EPA Region 9's comments (10.7). In addition, we responded to this concern in our Responses to Heal the Bay's Oral Comments at the April 27, 2012 Board Meeting (#3), and Responses to Heal the Bay's Supplemental Comments (4-20-12) Concerning the Use Attainability Analyses (# 6, 20). In short, the requirement to protect downstream waters is well recognized, and none of the UAA-related changes will compromise efforts to achieve it. In fact, the UAA-related changes are expected to enhance the protection of downstream waters by allowing strategic placement of BMPs. The Regional Board will continue to use its existing tools, including but not limited to: NPDES permits, Waste Discharge Requirements, 303(d) and 305(b) assessments, TMDLS, waste load allocations, load allocations, discharge prohibitions, and 13267 investigation orders to ensure that downstream standards are met. The decision to reclassify an upstream waterbody imposes no limitation whatsoever on the Regional Board's duty and authority to protect downstream uses when and where they may occur.		
6.6.a	Amanda Griesbach, Kirsten James	Comment A number of other technical flaws demonstrate that insufficient analyses were performed, which ultimately calls into question the integrity of the UAAs. Among the many flaws...is the lack of sufficient evidence that the (UAA) water-bodies do not support or do not have the potential to support REC-1 uses. A complete analysis needs to determine accessibility, public use and the potential for human contact in the water-body. The UAA inappropriately evaluates these uses through subjective evidence such as intermittent photographs.
Response, 6.6.a See the response to comment 6.1. Since Heal the Bay did not participate in the Stormwater Quality Standards Task Force effort, in which all interested parties were invited to participate and which was characterized by open communication and ready availability of documentation, it may be that Heal the Bay is simply unaware of the extensive administrative record for these amendments. The record documents the extensive analyses and consideration of the factors that might affect recreational activity in the UAA waters, including: channel morphology; flow conditions; water quality conditions; surrounding land use; safety and access; plans for parks or other recreational facilities, etc. (See 5.6.2.2 in the January 12, 2012 staff report prepared for these amendments for a description of the UAA tasks conducted and the individual UAA reports included in that staff report. As noted, these individual UAA reports summarize data and information compiled in separate reports that are a part of the administrative record for this matter.) Field surveys were conducted and remote cameras were used to collect photographs to document any recreational activity in the UAA waters. Heal the Bay's characterization of the photographs as "intermittent" is a gross disservice to the unprecedented photographic record accrued. At each UAA location, thousands/tens of thousands of photographs were taken during daylight hours (every 15 minutes for over a year at more than a dozen representative locations reflecting a wide variety of stream conditions) to		

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record any potential recreational activity. The photographic record constitutes not subjective but very objective evidence. We are not aware of any other comparable effort to identify actual recreational use. However, we do know that EPA has approved numerous revisions to recreational standards in other states based on UAAs using far less rigorous survey techniques than those employed in the Santa Ana Region.

In addition to field surveys by Regional Board staff and other Stormwater Quality Standards Task Force members, county flood control and city officials, park rangers, and others were surveyed concerning REC use in the UAA waters. Board staff visited the sites numerous times over the last several years. In addition, the Task Force commissioned CDM to investigate all available sources of information regarding past, present, and probable future recreational uses in each waterbody as a key part of the UAA.

In short, Heal the Bay has simply not provided substantive evidence that would lead to “question the integrity of the UAAs.” Such an assertion is irresponsible unless accompanied by specific proof.

6.6.b	Amanda Griesbach, Kirsten James	Comment Furthermore, it is extremely important to conduct sufficient water quality monitoring in order to determine if and where standards are being exceeded in order to identify potential pollution sources. The technical report fails to provide this information along with any source control measures.
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Response, 6.6.b
Heal the Bay’s statement regarding the technical reports is factually incorrect. Each of the UAA technical reports provides a detailed summary of relevant water quality data. The Regional Board relied on these summaries as well as the detailed monitoring reports prepared and submitted as part of the on-going TMDL implementation processes throughout the watershed. An evaluation of "source control measures" is not a mandatory element of a UAA. However, several such studies have been performed to evaluate bacteria loads in the middle Santa Ana River and were considered by the Regional Board prior to and as part of this rule-making procedure. All of the aforementioned data is included in the administrative record for the proposed action. Finally, the fact that many of these waterbodies are on California's 303(d) list indicates that state and federal authorities have already determined that there are adequate monitoring data to conclude standards are being exceeded.

6.7	Amanda Griesbach, Kirsten James	Comment <u>The proposed de-designations may result in a disincentive to restore or enhance water-bodies and harm to downstream water-bodies.</u> Modification of the current Basin Plan beneficial use designations could result in the unintended consequence of providing a disincentive to the many long-overdue restoration efforts of our urban creeks and rivers. Also, how can we expect to meet beneficial uses in downstream REC-1 designated receiving waters when inland standards are de-designated to REC-2 standards? It is inappropriate to potentially preclude or provide a disincentive for restoration.
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Response, 6.7

Heal the Bay provides no substantive documentation to support its assertion that de-designations have any effect whatsoever on state, county or municipal decisions to restore or enhance waterbodies. Moreover, were these agencies to advance a serious proposal to engage in this activity, the Regional Board would be legally obligated to reassess and reclassify relevant use designations to reflect the probable future beneficial uses in accordance with §13240 of the California Water Code. Nothing in the proposed Basin Plan amendment precludes state, county or city officials from restoring concrete-lined flood control channels to a more natural condition if and when they decide to do so and have requisite financial resources.

Further, as a matter of convenience, Regional Board staff's prior response to this comment (see Responses to March 15, 2012 Comments from Heal the Bay, #7) is excerpted below:

"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 discharge 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.

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.

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 protect water quality, beneficial uses and public health."

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See response to 6.5 concerning the protection of downstream uses.

6.8	Amanda Griesbach, Kirsten James	Comment <u>The proposed subdivision of the REC- beneficial use in the Proposed Amendment is premature:</u> Another issue with the Draft Amendments is the proposal to tier the REC-1 Standard based on intensity of use. Not only do we disagree with subdividing a REC-1 standard from a public health standpoint, but also, the proposal is premature. The EPA draft criteria released in December 2011 do not include a subdivision of the criteria based on use intensity. This begs the question why the Regional Board is so anxious to amend their Basin Plan at this time. Approving the proposed Draft Amendments is untimely and inappropriate.
Response, 6.8 See: Responses to March 15, 2012 Comments from Heal the Bay, #4; Responses to February 23, 2012 Comments – EPA Region 9, #1 and 7; and the Responses to EPA Region 9 October 1, 2012 comments, # 10. 2 and 10.9. Briefly, the use of REC1 use intensity tiers and varying single sample maximum (SSM) <i>E. coli</i> values faithfully implements the current, 1986 EPA recreational water quality criteria and is wholly consistent with EPA’s own action to promulgate recreational water quality criteria, based on the 1986 guidance, for certain Great Lakes states and coastal recreation waters (the BEACH Act Rule, 2004). Revised recreational water quality criteria have not yet been published by EPA and the draft revisions do not represent any final agency determination or policy. Moreover, even if a different approach to the use of tiers and SSMs is included in the revised criteria, this does not preclude the Regional Board from maintaining the tiered approach. The national criteria are intended to serve as <u>guidance</u> to the states. In the BEACH Act Rule, EPA spoke to the need for state flexibility in establishing and implementing water quality standards, as recognized by Congress in the Clean Water Act: “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.” (69 FR 220, 67227, Nov. 16, 2004). As discussed in the other responses (e.g., 10.2), the amendments will assure superior public health and beneficial use protection and should be adopted and implemented promptly. Heal the Bay’s assertion that the Regional Board is "anxious to amend" the Basin Plan reflects a poor understanding of the events leading to and both the duration and level of effort involved in preparing the amendments. The process began as part of the triennial review process in 2002 and required the better part of nine years to complete. During that time, the Task Force held at least 70 public meetings and engaged in more than 300 hours of detailed discussions on whether and what changes to recreational standards for inland freshwaters in the Santa Ana Region would be appropriate and justified. Describing this as an "anxious" effort implies that it was conducted in haste and without due deliberation. The voluminous administrative record clearly demonstrates the error in such an assumption. Again, it may be that Heal the Bay is simply unaware of the record and the extensive deliberations that led to the		

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recommended standards amendments. Despite widespread and repeated invitations to all interested parties to participate in the Task Force effort and the very open nature of that process, Heal the Bay did not participate in the Task Force process or meetings and did not provide written or oral comments on numerous draft documents circulated to the Task Force members and made readily available to the public for discussion and comment over the last eight years. No communication from Heal the Bay was received until Heal the Bay provided comments on the draft amendments on the eve of the first Regional Board hearing to consider their adoption. Finally, we note that if and when substantive changes to the EPA recreational water quality criteria are published, those changes can be considered in future, further revisions to recreational standards.

6.9	Amanda Griesbach, Kirsten James	Comment <u>UAA criteria need to be developed to ensure protection of water quality standards and for statewide consistency:</u> EPA's current UAA criteria are extremely vague and do not provide much needed guidance. It is likely that we will see additional UAAs proposed in the future, so it is critical that the State Board be proactive and provide minimum guidelines for when and how a UAA can be pursued. Statewide UAA criteria should include the following: <ul style="list-style-type: none">• At least five years of consistent water quality monitoring data showing chronic water-body impairment.• All efforts towards improving water quality must be exhausted.• Must provide adequate data to demonstrate human sources are not contributing to water quality impairment. Must provide significant documentation on the suggested public use or access (pictures along do not justify). This should be demonstrated by historical use, personal interviews, historians and digital archives.
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Response, 6.9
This recommendation is noted.
Since this recommendation is directed to the State Board, no further Regional Board response is necessary. However, we wish to point out that the UAA criteria identified by Heal the Bay focus on water quality improvement without consideration of the other factors affecting use attainability that are identified in federal regulations.
We also point out that EPA has published several additional guidance documents describing how to perform a UAA. The Water Environment Research Foundation (WERF) also published detailed and informative documents summarizing effective UAA development techniques used throughout the United States. EPA provided both funding and peer-review comments on the WERF documents prior to publication. One of WERF's principal investigators and primary authors served as a technical advisor to the Storm Water Quality Standards Task Force throughout the development process. Finally, the Task Force went to considerable effort to evaluate exactly what uses and criteria EPA had approved in all of the other states in order to ensure the decision criteria employed and the documentation used would meet EPA requirements for designating or de-designating REC1 uses.

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<p>No. 10.1</p>	<p>Nancy Woo USEPA, Region 9</p>	<p>Comment EPA Region 9 has informally and formally commented on the proposed amendments several times since 2008. EPA Region 9 staff met with Regional Board staff in February 2008 and submitted written comments on the Regional Board’s “Strawman” document on March 25, 2008. EPA Region 9 testified at the State Board meeting regarding EPA Region 9’s concerns with this amendment on November 4, 2008. Formal comments were submitted on February 23, 2012 and April 25, 2012.</p>
<p>Response, 10.1 From the outset of the Stormwater Quality Standards Task Force effort that led to Santa Ana Regional Board adoption of the recreation standards amendments in June 2012, the participation of EPA Region 9 (EPA R9) was actively solicited. A “Strawman” proposal of potential amendments was prepared and was, to a significant degree, a conceptual proposal of those amendments. Significant development and refinement of specific amendments was accomplished subsequent to the submittal of the proposal to EPA R9. EPA R9’s February 23, 2012 Comments in part alleged that EPA R9’s comments on the “Strawman” proposal had not been addressed. This is not the case. Santa Ana Regional Board’s Responses (dated April 23, 2012) to EPA R9’s February 23, 2012 Comments include a detailed matrix showing how the Strawman was revised in response to EPA R9’s comments. . The changes did not necessarily reflect agreement with EPA R9, but EPA R9’s comments were carefully considered. (Please see the response to EPA R9’s comment #23 and the matrix attached to the Responses document). As noted above, Santa Ana Regional Board staff prepared detailed responses to EPA R9’s formal comments of February 23, 2012, as well as those dated April 25, 2012. These responses are included in the administrative record of this matter. It is noteworthy that: (1) A meeting among staff of EPA R9, State Board and the Santa Ana Regional Board and Stormwater Quality Standards Task Force consultants was held on April 10, 2012 to discuss the proposed amendments. Substantive changes to the proposed amendments were made based on that discussion; (2) EPA R9 staff acknowledged during the April 10, 2012 meeting that they had not yet completed review of the complete package of proposed amendments. EPA R9’s April 25, 2012 comments acknowledged that EPA R9 had not yet completed reviewing the UAAs. EPA R9’s October 1, 2012 comment letter characterizes EPA R9’s review of the UAAs as “preliminary”. This recitation is provided to clarify the status and nature of communications between EPA R9 and Santa Ana Regional Board staff so as to avoid any perception that Santa Ana Regional Board staff has not been responsive to EPA R9’s concerns. EPA R9’s expressed concerns, though sometimes acknowledged to be based on incomplete review of the amendments and associated documentation, were seriously considered and, in some cases, changes to the amendments were made.</p>		
<p>10.2</p>	<p>Nancy Woo USEPA, Region 9</p>	<p>Comment We believe it would be prudent to refrain from action on this amendment until after the publication of the final Recreational Water Quality Criteria, expected to be completed by November 30, 2012, pursuant to court order. We note that the State Board has postponed working on the statewide freshwater bacterial objective until after the publication of the final EPA Recreational Criteria.</p>

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Response, 10.2

First, the proposed revisions to EPA's Recreational Water Quality Criteria that have been available for Regional Board staff review to date confirm that the Agency does not intend to recommend any changes to the geometric mean objective for *E. coli* that is intended to protect primary contact recreation (REC1). Nor do the draft revised criteria rely on any new science or investigation on *E. coli*. As such, there is no value in delaying adoption of an *E. coli* objective for freshwaters in the Santa Ana Region. The only substantive difference between the existing federal 304(a) criteria and those likely to be published by EPA in November, 2012 is the guidance related to implementing Single Sample Maxima. This issue will be addressed in a response to a later comment.

Second, and more importantly, It would be contrary to water quality, public health and beneficial use protection interests to delay consideration of the amendments approved by the Santa Ana Regional Board on June 15, 2012. These amendments will assure public health and beneficial use protection far superior to the recreation standards now established in the Basin Plan: (1) the amendments establish objectives based on *E. coli*, the bacterial surrogate indicator organism recommended by EPA. These *E. coli* objectives replace objectives based on fecal coliform, which have been disavowed by EPA as a reliable indicator of potential public health risk to those engaged in water contact recreation; (2) the amendments include changes to recreation use designations for specific water segments, based on Use Attainability Analyses (UAAs). These designation changes will enable responsible parties to prioritize control efforts on areas where recreational activity is known or expected to occur. The result will be *better* protection of public health and recreational uses in waters downstream of the re-designated waters that are actually used for water contact recreation. Dry weather flow diversions, such as that on the Greenville-Banning Channel, are already being used in or planned for strategic locations in the Santa Ana Region to protect downstream waters that are heavily used for water contact recreation, including ocean beaches. This approach is also reflected in Comprehensive Bacteria Reduction Plans approved by the Santa Ana Regional Board and being implemented by Riverside and San Bernardino counties to achieve the Middle Santa Ana River Bacteria Indicator TMDL. Here, proper recreational use designations will enable strategic placement of diversions and other control measures to assure that downstream waters actually used for recreation will be protected. Absent the changes to recreational use designations, limited resources would be required to implement controls where recreational activity does not occur and is not expected to occur; (3) the amendments include the temporary, high flow suspension of recreation standards under specified conditions. The temporary suspension of standards under uncontrollable, hazardous flow conditions will enable responsible parties to focus their control effort expenditures to protect recreational activities when they are attainable; (4) the amendments include the addition of a narrative pathogen objective, which will enhance the Santa Ana Regional Board's ability to address pathogen-related water quality problems, even where no such problems may be indicated by *E. coli* monitoring data; (5) the amendments include requirements for the submittal and implementation, upon Regional Board approval, of a comprehensive bacteria monitoring program designed to assess compliance with the new standards and to identify needs for further investigation and control measure implementation; (6) the amendments also include other significant changes that bear no relation to either EPA's current (1986) or draft revised Water Quality Criteria for Recreational Waters. These include the addition of surface waters not now listed in the Santa Ana Region Basin Plan and beneficial use designations for those waters, and the deletion of the obsolete and unjustified total coliform objective for MUN-designated waters.

Further changes to the recreation standards specified in the Santa Ana Region Basin Plan can be considered in the future, based on requisite triennial review of UAA-related beneficial use designation changes, consideration of EPA's Recreational Water Quality

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Criteria, and other relevant considerations		
10.3	Nancy Woo USEPA, Region 9	<p>Comment Re the definition of REC1: EPA does not support the language added to the Basin Plan (pages 3 to 6) that details what REC1 and REC2 consist of. EPA has conveyed its disagreement with the REC definition revisions in every EPA communication with the Regional Board. The new language appears to be counter to what the Regional Board agreed to with the State Board and EPA Region 9 at our meeting on April 10, 2012. The revision may have ramifications for other Regional Boards that may not support such a change.</p>
<p>Response, 10.3 The language to which EPA R9 refers is found on p. 3-6 of Attachment 2 to Resolution No. R8-2012-0001. This new narrative language is in a new subsection (“RECREATION BENEFICIAL USES”) added to Chapter 3 – BENEFICIAL USES of the Santa Ana Region Basin Plan. The draft recreation standards amendments initially recommended included changes to the REC1 definition itself. The changes proposed were intended to provide clarification of terms (e.g., “reasonably possible”) so as to assure that EPA’s recommended bacteria criteria for REC1 waters are applied in a manner consistent with federal guidance and the conditions and assumptions underlying the epidemiology studies EPA relied on to derive the criteria. The changes to the REC1 definition that had been proposed would <u>not</u> have resulted in any substantive changes to that definition. However, both State Board and EPA R9 staff expressed the concern that changes to the REC1 definition per se would result in inconsistency with the previously agreed-upon (during statewide basin plan update efforts in the 1990’s) statewide REC1 definition. EPA R9 staff advised Santa Ana Water Board staff that: (1) the principal party with regard to approval of the proposed revisions to the REC1 definition is the State Board; and, (2) that EPA R9 would not object to the proposed revisions to the REC1 definition, provided that the changes were made on a statewide basis to maintain consistency. This issue was discussed during the April 10, 2012 meeting among EPA R9, State Board and Santa Ana Regional Board staff and Stormwater Quality Standards Task Force consultants. At that time, State Board staff offered to provide written clarification regarding their interpretation of what constitutes and does not constitute REC1 activity and recommended that this clarification suffice, without changes to the REC1 definition itself to avoid statewide inconsistency. That written documentation was provided by Vicky Whitney, Deputy Director, Division of Water Quality, on April 12, 2012. (A copy of this memorandum is part of the administrative record of this matter.) Santa Ana Water Board staff agreed to recommend a revised approach to provide needed clarification of what constitutes REC1 activities. As reflected in the amendments approved under Resolution No. R8-2012-0001, no changes to the REC1 definition itself are included (apart from the addition of the phrase “Primary Contact Recreation” to the name of the REC1 use (“Primary Contact Recreation” is the term used by EPA and many states to describe full body contact (REC1) activities.)) Instead, narrative language was added to the new “RECREATION BENEFICIAL USES” section in Chapter 3 of the Basin Plan to provide the necessary</p>		

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clarification and to avoid accidental misinterpretation and misapplication of the objectives. The added narrative was derived from applicable EPA guidance (including the 1986 EPA criteria document and draft EPA guidance for the implementation of those criteria) and regulation (“Water Quality Standards for Coastal and Great Lakes Recreational Waters –Final Rule. 69 Fed. Reg. 220. 67217-67243. November 16, 2004 (the “BEACH Act Rule”)), and from the information contained in the April 12 2012 memorandum from State Board staff (Vicky Whitney).

The approach to the REC1 definition and clarifying language adopted under the Regional Board-approved amendments is entirely consistent with the expressed desire to avoid inconsistencies with the statewide REC1 use definition. In EPA R9’s April 25, 2012 comments, EPA expressed agreement “with the Regional Board’s decision to retain the current state-wide name and definition” for REC1, and noted that EPA R9 has no objection to the addition of “Primary Contact Recreation” to the name of the REC1 use. EPA R9 also opined that the added narrative was unnecessary and recommended that it be deleted. Santa Ana Regional Board staff responded (see “Responses to USEPA Region 9 Comments – April 25, 2012, response to comment #3) that the narrative offered significant clarification and would thus be an appropriate part of the Santa Ana Region’s Basin Plan.

EPA R9’s present comment re the REC1 definition and the comments EPA R9 provided on April 25, 2012 do not appear to be consistent. Santa Ana Regional Board staff believes that the amendments approved under Resolution No. R8-2012-0001 are consistent with the discussion that took place on April 10, 2012.

See also Santa Ana Water Board staff’s response to comment # 3 in the “Responses to February 23, 2012 Comments – EPA Region 9”.

<p>10.4</p>	<p>Nancy Woo USEPA, Region 9</p>	<p>Comment Re the definition of REC1: The Regional Board argued that “It is not reasonably possible to ingest appreciable quantities of water by merely touching or being splashed by the water”. EPA disagrees that this statement is justified and consistent with federal guidance. EPA cites the supporting document for the 1986 criteria: “The criteria suggest that there are measurable health effects associated with enterococcus of (<i>sic</i>) <i>E. coli</i> densities as low as 10/100mL via a route in which only 10-50mL of water is ingested”. EPA asserts that this level of ingestion could reasonably occur during activities as splashing. EPA also cites epidemiological studies to point out that “children may be more likely to swallow water, transfer water to their mouth after exposure.”</p>
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Response, 10.4
While there may be measurable health effects associated with limited ingestion of water, such as by incidental contact (e.g., touching, being splashed), EPA’s bacteria criteria for recreational waters **are not based** on this type of exposure or any potential associated health risk. In fact, common misunderstanding of these facts provided the impetus for the additional clarifying narrative that is incorporated in the new Basin Plan section “RECREATION BENEFICIAL USES”; see preceding comment/response.
EPA’s 1986 bacteria criteria explicitly address the protection of people engaged in full body contact recreational activities where there is the likelihood of ingestion of water. This was affirmed in EPA’s BEACH Act rule, which promulgated EPA’s criteria recommendations for *E. coli* (and enterococcus) for certain Great Lakes states (and coastal recreation waters): “In 1986, EPA published Ambient Water

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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." (69 Fed. Reg. 220, 67220.) (emphasis added) Further, the BEACH Act Rule states that: "Today's rule applies only to those waters designated by a State or Territory for swimming, bathing, surfing, or similar water contact activities, not to waters designated for uses that only involve incidental contact." (Federal Register, Vol. 69, No. 220, p. 67222) (emphasis added).

EPA's recommended *E. coli* criteria are based on epidemiology studies in which swimmers were distinguished from non-swimmers and rates of gastrointestinal illness then compared. Non-swimmers included those who either did not go in the water or who went into the water but did not get their head or face wet. Importantly, persons who reported that they were in the water for less than 10 minutes were classified as non-swimmers regardless of whether they got their head or face wet. In short, EPA's criteria address exposure where there is the likelihood of ingestion of water, not the incidental ingestion of water that may be associated with incidental contact. Incidental ingestion and exposure are considered Secondary Contact Recreation (or "REC2" in California parlance).

The narrative added to the Basin Plan in the new "RECREATION BENEFICIAL USES" explains these salient facts, citing and/or consistent with EPA's own documentation. It is therefore difficult to understand EPA R9's disagreement with this language.

The narrative language explicitly recognizes the special consideration that must be given to recreation by children, given their propensity for hand-to-mouth contact. Consistent with the view expressed in writing by State Board staff (Vicky Whitney, April 12 2012), the narrative states that "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 special consideration that needs to be afforded to children in recommending specific recreation standards amendments has long been recognized by both Santa Ana Regional Board staff and the Stormwater Quality Standards Task Force. The initial recommendations for clarification of the REC1 definition itself also included explicit reference to consideration of use by children in determining whether or not a specific type of recreational activity should be considered a REC1 use.

In summary, the new narrative clarifies the nature of REC1 activities and anticipated exposure that are assumed in EPA's bacteria criteria. The text relies on explicit EPA documentation itself and is consistent with the views expressed by State Board staff. As stated in Regional Board staff's response to EPA R9's February 23, 2012 comment on this issue (see "Responses to February 23, 2012 Comments – EPA Region 9, comment/response #3), the more precise language embodied in the new narrative is needed to "avoid different definitions, interpretation and implementation", as EPA Region 9 suggested in the last paragraph of its February 23, 2012 comment letter.

A final comment on this matter: It is true that researchers reported "measurable effects" at lower *E. coli* densities and limited volumes of water ingested. However, they were unable to determine whether such effects represented a statistically-significant difference or were simply random variations in the underlying data. It is noteworthy that EPA declined to rely on these data to recommend separate, more stringent water quality criteria to protect children. It is recognized that children are potentially more susceptible to illness than adults. However, children were included in the freshwater epidemiological studies used to develop EPA's national bacteria criteria. Thus, the recommended criteria consider the potential for increased illness rates in children.

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10.5	Nancy Woo USEPA, Region 9	<p>Comment Re REC2 Antidegradation Targets and Downstream Protection: The revision of calculation of the REC2 antidegradation standard from the 95th to the 75th percentile should be made in the UAAs.</p>
<p>Response, 10.5 This comment is not clear or explained. The analyses of water quality conditions as part of each of the UAA analyses found that there was not consistent compliance with fecal coliform, enterococcus and proposed <i>E. coli</i> objectives. In short, there was no evidence, based on water quality conditions, that the REC1 use was being attained in these waters and that the use was “existing”, as defined in federal regulations. While EPA R9 uses the term “standard” to describe the REC2 targets incorporated in the amendments, it should be clarified that the intent of these targets is to assure compliance with the antidegradation component of the water quality standards. This is described in the January 12, 2012 staff report prepared to support these amendments and in the implementation section of the amendments themselves (see changes to Chapter 5, <i>Antidegradation targets for REC2 only freshwaters</i>, p. 69-70, Attachment 2 to Resolution No. R8-2012-0001.) The targets will not be used as traditional numeric water quality objectives (since there is no scientific basis for deriving such objectives) but, rather, as a baseline for comparison of water quality conditions over time to determine whether there is evidence of a lowering of water quality. If so, the amendments call for follow-up investigation and corrective action, if warranted.</p>		
10.6	Nancy Woo USEPA, Region 9	<p>Comment EPA previously commented that implementation of the proposed REC2 standards depends on proper monitoring programs, the adequacy of which should be reviewed by the State Board and EPA. Regional Board staff has indicated that it would be an inappropriate use of State Board and EPA resources to focus time and effort in this review. Consequently, it is unclear how the antidegradation based objectives will be implemented.</p>
<p>Response, 10.6 Santa Ana Regional Board staff’s response remains that we do not believe that this review rises to the level of significance warranting the expenditure of either State Board or EPA R9 staff time, particularly in light of numerous other program priorities that are likely of greater significance. However, we also noted that should EPA/State Board staff care to provide comments, Regional Board staff would take them into consideration. Simply because Regional Board staff believes that this extra-agency review is unnecessary does not mean that there will be no monitoring or other effort to implement the targets. The Regional Board agrees that an adequate monitoring program is essential. Numerous water quality monitoring programs already exist to assess bacteria levels throughout the Santa Ana Region. These efforts are particularly comprehensive for impaired waters, including the Middle Santa Ana River. The implementation provisions of the amendments include specific requirements pertaining to monitoring, including evaluation of water quality conditions in comparison to established numeric antidegradation targets. A proposed, comprehensive monitoring program is to be submitted by MS4 permittees in Riverside, Orange and San Bernardino counties no later than one year from the date of adoption of the amendments <u>by the Regional</u></p>		

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Board (i.e., by June 15, 2013). The program is to be implemented upon approval by the Regional Board. The Regional Board intends to consider approval of the monitoring program through the normal public comment process, during which EPA R9 and State Board staff will have an opportunity to comment. See changes to Chapter 5, Implementation, *Monitoring Plan for Pathogen Indicator Bacteria in Freshwaters*, p.75ff, Attachment 2 to Resolution No. R8-2012-0001. The proposal is to include a plan for “periodic bacteria monitoring of waters designated REC2 in order to confirm that there is no significant degradation of the quality of these waters.” (p. 76, item 9). This section also includes a description of the actions that the Regional Board will take should there be credible evidence of a lowering of water quality in these waters.

10.7	Nancy Woo USEPA, Region 9	Comment An adequate monitoring program is also needed to address protection of downstream recreational uses. Federal regulations require that water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters. “It has not been demonstrated that removing the recreational uses from these reaches would allow for the protection of downstream waters. For example, it is unclear how removing the REC1 use and relaxing the bacteria objectives in the Santa Ana Delhi Channel, would ensure protection of the REC1 use in the downstream waters of Newport Bay, which is also currently impaired for bacteria.”
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Response, 10.7

The requirement to assure the protection of downstream waters is well recognized and understood and was explicitly included in the consideration of the standards amendments. (See the list of regulatory axioms¹ included in the administrative record of this matter. The need to comply with these regulatory requirements was a governing principle of the Stormwater Quality Standards Task Force. The axioms were repeatedly discussed and considered during the development of the amendments and described as a part of status reports on the proposed amendments that were provided to the Santa Ana Regional Board at public meetings.)

Though EPA R9 has not explicitly stated it (apart from reference to the Santa Ana Delhi Channel), we presume that this comment refers generally to the UAA waters where recreational uses would be de-designated. Strictly speaking, the UAA analysis itself does not require a demonstration that downstream water quality standards will be protected. This is a separate requirement that must be achieved as appropriate standards are implemented. Nevertheless, the need to protect downstream waters was clearly recognized as UAA-related recommendations were considered.

The de-designation of recreational uses in the UAA waters will in fact enhance the protection of downstream water quality and beneficial uses because the designation changes will allow strategic placement of BMPs, including flow diversions, treatment facilities and other control measures, to assure that downstream standards are achieved. (Please see also the response to comment 1.2, above.)

For example, a large-scale diversion project is being planned by the City of Costa Mesa and Orange County near the bottom of the tidal prism of the Santa Ana Delhi Channel upstream of the confluence with Upper Newport Bay. Once completed, this diversion project will reduce or eliminate dry weather urban runoff inputs of bacteria entering Upper Newport Bay from the Channel. This project

¹ Risk Sciences. 2004. “Axioms for Setting or Changing Stormwater Standards”, prepared for Stormwater Quality Standards Task Force

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is patterned after the Greenville-Banning Channel diversion, which is intercepting and diverting 2-4 mgd of urban runoff to the sanitary sewer in order to reduce pathogen loads to the coastal ocean waters of Huntington Beach. By diverting flows from channels where no REC1 use occurs, these types of large-scale, regional projects can protect downstream waters, such as ocean beaches, where there is often intense REC1 use. However, implementation of this approach is possible only if it is demonstrated that REC1 is not an “existing” use, as defined in federal regulations, and that the use is not attainable in the channels themselves pursuant to one or more of the UAA factors (40 CFR 131.10(g); see also UAA-related responses below). Re-designations, if and as demonstrated to be appropriate through UAAs, are an essential part of comprehensive strategies to ensure full protection to downstream waters where water contact recreation is occurring.

Where UAA waters are shown to be sources of violations of the applicable standards in downstream waters, then those sources will continue to be regulated in the manner necessary to restore downstream compliance, irrespective of the recreational use designations of the UAA waters themselves.

10.8	Nancy Woo USEPA, Region 9	Comments It is also unclear how the changes to the REC1 use will affect the current allocations for the Middle Santa Ana River bacteria indicator TMDL or the TMDL for fecal coliform bacteria in Newport Bay. It would be more sensible to address issues of use attainability and use designations within the context of these TMDLS.
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Response, 10.8

None of the revised recreational use designations will have any effect on the allocations specified in either the Middle Santa Ana River or Newport Bay bacteria TMDLs. As stated above, if any of the UAA-affected waters are shown to be sources of bacteria inputs to impaired waters, control measures will be required for those waters to reduce or eliminate bacterial sources, irrespective of the recreational use designations of the waters. [It may be noted that the Middle Santa Ana River bacteria indicator TMDL anticipated the adoption of new, *E. coli* objectives for inland freshwaters. The TMDL includes allocations based on *E. coli* as well as fecal coliform (the established Basin Plan objectives). The TMDL stipulates that the *E. coli* allocations take effect once the fecal coliform objectives are replaced by the new *E. coli* objectives.]

The Regional Board well recognizes that UAAs and TMDLs can and should inform one another. This is also well recognized by EPA (see, for example, EPA Memorandum “Improving the Effectiveness of the Use Attainability (UAA) Process”, March 13, 2006) and others (U.S. General Accounting Office, “Water Quality – EPA Should Improve Guidance and Support to Help States Develop Standards That Better Target Cleanup Efforts- (Testimony Before the Subcommittee on Water Resources and Environment, committee on Transportation and Infrastructure, House of Representatives (GAO-03-881T)). Ideally, appropriate water quality standards, including beneficial uses properly identified through UAAs, are established before the need for and nature of TMDLs are considered. This approach ensures that TMDL requirements are appropriate and justified before resources are committed to meet them. There may be cases in which the development of a TMDL leads to consideration of whether standards are appropriate; TMDL development and UAAs can proceed simultaneously. If a TMDL has been developed, a subsequent UAA may necessitate a change in the TMDL. EPA has clearly expressed these views in guidance provided to regulators in its Water Quality Standards Academy (see, for example, Water Quality Standards Academy powerpoint presentation, Module 4: UAAs, p. 3 (January 14, 2009) (excerpt attached).)

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The intent of EPA R9's statement that it would be more sensible to address use attainability and use designations in the context of the established TMDLs is not clear. If it is EPA's intent to suggest that the TMDLs should first be fully implemented so that expected water quality improvements are taken into account before UAAs are considered, then we point out that (1) this approach would not be consistent with EPA's own guidance, as noted above; and, (2) that water quality conditions are not necessarily the determining factor in UAA decisions. As EPA R9 is aware, the UAA factors specified in federal regulations (40 CFR 131.10(g)) specify other factors, including flow and channel conditions, that may prevent the attainability of beneficial uses.

EPA R9 may simply be unaware that both the Newport Bay and Middle Santa Ana River TMDLs for pathogen indicators are being implemented, and that the UAAs are already being considered in that context. As EPA R9 staff was advised during our meeting on April 10, 2012, Comprehensive Bacteria Reduction Plans have been prepared by the Riverside and San Bernardino County municipal stormwater permittees to achieve the Middle Santa Ana River TMDLs. These Plans in part anticipate that appropriate recreational use changes will be approved through the UAAs. Projects to address bacterial inputs to Newport Bay are also in the planning stages; the location and nature of these projects anticipate that appropriate recreational use designations for the Santa Ana Delhi Channel will be approved through the UAA for this channel.

It must be emphasized that the UAAs were conducted in an objective manner, consistent with the governing principles identified at the outset of the Stormwater Quality Standards Task Force effort. Technical information was collected and analyzed in accordance with relevant guidance and regulation, without a particular outcome in mind. However, based on the UAAs and the recommendations for recreational use changes that resulted, implementation plans were and are being devised that consider that these use changes will be approved.

As described in preceding responses (1.2, 1.7), de-designation of recreational uses as the result of the UAAs will allow enhanced protection of water quality, beneficial uses and public health since any needed control measures can be prioritized and focused on the protection of uses where they are actually occurring or where they are expected to occur.

The UAA and TMDL/implementation approach embodied in the recreation standards amendments, Comprehensive Bacteria Reduction Plans and other control strategies is precisely the sort of UAA and TMDL integration that EPA, the GAO and the State Water Board (Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options (Resolution 2005-0050) envision.

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10.9	Nancy Woo	Comment Re Tiering of uses: While EPA's current guidance allows for the adjustment of single sample maxima for waters where use is not frequent, the draft 2011 Recreational Water Quality Criteria Guidance no longer recommends multiple use intensity values. This is an effort to increase national consistency across bodies of water and to ensure equivalent public health protection in all waters. EPA's proposed criteria remove the tiering component partly because of confusion by States on its application. This confusion is evident in the Regional Board's tiering of remote water bodies at lower tiers based on infrequent use while adding footnotes that protect those water bodies because they are "natural". The Regional Board noted the comment but did not respond. EPA is concerned that the tiering of uses involved a great deal of subjectivity and does not stand up to justification for adjusting single sample maxima to a less protective criterion.
Response, 10.9 The January 12, 2012 staff report supporting these amendments provides a detailed discussion of the scientific basis and purpose of single sample maximum values and their application to waters of varying REC1 use intensity (see sections 4.1.2 (p.25ff. of 126) and 5.3.2.1 (p. 50ff. of 126)). This discussion relies on the discussion of the scientific basis and intended application of the SSMs in EPA guidance and regulation (appropriate citations are included in the January 12, 2012 staff report.)To place the response to this comment in proper context, salient details are summarized below. It should be noted that these points (and the discussion in the January 12 2012 staff report) pertain to full body contact recreation (REC1). <ol style="list-style-type: none">(1) The geometric mean bacteria indicator (e.g., <i>E. coli</i>) objective is usually the more relevant value for ensuring that appropriate actions are taken to protect and improve water quality. This is because the geometric mean is usually a more reliable measure of long term water quality, being less subject to random variation, and more directly linked to the epidemiology studies underlying the EPA criteria.(2) Single sample maximum (SSM) values are statistical constructs designed to provide information regarding the likelihood of compliance with the geometric mean objective. They are intended by EPA to be used by decision-makers who must make timely beach notification/closure decisions without adequate data to calculate a geometric mean.(3) SSMs were never intended to serve as independently applicable acute criteria. Rather, all of the different SSMs were intended to provide the same level of health protection while simultaneously allowing different statistical confidence levels regarding the determination of compliance with geometric mean objectives using limited data. The intent is to provide risk management discretion to the state.(4) Single sample maximum (SSM) values are calculated using an equation in which the selected geometric mean objective, the log standard deviation of bacteria data and a statistical confidence factor are the variables.(5) The 1986 criteria document establishes the preference for site-specific derivation of the log standard deviation, since the degree of variability in bacteria data can vary significantly among different waterbodies. Where it is not possible to derive a site-specific log standard deviation, a default value is applied in the SSM equation. The default value was derived from the epidemiology studies EPA conducted to derive the bacteria criteria.		

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- (6) The statistical confidence factor used in the SSM equation is based on the intensity of REC1 use. A smaller confidence factor is used for designated beach areas (high intensity REC1 use), while a larger confidence factor is used for waters with infrequent REC1 use. The smaller confidence factor results in a lower, less certain but more conservative SSM; this added conservatism is appropriate where REC1 use and the potential for adverse effects on public health are higher. A higher, more certain but less conservative confidence factor, and thus SSM, is appropriate where there is infrequent REC1 use.
- (7) To apply SSMs, waters are “tiered” based on their known or anticipated REC1 use intensity.
- (8) States have the flexibility to determine how they choose to apply the SSM outside the beach monitoring and notification context. EPA expects that States will determine whether and how to use the SSMs in the context of their other programs implementing the Clean Water Act.

The tiering of fresh surface water bodies in the Santa Ana Region based on the intensity of known or anticipated REC1 use is entirely consistent with the scheme recommended in the 1986 EPA criteria document, which now applies, in 2006 EPA guidance on the application of single sample maximum values, and in EPA’s own promulgation of the 1986 criteria in the BEACH Act Rule. In the BEACH Act Rule, EPA identified single sample maximum *E. coli* values to be applied to different waters based on their intensity of REC1 use. However, the BEACH Act Rule left to the states covered under the Rule the task of identifying the specific waters to which each of these use tiers, and single sample maximum values, would apply. The Santa Ana Regional Board amendments surpass the action by EPA by completing the tiering task for inland fresh waters in the Region.

The tiers identified in the amendments approved under Resolution No. R8-2012-0001 are based, first and foremost, on the relative known or anticipated frequency of use, as directed by EPA in now applicable guidance and regulation. The amendments take an additional, cautionary step by recognizing that there are waters, largely in natural condition, which can be expected to have good bacteria quality. To provide additional protection of these high quality waters, the amendments include a “natural conditions” annotation and require that single sample maximum values be established for these annotated waters based on the application of the most conservative statistical confidence factor in the equation used to calculate the single sample maximum values. The most conservative statistical confidence factor is also applied to water bodies that receive high intensity REC1 use. Applying the same statistical confidence factor to annotated waters, even though they might not receive high intensity REC1 use, is a conservative approach consistent with antidegradation principles. In contrast to EPA R9’s assertion in this comment, this approach is NOT a sign of confusion by the Regional Board but, rather, a deliberate effort to provide a higher level of conservatism to the protection of these high quality waters. There is nothing in federal regulation or guidance that precludes this approach, which we had expected EPA to applaud, not characterize as a sign of confusion.

In short, the tiering of uses in the amendments demonstrates that there is no confusion on the Regional Board’s part. If and where such confusion exists nationally, EPA can and should address it. However, correcting any confusion should not be accomplished by ignoring the science underlying and purpose of the single sample maximum values, or by ignoring the significant variability in bacteria data in many freshwater streams. As noted at the outset of this response (and described in more detail in EPA’s criteria documentation and in the January 12, 2012 staff report supporting these amendments), variability is a significant determinant of the

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single sample maximum value that should be applied to a waterbody, in any use tier.

In the BEACH Act Rule, EPA explicitly rejected the argument for national consistency: “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...” (69 FR 220, 67227) In short, national consistency may be convenient, but is not necessarily appropriate or justified. Seeking consistency while ignoring important variables is not consistent with good science; limiting flexibility is likely also to limit innovative and potentially more protective approaches and trigger unjustified TMDLs.

The assertion that EPA’s proposed removal of the tiering component and multiple single sample maximum values based on REC1 use intensity would assure equivalent public health protection is incorrect. As noted in the initial summary in this response, the different SSMs were intended to provide the same level of health protection, as determined by the geometric mean objective, while simultaneously allowing different statistical confidence levels regarding the determination of compliance with the geometric mean objective. This allows risk management decisions to post or close REC1 use areas to be made.

Again, calculation of the single sample maximum values is performed with an equation in which the geometric mean objective, the log standard deviation of bacteria data (reflecting variability) and a statistical confidence factor related to the intensity of use are included. Forcing all waters to meet the same single sample maximum value irrespective of inherent variability could necessitate actions to meet a more stringent geometric mean objective than that established. In other words, ignoring variability could result in greater health protection for some water bodies, where such protection is not necessarily warranted, at least as a high priority, based on the intensity of REC1 use. Where single sample values are not calculated taking variability into account, the result may be unjustified Clean Water Act impaired waters listings, triggering TMDLs that may also not be justified.

The tiering of inland freshwater bodies in the Santa Ana Region was conducted in a highly conservative manner, with guidance and input from Stormwater Quality Standards Task Force members, including Orange County Coastkeeper and Inland Empire Waterkeeper, and others. No comments on the specific tiers to which waters were assigned were provided during the extensive, open Task Force process or during the Regional Board’s public comment period for these amendments. The conservatism employed in the tiering process stems from the reliance on the Santa Ana River Reach 3 as the high REC1 use intensity baseline, against which the known or anticipated REC1 use intensity of other freshwaters was judged. REC1 use intensity in Reach 3 of the River is high compared to most other freshwater bodies in the Region, but significantly lower than the use that occurs at ocean beaches in the Region. Arguably, the level of REC1 use intensity at ocean beaches could have been used as the comparative baseline to determine REC1 use intensity tiers. Instead, as stated, a more conservative approach was used to make the tier assignments in the amendments.

EPA R9 asserts that the tiering of uses involved a great deal of subjectivity and does not stand up to justification for adjusting single sample maxima to a “less protective” criterion. First, EPA R9 does not specify the justification necessary to make tier assignments, or why the Santa Ana Regional Board’s approach was flawed. The definitions of the use tiers employed in the amendments are essentially the same as those employed by EPA in the BEACH Act Rule. We are not aware of any more specific guidance and regulation issued by EPA that elucidates the justification that EPA R9 appears to believe necessary.

Second, as discussed above, we do not believe that it is appropriate to characterize a higher single sample maximum value calculated for less frequently used REC1 waters as a “less protective criterion”: (a) All REC1 designated waters, irrespective of their tier

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assignment based on known or anticipated REC1 use, would have the same geometric mean objective (126/100mL *E. coli*) pursuant to the amendments; (b) As intended by EPA, the amendments reflect that the principal purpose of the SSMs is to provide information for beach notification/closure decisions, and as a trigger for further investigation of possible bacteria sources should the SSM be exceeded. However, the amendments also explicitly provide that where there are insufficient data to calculate a geometric mean objective, the SSMs values shall apply for the purposes of compliance determinations. See Table 4- pio, - Pathogen Indicator Bacteria Objectives for Fresh Waters, note 3 (p. 39 of 79) and 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, note 1 (p. 67 of 79, Attachment 2 to Resolution No. R8-2012-0001); (c) the SSMs are simply different statistical expressions of the same geometric mean objective, which, as EPA has explicitly acknowledged, is the more relevant value for assessing long term water quality conditions. The different SSMs based on different REC1 use intensities reflect the degree of conservatism that states might choose to employ in determining whether or not that geometric mean objective is being met when there are insufficient data to calculate the geometric mean. This does not represent a difference in the stringency of the criteria, but rather a risk management decision that is properly left to the state.

Regional Board staff presumes that EPA R9's reference to our noting a comment but purportedly failing to respond refers to a comment in EPA R9's April 25, 2012 letter on the proposed amendments. EPA R9 pointed out that though the tiering of freshwaters based on the intensity of use in the amendments is included in the Implementation chapter of the Santa Ana Region Basin Plan, EPA considers such tiering as a standards change and thus actionable under the Clean Water Act. Regional Board staff responded that the comment was noted. It's not clear what additional response was needed or anticipated at that time. However, we now point out again that Table 4- pio, - Pathogen Indicator Bacteria Objectives for Fresh Waters, which is to be included in Chapter 4 (WATER QUALITY OBJECTIVES) of the Basin Plan, includes specific reference to SSMs and their application as objectives should there be insufficient data to calculate geometric means. The method in which SSMs are incorporated in the Santa Ana Region Basin Plan, including relevant implementation plan requirements, is entirely consistent with EPA's intended purpose for the SSMs and the flexibility that EPA expects states to employ in their application.

See also Regional Board staff responses to EPA's February 23, 2012 comments, #7.

10.10	Nancy Woo USEPA, Region 9	Comment Re Use Attainability Analyses (UAAs): Based on preliminary review of the UAAs, there is some evidence that the removal of the REC1 use may be justified in some reaches based on low flow and channel morphology, but it is not apparent that the REC2 use can be removed. Specific comments: Santa Ana Delhi Channel (SAD): The reasoning that REC2 is not attainable in Reaches 1 and 2 is not apparent. The low flow and channel morphology reasoning does not apply to the tidal prism.
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Response, 10.10

The documentation in the administrative record to describe and support the UAAs is extensive, reflecting the intensive, comprehensive analyses that were conducted to address the questions of whether recreational uses in the waters evaluated are “existing”, as defined in federal regulations, whether and which of the UAA factors defined in federal regulations (40CFR 131.10(g)) affect the attainability of recreational uses, and the suite of other factors (land use, safety considerations, access, etc.) that EPA recommends be considered when making recreational use attainability decisions (see 63 FR 129, 36756). The volume of the documentation may account for the continued “preliminary” nature of EPA R9’s comments on the UAAs.

[Note: Pursuant to the recreation standards amendments, the Santa Ana Delhi Channel will be explicitly listed in the Basin Plan for first time and appropriate beneficial use designations will be added. The UAA analyses and conclusions for the Santa Ana Delhi Channel are presented in Section 5.6.3 of the January 12, 2012 staff report for the amendments. In part, this section of the staff report summarizes technical information and analyses for the Channel that are compiled in separate reports that are part of the administrative record for this matter].

Pursuant to the UAA analyses, the REC1 designation is not recommended for the tidal prism, Reach 1 or Reach 2 of the channel. This is based on the determination that two of the UAA factors (131.20(g)(2) (flow conditions) and (4) hydrologic modifications) prevent the attainment of the REC1 use. EPA R9 appears to contest the propriety of this determination for the tidal prism, asserting that the low flow and channel morphology reasoning (i.e., UAA factors 2 and 4) do not apply. The Regional Board disagrees.

As described in the January 12, 2012 staff report supporting the amendments (Section 5.6.3, Table SAD-2: Santa Ana Delhi Channel Characteristics), the tidal prism is characterized by a mix of steep, eroded earthen side slopes (see Section 5.6.3, Figure SAD-3) and concrete-lined side slopes, making access to the flow in the tidal prism difficult and potentially hazardous. As the name suggests, flows in the tidal prism vary considerably based on tidal stage. During low tide and during dry weather, flows in the tidal prism are less than one foot. The fact that no recreational activity or people were observed in the tidal prism during repeated field surveys and in 21,284 photographs speaks to the unattainability of the REC1 use.

The REC2 use² designation is not recommended for Reach 1. This Reach is a mix of heavily modified concrete-lined channel and underground culvert. Because of fencing and adjacent land uses (commercial/industrial) in areas where the channel is open, there is limited site view of and access to much of the Reach. Use of the channel for water contact recreation or non-contact activities, including sightseeing or aesthetic enjoyment, is thus not attainable. There is no evidence of such use or of other REC2-type activities. The REC2 designation is recommended for both the tidal prism and Reach 2 of the Santa Ana Delhi channel, given opportunities to view the channel from adjacent areas and to observe wildlife that may visit or inhabit the channel.

² [REC2 Non-contact Water Recreation (termed “Secondary Contact Recreation by EPA and many states) is defined statewide (with some editorial changes in certain Regions) as use for “recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water would be reasonably possible. These uses may include but are not limited to picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing and aesthetic enjoyment in conjunction with the above activities.”]

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10.10 Continued	Nancy Woo USEPA, Region 9	Comment Greenville Banning Channel (GB): “There is evidence (low flow, channel morphology) that REC1 can be removed in Reach 1, but there is no evidence to support the removal of REC2. Particularly considering the BMPS employed have shown that there has been water quality improvement. The discussion regarding not designating REC2 (page 24 of UAA) is insufficient; Low flow, algae, and lack of vegetation are not 40 CFR 131.10(g) factors. Figure GB-12 shows an area that appears accessible and is surrounded by a residential area. The tidal prism is accessible from the Santa Ana River which is designated REC1. There is no firm evidence for designating the tidal prism as REC2.”
Response, 10.10 [Note: Pursuant to the recreation standards amendments, the Greenville-Banning Channel will be explicitly listed in the Basin Plan for first time and appropriate beneficial use designations will be added. The UAA analyses and conclusions for the Greenville-Banning Channel are presented in Section 5.6.4 of the January 12, 2012 staff report for the amendments. In part, this section of the staff report summarizes technical information and analyses compiled for this channel in separate reports that are part of the administrative record for this matter]. As described in detail in the January 12, 2012 staff report, Reach 1 is <u>not</u> readily accessible. Most of the Reach has been heavily modified, with vertical concrete-lined walls (there is a limited section of trapezoidal concrete walls). There is fencing along the length of the channel on both sides and there are no maintenance access points (no gates or ramps to allow access into the channel). Part of this Reach runs through a residential area where the homes face away from the channel and are separated from the channel by fencing/walls. Low flows in the channel and limited vegetation (other than algae mats) provide poor habitat for wildlife that might attract bird watchers or sightseers. See Figures GB-6 and 12 in the January 12, 2012 staff report. (The reference to algae in the January 12, 2012 staff report was provided in this context; no assertion was made or contemplated that the presence of algae would satisfy one of the 131.10(g) UAA factors. However, in contrast to EPA R9’s statement, flow conditions, including low flow conditions, are included in the 131.10(g) factors (131.10(g)(2)).) Thus, there is no basis to conclude that REC2 has been or is likely to be attained. The tidal prism is fully concrete-lined, with fenced, vertical walls. While it is theoretically possible to enter the tidal prism from the Santa Ana River, it is highly unlikely considering the difficulty of access to this confluence and the expected preference to remain at or near the ocean beach, which is approximately 1.5 miles from the mouth of the Greenville-Banning Channel. This is confirmed by photographic and in-person field observation: no one has been observed paddling, wading, walking, or swimming in any section of the Greenville-Banning Channel. As discussed in the January 12, 2012 staff report, there are opportunities for REC2 activities adjacent to the tidal prism. A bicycle path parallels the channel for much of the length of the tidal prism and tidal flows in the channel provide opportunities for wildlife viewing. REC2 is an appropriate designation for the tidal prism. EPA R9 comments that there has been water quality improvement in the channel. Such improvement is the result of the implementation of a diversion dam at the upstream end of the tidal prism. The intent of the dam is to improve water quality at downstream ocean beaches that receive heavy REC1 use. The diversion dam is deployed during dry weather to capture dry weather flows that are conveyed to the sanitary sewer system. Ponding behind the dam also promotes better solar disinfection. Further, natural		

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<p>stream flow is slowed, reducing the load of bacteria that would otherwise be scoured from the substrate. Studies conducted by Dr. Stan Grant of UC Irvine show that substrate scour is a significant source of bacteria loads in freshwater streams in the Santa Ana Region.</p>		
<p>10.10 Continued</p>	<p>Nancy Woo USEPA Region 9</p>	<p>Comment</p> <p>Re Temescal Creek: “The Regional Board renamed reaches and proposes to remove the REC1 use from Reaches 1a and 1b. The Regional Board also proposes to remove REC2 from Reach 1b. There is some evidence (low flow, channel morphology) that REC1 might be removed, but there is no evidence to support the removal of REC2 in Reach 1b.”</p>
<p>Response, 10.10 [Note: The UAA analyses and conclusions for Temescal Creek are presented in Section 5.6.5 of the January 12, 2012 staff report for the amendments. In part, this section of the staff report summarizes technical information and analyses compiled for the creek in separate reports that are part of the administrative record for this matter]. As described in the January 12, 2012 staff report, Reach 1b is vertical walled, fully concrete-lined and extends through an area dominated by commercial/industrial development where people are engaged in business activities, not recreation. Flows are very limited and provide poor habitat for wildlife. Access to and sight views of the channel are limited by fencing and commercial/industrial development. In short, there is no evidence that Reach 1b supports or is likely to support use of the channel for recreational activities in proximity to water (i.e., REC2), such as sightseeing or wildlife observation. See Figure TC-5 in the January 12, 2012 staff report.</p>		
		<p>Re Cucamonga Creek Reach 1: “There is evidence (low flow, channel morphology) that REC1 can be removed, but there is no evidence to support the removal of REC2. The bacteria data presented show that REC1 is met about half the time (Figures CC and CC-16) but there’s no discussion or evidence that REC2 can’t be met. As stated in the UAA (p. 24), in 1974 the U.S. Army Engineer district, Los, Angeles, Corps of Engineers, Los Angeles District proposed a Recreation Master Plan for Cucamonga Creek which included equestrian, hiking and bicycle trails adjacent to the creek.”</p>
<p>Response, 10.10 [Note: The UAA analyses and conclusions for Cucamonga Creek are presented in Section 5.6.6 of the January 12, 2012 staff report for the amendments. In part, this section of the staff report summarizes technical information and analyses compiled for the creek in separate reports that are part of the administrative record for this matter]. As described in the January 12, 2012 staff report, Reach 1 is fenced and concrete-lined along its length, with vertical or trapezoidal walls, making access difficult and hazardous. Much of Reach 1 is adjacent to agricultural, commercial and industrial land uses,</p>		

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making much of the Reach out of view by the general public. Low flows limit habitat and opportunities for sightseeing/wildlife observation. In person field surveys and photographic observation resulted in a single observation of human presence in Reach 1, namely a vehicle (likely a maintenance vehicle) being driven in the channel. In short, there is no evidence that Reach 1 supports or is likely to support use of the channel for recreational activities in proximity to water (i.e., REC2), such as sightseeing or wildlife observation.

One of the initial tasks taken by the Stormwater Quality Standards Task Force as part of the UAA analyses for all of the water body segments considered, including Cucamonga Creek Reach 1, was to determine whether and what proposed plans had been or were being developed for the development of parks, trails, etc. that might invite recreational activity, and the status of those plans. The information obtained initially was later reconfirmed just prior to the completion of the draft amendments. While the Army Corps of Engineers proposed a recreation master plan for the Creek in 1974, that plan has not been implemented and there is no evidence that any such plans will be implemented in this area (please see Section 5.6.6.8.4. "Probable Future Use" in the January 12, 2012 staff report for the amendments). Should any such plans come to fruition, then it would be appropriate for the Regional Board to consider changes to recreational use designations as part of the triennial review process.

REC2 bacteria (fecal coliform) quality objectives now established in the Basin Plan are deleted under the amendments since there is no scientific basis for such objectives. Whether or not water quality might meet the fecal coliform objectives is arguably irrelevant to the question of the designation of the use where, as in this case, that use has been shown not to occur and to not have the reasonable probability to occur because of other factors. In the case of Cucamonga Creek Reach 1, physical factors, taken together with other considerations as EPA has directed (including land use, access, safety, other recreational facilities), preclude the attainment of the REC2 use. Furthermore, EPA has acknowledged that there is no scientific basis for establishing REC2 objectives, and has disavowed the use of fecal coliform objectives as a reliable indicator of public health risk even in REC1 waters. It should be emphasized that all surface waters in the Santa Ana Region will continue to be protected pursuant to antidegradation requirements and narrative objectives, including the new narrative pathogen objective that would be incorporated in the Basin Plan pursuant to the amendments.

The preceding EPA R9 comments state that "there is some evidence" or that "there is evidence" that REC1 uses can be removed. The Regional Board found that the evidence supporting de-designation of REC1 for the UAA waters was compelling and that the de-designations are fully consistent with EPA regulation and guidance. As stated above, EPA recommends that the States and Territories look at a suite of factors, including the actual use, existing water quality, potential water quality, access, recreational facilities, safety considerations and location as well as physical factors such as flow conditions and channel morphology, when making recreational use attainability decisions. The documentation in the administrative record for these UAAs, in part summarized in the UAA staff report sections referenced above, demonstrates that all of these factors were carefully evaluated and considered in making the UAA decisions reflected in the amendments. It is not clear whether EPA R9 supports these REC1 decisions or whether EPA R9 believes that some other demonstration is necessary. In the latter case, EPA R9 should make this explicit (and, in our view, should have done so in the 9 months since the amendments were submitted for public and agency comment.)

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<p>10.10 Continued</p>		<p>Comment</p> <p>“The Regional Board has not demonstrated that changing the recreational uses from these reaches would allow for the protection of the Upper Newport Bay, or the Santa Ana river, or other receiving waters, which have standards that include REC1 uses.”</p>
<p>Response, 10.10</p> <p>As stated in the response to comment 10.7, there is no explicit requirement to demonstrate the protection of downstream uses when conducting UAAs: the requirement to protect downstream water quality standards is a separate, stand-alone requirement. There are federal and state requirements to adopt and consider appropriate revisions to water quality standards to ensure the reasonable protection of beneficial uses. UAAs are a part of this process, authorized under federal regulation.</p> <p>With this said, the recreational use changes included in the amendments are expected to <i>improve</i> water quality and enhance protection of REC1 beneficial uses in affected receiving waters, including Upper Newport Bay and the Santa Ana River. As discussed in the responses to comments 10.2, 10.7 and 10.8, above, the recreational use changes will allow for the placement of BMPs at strategic locations upstream of areas where REC1 use is known to occur. The Greenville-Banning channel diversion is an excellent example. As noted above, a diversion is also planned for the Santa Ana Delhi Channel to protect Upper Newport Bay. The Regional Board-approved Comprehensive Bacteria Reduction Plans for Riverside and San Bernardino counties anticipate the approval of the recreation standards changes in their design and implementation of control measures to achieve the Middle Santa Ana River TMDL, with the prioritized protection of known REC1 use areas in mind.</p>		
<p>10.11</p>	<p>Nancy Woo USEPA, Region 9</p>	<p>Comment</p> <p>Conclusion: “EPA Region 9 has identified many serious issues with this Basin Plan Amendment. EPA Region 9 recommends that the State Board remand this amendment back to the Regional Board at this time. We also recommend that the Regional Board delay any revisions of their Recreational Uses until the Santa Ana river and Newport Bay TMDL’s are revised and there’s more thorough assessment of sources and attainability.”</p>

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Response, 10.11

Clearly, the Regional Board does not agree with EPA R9's assessment that there are serious issues with the amendments. The amendments are fully consistent with current guidance and regulation, based on sound science, and will enhance the protection of water quality and beneficial uses in the Region. EPA R9 has not provided compelling, explicit argument to the contrary.

The UAAs conducted to support the amendments are thorough assessments of the factors that EPA requires and recommends to be considered in making use designation decisions. Indeed, these UAAs are remarkably and uniquely thorough. We trust that EPA R9's views will change once their own thorough review is completed. Where there remain questions or needs for clarification, EPA R9 should consult with Regional Board staff.

As stated in the response to comment 10. 8, appropriate revisions to water quality standards should proceed irrespective of TMDLs, and ideally in advance of identifying waters for which TMDLs are needed, such that requirements for the expenditure of public resources are justified, responsible and fair.

Source assessments are proceeding in response to TMDL requirements for both the Middle Santa Ana River and Newport Bay. As previously discussed, waters identified as sources of bacteria inputs resulting in impairment of downstream waters will be required to be addressed, irrespective of the recreational use designations of the waters themselves.

For the reasons described in the preceding responses (see 10.2), EPA R9's repeated recommendation to delay approving the amendments is simply contrary to the interests of protecting public health, water quality and beneficial uses. EPA R9's recommendation to delay the amendments pending publication of new recreational water quality criteria is also contrary to EPA R9's action during the 2010-12 Clean Water Act §303(d) impaired waters listing process. At that time, the Santa Ana Regional Board suggested that it would be prudent to defer any new listings for the Region based on bacteria indicators until the Regional Board's new objectives, or EPA's revised criteria, were finalized. The State Board agreed, but EPA R9 over-rode this decision and added several waterbodies to the 303(d) list on the basis of violations or inferred violations of bacteria objectives. EPA R9 stated that it was "inappropriate to defer regulatory action on the basis of unadopted water quality objectives." But this is now precisely what EPA R9 recommends with respect to the amendments.

Not only would the failure to proceed with the amendments be a detriment to water quality, public health and beneficial use protection, it would have a chilling effect on stakeholder participation in the basin planning process. Stakeholders within the Region made extraordinary commitments of time, effort and money to support data collection, technical and other analyses and the development of recommendations for the standards changes and implementation strategies included in the amendments. This reflects the stakeholders' commitment to protect water quality and public health in the most effective and responsible manner.

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Appendix 1
Water Quality Based Approach

(Section 302) Determine Protection Level (EPA Criteria/State WQS) Conduct WQ Assessment (Identify Impaired Waters) Set Priorities (Rank/Target Waterbodies) Evaluate Appropriateness of WQS for Specific Waters (Reaffirm WQS) Define and Allocate Control Responsibilities (TMDL/WLA/LA) Establish Source Controls (Point Source, NPS) Monitor and Enforce Compliance (Self Monitoring, Agency Monitoring) Measure Progress

WQSA Module 4: UAAs For information purposes only – Not official statements of EPA policy

How can the total maximum daily process (TMDL) and the use refinement process be coordinated?

As the stakeholder process and analyses used for a use attainability analysis (UAA) and a TMDL are often similar, they can play a large role in informing each other. To effectively make use of the resources dedicated to these processes, states and tribes should consider evaluating the attainability of their uses during the TMDL development process. Such an approach may have a number of benefits for a state or tribe. By designating a use known to be attainable for an impaired waterbody, a state or tribe can develop TMDLs using the most appropriate targets. TMDLs developed to meet appropriate water quality standards (WQS) should result in the development of reasonable waste load allocations for point sources and load allocations for non point sources. These allocations may in turn, ultimately affect proposed controls. In addition, the information gathered to develop a TMDL, and the allocations in a TMDL, may point to the need for a designated use change (and possibly a UAA).

In addition to ensuring appropriate targets, coordinating the use refinement and TMDL development processes may allow for a more collaborative approach where states/tribes and stakeholders can discuss issues that may influence both processes. This method provides a forum for affected parties, who may be the same for both processes, to discuss the ways in which to best achieve necessary WQS and meet local needs. A collaborative approach may also spur an information exchange where a UAA can assist in finding other unknown causes or sources of impairment.

States and tribes have discretion to determine whether to do the use refinement and TMDL development processes sequentially or simultaneously. If a state or tribe chooses to do them sequentially, there are a number of factors that a state or tribe may want to consider in determining the order. In particular, it is important for states and tribes to consider the time needed to adopt revised WQS should a use redesignation become appropriate. Many state/tribal regulation adoption processes can take two to three years to effect a change. Depending on TMDL-development schedule, a state or tribe may not have the flexibility to wait several years to finalize a TMDL. However, if a UAA is completed after a TMDL is finalized, the TMDL may need to be revised to reflect the newly refined use. States and tribes should consider ways to reduce the overall workload when determining the appropriate sequence.

Often, the timing of TMDLs and use changes are influenced by factors out of the control of the state/tribe, stakeholders or EPA (e.g., consent decrees, active court cases, legislative or statutory requirements). Therefore, time permitting, states and tribes could evaluate uses and develop TMDLs simultaneously to spur cross-program information exchange (e.g., water quality data, formulation of multi-stakeholder teams and workgroups). This approach may also yield a current and historical assessment of the effectiveness of modeling tools, best management practices, resources, and partnerships. A simultaneous process may also allow a state or tribes to combine public participation requirements for establishing a TMDL and revising a state/tribal WQS, if needed. States and tribes could also conduct use attainability analysis during the implementation of a TMDL and subsequently revise the TMDL if any

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