Comment Summary and Responses
Comment Deadline: February 15, 2013
Amendments to the Water Quality Control Plan for the Los Angeles Region to Revise Total Maximum Daily Loads (TMDLs) for Bacteria for (1) Santa Monica Beaches; (2) Marina del Rey Harbor, Mothers' Beach, and Back Basins; (3) Los Angeles Harbor, Inner Cabrillo Beach, and Main Ship Channel; (4) Ballona Creek, Ballona Estuary, and Sepulveda Channel; and (5) Malibu Creek and Lagoon; and to Amend Chapter 3 to Modify the Implementation Provisions for Water Contact Recreation Bacteria Objectives

List of Commenters:

Comment Reference	Organization	Representative
1.	City of Bradbury, Gardena, Glendora, Lawndale, San Fernando, and South El Monte (Cities)	Michelle Keith, Mitchell G. Lansdell, Jerry L. Burke, Nasser Abbaszadech, Ron Ruiz, and Louie Aguinaga
2.	City of El Segundo, Manhattan Beach, Hermosa Beach, Redondo Beach and Torrance (Jurisdictional Group 5&6)	Mike Witzansky and Jim Arndt
3.	City of Los Angeles Bureau of Sanitation (LABOS)	Enrique C. Zaldivar
4.	City of Los Angeles Department of Water and Power (LADWP)	Katherine Rubin
5.	City of Malibu	Jim Thorsen
6.	County of Los Angeles Department of Public Works (LACDPW)	Gary Hildebrand
7.	Heal the Bay and Los Angeles Waterkeeper	Amanda Griesback and Kirsten James
8.	Public Commenter	Wendy D. Werner

Response to Comments:

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0.1	Multiple	Many of the comments submitted in opposition to the State Water Resources Control Board's (State Water Board) approval of these amendments to the Water Quality Control Plan for the Los Angeles Region to revise TMDLs for bacteria for (1) Santa Monica Beaches; (2) Marina del Rey Harbor, Mothers' Beach, and Back Basins; (3) Los Angeles Harbor, Inner Cabrillo Beach, and Main Ship Channel; (4) Ballona Creek, Ballona Estuary, and Sepulveda Channel; and (5) Malibu Creek and Lagoon; and to amend Chapter 3 to modify the implementation provisions for water contact recreation bacteria objectives were previously submitted to the Los Angeles Regional	The State Water Board's Notice of Opportunity to Comment concerning these Basin Plan amendments accurately inform 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

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		Water Quality Control Board (Los Angeles Water Board) and submitted verbatim to the State Water Board without further explanation.	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

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			compliance with this section. Several of the comments submitted to the State Water Board on this matter are identical to a comment submitted to the Los Angeles Water Board at the time the draft version of these regulations were under Los Angeles Water Board consideration. Where a commenter has merely repeated the comment submitted below, the comment does not comply with the above-quoted regulation. During its consideration, the Los Angeles Water Board received and provided written responses to all significant comments. The Los Angeles Water Board's responses either indicated that changes would be made to the regulatory provisions or related documentation in view of the comment (in which case corresponding changes were made), or the Los Angeles Water Board's written responses indicated that changes would not be made, and the response indicated why not. The State Water Board cannot divine what the commenter believes has been adequately satisfied by the Los Angeles Water Board, nor can it determine the reason for any remaining dissatisfaction.

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			Without that information, the State Water Board does not have a fair opportunity to understand what, if any, remaining concerns exist.
1.1	Cities	1. **Compliance with WLAs in Receiving Waters** Both federal stormwater regulations and a recent United States Supreme Court decision assert that compliance with water quality standards (includes TMDLs) for MS4 permittees is determined by measuring outfall discharges -- not in a receiving water. CFR 40 §122.22, §122.2 and §122.26. CFR 40 §122.22(C)(3) requires effluent and ambient monitoring: *The permit requires all **effluent** and **ambient** monitoring necessary to show that during the term of the permit the limit on the indicator parameters continues to attain water quality standards.* As defined in the Clean Water Act §502, "Effluent monitoring" is defined as outfall monitoring: *The term "effluent limitation" means any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from **point sources** into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.*	The State Water Board disagrees. The U.S. Supreme Court's January 8, 2013 decision in the case of *Los Angeles County Flood Control District v. NRDC et al.* only concluded that "the flow of water from an improved portion of a navigable waterway into an unimproved portion of the very same waterway does not qualify as a discharge of pollutants under the CWA." The Court did not rule that compliance with water quality standards or TMDLs for MS4 permittees is determined by measuring outfall discharges. The Court also did not rule on or invalidate any TMDL adopted by the Los Angeles Water Board or the U.S. EPA. Therefore, the Court's decision did not impact any established requirement(s) for complying with wasteload allocations in TMDLs and/or water quality standards, including monitoring requirements. The Clean Water Act and implementing federal regulations provide states with broad authority to require monitoring by dischargers of pollutants. The subject

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		40 CFR §122.2, defines a point source as: *... the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.* With respect to MS4 permits, the end of the "regulatory line" is in the discharge from the outfall. Receiving waters lie outside the bounds of the MS4 permit. Therefore, any requirement associated with compliance in the receiving water is extra-legal. The burden of the MS4 permit is to attain water quality standards by implementing BMPs and performing other tasks within an MS4. The Supreme Court, in ruling on Los Angeles County Flood Control District (LACFCD v. NRDC), affirmed a lower court ruling establishing that the point of compliance for MS4 permits is in outfall discharges. This effectively invalidated NRDC's claim that LACFCD had violated the 2001 Los Angeles MS4 permit because of numerous water quality exceedances that were detected in several receiving waters during wet and dry weather through in-stream measurements.	TMDLs require *compliance monitoring*, consistent with Clean Water Act section 308(a) and federal regulations. The purpose of compliance monitoring by the responsible agencies that are assigned allocations in the TMDLs is to determine dischargers' compliance with the TMDL allocations and to determine the impact of the discharges on the receiving water and attainment of the TMDL numeric targets. The Basin Plan amendment language of the TMDLs does not use the term "ambient monitoring." Further, the commenter's reference to 40 CFR section 122.22(C)(3) is not only inapplicable to this matter, but the citation is also incorrect. The Board believes that the correct citation for the quoted language is 40 CFR section 122.44(d)(1)(vi)(C)(3). That section applies to situations where a state has not established a water quality objective for a pollutant present in an effluent and establishes effluent limitations for an indicator parameter for the pollutant of concern. In these TMDLs, the numeric targets and allocations are based on state adopted and federally approved water quality objectives. Therefore, the commenter's reference offers no support for their assertion.

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			The compliance monitoring requirements of the TMDLs include monitoring of discharges from outfalls and receiving water monitoring. As required by 40 CFR section 130.7(c), the TMDLs address seasonal variability in the nature of discharges to receiving waters and critical conditions, and assign allocations on this basis (i.e. dry weather and wet weather allocations). As such, compliance monitoring during wet weather, storm conditions is necessary to determine compliance with wet weather allocations assigned to storm water discharges and to determine the impact of storm water discharges on attainment of the TMDL numeric targets. The means of *demonstrating compliance* with the allocations is set forth in the implementing mechanisms for the TMDL, namely NPDES permits and other enforceable orders issued by the State Water Board or Los Angeles Water Board to the responsible agencies identified in the TMDLs. For example, the recently issued NPDES permit for discharges from MS4s within Los Angeles County (Order No. R4-2012-0175) allows MS4 permittees to

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			demonstrate compliance with TMDL provisions at their MS4 outfalls or in the receiving water.
1.2	Cities	2. Compliance with Ambient Water Quality Standards The subject bacteria TMDLs, along with others adopted by the Los Angeles Regional Board and approved by the State Board, require ambient monitoring in the receiving water. The issue here is that the term "ambient" is misused to mean wet weather monitoring as well as dry weather monitoring. MS4 permits require attainment of ambient water quality standards. In fact, all water quality standards are ambient standards. USEPA defines effluent as outfall discharges. Ambient monitoring is defined by USEPA to mean the: *Natural concentration of water quality constituents prior to mixing of either point or nonpoint source load of contaminants. Reference ambient concentration is used to indicate the concentration of a chemical that will not cause adverse impact to human health.*[1] Ambient monitoring does not include measurements in the receiving water during a storm event. Outfall monitoring measures discharges against a fixed ambient standard that has been established to protect beneficial uses. It serves no purpose to compare outfall discharges against a non-ambient standard (i.e., during a storm event) or base compliance on measurements taken in-stream during a storm event.	The State Water Board disagrees. The Basin Plan amendment language of the TMDLs does not use the term "ambient monitoring." Rather, the subject TMDLs require *compliance monitoring.* See response to comment 1.1.

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1.3	Cities	3. Recommendations Delete all references to receiving water monitoring for MS4 compliance or any other purpose and provide a definition of ambient water quality monitoring that is consistent with USEPA's definition. And, clarify that attainment of water quality standards is determined by measuring outfall discharges against fixed ambient standards - hopefully developed by the State's surface water ambient monitoring program.	The State Water Board disagrees. See responses to comments 1.1 and 1.2. Ambient monitoring conducted under the State's surface water ambient monitoring program (SWAMP) does not support the types of evaluation necessary to determine compliance by specific dischargers with their assigned TMDL allocations or to determine the discrete impacts of discharges on receiving water quality and attainment of TMDL numeric targets.
2.1	Jurisdictional Group 5&6	The Cities of Redondo Beach, Manhattan Beach, Hermosa Beach, Torrance and El Segundo are responsible agencies (Agencies) with jurisdictional area located within the "Hermosa" and "Redondo" subwatersheds identified in Table 7-4.2b of Attachment A to Resolution No. R12-007. These agencies have been working jointly to implement BMPs towards complying with the provisions of the Santa Monica Bay Beaches Bacteria Total Maximum Daily Load (SMBBB TMDL). The Cities of Manhattan Beach and Redondo Beach as Primary Jurisdictions have been designated as co-Chairs of Jurisdictional Groups 5 and 6, respectively, with authority to correspond on behalf of the group regarding the SMBBB TMDL. We appreciate the changes made by the Regional Water Quality Control Board—Los Angeles (Regional Board) in the reconsideration of the Santa Monica Bay Beaches Bacteria TMDL, most notably the revision of the winter dry weather allocations to adjust the allowable number of exceedance days during winter dry weather based on the	Comment noted.

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		historical 10th percentile year in terms of non-wet days at LAX meteorological station. However, we have several significant unresolved concerns regarding the proposed Amendment to the Basin Plan to revise the SMBBB TMDL that are discussed below. Additional detailed and specific comments on the proposed Basin Plan Amendment were provided in our comment letter to the Regional Board dated May 7, 2012. The comment letter is attached to this letter for your reference.	
2.2	Jurisdictional Group 5&6	<u>Lacking Non-point Source Analysis and Load Allocations</u> One of our primary concerns is that the Source Analysis and discussion of Load Allocations in the proposed Basin Plan Amendments do not address non-point source load allocations (LA) separate from waste load allocations (WLAs). The extensive data collected at the reference beach since adoption of the SMBBB TMDL demonstrates that natural conditions associated with freshwater outlets from undeveloped watersheds result in summer and winter dry weather exceedances of the single sample bacteria objectives absent any MS4 discharges (waste loads). Furthermore, at "open beach" monitoring stations not associated with freshwater outlets, MS4 outfalls or natural streams, data show non-point source indicator bacteria loads in the receiving water contribute on average a baseline frequency of exceedances on the order of 3-4% of sampling days during year-round dry weather. As noted in the comment letter to the Regional Board from the City of	This comment was previously made to the Los Angeles Water Board. The State Water Board reviewed and agrees with the Los Angeles Water Board's responses to this comment. Please see response to comment 0.1, and the Los Angeles Water Board's response to comment 3.1 to R12-007, which states: A source analysis was conducted during the TMDL development. Revisions to load allocations have not been evaluated for this action, have not been noticed for public comment and are outside the scope of this reconsideration. The Los Angeles Water Board further

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		Malibu, a number of recent studies have further identified and confirmed natural (non-anthropogenic) sources of fecal indicator bacteria (FIB) – including plants, algae, decaying organic matter, and bird feces – demonstrating these as potentially significant contributors to exceedances (Imamura et al 2011, Izbicki 2012b). Beach sands, sediments and beach wrack have been shown to be capable of serving as reservoirs of FIB (Imamura et al 2011, Lee et al 2006, Ferguson et al 2005, Phillips et al 2011, Jiang et al 2004). Thus there is ample evidence of the need for load allocations to address non-point sources of fecal indicator bacteria which this TMDL does not.	responded in comment 1.2 to R12-007 as follows: The revisions under consideration *at this time* are limited to the specific elements identified at the time of Regional Board adoption of the TMDLs in 2002, 2003 and 2004. Staff has recommended only these revisions for this Board action because these specific reconsiderations are an obligation for the Board and are "overdue." The Regional Board is not precluded from reconsidering any aspect of a TMDL. But at this time, Regional Board has evaluated, publically noticed and is reconsidering, only those certain technical aspects specifically listed in the original BPAs. Some additional revisions have been made for clarity or consistency but no new substantial changes are recommended. However, the Regional Board does recognize that other aspects of the TMDLs

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			may need to be reconsidered in the future especially as the science continues to develop. The Regional Board can turn to these other issues once we have met our current obligation. Regional Board staff will consider all new material and information brought to our attention and can reconsider a TMDL based on this new information as warranted. The State Water Board also notes that the reference beach/antidegradation approach used in these TMDLs accounts for natural sources of bacteria. In the future, revisions to bacteria TMDLs using a Natural Sources Exclusion supported by studies using Microbial Source Tracking (MST) and Quantitative Microbial Risk Assessment (QMRA), or other appropriate methods could be developed.
2.3	Jurisdictional Group 5&6	<u>Summer Dry Weather Allowable Exceedance Days inconsistent with Reference Beach/Anti-degradation Approach</u> To be consistent with the reference beach/anti-degradation approach established for the SMBBB TMDL and with the extensive data discussed in the staff report, the allowable summer dry weather exceedance days must be revised. Data collected at the reference	This comment was previously made to the Los Angeles Water Board. The State Water Board reviewed and agrees with the Los Angeles Water Board's response to this comment. Please see response to comment 0.1, and the Los Angeles Water Board's response to comment 3.2 to R12-

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		beach since adoption of the TMDL, as tabulated in Table 3 of the staff report, demonstrate that natural conditions associated with freshwater outlets from undeveloped watersheds result in exceedances of the single sample bacteria objectives during both summer and winter dry weather on approximately 10% of the days sampled. Thus the previous Source Analysis in the Basin Plan Amendment adopted by Resolution No. 02-004 which stated that "*historical monitoring data from the reference beach indicate no exceedances of the single sample targets during summer dry weather and on average only three percent exceedance during winter dry weather*" was incorrect and based on a data set not located at the point zero compliance location. Continued allocation of zero summer dry weather exceedances in the proposed Basin Plan Amendment is in direct conflict with the stated intent to utilize the reference beach/anti-degradation approach and ignores the scientifically demonstrated reality of natural causes and non-point sources of indicator bacteria exceedances. In the Los Angeles Regional Water Quality Control Board's June 2012 response to comment 3.2 Board staff acknowledges that: "Between April 2004 and November 2010, Leo Carrillo has been observed to exceed single sample indicator bacteria limits in excess of 10% of the time during the summer period, as tabulated in the staff report. Staff acknowledges that further study and corrective actions may be required at Leo Carrillo Beach in order to address summer dry-weather exceedances. In order to protect public health, there should be no exceedances of the single sample objectives during summer dry weather…staff recommended not adjusting allowable exceedance days for summer dry weather despite the	007, which states: Targets (e.g. Enterococcus density shall not exceed 104/100 ml) were identified during the TMDL development. Revisions to targets have not been evaluated for this action, have not been noticed for public comment and are outside the scope of this reconsideration. New exceedance rates based on point zero monitoring were calculated as part of this reconsideration and have been used to establish new exceedance day allocations. The language referenced by the commenter from Attachment A to Regional Board Resolution 2002-004 was accurate in 2002 based on shoreline monitoring data from 1996-2001. However, based on more recent shoreline monitoring with samples taken at point-zero (i.e., 2004 to present), exceedances of single sample water quality objective were

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		exceedances occurring at Leo Carrillo Beach. And staff intends to coordinate with stakeholders regarding the outstanding issues at Leo Carrillo beach." Section 3.1 of the staff report recommends to continue to use Leo Carrillo Beach as the reference beach for all Santa Monica Bay beaches. Furthermore, the staff report states it is not the Regional Board's intention to hold a non-reference beach to a higher standard than a reference beach. The recommendation and intent outlined in the staff report is inconsistent with the Regional Board staff's response that there should be no exceedances because that is what is desirable for recreational beach water quality regardless of extensive data representing natural beach water quality. There is no mention or analysis of the potential local sources of non-point source bacteria such as birds and other wild life, swimmers, and piers. This is also in conflict with finding 21 of Resolution 2002-022 "*that it is not the intent of the Regional Board to require treatment or diversion of natural coastal creeks or to require treatment of natural sources of bacteria from undeveloped areas*". And it is notable that such a finding has been omitted from Resolution R12-007.	observed at the reference beach and are tabulated in both the updated BPA and staff report. The proposed BPA for this reconsideration (combining the Santa Monica Bay dry weather BPA and wet weather BPA for a single, updated, BPA) no longer includes the referenced language. Between April 2004 and November 2010, Leo Carrillo has been observed to exceed single sample indicator bacteria limits in excess of 10% of the time during the summer period, as tabulated in the staff report. Staff acknowledges that further study and corrective actions may be required at Leo Carrillo Beach in order to address summer dry-weather exceedances. In order to protect public health, there should be no exceedances of the single sample objectives during summer dry weather. In 2011 the County of Los Angeles estimated the total number of

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			beach visitors within the county (~71 miles of shoreline) to be just over 61 million, based on Los Angeles County Life Guard beach tallies (County of Los Angeles, 2012). Of the estimated 61 million visitors, more than 52 million visited during the summer months (April – October), and especially during the peak months of June to August (~37 million). Given the high number of visitors at Los Angeles County beaches and the especially high usage rate during summer weather, protecting water quality during peak summer periods is of the utmost importance to both the people who both directly or indirectly recreate at the beaches or those who depend on the beaches and or other related activity. As such, staff recommended not adjusting allowable exceedance days for summer dry weather despite the exceedances occurring at Leo Carrillo Beach. And staff intends to coordinate with stakeholders regarding the outstanding issues at Leo Carrillo beach.

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			The Los Angeles Water Board further responded in comment 1.2 to R12-007: The revisions under consideration at this time are limited to the specific elements identified at the time of Regional Board adoption of the TMDLs in 2002, 2003 and 2004. Staff has recommended only these revisions for this Board action because these specific reconsiderations are an obligation for the Board and are "overdue." The Regional Board is not precluded from reconsidering any aspect of a TMDL. But at this time, Regional Board has evaluated, publically noticed and is reconsidering, only those certain technical aspects specifically listed in the original BPAs. Some additional revisions have been made for clarity or consistency but no new substantial changes are recommended. However, the Regional Board does recognize

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			that other aspects of the TMDLs may need to be reconsidered in the future especially as the science continues to develop. The Regional Board can turn to these other issues once we have met our current obligation. Regional Board staff will consider all new material and information brought to our attention and can reconsider a TMDL based on this new information as warranted. The State Water Board agrees with the Los Angeles Water Board's protection of Los Angeles beaches, which are invaluable coastal resources frequented by tens of millions of people annually *especially* in the summer months. There is also no conflict with Finding 21 of Los Angeles Water Board Resolution 2002-022. There are appropriate implementable BMPs for some non-point sources (e.g. irrigation controls, pier washdown regulations, prevention of pigeon nesting under piers, etc.) without diverting natural creeks or treating water from undeveloped areas. It is not remarkable that Los Angeles Water Board Resolution 2002-022

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			includes more findings on the reference system approach than Los Angeles Water Board Resolution R12-007. The originally adopted Santa Monica Bay Beaches bacteria TMDLs (Resolution Nos. 2002-004 and 2002-022) were the first in the Los Angeles Region to use the reference beach approach. At that time, the Los Angeles Water Board simultaneously adopted implementation provisions for the region's bacteria objectives and incorporated these implementation provisions into Chapter 3 of the Basin Plan. The findings and Basin Plan amendment language supported both the amendments to Chapter 3 and Chapter 7 of the Basin Plan. This revision to the Santa Monica Bay bacteria TMDL (Resolution No. R12-007) was adopted after approximately 10 years of use of the reference beach approach in the Los Angeles Region.
2.4	Jurisdictional Group 5&6	<u>Identify Completed Implementation Actions and Milestones</u> The implementation schedule shown in Table 7-4.3 of Attachment A to Resolution No. R12-007 does not identify which milestones have already been completed by the responsible agencies. This creates a misunderstanding as to which requirements have already been met and what are the remaining actions to be completed. The proposed Basin Plan Amendment should be modified to reference the SMBBB	This comment was previously made to the Los Angeles Water Board. The State Water Board reviewed and agrees with the Los Angeles Water Board's response to this comment. Please see response to comment 0.1, and the Los Angeles Water Board's response to comment 3.3, which states:

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		TMDL Coordinated Shoreline Monitoring Plan (CSMP) approved by the Regional Board staff and that CSMP should be incorporated into the TMDL monitoring requirements of the next MS4 Permit. Text and footnotes, such as footnotes 8 and 9, which imply that the development of the CSMP has not yet been prepared and approved, should be eliminated.	The Regional Board recognizes that many implementation actions have been completed and we acknowledge the extensive collaborative effort which has been made by the responsible parties. However, footnotes 8 and 9 have been updated and are still applicable. The Basin Plan is regulation, it lists water quality objectives, beneficial uses and requirements and appropriately does not include accomplishments or actions completed. An additional finding has been added to the Resolution to acknowledge work by responsible parties, see revised tentative Resolution Finding 9. Moreover, the Los Angeles Water Board revised its resolution in response to public comment to acknowledge the city and other stakeholders and their good faith

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			efforts in meeting their TMDL obligations.
2.5	Jurisdictional Group 5&6	<u>Implementation Schedule</u> Attachment B to our May 7, 2012 comment letter summarizes a planning-level BMP siting study to theoretically achieve attainment of the wet weather bacteria TMDL targets for the two high priority storm drain systems in Jurisdictional Groups 5 & 6. This study is strictly an internal planning study providing an order-of-magnitude estimate of $60.3 million in potential capital costs that could be required to attain the Santa Monica Bay Wet Weather TMDL objectives. Due to significant funding gaps that must be filled in order to implement the siting study projects and the need to integrate watershed planning with other Santa Monica Bay TMDLs, we believe there is sufficient justification to revise the proposed implementation schedule to provide additional time to attain the 25% and 50% reductions in wet weather exceedances for the Santa Monica Bay Beaches Bacteria TMDL. In closing, we appreciate the opportunity to discuss our concerns and have provided additional supporting details in the attached May 7, 2012 comment letter.	This comment was previously made to the Los Angeles Water Board. The State Water Board reviewed and agrees with the Los Angeles Water Board's responses to this comment. Please see response to comment 0.1, and the Los Angeles Water Board's response to comment 3.6 to R12-007, which states: > While it is difficult to accurately evaluate the proposed planning cost based on the estimate breakdown in the attachment, the Regional Board recognizes the current challenging economic environment for municipalities. Almost 10 years have lapsed since the TMDL has been become effective and the responsible parties have successfully diverted dry weather flows from storm drains discharging within the Jurisdictional area. The Los Angeles Water Board further responded in comment 1.8 to R12-007 as follows:

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			Staff acknowledges the work and the various studies completed by the City to implement the TMDL as well as the other studies conducted by the City and other stakeholders to better understand underlying conditions of the watershed. The wet weather schedule and Integrated Water Resources approach was evaluated in this reconsideration. However, the dry weather schedule was not; this request has not been noticed for public comment and is outside the scope of this reconsideration. Further, the City has not herein made any concrete commitments for action or study to attain dry weather WLA with a revised implementation schedule.
3.1	LABOS	On January 16, 2013, the California State Water Resources Control Board released an announcement that it would accept comments on the proposed approval of the Los Angeles Regional Water Quality Control Board's amendments to the Basin Plan to revise the Bacteria Total Maximum Daily Load (TMDL) for **(1) Santa Monica Bay Beaches; (2) Marina del Rey Harbor Mothers' Beach and Back**	Comment noted.

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		Basins; (3) Los Angeles Harbor, Inner Cabrillo Beach, and Main Ship Channel; (4) Ballona Creek, Ballona Estuary, and Sepulveda Channel. The City of Los Angeles, Bureau of Sanitation (Bureau) appreciates the opportunity to comment on the TMDL revisions. Water quality at our beaches is one of our highest priorities, and the City's efforts to reduce and eliminate discharges of bacteria began in the 1990's, where early efforts include implementing over twenty-three low flow diversion facilities along Santa Monica Bay Beaches. Later City efforts include spending $20M for capital improvement and beach remediation projects at Inner Cabrillo Beach, and working with other watershed agencies in Marina del Rey to implement three low flow diversions to protect the back basins, and implementation of green projects to improve water quality in Ballona Creek. We support the revisions to the TMDLs and believe they have markedly improved the TMDLs by taking recent data, monitoring, and implementation experience into account. We also support the additional reconsideration scheduled for 2018 for all the TMDLs to further refine them and help us ensure that public resources are most effectively utilized. Finally, we also thank the Los Angeles Regional Board staff for their time and energy in meeting with us during the TMDL re-opener process.	
4.1	LADWP	LADWP's primary concern with the proposed implementation measures and TMDL revisions relates to the application of a reference beach approach to samples collected at the outlet of a storm drain. In particular, LADWP occasionally must discharge water from a reservoir or other primary discharge location; it flows from the primary discharge location to the receiving water via a storm drain	See response to comment 0.1. It appears that this commenter did not present these concerns to the Los Angeles Water Board prior to its adoption of the TMDL revisions, which would be the most appropriate and effective forum to present comments

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		system. While LADWP has some control over the quality of the water within the reservoir or at the primary discharge location, LADWP does not and cannot control any changes in water quality that may occur within the storm drain system. A broad and still-accumulating body of research indicates that indicator bacteria, which are living organisms, may reproduce within storm drains and within natural systems, such that the concentrations at the outlet of the storm drain system are not indicative of concentrations in inflows to the system. For example, the City of Newport Beach and the Orange County Healthcare Agency conducted synoptic studies that indicated that biofilms are present in street gutters and storm drains (Skinner et al., 2010). Bacteria replication occurs readily in biofilms, which supply nutrients and water and which offer protection from microbial predators, ultraviolet light, drying, and disinfectants (see, e.g., Costerton et al., 1995; Coghlan 1996; Donlan 2002; Donlan & Costerton 2002). The presence of biofilms in storm drains, gutters, and other conveyances are associated with bacteria growth and may be responsible for exceedances of bacteria objectives in water flowing out of the storm drain system. See also, for example, Grant et al. (2009), which showed that about half or more of the indicator bacteria present in a southern California watershed and receiving waters were from non-fecal sources, such as growth on decaying plant material, and Grant et al. (2004).	concerning a proposed TMDL revision. The State Water Board notes that the reference system approach takes into account natural sources of bacteria including re-growth.
4.2	LADWP	In addition, natural sources such as birds contribute indicator bacteria within watersheds, and other types of wildlife (e.g., raccoons, rats) may live within storm drains and contribute to bacteria loads at the outlet of the storm drains. See, for example, Geldreich & Kenner	See responses to comments 2.2, 2.3, 4.1, and 7.3.

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		1969; Hussong et al. 1979; Alderisio et al. 1999; Ahn et al. 2005; Griffith et al. 2010; Noble et al. 2004; Tiefenthaler et al. 2008. In addition, several undeveloped watersheds in southern California have long data records and show routine exceedances of indicator bacteria objectives, even in dry weather conditions, even in runoff from undeveloped watersheds, and in watersheds of a wide range of sizes (see, e.g., data from southern Orange County coastal watersheds as presented in Flow Science 2005). These data indicate, as does information in the Regional Board's staff report, that Leo Cabrillo Beach/Arroyo Sequit reference beach experiences fewer exceedance days than other, perhaps more suitable reference beaches. Appendix C to Flow Science 2005 also includes a study demonstrating that even water treated by filtration/disinfection (specifically, multimedia filtration and ultraviolet (UV) disinfection) or wetlands experiences an increase in indicator bacteria levels within a few dozen feet of the point where treated water is discharged to the storm drain system. This study found "a large increase in [indicator bacteria] levels in the approximately 35 feet between the (treatment] unit discharge and the storm drain monitoring site ... [these data] suggest that rapid re-growth has taken place in the water column, or re-infection has occurred from sloughing or resuspension of bacteria from immersed channel-side vegetation, organic debris and/or sediments."	
4.3	LADWP	In the case of bacterial TMDLs, monitoring conducted at the outlet from storm drains or at the end of the MS4 pipe, within the wave wash, is useful in providing information to the MS4 Permittees about potential sources of bacteria within the storm drain itself or within other flows that are being discharged into the MS4. However,	See responses to comments 0.1 and 4.1.It appears that this commenter did not present these concerns to the Los Angeles Water Board prior to its adoption of the TMDL revisions, which would be the most

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		sometimes clean water discharged into a MS4 or co-mingled with other contaminated discharges may give the false impression that the discharger is in violation when, in fact, the exceedance is due to regrowth or other sources within the conveyance to the ocean. For this reason, LADWP respectfully suggests that the SWRCB should add an additional finding to the adopting resolution to clarify this point. The language of this additional finding could read as follows: *"#. In recognition of sources of fecal indicator bacteria that may occur within MS4 systems, and sources including wildlife and bacteria regrowth that may be present within such systems, compliance for discharges subject to an NPDES permit that regulates discharges prior to the point of entry to an MS4 system shall be assessed by measurements made in the discharge water at or before the point at which the discharge enters the MS4 system."*	appropriate and effective forum to present comments concerning a proposed TMDL revision. Nonetheless, the State Water Board finds that the bacteria TMDLs already assign separate WLAs to NPDES permits that discharge to the MS4 and allow for separate compliance determinations. The TMDLs state that each NPDES permit assigned a WLA shall be reopened or amended at re-issuance, in accordance with applicable laws, to incorporate the applicable WLAs as a permit requirement.
5.1	City of Malibu	The City of Malibu appreciates this opportunity to comment on the Los Angeles Regional Water Quality Control Board's (Los Angeles Water Board's) proposed amendments to the Basin Plan to revise Total Maximum Daily Loads (TMDLs) for bacteria, in particular for Santa Monica Bay Beaches and Malibu Creek and Lagoon (also referred to herein as the "amendments" and the "reconsideration"). Protecting water quality is one of Malibu's highest priorities, evidenced by the staff time and financial resources that the City allocates towards water quality projects and programs (and frequent participation in these important hearings). Through the City's proactive and exceptional water quality program, we have learned a	Comment noted. The State Water Board acknowledges the City's efforts in learning the newest technologies and improving water quality to reduce bacterial contamination. The Board also acknowledges the collaborative effort made by the City.

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		tremendous amount about the sources of fecal indicator bacteria and the newest technologies in source identification and water quality treatment. The City has worked hard to share that information with the State Water Board, the Los Angeles Water Board and other interested stakeholders. While bacteria source identification and treatment options are complicated, one thing is quite simple: the State and Regional Water Boards must work collaboratively to create workable standards for regulating discharges based on reasonable and feasible allocations, and include local jurisdictions such as the City of Malibu when developing these solutions.	
5.2	City of Malibu	As such, I would like to summarize the City's position on these amendments up front. When the Los Angeles Water Board considered these amendments last summer, the City of Malibu identified major concerns with the analysis used to justify the subject Basin Plan amendments and the proposed allocations, and highlighted those concerns at the Los Angeles Water Board's June 7, 2012 hearing. As explained in more detail below in the attached May 7, 2012 comment letter, the proposed allocations would hold the City accountable for natural sources of bacteria over which the City has no control. Rather than creating a roadblock for the amendments, Malibu presented a viable alternative that would address Malibu's unique situation, referred to at the time as natural source exclusion (a term used locally for what the US Environmental Protection Agency (EPA) calls a site specific objective). At the hearing, the City's proposal for site specific objectives was met with great interest from the Los Angeles Board and a commitment from the Board's staff that the City could easily pursue this pathway. So, the purpose of this letter is two-	The State Water Board disagrees that that natural sources of fecal indicator bacteria were inadequately accounted for in the original TMDLs or that the problem was not remedied during the reconsideration. The Basin Plan includes two implementation approaches for bacteria objectives; either approach can be evaluated and applied, where supported, in the context of TMDL development or reconsideration. These two approaches are the "reference system/antidegradation approach" and "natural sources exclusion approach (NSE)." Both approaches account for natural sources of bacteria. The reference system/antidegradation

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		fold: (1) to highlight to the Board that the City raised significant concerns with the amendments, but also to (2) inform the Board of the Regional Board staff's commitment to allow Malibu to pursue site specific objectives for fecal indicator bacteria and to confirm Malibu's commitment to pursuing a pathway to alternative objectives. Thus, Malibu is asking the Board to support the City's path to site specific objectives and to encourage the Los Angeles Board and staff to work with Malibu on this important endeavor. As stated in the City's May 7, 2012 comment letter to the Los Angeles Water Board (attached) and June 7, 2012 presentation to the Regional Board regarding the reconsiderations of the Santa Monica Bay and Malibu Creek and Lagoon bacteria TMDLs, site specific objectives are warranted for several of the rural coastal watersheds in North Santa Monica Bay, including the Malibu Creek and Lagoon. In fact, Malibu's greatest concern with the bacteria TMDLs can be boiled down to the issue that natural sources of fecal indicator bacteria were inadequately accounted for in the original TMDLs and that problem was not remedied during the reconsideration. Failure to account for scientifically-demonstrated natural sources of bacteria in the TMDLs places undue burden on the City and creates exposure to liability for sources of bacteria that are outside of the City's control (and not discharged from the City's municipal storm drain system). Despite the presentation of ten years' worth of data to justify many cities' concerns, the revised TMDLs presented for the reconsideration once again failed to adequately consider natural sources of bacteria.	approach has been used in a number of bacteria TMDLs in the Los Angeles Region, including the Santa Monica Bay beaches bacteria TMDLs and the Malibu Creek and Lagoon bacteria TMDL. The execution of the reference system/antidegradation approach required several years to develop, including stakeholder involvement and peer review, and several more years to refine. The development and application of an NSE approach will require a similar, if not greater, amount of effort and time. The requirements that must be fulfilled to use the NSE approach are set forth in the implementation provisions for the bacteria objectives contained in Chapter 3 of the Basin Plan. Specifically, the NSE approach requires that all anthropogenic sources of bacteria are controlled such that they do not cause or contribute to an exceedance of the single sample fecal indicator bacteria objectives, and that non-anthropogenic natural sources are identified and quantified. These requirements make the NSE approach more complex to develop and apply than the reference system/ antidegradation approach. As a result, an NSE has not yet been fully developed or

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			applied in the context of a TMDL in the Los Angeles Region at this time. At the Los Angeles Water Board hearing, Los Angeles Water Board staff clarified that the reference system/antidegradation approach that is applied in the bacteria TMDLs accounts for natural sources of bacteria, but that responsible parties could conduct more site-specific studies to develop allowable exceedance frequencies in lieu of the exceedance frequency allowed by the reference system approach. The Los Angeles Water Board Executive Officer also stated that in order to begin the process to implement a NSE approach, a responsible party would have to submit a work plan to be approved by the Executive Officer and execute the approved work plan, through a collaborative process. The Los Angeles Water Board would then analyze the results and determine whether a NSE approach was supported and, if so, what the allowable exceedance frequency should be based on this approach.
5.3	City of Malibu	One reason for this analytical shortfall may be that the reconsideration only addressed issues of concern that were raised at the time of TMDL adoption, notwithstanding that many municipalities had identified various problems with the TMDLs over the past	This comment was previously made to the Los Angeles Water Board. The State Water Board reviewed and agrees with the Los Angeles Water Board's response to this

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		decade. This City comment pertaining to load allocations said, "The City hopes the LARWQCB can use this reconsideration as an opportunity to move forward with best science available to date to set reasonable and appropriate waste load allocations." To which the Los Angeles Water Board staff responded, "This reconsideration includes only those issues which were identified by the Basin Plan Amendments for these TMDLs at the time of adoption. Other potential revisions even with merit have not been evaluated by staff, have not been noticed for stakeholders comment and are, therefore, outside the scope of this reconsideration."[1] Therefore, the scope of the reconsideration was limited and may not have given the required attention to all of the scientific shortfalls with the TMDLs.[2] When natural sources of bacteria are the predominant cause of exceedances, newest scientific evidence is omitted from consideration, and there are no clear pathways to compliance or site specific objectives, responsible agencies risk being in perpetual non-compliance with a TMDL. This is especially critical with the issuance of the new municipal storm water permit for the Los Angeles region. The City of Malibu is very concerned that site specific objectives will be developed way too late in this process, therefore wasting millions of taxpayer dollars chasing natural and uncontrollable bacteria. Given the City's significant concerns with the amendments, Malibu provided evidence supporting a site specific objective or "natural sources exclusion" pathway for the Bacteria TMDLs including Santa Monica Bay Beaches (Wet and Dry Weather) and Malibu Creek and Lagoon. At the June 7, 2012 reconsideration hearing, Los Angeles Water Board staff did explain that site specific objectives would be available upon request and upon meeting certain criteria. Staff stated at the hearing that a responsible agency need only submit a request	comment. Please see response to comment 0.1, and the Los Angeles Water Board's response to comment 1.2 to R12-007, which states, in part: Staff has recommended only these revisions for this Board action because these specific reconsiderations are an obligation for the Board and are "overdue." The Regional Board does recognize that other aspects of the TMDLs may need to be reconsidered in the future especially as the science continues to develop. The Regional Board can turn to these other issues once we have met our current obligation. Regional Board staff will consider all new material and information brought to our attention and can reconsider a TMDL based on this new information as warranted, see adopted Resolution Nos. R12-007, R12-008, and R12-009 by Los Angeles Water Board. Since 2002 a number of advances

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		to initiate this process. Yet, it is still not clear how a City can initiate the process, and what information must be submitted for consideration. The City's request for site specific objectives is supported by lines of evidence that were outlined in, and study references that were provided with, the City's May 7, 2012 TMDL comment letter. Based on this evidence, there may be enough data and analysis to support a weight of evidence approach to granting site specific objectives. The City is awaiting confirmation from the Los Angeles Board staff on the submittal requirements for this request before expending additional staff resources and dedicating further taxpayer funds. There has been some interest shown regionally and by the EPA in Quantitative Microbial Risk Analysis (QMRA) as an acceptable means to establish site specific objectives, and the City understands that two test projects are ongoing in Ventura and Los Angeles for completion in late 2013. Where appropriate, the City may also work with the Los Angeles Water Board and other qualified scientists on QMRA in one or more watersheds along the coast of North Santa Monica Bay. While the City supports the option to use QMRA as part of the process to develop site specific objectives, more options to use novel scientific and regulatory methodologies can and should be made available to responsible agencies. For example, a procedure to quantify the effects of natural bacteria incubators (e.g., kelp wrack and biofilms), and to provide regulatory relief from these natural sources would be invaluable to rural watershed managers and MS4 dischargers. The City sincerely hopes that the State and Regional Water Boards will take this into serious consideration and make site specific objectives for fecal indicator bacteria a priority.	have been made in the fields of microbial source tracking (MST) and risk assessment. In particular, it is now possible to identify and quantify sources of fecal indicator bacteria (FIB) in the natural environment and to assess the risk of non-human sources of FIB to public health. This risk assessment methodology is known as quantitative microbial risk assessment (QMRA). The development of these two methodologies over the last decade has significantly increased the viability of applying the NSE approach in the regulatory arena. In light of these advancements, several stakeholders have embarked upon studies to support an NSE at Inner Cabrillo Beach in Los Angeles County and Hobie Beach in Ventura County. The State Water Board recognizes that the City is in the process of implementing a number of measures to prevent the potential for human sources of pathogens to reach water bodies. The Board also recognizes that some studies have already

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		The City and Los Angeles Water Board staff also attended the State Water Board's Beach Water Quality Workgroup's State of the Science: Fecal Source Identification and Associated Risk Assessment Tools Workshop (Workshop) on November 28 and 29, 2012. The City is grateful that the State Water Board staff supported the Workshop, as it was very informative. Malibu looks forward to learning more about these related subjects with critical interest. The presentations provided a comprehensive national and state perspective on the best available science on these subjects. As a result, Los Angeles Water Board and City staff agreed to work with representatives from the EPA's Water Division in San Francisco and from their Microbiological and Chemical Exposure Research Division in Cincinnati, Ohio, (who were also at the Workshop) in order to set up the most effective process to move forward.	been conducted to examine the sources of bacteria to Malibu Creek, the Lagoon, and nearshore ocean water. The Board also understands that the Los Angeles Water Board has agreed to meet with the City's staff to discuss the NSE approach.
5.4	City of Malibu	The City of Malibu officially requested site specific objectives for the Bacteria TMDLs, including Santa Monica Bay Beaches (Wet and Dry-weather) and Malibu Creek and Lagoon, in a letter to Los Angeles Regional Board staff dated August 2, 2012 (attached). The letter requested a meeting to (1) discuss the "natural source exclusion", or site specific objectives process; (2) present a City- developed draft proposed pathway; and (3) lay out a path forward for establishing a "natural sources exclusion" for the City's TMDL compliance monitoring locations. While the Los Angeles Water Board staff has not yet responded to this request, the City is looking forward to working with Water Board staff to develop a clear, defensible, transparent and reproducible site specific objective pathway or process that can be used throughout the region to ensure protection of the public health and the environment while providing responsible agencies options for meeting bacteria TMDL waste load allocations	On February 22, 2013, the Los Angeles Water Board responded to the City's letter dated August 2, 2012. The Los Angeles Water Board staff indicated that they would be willing to meet with the City's staff to review the status of implementation actions to control anthropogenic sources of bacteria and existing data on the sources of bacteria to Malibu Creek, the Lagoon and nearshore ocean water and to discuss additional data needed to support development and application of an NSE.

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		when natural and uncontrollable sources are present. If the State Water Board approves the proposed Basin Plan Amendments, the City requests that the State Water Board staff remain engaged in the City's request and encourage the Los Angeles Water Board and its staff to work diligently with the City to create the site specific objectives. For a full analysis of the City's concerns with the TMDL reconsideration, please see the attached May 7, 2012 letter to the Los Angeles Water Board. We are optimistic that site specific objectives will provide a reasonable and scientifically-based solution to many, if not all, of the City's concerns. The City welcomes the opportunity to work with the State Water Board and the Los Angeles Water Board staff on a workable process to grant site specific objectives and especially to develop site specific objectives for the coastal watersheds and beach water quality compliance sites in Malibu that are influenced by natural sources of bacteria.	
6.1	LACDPW	These comments are submitted by Los Angeles County (County) and the Los Angeles County Flood Control District (LACFCD). Although the Regional Board did an admirable job, the amended TMDLs still contain omissions or elements that do not reflect good science. These include the lack of guidance for application of the natural source exclusion approach, the failure to specifically provide for the use of site-specific objectives, the failure to consistently apply the reference beach approach, and the failure to follow EPA's recommendation to use only enterococcus as the bacteria indicator for marine waters. The amended TMDLs should also provide that compliance schedules reflect parties' financial capability as	See specific response to comments listed below.

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		recommended by recent EPA guidance, require the California Department of Parks and Recreation (State Parks) to perform a study of loading from birds in Malibu lagoon, and define the meaning of "joint responsibility."	
6.2	LACDPW	A. **Dischargers should not be responsible for naturally occurring bacteria** Over the last decade, the County and the LACFCD have invested tens of millions of dollars to control bacteria from stormdrain discharges to recreational waterbodies within the County. These investments were made with the recognition that clean beaches are a backbone of the local economy and that public health is of utmost priority. As a result, the beaches are cleaner and beachgoers are safer than before. Despite these efforts, some bacterial exceedances continue to occur. Various studies and observations indicate that these remaining exceedances are naturally occurring and not due to anthropogenic sources. For example, Puerco Beach, which is located downstream of a fully operational UV-radiation treatment facility, is still among the top ten "beach bummers" in Heal the Bay's beach report card; the cause being naturally growing kelp and algae on the beach. The natural sources exclusion (NSE)[1] approach, as defined in the bacteria TMDLs, was intended to address these situations, but has never been implemented in practice. In a letter to Los Angeles Regional Water Quality Control Board (Regional Board) dated May 7, 2012, we noted the need to apply	The Los Angeles Water Board in Resolution No. R12-007 and the State Water Board acknowledge the efforts that have been made by the County and the LACFCD. See response to comment 5.2 for a complete discussion of the NSE. The State Water Board understands that the Los Angeles Water Board staff are willing to meet with County and LACFCD's staff to discuss the NSE approach at any time. During the Los Angeles Water Board hearing, the Board asked its staff if it was possible to develop guidance for an NSE approach. Los Angeles Water Board staff stated that they could provide some guidance, and that an ongoing Southern California Coastal Water Research Project (SCCWRP) pilot study would lay out the guidelines for an NSE approach. The Los Angeles Water Board then discussed whether

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		NSE for sites where anthropogenic sources have been addressed or where the bacteria have been demonstrated to be naturally occurring, including Malibu Lagoon, Marina del Rey harbor, and several locations along Santa Monica Bay where dry weather stormdrain discharges have been diverted for treatment. Regional Board staff responded that insufficient information has been collected, and that it is premature at this time to evaluate the validity of NSE for these waterbodies. During the June 7, 2012, public hearing, in response to public testimony, the Regional Board directed staff to provide guidance on NSE implementation. However, eight months have elapsed without any indication that guidance is being developed. This unacceptably ignores the need to identify all sources of bacteria so that greater understanding of the causes of exceedances can be achieved. We urge the State Water Board to direct the Regional Board to provide guidance within six months on the implementation of NSE.	there could be another TMDL reconsideration after the completion of NSE studies. The Los Angeles Water Board revised the TMDLs to include another scheduled reconsideration. Los Angeles Water Board staff has continued to participate on the steering committee for the SCCWRP pilot study.
6.3	LACDPW	B. **Consider site-specific bacteria objectives for waterbodies primarily impacted by stormwater discharges** Existing bacteria objectives are established based on epidemiological studies conducted at waterbodies primarily impacted by human sources associated with treated wastewater discharges. Currently, these objectives are applied to all waterbodies, regardless of the sources or discharge types. Recent studies[2,3,4,5] have shown that waterbodies primarily impacted by non-human bacteria sources and/or non-POTW discharges, such as stormwater, may have less human health	For natural sources exclusion analysis and QMRA, see responses to comments 5.2 and 5.3. Because the Los Angeles Water Board is already supporting development of the QMRA approach, no additional finding in the State Water Board's resolution is necessary. In regards to funding, grants were and are currently available to stakeholders that include Clean Beach Initiative Grants, Non-

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		risk, warranting the need to establish a different standard for those areas. In this regard, EPA's 2012 recreational water quality criteria states: *"...the sources of contamination appears to be an important factor for understanding the human health risk associated with recreational waters and that the potential human health risks from human versus non-human fecal sources can vary. ...The risk presented by fecal contamination from non-human sources has been shown to be potentially less than the risk presented by fecal contamination from human sources."* [6] With this understanding, EPA proposed Quantitative Microbial Risk Assessment (QMRA) as a new tool to be used by states to develop site-specific criteria for waterbodies primarily impacted by non-human sources of bacteria and/or non-POTW discharges. In its resolution to adopt the proposed TMDL modifications, the State Water Board should include the following finding regarding the use of QMRA: As part of the natural sources exclusion analysis, the Regional Board shall consider the results of Quantitative Microbial Risk Assessment (QMRA) studies to establish site-specific bacterial objectives for waterbodies where the presence of bacterial indicators is predominantly from non-human sources. The State Water Board should also make funding or grants available for studies associated with QMRA or site-specific criteria development.	point Source Clean Water Act section 319 grants, as well potential state funding initiative grants. The State Water Board and Los Angeles Water Board staff has and will continue to work with stakeholders to identify applicable and available funding for improving water quality or promote habitat protection and restoration.

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6.4	LACDPW	C. **The reference system approach should be consistently applied** The Regional Board claims that it applied "reference system [7]/anti-degradation approach"[8] in setting waste load allocation for the TMDLs under consideration. Contrary to such claim, the TMDLs for Santa Monica Bay (SMB) Beaches, Marina del Rey Harbor, Ballona Creek Estuary and Malibu Lagoon, as proposed, fail to recognize the contribution of natural sources during summer dry weather. At the time when these TMDLs were originally adopted by Regional Board, the monitoring at the reference beach (i.e., Leo Carrillo Beach), with samples taken 50 yards away from the creek discharge site, had not detected exceedances during summer dry weather. As a result, zero allowable exceedance frequency was adopted as waste load allocation for summer dry weather. The adoption of the SMB beaches TMDL in 2002 changed this monitoring location and required shoreline monitoring sites, including that of the reference site, to be moved to the wave wash (i.e., point of discharge). Since 2004, monitoring has been conducted at these new sites under the Regional Board's oversight. That monitoring provided a better understanding of the influence of natural sources of bacteria during summer dry weather. The examination of single sample exceedances at the reference beach using data from 2004 to 2010 shows an average exceedance rate of 11percent during summer dry weather. In a comment letter submitted to Regional Board, dated May 7, 2012,	This comment was previously made to the Los Angeles Water Board. The State Water Board reviewed and agrees with the Los Angeles Water Board's response to this comment. Please see response to comment 0.1, and 2.3.

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		as well as at the June 7, 2012 public hearing, the County and LACFCD requested the Regional Board to update the summer dry single sample limits to reflect this new data. Despite this request, Regional Board continues to recommend the zero exceedance frequency it originally instituted for the summer dry weather based on pre-TMDL data. This defeats the purpose of the re-opener, i.e., incorporating new data and scientific knowledge gained over the years. Most importantly, it is inconsistent with the Regional Board's own repeated assertion that it is not its intent to require diversion of natural creeks or treatment of natural sources of bacteria from undeveloped areas. Staff has given only one reason for not allowing single sample exceedances during summer dry weather, that beaches in general have highest recreational usage rates during summer dry weather. While we understand and share the concern about higher summer usage at beaches, this cannot be a plausible reason to not apply the reference system approach during dry weather. Doing so is essentially requiring dischargers to spend tax dollars to address naturally occurring bacteria which present less human health risk. We believe that this is not the intent of the Regional Board as it has repeatedly stated so. Since the inception of the bacteria TMDLs in Los Angeles Region in 2002, the reference system approach has been the foundation of these TMDLs and was applied year-round ever since, irrespective of the season. The Regional Board provided no scientific evidence for departing from this approach now, simply because the reference beach has shown exceedances during dry weather. Therefore, State Board should direct the Regional Board to apply	

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		the reference system approach consistently for all three seasons: wet, winter dry, and summer dry. Accordingly, an allowable exceedance rate of 11 percent should be used to set waste load allocations for summer dry weather. This is in line with EPA's 2012 criteria which allows up to 10 percent exceedance for single samples during any time and/or season of the year. Attachment A to these comments sets forth in greater detail the history of the TMDLs, the Regional Board's consistent statements that it intends to implement the reference beach system to avoid treatment of natural sources, and its failure to update the amended TMDLs to fully implement that system.	
6.5	LACDPW	D. **Only enterococcus should be used as bacteria indicator for marine waters** USEPA's 2012 recreational water quality criteria state the following regarding bacteria indicators: *"Not all indicators have a clear relationship to illness levels observed in epidemiological studies. Two microorganisms that have consistently performed well as indicators of illness during epidemiological studies are entrococci in both fresh and marine water and E. coli in fresh water."*[9] Accordingly, the USEPA recommended the use of enterococci as a bacterial indicator for marine waters. USEPA's conclusion and recommendation were drawn upon the latest research and science on the link between	The State Water Board finds that the Los Angeles Water Board defined the scope of the reconsideration clearly and appropriately. The Los Angeles Water Board's Basin Plan includes water quality objectives for three indicator bacteria in marine waters; revision to those objectives was not part of the scope of these TMDL revisions. TMDLs must be established to achieve prevailing water quality objectives. See also response to comment 2.2.

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		illness and fecal contamination at recreational beaches. Many studies, including USEPA studies, have found no correlation between other bacteria indicators, such as total coliform and fecal coliform, and human health risks. Despite recent science and USEPA's recommendations, Regional Board continues to use traditional bacteria indicators (total coliform, fecal coliform, enterococcus, and fecal-to-total coliform ratio. The continued use of these multiple indicators is inappropriate. In its response to comments, the Regional Board stated that "changes to bacterial standards have not been considered for this action, have not been noticed for public comment, and are outside of the scope of this reconsideration."[10] We disagree with this assertion for several reasons. First, we believe that revising the TMDLs using scientific knowledge gained in recent years is within the purview of this reconsideration. If not, then the Regional Board has failed to provide stakeholders the option to bring all issues of concern during this reconsideration.	
6.6	LACDPW	Second, contrary to its assertion, the Regional Board has included new requirements, such as outfall monitoring, which are not part of the original scope of the reopener as defined in the TMDLs.	This comment was previously made to the Los Angeles Water Board. The State Water Board reviewed and agrees with the Los Angeles Water Board's response to this comment. Please see response to comment 0.1, and the Los Angeles Water Board's response to comment 2.4 for Resolution No. R12-009, which states:

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			The additional changes proposed by staff, which were not specified for reconsideration in the original TMDL, are intended to improve clarity and consistency. The additional outfall monitoring requirements are intended to comport to the Malibu Creek and Ballona Creek TMDLs with the Los Angeles River and Santa Clara River Bacteria TMDLs. The outfall monitoring can be used to demonstrate MS4 compliance with waste load allocations and will exclude any potential contributions from other sources outside the MS4 system. As stated in the "Compliance Monitoring" section of the BPA, responsible jurisdictions and agencies can use existing outfall monitoring stations in the MS4 permit, where appropriate for both the permit and TMDL objectives, which won't cause a significant burden to responsible jurisdictions and agencies.

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6.7	LACDPW	Third, the TMDL has no separate schedule set for re-consideration of issues that the Regional Board referred as "issues outside of the scope of this reconsideration", such as revision to the bacteria standards. Instead of addressing permittee's legitimate concerns, Regional Board inappropriately characterized those concerns as outside of the scope. Therefore, we request that the State Board direct the Regional Board to update the marine water bacteria standard as part of this re-opener to reflect enterococcus as the sole bacteria indicator for marine waters. Further, we request that the enterococcus objective be revised to 130 MPN/100 ml, consistent with USEPA's new criteria. If the State Board also considers this issue to be outside of the scope of this reconsideration, then it should direct the Regional Board to conduct another reopener within a year to address this and other important issues that were excluded during the current reopener.	See response to comment 6.5. The Los Angeles Water Board defined the scope of the reconsideration clearly and appropriately. Revision to the bacteria water quality objectives was outside the scope of the Los Angeles Water Board's reconsiderations. Further, new EPA recommendations (which are largely consistent with state adopted water quality objectives) are not sufficient reason to remand a Basin Plan Amendment that implements EPA approved water quality objectives. The State Water Board need not direct the Los Angeles Water Board to conduct another reconsideration. The Los Angeles Water Board, itself, will determine its schedule of TMDL reconsiderations based on its own priorities.
6.8	LACDPW	E. **The Regional Board has failed to enforce the requirement that State Parks perform a study of bacteria loading from birds in Malibu lagoon** From the adoption of the Malibu Bacteria TMDL, it has been recognized that natural sources of bacteria are present in the lagoon and the sources are sufficient to cause exceedances of the single sample and/or 30-day geometric mean water quality	This comment was previously made to the Los Angeles Water Board. The State Water Board reviewed and agrees with the Los Angeles Water Board's response to this comment. Please see response to comment 0.1, and the Los Angeles Water Board's response to comment 1.4 for Resolution No. R12-009, which states, in

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		objectives[11]. It has also been recognized that birds in the lagoon are a chief, natural source[12]. State Parks, based on its ownership of the Malibu Lagoon and Malibu Creek State Park, is designated as the responsible agency for these properties[1]. When the TMDL was adopted, however, the Regional Board did not impose any obligation on State Parks, except an obligation to conduct a study of bacteria loadings from the birds in the lagoon, water quality monitoring, and compliance with load allocations applicable to their onsite wastewater treatment systems[14]. The study was to be submitted in 2008, two years after the effective date of the TMDL[15]. Notwithstanding the importance of determining the bacteria loads of the birds in Malibu lagoon in order to distinguish those loads from human sources, the Regional Board has not required State Parks to perform the one study it was required to perform. At the hearing on the reconsideration of this TMDL, the County and LACFCD requested that the Regional Board direct State Parks to perform this study. They noted that the study is important to further understand the sources of bacteria in Malibu Lagoon itself, and could have the potential for increasing the Regional Board's knowledge about the sources of bacteria that are impacting Surfrider Beach, located close to the lagoon. In response, the Regional Board stated that the bird study was not necessary. It stated that the estimate of bacteria loadings from birds in the lagoon had already been described in the original 2004 staff report and a further study would not improve those estimates[16].	part: Regarding the TMDL requirement for State Parks to submit a bird study, as stated in the Los Angeles Regional Board's staff report, "Currently, not all anthropogenic sources of bacteria to the lagoon have been controlled. Therefore, consideration of a natural sources exclusion approach is premature at this time and a bird study is not yet necessary. Furthermore, the estimation of bacteria loadings from birds in the lagoon has already been described in the 2004 staff report and staff believes that an additional bird study conducted by State Parks at this point would not improve upon the estimates in the 2004 staff report. A further bird study to quantify the bacteria loading from birds may be required at the Regional Board's discretion in the future."

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		The Regional Board's failure to require State Parks to perform a study to determine the bacteria loadings from birds, as has been required by the TMDL since 2004, has left critical data unknown. All parties agree that birds in the lagoon are a significant source of bacteria. The Regional Board states that the estimates in the 2004 staff report are sufficient, but that was not the staff's conclusion in 2004 when they adopted that report. Instead, the Regional Board found in 2004 that, notwithstanding the data in that report, a study should be performed to further the Board's and the parties' understanding of the bird's contribution. Moreover, the data in the 2004 staff report is based on a 1998 report[17] No effort has been made to determine whether that data currently remains the same. In 2004, the Regional Board found that State Parks should perform a study of the contribution of bacteria from birds to Malibu Lagoon; so that the parties would have a better understanding of the contribution coming from natural sources. This information is still pertinent today. Therefore, the Regional Board should be ordered to direct State Parks to perform the study required by the TMDL.	
6.9	LACDPW	F. **The TMDLs' compliance schedules should be extended in consideration of permittee's financial capability** As noted in the May 2012 letter to the Regional Board, the timelines to comply with the TMDLs were established arbitrarily and not supported by evidence. Regional Board staff responded that the TMDLs' compliance schedules were outside the scope of	See responses to comments 2.5 and 6.5. The State Water Board notes that the implementation period for the TMDLs range from 5 years (Inner Cabrillo Beach) to 18 years (Santa Monica Bay, wet weather) and that the TMDLs allow

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		the current reopeners. In establishing compliance timelines, the Regional Board should balance the need to restore full beneficial uses as quickly as possible with the state of current science and technology and the financial capability of the municipal dischargers. In a recent memorandum dated January 13, 2013, EPA indicated that it is working on a "financial capability framework" to address this important issue. EPA states: "It is essential that long-term approaches to meeting CWA objectives are sustainable and within a community's financial capability. A community's financial capability and other relevant factors are important when developing appropriate compliance schedules that ensure human health and environmental protection."[18] We strongly support EPA's direction and urge the State Water Board to direct the Regional Board to reconsider the TMDLs' compliance schedules to include an assessment of the municipal dischargers' financial capability.	sufficient time for the responsible parties to implement an Integrated Water Resources approach.
6.10	LACDPW	G. **The phrase "jointly responsible", as used in the TMDLs, is confusing and should be defined** Under the waste load allocations section, the TMDLs state: "The responsible jurisdictions and responsible agencies within the watershed are jointly responsible for complying with the waste load allocation at the monitoring locations ..."	This comment was previously made to the Los Angeles Water Board. The State Water Board reviewed and agrees with the Los Angeles Water Board's response to this comment. The commenter has not explained why the Los Angeles Water Board's response was inadequate. Please see response to comment 0.1, and the Los Angeles Water Board's response to

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		The TMDLs, however, do not define what is meant by "jointly responsible." This has caused significant confusion. It is our understanding, based on comments made by members of the Regional Board at various board hearings, that it is not the intent of the Board to make any one jurisdiction responsible for the discharges of other jurisdictions. Instead, it is our understanding that, by referring to "jointly responsible," the board members intend to convey the requirement that all jurisdictions assign waste load allocations must have programs to meet those allegations, not just some jurisdictions. The County and the LACFCD made this request at the hearing on the TMDLs. In response, the Regional Board stated that this would be addressed in the municipal stormwater permit.[19] It is important, however, that the clarification be added to the TMDLs also, so that there is no question about their consistency. Accordingly, we request that the definition the Regional Board used in the storm water permit for coastal areas of Los Angeles County also be added (as a footnote) in each of the TMDLs: "Joint responsibility" means that the Permittees that have commingled MS4 discharges are responsible for implementing programs in their respective jurisdictions, or within the MS4 for which they are an owner and/or operator, o meet the water quality-based effluent limitations and/or receiving water limitations assigned to such commingled MS4	comment 1.6 for Resolution No. R12-008, which states: The MS4 co-permittees discharge to a common conveyance system where their discharges commingle. The inter-connected nature of the MS4 makes it difficult to determine exactly where pollutants originated within the MS4. In such an integrated system, one or more permittees may have caused or contributed to exceedances. Thus, permittees are responsible either because a permittee is one of several sources that discharge pollutants or a permittee conveys and ultimately discharges pollutants that may have originated further up the MS4. In both cases, the MS4 owner and operator are responsible for pollutants discharged from its system. The TMDL does not require individual co-permittees to be responsible for the operations of other co-permittees. Accordingly, MS4 permittees would be

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		discharges.[20]	responsible for implementing programs in their respective jurisdictions to meet the waste load allocations in the co-mingled system, unless the discharger demonstrates that its discharge did not cause or contribute to the exceedance. The Los Angeles Water Board further addressed this issue in comment 9.16 to Resolution No. R12-007. Comment 9.16 referred to comment 3.21, which states, in part: Staff finds that such language will be more appropriately included in the upcoming MS4 permit for Los Angeles County. This approach will also allow for consistency among bacteria and other TMDLs. The State Water Board agrees with the Los Angeles Water Board's determination. TMDLs are regulatory planning documents and are not self-implementing. Rather, TMDLs are implemented through regional and/or statewide orders. The State Water Board finds that it was appropriate for the Los Angeles Water Board to determine that

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			defining what is meant by "jointly responsible" is best addressed in the context of regional and/or statewide orders, so as not to create inconsistency with the TMDLs, Further, the State Water Board understands that this issue was, in fact, addressed by the Los Angeles Water Board in its recently issued Los Angeles County MS4 permit. The State Water Board also notes that assignment of waste load allocations is outside the scope of the Los Angeles Water Board's reconsiderations
6.11	LACDPW	**ATTACHMENT A- USE OF REFERENCE SYSTEM** **SMB BACTERIA TMDL** The SMB dry weather bacteria TMDL was originally adopted by the Regional Board on January 24, 2002 (Resolution Nos. 02-004). At the time of its adoption, the Regional Board chose to define its waste load allocations in terms of allowable exceedance days. There was a specific reason why waste load allocations were defined this way. The Regional Board staff report explained that: The bacteria indictors used to assess water quality are not specific to human sewage. Fecal matter from wildlife and birds can be a source of elevated levels of bacteria, and vegetation can be a source of	See response to comment 2.3.

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		elevated levels of total coliform bacteria, specifically. *…It is not the intent of this TMDL to require diversion of natural coastal creeks or to require treatment of natural sources of bacteria from undeveloped areas. Therefore, the approach staff has chosen is to define reference subwatershed(s) and beach(es) within Santa Monica Bay, which can then be used to set the allowable number of exceedance days. Arroyo Sequit Canyon and the beach to which it drains, Leo Carrillo Beach, have been selected as the reference system.* Staff Report, January 14, 2002, at p.21 (emphasis added). At the time the TMDL was adopted, the monitoring at the reference beach had not detected any exceedances during summer dry weather and exceedances 3% of the time during winter dry weather. Staff Report, p. 23. The TMDL therefore adopted these dry weather waste load allocations, except where historical monitoring data for a particular shoreline site showed fewer exceedances, in which case the TMDL set the number of exceedances at the lower historical rate. Staff Report, pp. 23-24. These principles were adopted in the basin plan amendment itself. Table 7.4.1, Waste Load Allocations, specifically noted that the allowable number of exceedance days" is based on the lesser of two criteria (1) exceedance days in the designated reference system and (2) exceedance days based on historical bacteriological data at the monitoring site."	

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		When the TMDL was adopted, the Regional Board recognized that the data upon which the TMDL was based was incomplete. The Regional Board, therefore, specifically included a provision that it would reopen the TMDL 2 years after its effective date to re- evaluate allowable winter dry weather exceedance days based on additional data and for "a re-evaluation of the reference system selected to set allowable exceedance levels." Table 7-4.3. The Regional Board's reliance on the reference beach to address natural sources of bacteria was reiterated in December 2002 when the Board adopted the SMB wet weather bacteria TMDL. In adopting that resolution, the Board also specifically amended the Basin Plan to include both the reference system and natural source exclusion with respect to the implementation of the SMB bacteria TMDLs' single sample objectives. The Board amended the Basin Plan to provide: In the context of a TMDL, the Regional Board may implement the single sample objectives in fresh and marine waters by using a "reference system/antidegradation approach" or "natural sources exclusion approach" as discussed below. A reference system is defined as an area and associated monitoring point that is not impacted by human activities that potentially affect bacteria densities in the receiving water body... These approaches recognize that there are natural sources of bacteria, which may cause or contribute to exceeedances of the single sample objectives for	

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		bacterial indicators. *They also acknowledge that it is not the intent of the Regional Board to require treatment of natural sources of bacteria from undeveloped areas. Such requirements, if imposed by the Regional Board, could adversely affect valuable aquatic life and wildlife beneficial uses supported by natural water bodies in the Region.* Under the reference system/antidegradation implementation procedure, *a certain frequency of exceedance of the single sample objectives above shall be permitted on the basis of the observed exceedance frequency in the selected reference system or the targeted water body, whichever is less.* The reference system/anti- degradation approach ensures that bacteriological water quality is at least as good as that of a reference system and that no degradation of existing bacteriological water quality is permitted where existing bacteriological water quality is better than that of the selected reference system. Under the natural sources exclusion implementation procedure, after all anthropogenic sources of bacteria have been controlled such that they do not cause or contribute to an exceedance of the single sample objectives and natural sources have been identified and quantified, a certain frequency of exceedance of the single sample objectives shall permitted based on the residual exceedance frequency in the specific water body. The residual exceedance frequency shall	

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		define the background level of exceedance due to natural sources. The "natural sources exclusion" approach may be used if an appropriate reference system cannot be identified due to unique characteristics of the target water body… The appropriateness of these approaches and the specific exceeedance frequencies to be permitted under ach will be evaluated within the context of TMDL development for a specific water body, at which time the Regional Board may select one of these approaches, if appropriate. (Emphasis added.) In its resolution adopting the SMB wet weather bacteria TMDL, the Board specifically reiterated this policy: 21. The Regional Board's intent in implementing the bacteria objectives using a "reference system/anti-degradation approach" is to ensure that bacteriological water quality is at least as good as that of a reference site…The Regional Board's intent in implementing the bacteria objectives using a "natural sources exclusion approach" is to ensure that all anthropogenic sources of bacteria are controlled such that they do not cause an exceedance of the single sample objectives. These approaches are consistent with state and federal anti-degradation policies…while acknowledging that it is not the intent of the Regional Board to require treatment or diversion of natural coastal creeks or to	

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		require treatment of natural sources of bacteria from undeveloped areas… 22. For the Wet-Weather and Dry-Weather Bacteria TMDLs at Santa Monica Bay beaches, Leo Carrillo Beach and its associated drainage area, Arroyo Sequit Canyon, were selected as the local reference system…(Emphasis added.) The Board additionally recognized the need to reopen this TMDL also to refine it after experience with the reference beach: 26. Previously, the Regional Board adopted a Dry-Weather Bacteria TMDL for the Santa Monica Bay Beaches. The Dry- Weather TMDL includes implementation provisions…including a provision to reconsider two years after the effective date the Dry Weather TMDL and specifically the reference beach(es) used. Because that effort overlaps with reconsideration of the reference beach(es) anticipated by this Wet-Weather TMDL, the Regional Board proposes to coordinate the reconsiderations of the reference beach approach to assure efficiency and consistency in implementing the two Santa Monica Beaches TMDLs. (Resolution No. 2002-022, Finding No. 26.) The TMDL therefore provided that the reference system would be re-evaluated 4 years after the effective date of the wet-weather TMDL. Basin Plan Table 7.4-7.	

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		The wet weather TMDL became effective on July 15, 2003. Neither the SMB Dry Weather nor Wet Weather TMDLs, however, were reopened within four years of the effective date. Instead the Regional Board did not reopen the TMDLs until June 7, 2012, when the Board took the action now pending before the State Board. During the period from 2004 through 2012, parties continued to monitor the Leo Carrillo reference beach under the Regional Board's oversight. That monitoring provided a better understanding of the influence of natural sources on water quality. During this period the reference beach exceeded single sample indicator bacteria limits in excess of 10% of the time during summer dry weather. Regional Board Staff Report, June 2012, p.11. At the hearing on the reopened TMDLs, the County and the District requested the Regional Board to update the Dry Weather single sample limits to reflect this new monitoring data. The Regional Board refused. In its response to comments the Regional Board gave only one reason for not updating the Dry Weather TMDL to reflect the monitoring data from the reference beach, that being that beaches in general have high usage rates during summer dry weather. This is not a reason to decline to apply the data from the reference beach.	
6.12	LACDPW	First, the TMDLs repeatedly state that they are applying a reference beach system and doing so to account for natural sources of bacteria. This approach was sufficient when the TMDL was adopted in 2002 and has been a foundation of the SMB dry and wet weather bacteria TMDLs ever since. The Regional Board has articulated no scientific basis for departing from this approach now, simply because the reference beach has shown exceedances during dry weather.	See response to comment 2.3.

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6.13	LACDPW	Second, the failure to account for natural sources through use of the reference beach data means that parties could be required to address and treat natural sources of bacteria, as the reference beach shows that there are contributions from these natural sources. This is not the intent of the TMDL, which has repeatedly stated that it is not the intent to require the treatment of natural sources.[1]	See responses to comments 2.2 and 2.3.
6.14	LACDPW	Third, we understand the concern about high summer usage at beaches. We share that concern. There is no indication, however, that bacteria indicators that derive from natural sources present the same health risk as those that come from human sewage. Whereas the EPA water quality criteria that have been adopted by the Regional Board are based on exposure to human sewage, studies by the Southern California Coastal Water Research Project have shown less or no health risk where human sources are absent. See *e.g.*, Recreational and Water Contact Illness in Mission Bay, California (SCCRWP 2005). There is therefore no scientific basis to depart from use of the reference beach system for dry weather. To do so will require parties to address natural sources of bacteria, inconsistent with the stated goals of the TMDL. The TMDL therefore should be remanded and the Regional Board directed to apply the reference beach to dry as well as wet weather conditions.	The State Water Board disagrees. In USEPA's 2012 recreational water quality criteria, USEPA also notes that, "risk from some animals may be comparable to humans…" Comparison of health risk from human and non-human sources and the Mission Bay study were not commented on during the Los Angeles Water Board's consideration. See response to comment 0.1. Presenting these concerns to the Los Angeles Water Board prior to its adoption of the TMDL revisions would be the most appropriate and effective forum to present comments concerning a proposed TMDL revision. The State Water Board notes, however, that while the public health risk from contact with water polluted by human sewage is greater than contact with waters contaminated solely by non-human fecal

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			matter sources (epidemiological studies have not established the degree of difference), many diseases that can be transmitted by fecal matter are shared between humans and other warm-blooded animals. Diseases with zoonotic potential may include: Salmonellosis, cryptosporidiosis, giardiasis, and Colibacillosis. While less well established, several viruses such as Rotavirus and Norovirus may also have the potential to be spread through waterborne animal fecal matter. A complete understanding should also include consideration of a study conducted on southern California beaches (Haile et al., 1999), which found swimming in urban runoff-contaminated waters resulted in an increased risk of chills, ear discharge, vomiting, coughing with phlegm and significant respiratory diseases. The study established the health risk indicated by bacteria where the source was storm drains – likely to be a mixture of human and nonhuman sourced bacteria. While the Mission Bay study failed to find a relationship between traditional water quality indicators and illness, many studies have established a relationship. It is important to consider the available information in its entirety. Other recent

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			studies re-verifying the relationship between fecal indicating bacteria and human illness include: Brinks et al. Health risk of bathing in Southern California coastal waters. Arch Environ Occup Health. 2008 Fall;63(3):123-35; Heaney CD et al. Contact with beach sand among beachgoers and risk of illness Am J Epidemiol. 2009 Jul 15;170(2):164-72. Also see response to comment 6.2.
6.15	LACDPW	**MALIBU CREEK WATERSHED TMDL** Like the SMB Bacteria TMDL, the Malibu Creek Watershed Bacteria TMDL also uses a reference beach system to set waste load allocations. Like the SMB Bacteria TMDL, the Malibu Creek Bacteria TMDL uses Leo Carrillo beach as the reference beach for the lagoon. Like the SMB Bacteria TMDL, although the Regional Board says the TMDL is using this reference beach, the amended TMDL for the lagoon does not incorporate the most current data from the reference beach. The Malibu Bacteria TMDL was originally adopted on December 13, 2004. The TMDL states that implementation of the bacteria objectives and TMDL numeric targets "is achieved using a reference system/anti-degradation approach…" (Resolution No. 2004-019 R, Attachment A, p.3). The staff report specifically recognized that there are natural sources of bacteria, specifically birds, in the lagoon, and, "that in some instances these sources may contribute bacterial	See response to comment 2.3.

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		loading sufficient to cause exceedance of the single sample and/or 30-day geometric mean water quality objective." Staff Report, December 13, 2004, p.6. Arroyo Sequit and Leo Carrillo Beach were adopted as the reference beach. Staff Report, p. 7. Like the SMB Bacteria TMDL, at the time of the Malibu Bacteria TMDL was adopted, the data did not show any dry weather exceedances 50 yards from the discharge point at Leo Carrillo Beach. Accordingly, the allowable exceedance days were set at zero for the lagoon, even though the staff report recognized that the lagoon had a significantly larger bird population than was present at Leo Carrillo Beach. (Staff Report, p.7 n.2, p.8.) At the reconsideration of the Malibu Bacteria TMDL, staff reiterated that it was going to continue to use Leo Carrillo Beach as the reference system for Malibu Lagoon (Staff Report, June 17, 2012, p.15). The TMDL itself reiterates that it is continuing to use the reference system (Resolution No. R12-009, Attachment A, p.3). As discussed with respect to the SMB Bacteria TMDL, however, the Regional Board failed to reflect the current data for the reference beach during dry weather. The new data shows exceedance rates of approximately 11% during summer dry weather. There is no scientific basis for not reflecting the reference beach data when the Regional Boards states that it is using a reference beach to address natural sources. This is particularly true where the Regional Board recognizes the fact that birds are more present at Malibu Lagoon than the reference beach itself.	

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		The State Board should remand the TMDL to the Regional Board and direct it to reflect the reference beach data for summer dry weather.	
6.16	LACDPW	**BALLONA CREEK AND MARINA DEL REY TMDLS** The Regional Board's amendments to the Ballona Creek and Marina del Rey Bacteria TMDLs contain the same omission that was contained in the amended SMB Beaches and Malibu Bacteria TMDLs. Again, although the Regional Board is using a reference system, and in particular Leo Carillo Beach, the Regional Board has failed to reflect the updated data from Leo Carillo Beach in the amended TMDLs. Like the other TMDLS, both Ballona and Marina Del Rey used the reference system. See Resolution No. 2006-11, Attachment A, p. 3 (Ballona), Resolution No. 2003-012, Attachment A, p. 3 (Marina). Upon reconsideration, both TMDLs continue to use the reference beach system, and Leo Carillo Beach in particular. Resolution No. R12-008, Attachment A, p.3; Staff Report, June 7, 2012, p.12) (Ballona) 2; Resolution No. 12-007, Attachment A, p.3, Staff Report, June 2012, p.10 (Marina). Again, however, like the other TMDLs discussed above, the Regional Board failed to reflect the most current summer dry weather data from Leo Carillo Beach. This failure could result in parties being required to treat natural sources of bacteria, contrary to the consistently stated intent of the Regional Board when adopting these TMDLs. No scientific basis exits for this omission, particularly in that the Regional Board is dealing here with natural sources as opposed to human sources.	See response to comment 2.3.

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		The State Board should remand the Ballona and Marina TMDLs back to the Regional Board and direct it to reflect the current summer dry weather data from the reference beach in determining the summer dry weather waste load allocations.	
7.1	Heal the Bay and Los Angeles Waterkeeper	On behalf of Heal the Bay and Los Angeles Waterkeeper and the thousands of our members who swim, surf and play in the waterbodies affected by the Proposed Amendments, we submit the following comments to urge the State Water Quality Control Board ("State Board") to maintain strong public health protections for the Los Angeles Region and reject the Proposed Amendments pending their revision as outlined by our comments below. As demonstrated by the continued exceedances of the waste load allocations of the five bacteria TMDLs subject to the Proposed Amendments, the health and well-being of millions of swimmers, surfers and beach goers of all ages continues to be at risk at Los Angeles rivers and beaches designated for recreational use (Attachments A and B). While the Proposed Amendments are a step forward in some areas, overall the Amendments fall short of ensuring the highest level of public health protection that can and should be provided to all Los Angeles residents and visitors rightfully attracted by our world-famous beaches or looking to explore recreational opportunities at our rivers.	The State Water Board disagrees. See specific responses below.
7.2	Heal the Bay and Los Angeles Waterkeeper	We strongly support that the Proposed Amendments do not include sub-seasons and preserve a rolling 30-day geometric mean period. This is the correct approach, as calculating a static (non-rolling) geometric mean per sub-season would inhibit the ability to track chronic pollution problems.	Comment noted.

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7.3	Heal the Bay and Los Angeles Waterkeeper	However, as expressed in our comments on the Proposed Amendments submitted to the Los Angeles Regional Water Quality Control Board ("Regional Board"),[1] we disagree with the Regional Board's decision to continue using Leo Carrillo Beach as a reference beach for bacteria TMDLs in the Los Angeles Region. We appreciate this opportunity to express our concerns. **<u>A more appropriate reference beach, such as Nicholas Beach, should be used for Los Angeles Region Bacteria TMDLs</u>** While we believe that a reference beach approach is an appropriate way to develop fecal Bacteria TMDLs, Leo Carrillo Beach is no longer an appropriate reference beach for bacteria TMDLs in the Los Angeles Region. Based on Heal the Bay's analysis of Beach Report Card data for the Region and the land uses and level of development in the Los Angeles Region watersheds, a more appropriate reference beach for our Region is Nicholas Beach, located at the bottom of the Nicholas Canyon watershed. As the Regional Board explained when it initially developed the reference beach approach for fecal bacteria TMDL's in the Los Angeles Region, Leo Carrillo Beach and the Arroyo Sequit watershed were selected as an "interim" reference system "until other reference sites…are evaluated and the necessary data collected to support the use of alternative reference sites".[2] The criteria for selecting an appropriate reference system include: 1) availability of adequate historic shoreline monitoring data at the beach, 2) lowest level of development in the watershed draining to the beach, and 3) existence of fresh water outlet (i.e. creek) to the Beach.[3] The Regional Board's	This comment was previously made to the Los Angeles Water Board. The State Water Board reviewed and agrees with the Los Angeles Water Board's response to this comment. Please see response to comment 0.1, and the Los Angeles Water Board's response to comment 11.3 to Resolution R12-007, which states: Staff disagrees. While staff acknowledges that during the sampling period examined, Leo Carrillo Beach has been observed to the exceed single sample bacteria water quality objective more often than at Nicholas Beach, as mentioned in the SCCWRP technical report (Griffith *et al*., 2006), exceedances occur more often in large undeveloped watersheds (i.e., >100 km^2) compared to smaller watersheds in wet weather. Based on the study definition, the Nicholas Canyon watershed would be classified as a small watershed and may not best represent the rest of the beaches in Santa Monica Bay coastal watershed

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		original decision to choose Leo Carrillo Beach and its watershed as an interim reference site was primarily driven by the limited availability of historical shoreline monitoring data but the Regional Board unequivocally resolved to re-evaluate the use of Leo Carrillo Beach due to concerns with the development in close proximity to the beach.[4] Shoreline monitoring data from the last 9 years has in fact confirmed the Regional Board's concerns, demonstrating that Leo Carrillo Beach is not the appropriate reference site beach for fecal bacteria TMDLs in the Los Angeles Region. The data is unsurprising since Leo Carrillo Beach has significant development at the terminus of Arroyo Sequit Creek (the creek emptying at Leo Carrillo Beach), with numerous septic systems located near the bottom of the creek and by the beach as well as heavy use by campers of the areas in close proximity to the beach. The Regional Board's Proposed Amendments contain no assessment of the current condition and effectiveness of these old and heavily used septic systems. As expressed in our previous comments, an analysis of the contributions of these systems to bacterial contamination in the lower watershed is long overdue and should be provided before Leo Carrillo Beach continues to be used as a reference site for more than sixty Santa Monica Bay beaches visited by approximately 50-60 million beachgoers annually. While the Regional Board staff report states that "...Leo Carrillo Beach ensures equal protection across Santa Monica Bay beaches," a review of the Region's beach water quality data for the last six years clearly shows that Nicholas Canyon is a more appropriate reference beach, with significantly less exceedances of the fecal bacteria indicator standards (Attachment D). Furthermore, Nicholas	While this reconsideration considered alternative reference beaches based on watershed size (see Staff Report Section 3.11) Nicholas Canyon was not evaluated for this action, has not been noticed for public comment and is outside the scope of this reconsideration. The Los Angeles Water Board further responded to comment 9.7 to Resolution R12-007: Leo Carrillo is currently the best reference beach available for Marina del Rey Harbor. However, the Regional Board continues to work to develop more appropriate approaches for enclosed beaches Developments and advancements in these efforts will be considered by the Regional Board as they become available. This reconsideration considered additional alternatives for reference beaches based on watershed size (see Staff Report

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		Beach meets the rest of the reference beach selection criteria developed by the Regional Board. Nicholas Beach and the Nicholas Canyon watershed have a very low level of development, there is ample historical monitoring data and there is a freshwater outlet at the beach, Nicholas Creek. For all of these reasons and to ensure adequate protection of public health at all Los Angeles waterbodies used for recreation, an alternate reference beach, such as Nicholas Beach should be used.	section 3.11). The Leo Carrillo watershed would be classified a medium-sized watershed and Marina del Rey a small watershed. There was not a great difference in the exceedance rates from the medium and small watershed beaches and the Leo Carrillo Beach. Staff recommends Leo Carrillo Beach as the reference beach for all Santa Monica Bay beaches because it is within the Santa Monica Bay watershed; it provides a long data record; and ensures equal protection across Santa Monica Bay beaches.
7.4	Heal the Bay and Los Angeles Waterkeeper	In summary, Heal the Bay and Los Angeles Waterkeeper urge the State Board to decline approval of the Proposed Amendments and return the Amendments back to the Regional Board with directions to determine an appropriate reference beach, such as Nicholas Beach, and resubmit the Amendments for State Board approval. *See* Cal. Wat. Code §13245 (the State Board may return a proposed basin plan revision to the regional board for further consideration and resubmission). Determining an appropriate reference beach is pivotal to public health protection throughout the Los Angeles Region.	See response to comment 7.3.
8.1	Public Commenter	In 2002, in response to a lawsuit by Santa Monica Baykeeper and the Natural Resources Defense Council and consent decree that set timelines for adopting Total Maximum Daily Load regulations, the LA	The State Water Board disagrees with the commenter's assertion that the Santa Monica Bay Beaches Bacteria TMDLs

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		Regional Water Quality Control Board adopted recreation bacteria standards for Santa Monica Bay in a rush. They were scheduled for reconsideration in July 2007 because the rush to come to a quick decision did not allow a stringent review of the science at the time. Also, the water sampling used to set the standards was pulled together by Heal the Bay and Santa Monica Baykeeper using methods that are no longer applicable. The Regional Board completely ignored the July 2002 obligation to review that actual 5-year water quality monitoring results and the best available science that emerged over time. Instead, they let the natural source allocations sit at rock bottom and exposed the City of Malibu and the County to the extraordinarily wasteful litigation that was recently settled by the City but not the County. In 2004, the LA Regional Board adopted the Malibu Creek Bacteria standards and the Board was also obligated to reconsider the evidence when they reconsidered the Santa Monica Bay Bacteria TMDL.	were developed in a rushed manner. The TMDLs were fully vetted by the Los Angeles Water Board and State Water Board, and ultimately approved by the USEPA, and are based on sound science. See response to comment 5.2.
8.2	Public Commenter	1. The major failings of these 2002 and 2004 regulations: They do not accurately account for natural sources of bacteria so the cities are chasing after programs and projects that cannot meet the standards because they are not controllable by the city. The fact that NGOs suggest that Malibu must sterilize its streams and scrape natural kelp and sea grasses off the beaches is in direct conflict with the Clean Water Act. Heal the Bay defines natural bacteria as pollution but the US EPA does not. The consequences of meeting the standards without protecting beach and stream ecology are long-term damage to Malibu's natural coastline. If you damage the beach	The bacteria that USEPA, the Water Boards, and Heal the Bay are concerned about are those bacteria that indicate the presence of fecal matter – coliform bacteria and enterococcus. The TMDLs recognize that there are natural sources of some fecal-indicating bacteria, which may cause or contribute to exceedances of the single sample

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		ecology it interrupts resources that are needed to protect healthy offshore marine protected areas. Whether or not there is a public health risk from natural bacteria is of potential concern for public health noticing **but it is not supposed to be used as a marker for municipal compliance for TMDL standards**. The NGOs convinced the previous Regional Board that the two regulatory tracks are one and the same because they are "more protective" but the US EPA clearly states that municipalities are not responsible for natural bacteria. The current bacteria TMDL regulations imagine that the urban watersheds in the highly developed portions of LA County are the same as the open space and natural watersheds of the North Santa Monica Bay which almost every scientist will tell you, they are not the same when it comes to baseline sources of any constituent but especially bacteria. Even natural watersheds are not exactly comparable so the use of Arroyo Sequit watershed and Leo Carrillo Beach to set the baseline standards is not working because there are many factors that affect the abundance of natural bacteria: watershed size, whether or not the beach sampling site is prone to kelp mounding or accumulation of sea grasses, and whether the sampling site is influenced by a poorly functioning lagoon with elevated bacteria. Every one of the sites in Malibu on the HtB Beach Bummer list is very influenced by environmental conditions contributing to persistent bacteria exceedances that are not in the City of Malibu control if they are to be preserved in a natural condition.	objectives for the bacteria indicator. It is not the intent of the Los Angeles Water Board to require treatment or diversion of natural waterbodies. Concerning Leo Carrillo Beach, see response to comment 7.3.
8.3	Public Commenter	2. This basic problem is compounded by the fact that the LA Regional Board has refused to hold every public agency (mainly all park agencies) in a watershed equally accountable to the Clean	See response to comment 6.8.

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		Water Act regulations. They have the power to do so but the park agencies have asked for and been granted waivers to their own NPDES MS4 Phase 2 permits and all of the agencies are not listed as responsible jurisdictions in the adopted TMDLs. This is triple compounded when a park agency is listed and specific tasks are required in the regulations, the Regional Board does not send Notices of Violation to the park agency and so municipalities and citizens cannot even take action to correct this very, very significant omission. For the past 10 years, the cities in this region have worked together to reduce or eliminate pollutants but cannot implement a true watershed protection plan because the park agencies refuse to participate because there are no consequences for not participating. The standards are not applied fairly to every agency that could contribute or cause exceedance of the bacteria standards. This contradicts the Clean Water Act regulations.	
8.4	Public Commenter	3. In 2002 (Santa Monica Bay) and 2004 (Malibu Creek) with each of the two respective regulations adopted, that Regional Board included a list of regulations that they imagined would need to be reconsidered when the bacteria TMDLs were reopened. Almost every single one of the major issues that has had unintended consequences and now has scientific proof how wrong the standards are and explain why the municipal compliance rate is little or no better than when they were adopted 10 years ago, will not be heard on June 7. Even though municipal staff in pre-meetings with Regional Board staff pointed out this serious deficiency, the municipalities were ignored and the Regional Board staff only included a limited list of items that would be reconsidered on June 7. Unless the Regional Board instructs the staff to re-notice the meeting and delays voting to allow all relevant issues and the best available science to be part of	The State Water Board disagrees. See responses to comments 5.2 and 5.3.

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		the Board's deliberation before new standards are adopted, the entire process is a failure.	
8.5	Public Commenter	4. In the Santa Monica Mountains watersheds park agencies do not follow stormwater or TMDL regulations but are not held accountable, State Parks does not follow the regulations in Malibu Lagoon, State Parks allows commercial tenants to plant turf, install lights and fencing at the very edge of Topanga Creek, State Parks and the Santa Monica Mountains Conservancy pave over their parking lots right up to the edge of Topanga Creek, Solstice Creek and Corral Creek without any set back or vegetated swales to reduce pollutant contributions. The Santa Monica Mountains Conservancy installs permanent kiosks right on creek banks when there is plenty of room nearby. The Coastal Commission and the Regional Board are not doing their job. All these park amenities are development projects that remove riparian habitat and all are sites the directly contribute bacteria from dog walking in parking lots, oils, gas and greases from cars, and excessive trash and marine debris that is not managed because park agencies are not held accountable.	The projects discussed by the commenter are beyond the scope of this reconsideration.
8.6	Public Commenter	5) The Regional Board is being asked to adopt new standards without a clear understanding of the problems that exist with the current regulations and the opportunities for solutions so that cost-effective solutions can be applied and water quality objectives can be met. This severely cripples the public process and the obligation of the Board to implement regulations that will truly improve water quality for human and aquatic life. The worst part, is that Malibu is the City that adopts progressive regulations, has met water conservation objectives, set high energy	The State Water Board disagrees. The Los Angeles Water Board developed the original TMDLs, and subsequently reconsidered the TMDLs, based on the most robust information available, including data collected by various jurisdictional groups. This information was identified in the Staff Report supporting the TMDL, which was subject to public review and comment.

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		efficiency standards, has exemplary clean water programs and projects but is the City that gets notices of violations, is set up for citizen lawsuits, and is the City that gets needlessly sued. Until park agencies are required to participate in regular water quality compliance monitoring and all the other NPDES MS4 permit requirements, it will be impossible for municipalities to meet the water quality standards.	The State Water Board acknowledges the City's efforts in adopting progressive regulations and improving water quality to reduce bacterial contamination. See also responses to comments 5.2 and 6.8.