Response to Comments June 2012:
Santa Monica Bay Beaches, Marina del Rey Harbor Mothers' Beach, Los Angeles Harbor Inner Cabrillo Beach and Main Ship Channel Bacteria TMDL Reconsideration
Comments due date: May 07, 2012

1.City of Los Angeles Bureau of Sanitation (LABOS)
2. City of Los Angeles Harbor Department (POLA)
3. City of El Segundo, Hermosa Beach, Manhattan Beach, Redondo Beach, Torrance (Jurisdictional Group 5 &6)
4. City of Malibu
5. City of Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates (Jurisdictional Group 7) #1
6. City of Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates (Jurisdictional Group 7) #2
7. City of Santa Monica #1
8. City of Santa Monica #2
9. County of Los Angeles Department of Public Works (LACDPW)
10. County Sanitation Districts of Los Angeles County (LACSD)
11. Heal the Bay
12. Joyce Dillard

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1.1	LABOS	The comments and recommendations herein are for the three beach TMDLs, as follows: 1. Santa Monica Bay Beaches 2. Marina del Rey Harbor, Mother's Beach and Back Basins 3. Los Angeles Harbor, Inner Cabrillo Beach, and Main Ship Channel. Water quality at our beaches is one of our highest priorities, and the City's efforts to reduce and eliminate discharges of bacteria began well before bacteria TMDLs were adopted. The City began diverting dry weather flows from several storm drains into the sewer system in the early1990s. Working with Los Angeles County and the City of Santa Monica, the City of Los Angeles has led the way in planning and implementing over twenty-three (23) low flow diversion facilities (LFDs) along Santa Monica Bay Beaches. At Inner Cabrillo Beach, the City has spent over $20M for capital improvement and beach	Comment noted.

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		remediation projects, making it one of the most heavily invested-in beaches in California. For discharges to Marina del Rey, the watershed agencies have implemented three low flow diversions (which are owned and operated by Los Angeles County) to protect the back basins. Cumulatively, the Bureau is confident these projects have greatly reduced the risk associated with swimming at our area beaches. We thank the Regional Board staff for the time and energy contributed to the TMDL re-opener process. Re-openers are a critical component of the TMDL implementation process, as there are often significant data gaps and science evolves over the course of implementation schedules. This is especially the case for bacteria TMDLs- which may be the most challenging TMDLs for the City to implement - given, for example, the myriad of sources, large wet weather volumes, and the fact that bacteria water quality objectives (WQOs) have been in the process of being revised by USEPA since 2004. Reopeners ensure that public resources are directed at efforts that match the latest science. While the proposed revisions to the beach TMDLs have made strides to incorporate the latest science, the Bureau has remaining concerns and hopes the comments herein will result in constructive changes to the proposed amendments to the Basin Plan. Our comments are organized such that general topics across all of the beach TMDLs are highlighted first followed by comments specific to the Santa Monica Bay and Marina del Rey beach TMDLs. A comment matrix with a similar organizational approach is provided in Attachment A, which includes additional comments not discussed herein. REVISIONS THAT AFFECT ALL THREE BEACH TMDLS (Santa Monica Bay, Marina del Rey and Cabrillo Beach)	

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		There are several revisions that affect all of the beach TMDLs because all three beach TMDLs were scheduled to address similar, specific items during the this re-opener. The Bureau would like to express its support for many of these revisions as follows: • Establishing that the City's Implementation Plans represent an Integrated Water Resources Management (IWRM) approach: the beach TMDLs allowed for slightly extended wet weather compliance schedules if responsible jurisdictions used an IRWM approach for their Implementation Plans. The Bureau went through considerable effort, including stakeholder processes, to ensure its Implementation Plans qualified as IRWM approaches. The Bureau supports the Regional Board's modifications of the wet weather TMDL compliance schedules (year 2021 instead of2018) to reflect IRWM timelines. • Revision of Allowable Exceedance Days based on Updated Reference Site Data: after the Santa Monica Bay Beaches TMDL was adopted, the sample sites were moved from 50 yards up- or down-coast to "point zero" which means directly in front of the freshwater outlet. The original TMDL acknowledged this change was expected to increase observed exceedance rates due to the increased influence of freshwater. The Bureau supports the Regional Board's decision to revise the allowable exceedance rates and Exceedance Days using Point Zero data from the reference site at Leo Carrillo Beach. • Geometric mean calculation does not require "filled-in" values: for each of the three beach TMDLs, the current practice as specified in the Coordinated Monitoring Program (CMP) is to "fill in" concentration values on days when samples are not collected in order to calculate a geometric mean on a daily basis. The fill-in, or daily, calculation	

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		approach is cumbersome and unnecessary to protect human health, and is questionable at sites that have periods with limited access (due to safety concerns) because a single concentration value can be filled-in for long periods thereby misrepresenting water quality. The Bureau supports the Regional Board's decision to use a calculation approach that does not require filled-in values while maintaining the same level of human health protection. • Allowance for special studies to better represent non-detect samples: many of the beaches commonly exhibit bacteria concentrations that are below the method detection limit. The current practice is to substitute the detection limit for non-detect samples, but for enterococcus the detection limit (10 MPN/100mL) is relatively close to the TMDL target for the geometric mean (35 MPN/100mL). As such, some geometric mean exceedances may be an artifact of detection limit substitution as opposed to poor water quality. The Bureau supports the Regional Board's acknowledgement of this issue and allowance to submit special studies to facilitate substitution of alternative values for non-detect samples. • Changing compliance with geometric mean targets to reflect wet weather compliance dates: the previous BPAs included the concept of a "dry weather geometric mean" which was misrepresentative because the calculation reflected a long-term condition but with many days potentially excluded. The Bureau supports the Regional Board's decision to link geometric mean compliance with the final compliance dates (after both dry and wet weather allocations must be attained).	
1.2	LABOS	While the Bureau supports the above TMDL revisions, there are a few general issues for which the Bureau requests changes to the proposed revisions to the beach TMDLs. The following sub- sections include	The revisions under consideration *at this time* are limited to the specific elements identified at the time of Regional Board

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		three comments/changes that are critical to the City's ability to successfully implement the beach TMDLs. In addition, these comments will allow the beach TMDLs to accurately reflect the latest science and to discern MS4 discharges from other sources. The comment matrix in Attachment A contains additional comments. Major General Comment #1) Revisions to the beach TMDLs should not be limited to the specific elements identified at the time of original TMDL adoption: As noted in Staff Report and Public Notice, the Regional Board has focused on specific reconsideration elements, rather than conducting a general reconsideration of the beach TMDLs and the high priority issues that may affect them. As such, the current reopeners are potentially limited in nature and scope. Since the development of the TMDLs, the Regional Board staff and responsible jurisdictions have learned many lessons regarding TMDLs and their implementation. These lessons have come during implementation of projects to reduce discharges of bacteria to beaches, and from development of subsequent TMDLs including the Los Angeles River Bacteria TMDL. Furthermore, the TMDL reopener process has been greatly delayed in some cases; the Dry Weather Santa Monica Bay Beaches TMDL re-opener is nearly seven years late, originally scheduled for 2005. Since the originally scheduled re-opener date of 2005, the list of high priority issues for beach TMDLs has certainly changed. In addition, the Regional Board staff and responsible jurisdictions will put a tremendous amount of time and resources into the adoption hearing for these reopeners, and it would be most efficient if the scope of the TMDL revisions would include other high priority issues (discussed herein). Finally, there are instances during the bacteria TMDL revision process where the Regional Board expanded the scope to include items beyond the original reconsideration elements (e.g.,	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 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. An additional finding has been added to the Resolution to acknowledge work by responsible parties, see revised tentative Resolution Finding 9.

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		modifications to monitoring requirements in Ballona Creek). The jurisdictions responsible for implementation of these TMDLs should be given the opportunity to provide input on other high-priority issues to be considered during these TMDL revisions. REQUEST: Do not limit beach TMDL revisions to the original reconsideration elements. Instead, consider comments from responsible jurisdictions regarding all topics that are high priority for TMDL implementation and compliance.	
1.3	LABOS	Major General Comment #2) Beach TMDL implementation schedules should include at least one TMDL reopener prior to the final compliance dates: Reopeners are a critical aspect of TMDL implementation. The forthcoming revisions to the beach TMDLs will make important modifications, and the Bureau greatly appreciates the time of Regional Board staff to develop and adopt these revisions. However, one reopener during a 18-year implementation process is not sufficient. For example, the recently adopted Los Angeles River Bacteria TMDL acknowledges the value of multiple reopeners and included two specific reopeners at four- and ten- years after the effective date as well as specific language that a reopener would occur within one year of significant technical studies or policy changes. The science of bacteria regulations are rapidly evolving, and the Bureau requests at least one additional re-opener prior to the final (wet weather) compliance dates in 2021. The Regional Board has already limited the scope of the current TMDL revisions to specific elements, and over the next nine years it is certain that many more high priority issues will emerge through completion of implementation projects, special studies, and other data collection efforts. In addition, this future reopener could be used to evaluate and, if needed, revise the	Staff does not recommend additional 'hard date' reconsiderations. As the City of Los Angeles pointed out in the previous comment, staff and stakeholder high priority topics will change over time. It will be more efficient to identify the issues and then schedule the reconsiderations. An additional finding has been added to the Resolution to acknowledge the value and likelihood of further reconsiderations, see revised tentative Resolution Finding 15.

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		proposed calculation method of the geometric mean, as this method uses a rolling calculation that may result in multiple propagations of peak values at the reference site and compliance sites. REQUEST: Additional reopeners are necessary and should be incorporated into the schedules for the revised TMDLs. At least one explicit reopener should occur prior to the final wet weather compliance date for the Santa Monica Bay and Marina del Rey Beach TMDL. The recommended dates for a future beach TMDL re-opener is 2018, for the following reasons: • Santa Monica Bay Beaches: the year 2018 corresponds with the 50% wet weather implementation milestone and would represent the point at which dischargers are implementing final projects to meet the final compliance date in 2021. • Marina del Rey: the year 2018 is suitable because (1) it will allow for the completion of any additional special studies to assess natural sources and (2) implementation of major projects to meet the final compliance date (e.g., Oxford Basin) should have been completed. • Inner Cabrillo Beach: Additional tiered implementation actions and studies at Inner Cabrillo Beach are underway to meet final WLAs. • MS4 Permit Reasonable Assurance Plan (RAP): provide opportunities for correlating the success of the RAP to meeting the TMDLs.	
1.4	LABOS	Major General Comment #3) Language should be added to the wasteload allocation sections that allow the Regional Board to discern MS4 discharges from other sources The watersheds for the beach TMDLs have a multitude of dischargers	Staff finds that while these conditions were included in the BPA for the Los Angeles River bacteria TMDL, these sorts of conditions are more appropriately included in the upcoming MS4 permit for Los

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		including various types of NPDES permits. Additionally, non-point sources can affect bacteriological water quality. However, the final WLAs for MS4s are based on allowable numbers of Exceedance Days at the beaches. In this manner, the beach TMDLs make MS4s wholly responsible for attainment of WQOs at the beaches. That is, if the numbers of exceedances at a beach are higher than allowable, then MS4s that discharge to that beach are out of compliance regardless of whether the many other NPDES permittees have addressed their discharges. For example, MS4s could be deemed out of compliance if a major industrial NPDES discharger was continually exceeding their TMDL-required permit limits for Enterococcus. Similarly, there is potential for localized non-point sources to affect beach water quality (e.g., localized source on the beach such as trash cans). The Los Angeles River Bacteria TMDL addressed this concern with language regarding three "equivalent conditions" that represent WLA attainment for MS4s. This same language should be incorporated into the beach TMDLs. REQUEST: The equivalent conditions language from the Los Angeles River Bacteria TMDL should be incorporated to the Basin Plan Amendments for each of the three beach TMDLs. The language below was copied directly from the BPA for the LA River Bacteria TMDL and modified to reflect the beach TMDLs (e.g., replaced "River" with "beach", "*E. coli*" with "bacteria", etc.): "MS4 dischargers can demonstrate compliance with WLAs by demonstrating that WLAs are met in the wave wash at the beach or by demonstrating one of the following conditions at outfalls to the beach: 1. Flow-weighted concentration of bacteria in MS4 discharges is less than or equal to the single sample WQOs, based on a weighted-average using flow rates from outfalls to the beach;	Angeles County. This approach will also allow for consistency among bacteria TMDLs.

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		2. Zero discharge; 3. Demonstration of compliance as specified in the MS4 NPDES permit which may include the use of BMPs where the permit's administrative record supports that the BMPs are expected to be sufficient to implement the WLA in the TMDL, the use of calculated loading rates such that loading of bacteria to the beach is less than or equal to a calculated loading rates that would not cause or contribute to exceedances based on a loading capacity representative of conditions at the beach at the time of compliance or other appropriate method." For the SMB Beaches TMDL, Condition #2 is particularly important, given the large number of LFDs that are operated along SMB and relied upon for TMDL compliance. Additional language stating that an operational and maintained LFD constitutes compliance is requested. For example, Condition #2 above could be modified as follows: 1. Zero discharge (e.g., demonstration of a properly functioning low flow diversion) It should be noted that this requested change does not necessarily constitute a substantive change to the BPA. During the public comment period for the LA River Bacteria TMDL, the exact language above was added to the BPA and the TMDL was noticed.	
1.5	LABOS	REVISIONS THAT ARE SPECIFIC TO THE SANTA MONICA BAY BEACHES TMDL	Staff acknowledges that the previous adopted Santa Monica Bay Beaches (SMBB) TMDLs indicate that the POTW

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		The Santa Monica Bay Beaches TMDL was the first bacteria TMDL adopted in the Los Angeles region. Since development of the TMDL, the Regional Board and responsible jurisdictions have gained significant experience regarding approaches and challenges of regulating and controlling bacteria. At the same time, the science of bacteria source identification and risk assessment has greatly evolved. The City of Los Angeles, in collaboration with Los Angeles County and City of Santa Monica, has implemented twenty-five (23) LFDs to eliminate nearly all its dry weather urban runoff into Santa Monica Bay. In 2009, the operation of the LFDs was enhanced such that urban runoff is diverted year-round (not just in summer). The City is proud of its efforts in Santa Monica Bay and considers the Santa Monica Bay Beaches TMDL to be among its highest priorities. The next compliance phase - wet weather - poses an immense challenge to MS4s along the Bay, and we look forward to working with the Regional Board and other stakeholders as we implement cost-effective, multi-use, and multi-pollutant solutions. This TMDL re-opener provides an important opportunity to address issues that are specific to the Santa Monica Bay Beaches TMDL. Below are two major comments/requests from the Bureau regarding the Regional Board's proposed TMDL revisions. The comment matrix in Attachment A contains additional comments. Major SMB Comment #1) The proposed revisions to the wasteload allocations for POTWs should be modified to avoid unintended consequences including potential requirements for effluent disinfection: On Page 5 of the Proposed Amendment for Santa Monica Bay, the WLAs for the Hyperion Treatment Plant (HTP) have been revised as follows:	discharges in the Santa Monica Bay were not a significant source of indicator bacteria to shoreline beaches. Staff also agrees that it is not desirable to disinfect Hyperion's discharge to Santa Monica Bay. The Basin Plan Amendment for the Santa Monica Bay Beaches TMDL has been modified to read "The two Publicly Owned Treatment Works (POTWs)[4] discharging directly to Santa Monica Bay are assigned individual WLAs expressed as receiving water limitations as follows: the Dischargers shall ensure that bacterial concentrations in the effluent do not cause or contribute to exceedances at shoreline monitoring points of bacteriological objectives contained in Chapter 3 during summery dry weather, winter dry weather and wet weather." Reference to the Tapia Wastewater Reclamation Facility in footnote 4 has been removed for clarity and consistency with the Malibu Creek Bacteria TMDL which also assigned wasteload allocations to Tapia.

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		The three Publicly Owned Treatment Works (POTWs)[4] discharging to Santa Monica Bay are each given individual WLAs of zero (0) days of exceedance equal to the bacteriological objectives contained in Chapter 3 during both summer dry weather and winter dry weather, and wet weather. Where footnote 4 is as follows: "Hyperion Wastewater Treatment Plant, Joint Water Pollution Control Plant, and Tapia Wastewater Reclamation Facility." The revision to the WLAs for POTWs could have an unintended consequence of establishing end-of-pipe effluent limits equal to the Basin Plan WQOs, which would require disinfection. HTP effluent does not affect beach water quality and, in particular, does not cause or contribute to exceedances of bacteriological objectives at the beaches. As described in the HTP NPDES Permit (No. CA0109991) Fact Sheet (Page F-15), monitoring results indicate that effluent from the 5-Mile Outfall does not reach the shoreline and that elevated bacterial counts at the beaches are associated with runoff from storm drains and discharges from piers. Additionally, as indicated in the staff reports for the Santa Monica Bay Beaches Bacteria TMDLs Dry Weather (Resolution No. 02-004) and Wet Weather (Resolution No. 2002-022), HTP is not considered a source of bacteria impairing beaches. Adding disinfection to HTP's treatment process to meet the revised WLAs would cost an enormous amount of money and yet provide no environmental benefit. In fact, disinfection may have negative environmental consequences to aquatic life near the 5-Mile Outfall. The WLAs from the original Santa Monica Bay Beaches TMDLs have been incorporated into the HTP NPDES Permit (Page 30) as	

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		follows: "The Discharge shall ensure that bacterial concentrations in the effluent discharged from Discharge Points 001 and 002 do not result in exceedance of the Hyperion Treatment Plant's waste load allocation of zero (0) days exceedance of single same numeric limits or geometric mean limits (based on Basin Plan bacteria objectives for marine waters designated REC-1, see Section VI.A.1.b) at shoreline compliance points, as specified in Regional Water Board Resolution Nos. 2002-004 and2002-022." Additionally, the HTP NPDES Permit (Pages 31 and 32) incorporates receiving water limitations in the form of both geometric mean limits for total coliform, fecal coliform, and enterococcus and single sample maximum limits for total coliform, fecal coliform, enterococcus, and the ratio between fecal and total coliform. These receiving water limitations are a standard component of the permit and are not affected by the TMDL. The City understands the Regional Board's need to adjust the WLA language for POTWs, as the Basin Plan implementation provisions for Exceedance Days only apply to MS4 permits. However, given that HTP effluent is not a source to the beaches for which the TMDL is intended to protect it is unclear why HTP is assigned WLAs. As such, the WLAs for HTP should be removed from the TMDL. The bacteria receiving water limitations in the HTP permit will not be affected by the TMDL, will remain in effect, and will ensure continued protection of the portions of Santa Monica Bay affected by HTP effluent. REQUEST: Remove WLAs for HTP as it is not a source of bacteria to Santa Monica Bay Beaches. If the WLAs cannot be removed, modify the proposed language for POTW WLAs to avoid the	

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		unintended consequence of requiring disinfection by HTP. The following modified language is proposed: "The three Publicly Owned Treatment Works (POTWs)4 discharging to Santa Monica Bay are each assigned individual WLAs expressed as receiving water limitations as follows: the Discharger shall ensure that bacterial concentrations in the effluent do not cause or contribute to WQO exceedances at shoreline compliance points. As HTP is not a source of bacteria to Santa Monica Bay Beaches, no additional actions are expected to be necessary to be in compliance with TMDL allocations."	
1.6	LABOS	Major SMB Comment #2) Milestones should be calculated based on monitoring data from the 2004-05 critical year instead of using data collected after BMPs have been implemented: The wet weather milestones in the Santa Monica Bay Beaches TMDL are designed to require interim reductions based on the "baseline critical condition" prior to implementation activities (note: the milestones are intended to represent baseline critical conditions not long-term conditions). The original TMDL used watershed models to represent the baseline critical condition (the year 1993). The revised TMDL uses exceedance rates from samples collected between 2004 and 2010. However, using data from the later years in this record does not correspond to critical conditions and does represent a "baseline" because BMPs have been implemented in these years. For example, the first compliance milestone was in 2009 meaning BMPs were implemented prior to 2009 to meet TMDL requirements. In essence, using data from recent years has "moved the goal post" for implementation. Furthermore, it is critical that the calculation approach for estimating critical conditions does not use a long-term average of years (e.g., the Regional Board's approach uses the average	Staff agrees that while it is useful to calculate new interim milestones considering the updated sampling sites (i.e. the point zero sampling sites), we do not need to include data from after the time Low Flow Diversions (LFD) began to be installed. Staff disagrees. The original TMDL used 1993 as 90th percentile critical condition or reference year to determine the number of wet-weather days used under the critical condition, with the observed average exceedance probability. Allowable exceedance days were derived based on new shoreline monitoring data collected from the wave wash (point zero monitoring). The TMDL describes simply that the "[p]ercentage reductions leading to full implementation is the method used to

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		from 2004-2010) because it is rainfall and wet days that drives the critical wet years and corresponding rates of exceedance. The Bureau acknowledges the technical challenges associated estimating critical conditions. We propose an alternative approach based on the 2004-05 monitoring year (the first year of the CMP), which was a wet year that is an excellent representation of the critical year (in terms of rainfall and wet days) used to develop the TMDL exceedance day calculation (1993), as shown in Table 1. In essence, the data from the 2004-05 water year allow for a direct measurement of critical year conditions. It is apparent from the results shown in Table 2 that the revised approach proposed by the Regional Board greatly underestimated the number of exceedances during a baseline critical year. Also, the proposed alternative milestones closely reflect the milestones in the original SMB TMDL. REQUEST: Use the point zero data from 2004-05 to represent the critical baseline condition and to calculate 10%, 25%, and 50% milestones. Shown in Table 2 are the milestones calculations for Jurisdictional Group 2 based on the 2004-05 data (and a comparison to milestones proposed by the Regional Board based on 2004-2010 data). Additional details on the calculation methodology can be provided upon request.	establish the interim milestones at this time." Monitoring conducted after 2004 serves as the new baseline given the change in monitoring parameters (i.e., point zero monitoring compared to 25-50 north or south of the wave wash). As such, use of data from the 2004-2010 storm year as baseline to determine the percentage reduction necessary to achieve full implementation is appropriate.
1.7	LABOS	REVISIONS THAT ARE SPECIFIC TO THE MARINA DEL REY TMDL The City and the Marina del Rey (MdR) watershed agencies have made significant progress with implementation of the Marina del Rey bacteria TMDL. The City's implementation efforts in MdR and other beaches have resulted in significant experience and many "lessons learned." Based on these lessons learned, the following sub-sections include two comments/changes that are critical to the City's ability to	The 303(d) list includes both Marina del Rey Harbor Back Basins and Marina del Rey Harbor Beach (Mother's Beach) as impaired for indicator bacteria. Based on the available geographical information, Regional Board staff has determined the Back Basins listing includes Basin D, E, and F. The TMDL has appropriately assigned WLAs to the Los Angeles County

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		successfully implement the MdR bacteria TMDL. The comment matrix in Attachment A contains additional comments. Please note that, although the comments submitted herein are specific to City concerns, the City will continue to coordinate and assist the lead agency, County of Los Angeles, and other watershed agencies to implement the TMDL. Major MdR Comment #1) The City of Los Angeles is jointly responsible for attainment of WLAs in Basins E and G. Attainment of WLAs in Basins A, C, D, F, and H should not be linked the City of Los Angeles' compliance determination. To date, the Regional Board has held the City accountable for attainment of WLAs at all compliance monitoring locations in Marina del Rey. However, urban runoff from the City only drains to Back Basins E and G. As shown in Figure 1, the City's jurisdiction drains MdR subwatershed areas 1A, 2, 3, and 4. However, as shown in Table 3, these subwatersheds drain to Basins E and G. As such, the City's compliance with the MdR TMDL should not be linked to attainment of WLAs in Basins A, C, D, F, or H. Note that Basin G currently attains WQOs and thus is not listed as impaired. Previous dry weather circulation and modeling studies have demonstrated that Basin E is not hydraulically connected to Basin D, which indicates it is not connected to other basins, either. These findings are from a report developed by the County of Los Angeles Department of Beach and Harbors using Proposition 13 funds. The study included development of two hydrodynamic models, one that was bacteria-specific. The model results demonstrated that exceedances m Basin E are limited in spatial influence during non-storm conditions.	MS4 permittees in the Marina del Rey Harbor (MdH) watershed. The TMDL has assigned allocations to responsible parties based on proximity and loading and contributions to the impaired waterbody. Monitoring requirements were also included for Basins A, B, C, G, and H to determine the impairment of these basins and to ensure that they did not also cause or contribute to the impairment basins. Staff finds that due to the proximity of the basins, it is not appropriate to subdivide the waterbody. In the event of a water quality exceedance, the current draft tentative Los Angeles MS4 permit proposes to allow a permittee to demonstrate that the exceedance is not caused by MS4 discharges.

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		REQUEST: Clarify in the BPA for the MdR Bacteria TMDL that the City is a responsible jurisdiction for Back Basins E and G only. The City's compliance with the MdR TMDL should not be linked to attainment of WLAs in Basins A, C, D, F, or H. Note that the allocations for Inner Cabrillo Beach are an example of WLAs for specific sites being assigned to specific agencies. **[See the City of Los Angeles comment letter for tables and figures.]**	

1.8	LABOS	Major MdR Comment #2) The Bureau respectfully requests an extension of the dry weather compliance schedule for the Marina del Rey Bacteria TMDL. The Watershed Agencies in MdR have made great strides to reduce and eliminate discharges of urban runoff and bacteria, as follows:
		
		• Implemented three (3) Low Flow Diversion (LFD) projects (owned and operated by County of Los Angeles)
		• Installed five bio-retention filters in drainage areas that are under tidal influence and not served by the LFDs (installed in December 2006)
		• Continuous implementation of institutional measures
		  o Catch basin cleaning (three to four times per year)
		  o Street sweeping (ranging from daily to monthly)
		  o Trash Management (restaurant and grocery store inspections, outreach, and enforcement)
		• 100% retrofit of catch basins to install screens for trash capture
		• Continuous public educations and outreach
		• Adopted City-wide Low Impact Development Ordinance and Water Conservation Ordinance
			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.
			
			Also see response to comment 1.2 regarding the consideration of items other than those

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		At the time of TMDL adoption, the Regional Board staff and responsible jurisdictions were not fully aware of the technical challenges associated with controlling bacteria in an enclosed harbor. In particular, the following issues have extended the time needed to comply with the TMDL WLAs: • Length of time to construct and start-up BMPs: the experience gained by the City during implementation of Prop O projects has changed our understanding of how long it takes to design, permit, construct, and start-up major BMP projects. Individual projects can easily take 5+ years to start-up. In MdR, the County of Los Angeles is implementing the Oxford Retention Basin Flood Protection Multiuse Enhancement Project at an estimated cost exceeding $11 million, which is to be funded by responsible agencies in the watershed and grants, and is expected to be completed in 2013. The project will address dry and wet-weather requirements of not only the Bacteria TMDL but also the Toxic Pollutants TMDL. • Non-anthropogenic sources: In 2007,Los Angeles County submitted a Nonpoint Source Study that found that non-anthropogenic sources are significantly affecting water quality in MdR. Based on the information presented in the report, approximately 70% of dry weather inputs of bacteria in Basin E may originate from birds (based on the measured proportions of source-specific bacteria isolates). Similarly, source tracking data collected during the study also suggested that only 4% of inputs to Basin E were from human fecal sources. Note this was a required study, and responsible jurisdictions expected the results (significant impact of birds on water quality) to affect the determination of MS4 compliance, but there was no effect.	specifically tasked to Regional Board during this TMDL reconsideration.

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		Overall, the City has made a good faith effort to meet the dry weather compliance date of 2007, but the above issues have led the Bureau to respectfully request a dry weather schedule extension. REQUEST: Please revise the MdR final dry weather compliance deadline from 2007 to2016. This will provide the responsible jurisdictions the additional time needed to complete the Oxford Basin Multiuse Project, refine existing actions, fully evaluate and quantify natural sources, and, if appropriate, provide the Regional Board sufficient time to consider a Natural Source Exclusion. Given the linkage between the Oxford Basin Multi-use Project and Basin E, it might be appropriate to extend the schedule for Basin E only (as opposed to all of the basins). CONCLUSIONS The Regional Board's effort to revise the beach TMDLs is notable, as these are the first bacteria TMDLs in California known to be re-opened and revised. The re-opener process is critical to the City, as TMDL implementation is our most challenging stormwater requirement. The beach TMDLs rank among our highest priorities and the City has made a good faith effort to implement the TMDLs and partner with the Regional Board and other stakeholders. The Bureau feels it is critical to address all high priority issues during this TMDL re-opener process, as opposed to limiting the scope to the reconsideration elements identified over a decade ago. In developing the comments herein, it was a difficult decision for the Bureau to ask for a schedule extension for MdR. The Bureau considers itself a good actor, rarely making special requests to the Regional Board. However, in the case of MdR, the Bureau has no	

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<tr><td></td><td></td><td colspan="2">choice but to ask for additional time. When considering the request for schedule extensions, please take into account the multitude of actions implemented by the City not just in these beach watersheds, but in many other watersheds in the region to address a wide range of TMDLs. We look forward to continuing our partnership with the Regional Board during ongoing and future TMDL implementation projects.</td><td></td></tr>
<tr><td rowspan="3">1.9</td><td rowspan="3">LABOS</td><td colspan="2">Attachment A – Detailed Comment Matrix for Beach TMDLs Revisions</td><td rowspan="3">Comment noted.</td></tr>
<tr><td>Issue</td><td>Comments</td></tr>
<tr><td>Santa Monica Bay and Marina del Rey Establishing that the City's Implementation Plans represent an Integrated Water Resources Management (IWRM) approach</td><td>The beach TMDLs allowed for slightly extended wet weather compliance schedules if responsible jurisdictions used an IRWM approach for their Implementation Plans. The Bureau went through considerable effort, including stakeholder processes, to ensure its Implementation Plans qualified as IRWM approaches.

The Bureau supports the Regional Board's modifications of the wet weather TMDL compliance schedules
(year 2021 instead of 2018) to reflect IRWM timelines.</td></tr>
<tr><td>1.10</td><td>LABOS</td><td>Santa Monica Bay Revision of Allowable Exceedance Days based on Updated Reference Site Data</td><td>After the Santa Monica Bay Beaches TMDL was adopted, the sample sites were moved from 50 yards up- or down-coast to "point zero" which means directly in front of the freshwater outlet. The original TMDL acknowledged this change was expected to increase observed</td><td>Comment noted.

Also see response to comment 1.6.</td></tr>
</table>

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			exceedance rates due to the increased influence of freshwater. The Bureau supports the Regional Board's decision to revise the allowable exceedance rates and Exceedance Days using Point Zero data from the reference site at Leo Carrillo Beach.	
1.11	LABOS	All TMDLs Geometric mean calculation does not require "filled-in" values	For each of the three beach TMDLs, the current practice as specified in the Coordinated Monitoring Program (CMP) is to "fill in" concentration values on days when samples are not collected in order to calculate a geometric mean on a daily basis. The fill-in, or daily, calculation approach is cumbersome and unnecessary to protect human health, and is questionable at sites that have periods with limited access (due to safety concerns) because a single concentration value can be filled-in for long periods thereby misrepresenting water quality. The Bureau supports the Regional Board's decision to use a calculation approach that does not require filled-in values while maintaining the same level of human health protection.	Comment noted.
1.12	LABOS	All TMDLs Allowance for special studies to better represent non- detect samples	Many of the beaches commonly exhibit bacteria concentrations that are below the method detection limit. The current practice is to substitute the detection limit for non-detect samples, but for enterococcus the detection limit (10 MPN/l00mL) is relatively close to the	Comment noted.

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			TMDL target for the geometric mean (35 MPN/l00mL). As such, some geometric mean exceedances may be an artifact of detection limit substitution as opposed to poor water quality. The Bureau supports the Regional Board's acknowledgement of this issue and allowance to submit special studies to facilitate substitution of alternative values for non-detect samples.	
1.13	LABOS	All TMDLs Changing compliance with geometric mean targets to reflect wet weather compliance dates	The previous BPAs included the concept of a "dry weather geometric mean" which was misrepresentative because the calculation reflected a long-term condition but with many days potentially excluded. The Bureau supports the Regional Board's decision to link geometric mean compliance with the final compliance dates (after both dry and wet weather allocations must be attained).	Comment noted.
1.14	LABOS	All TMDLs Revisions to the beach TMDLs should not be limited to the specific elements identified at the time of original TMDL adoption	As noted in Staff Report and Public Notice, the Regional Board has focused on specific reconsideration elements, rather than conducting a general reconsideration of the beach TMDLs and the high priority issues that may affect them. As such, the current reopeners are potentially limited in nature and scope. Since the development of the TMDLs, the Regional Board staff and responsible jurisdictions have learned many lessons regarding TMDLs and their implementation.	See response to comment 1.2.

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			These lessons have come during implementation of projects to reduce discharges of bacteria to beaches, and from development of subsequent TMDLs including the Los Angeles River Bacteria TMDL. Furthermore, the TMDL reopener process has been greatly delayed in some cases; the Dry Weather Santa Monica Bay Beaches TMDL re-opener is nearly seven years late, originally scheduled for 2005. Since the originally scheduled re-opener date of 2005, the list of high priority issues for beach TMDLs has certainly changed. In addition, the Regional Board staff and responsible jurisdictions will put a tremendous amount of time and resources into the adoption hearing for these reopeners, and it would be most efficient if the scope of the TMDL revisions would include other high priority issues (discussed herein). Finally, there are instances during the bacteria TMDL revision process where the Regional Board expanded the scope to include items beyond the original reconsideration elements(e.g., modifications to monitoring requirements in Ballona Creek). The jurisdictions responsible for implementation of these TMDLs should be given the opportunity to provide input on other high-priority issues to be considered during these TMDL revisions. **REQUEST:** Do not limit beach TMDL revisions to the original reconsideration	

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			elements. Instead, consider comments from responsible jurisdictions regarding all topics that are high priority for TMDL implementation and compliance.	
1.15	LABOS	All TMDLs Beach TMDL implementation schedules should include at least one TMDL reopener prior to the final compliance dates	Reopeners are a critical aspect of TMDL implementation. The forthcoming revisions to the beach TMDLs will make important modifications, and the Bureau greatly appreciates the time of Regional Board staff to develop and adopt these revisions. However, one reopener during a 18-year implementation process is not sufficient. For example, the recently adopted Los Angeles River Bacteria TMDL acknowledges the value of multiple reopeners and included two specific reopeners at four- and ten- years after the effective date as well as specific language that a reopener would occur within one year of significant technical studies or policy changes. The science of bacteria regulations are rapidly evolving, and the Bureau requests at least one additional re-opener prior to the final (wet weather) compliance dates in 2021. The Regional Board has already limited the scope of the current TMDL revisions to specific elements, and over the next nine years it is certain that many more high priority issues will emerge through completion of implementation projects, special studies, and other data collection efforts. **REQUEST:** Additional reopeners are necessary and should be incorporated into	See response to comment 1.3.

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			the schedules for the revised TMDLs. At least one explicit reopener should occur prior to the final wet weather compliance date for each beach TMDL. The recommended dates for a future beach TMDL re- opener is 2018, for the following reasons: • **Santa Monica Bay Beaches:** the year 2018 corresponds with the 50% wet weather implementation milestone and would represent the point at which dischargers are implementing final projects to meet the final compliance date in 2021. • **Marina del Rey:** the year 2018 is suitable because (1) it will allow for the completion of any additional special studies to assess natural sources and (2) implementation of major projects to meet the final compliance date (e.g., Oxford Basin) should have been completed. • **Inner Cabrillo Beach:** Additional tiered implementation actions and studies at Inner Cabrillo Beach are underway to meet final WLAs. • MS4 Permit Reasonable Assurance Plan (RAP): provide opportunities for correlating the success of the RAP to meeting the TMDLs.	
1.16	LABOS	All TMDLs Language should	The watersheds for the beach TMDLs have a multitude of dischargers including various	See response to comment 1.4.

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		be added to the wasteload allocation sections that allow the Regional Board to discern MS4discharges from other sources	types of NPDES permits. Additionally, non-point sources can affect bacteriological water quality. However, the final WLAs for MS4s are based on allowable numbers of Exceedance Days at the beaches. In this manner, the beach TMDLs make MS4s wholly responsible for attainment of WQOs at the beaches. That is, if the numbers of exceedances at a beach are higher than allowable, then MS4s that discharge to that beach are out of compliance regardless of whether the many other NPDES permittees have addressed their discharges. For example, MS4s could be deemed out of compliance if a major industrial NPDES discharger was continually exceeding their TMDL-required permit limits for Enterococcus. Similarly, there is potential for localized non-point sources to affect beach water quality (e.g., localized source on the beach such as trash cans). The Los Angeles River Bacteria TMDL addressed this concern with language regarding three "equivalent conditions" that represent WLA attainment for MS4s. This same language should be incorporated into the beach TMDLs. **REQUEST:** The equivalent conditions language from the Los Angeles River Bacteria TMDL should be incorporated to the Basin Plan Amendments for each of the three beach TMDLs. The language below was copied directly from the BPA for the LA River	

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			Bacteria TMDL and modified to reflect the beach TMDLs (e.g., replaced "River" with "beach", "*E. coli*" with "bacteria", etc.): "MS4 dischargers can demonstrate compliance with WLAs by demonstrating that WLAs are met in the wave wash at the beach or by demonstrating one of the following conditions at outfalls to the beach: 1. Flow-weighted concentration of bacteria in MS4 discharges is less than or equal to the single sample WQOs, based on a weighted-average using flow rates from outfalls to the beach; 2. Zero discharge; 3. Demonstration of compliance as specified in the MS4 NPDES permit which may include the use of BMPs where the permit's administrative record supports that the BMPs are expected to be sufficient to implement the WLA in the TMDL, the use of calculated loading rates such that loading of bacteria to the beach is less than or equal to a calculated loading rates that would not cause or contribute to exceedances based on a loading capacity representative of conditions at the beach at the time of compliance or other appropriate	

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			method." For the SMB Beaches TMDL, Condition #2 is particularly important, given the large number of LFDs that are operated along SMB and relied upon for TMDL compliance. Additional language stating that an operational and maintained LFD constitutes compliance is requested. For example, Condition #2 above could be modified as follows: 2. Zero discharge (e.g., demonstration of a properly functioning low flow diversion) It should be noted that this requested change does not necessarily constitute a substantive change to the BPA. During the public comment period for the LA River Bacteria TMDL, the exact language above was added to the BPA and the TMDL was not re-noticed.	
1.17	LABOS	All TMDLs The proposed revisions to the wasteload allocations for POTWs should be modified to avoid unintended consequences	On Page 5 of the Proposed Amendment for Santa Monica Bay, the WLAs for the Hyperion Treatment Plant (HTP) have been revised as follows: The three Publicly Owned Treatment Works (POTWs)[4] discharging to Santa Monica Bay are each given individual WLAs ~~of zero (0) days of exceedances~~equal	See response to comment 1.5.

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		including potential requirements for effluent disinfection	to the bacteriological objectives contained in Chapter 3 during ~~both~~ summer dry weather,~~and~~winter dry weather, and wet weather. Where footnote 4 is as follows: "Hyperion Wastewater Treatment Plant, Joint Water Pollution Control Plant, and Tapia Wastewater Reclamation Facility." The revision to the WLAs for POTWs could have an unintended consequence of establishing end-of-pipe effluent limits equal to the Basin Plan WQOs, which would require disinfection. HTP effluent does not affect beach water quality and, in particular, does not cause or contribute to exceedances of bacteriological objectives at the beaches. As described in the HTP NPDES Permit (No. CA0109991) Fact Sheet (Page F-15), monitoring results indicate that effluent from the 5-Mile Outfall does not reach the shoreline and that elevated bacterial counts at the beaches are associated with runoff from storm drains and discharges from piers. Additionally, as indicated in the staff reports for the Santa Monica Bay Beaches Bacteria TMDLs Dry Weather (Resolution No. 02-004) and Wet Weather (Resolution No. 2002-022), HTP is not considered a source of bacteria impairing beaches. Adding disinfection to HTP's treatment process to meet the revised WLAs would cost an enormous amount of	

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			money and yet provide no environmental benefit. In fact, disinfection may have negative environmental consequences to aquatic life near the 5- Mile Outfall. The WLAs from the original Santa Monica Bay Beaches TMDLs have been incorporated into the HTP NPDES Permit (Page 30) as follows: "The Discharge shall ensure that bacterial concentrations in the effluent discharged from Discharge Points 00 I and 002 do not result in exceedance of the Hyperion Treatment Plant's waste load allocation of zero (0) days exceedance of single same numeric limits or geometric mean limits (based on Basin Plan bacteria objectives for marine waters designated REC-1, see Section VI. A. l. b) at shoreline compliance points, as specified in Regional Water Board Resolution Nos. 2002-004and 2002-022." Additionally, the HTP NPDES Permit (Pages 31 and 32) incorporates receiving water limitations in the form of both geometric mean limits for total coliform, fecal coliform, and enterococcus and single sample maximum limits for total coliform, fecal coliform, enterococcus, and the ratio between fecal and total coliform. These receiving water limitations are a standard component of the	

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			permit and are <u>not</u> affected by the TMDL. The City understands the Regional Board's need to adjust the WLA language for POTWs, as the Basin Plan implementation provisions for Exceedance Days only apply to MS4 permits. However, given that HTP effluent is not a source to the beaches for which the TMDL is intended to protect it is unclear why HTP is assigned WLAs. As such, the WLAs for HTP should be removed from the TMDL. The bacteria receiving water limitations in the HTP permit will not be affected by the TMDL, will remain in effect, and will ensure continued protection of the portions of Santa Monica Bay affected by HTP effluent. **REQUEST:** Remove WLAs for HTP as it is not a source of bacteria to Santa Monica Bay Beaches. If the WLAs cannot be removed, modify the proposed language for POTW WLAs to avoid the unintended consequence of requiring disinfection by HTP. The following modified language is proposed: "The three Publicly Owned Treatment Works (POTWs)[4] discharging to Santa Monica Bay are each assigned individual WLAs expressed as receiving water limitations as follows: the Discharger shall ensure that bacterial concentrations in the	

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			effluent do not cause or contribute to WQO exceedances at shoreline compliance points. As HTP is not a source of bacteria to Santa Monica Bay Beaches, no additional actions are expected to be necessary to be in compliance with TMDL allocations."	
1.18	LABOS	Santa Monica Bay Milestones should be calculated based on monitoring data from the 2004-05 critical year instead of using long-term average	The wet weather milestones in the Santa Monica Bay Beaches TMDL are designed to require interim reductions based on the "baseline critical condition" prior to implementation activities (note: the milestones are intended to represent baseline critical conditions not long-term conditions). The original TMDL used watershed models to represent the baseline critical condition (the year 1993). The revised TMDL uses exceedance rates from samples collected between 2004 and 2010. However, using data from the later years in this record does not correspond to critical conditions and does represent a "baseline" because BMPs have been implemented in these years. For example, the first compliance milestone was in 2009 meaning BMPs were implemented prior to 2009 to meet TMDL requirements. In essence, using data from recent years has "moved the goal post" for implementation. Furthermore, it is critical that the calculation approach for estimating critical conditions does not use a long-term average of years (e.g., the Regional Board's approach uses the average from 2004-2010) because it is rainfall and wet days that	See response to comment 1.6.

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			drives the critical wet years and corresponding rates of exceedance. The Bureau acknowledges the technical challenges associated estimating critical conditions. We propose an alternative approach based on the 2004-05 monitoring year (the first year of the CMP), which was a wet a year that is an excellent representation of the critical year (in terms of rainfall and wet days) used to develop the TMDL exceedance day calculation (1993), as shown in **Table 1** in letter. In essence, the data from the2004-05 water year allow for a direct measurement of critical year conditions. It is apparent from the results shown in **Table 2** in the letter that the proposed revised approach proposed by the Regional Board greatly underestimated the number of exceedances during a baseline critical year. Also, the proposed alternative milestones closely reflect the milestones in the original SMB TMDL. **REQUEST:** Use the point zero data from 2004-05 to represent the critical baseline condition and to calculate 10%, 25%, and 50% milestones. Shown in **Table 2** are the milestones calculations for Jurisdictional Group 2 based on the 2004-05 data (and a comparison to milestones proposed by the Regional Board based on 2004-2010 data).	
		[See the City of Los Angeles comment letter for tables and		

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		figures.]		
1.19	LABOS	Marina del Rey The City of Los Angeles is jointly responsible for attainment of WLAs in Basins E and G. Attainment of WLAs in Basins A, C, D, F, and H should not be linked the City of Los Angeles' compliance determination	To date, the Regional Board has held the City accountable for attainment of WLAs at all compliance monitoring locations in Marina del Rey. However, urban runoff from the City only drains to Back Basins E and G. As shown in **Figure 1** of the letter, the City's jurisdiction drains MdR subwatershed areas 1A, 2, 3, and 4. However, as shown in **Table 3** of the letter, these subwatersheds drain to Basins E and G. As such, the City's compliance with the MdR TMDL should <u>not</u> be linked to attainment of WLAs in Basins A, C, D, F, or H. Note that Basin G currently attains WQOs and thus is <u>not</u> listed as impaired. Previous dry weather circulation and modeling studies have demonstrated that Basin E is not hydraulically connected to Basin D, which indicates it is not connected to other basins, either. These findings are from a report developed by the County of Los Angeles Department of Beach and Harbors using Proposition 13 funds[1]. The study included development of two hydrodynamic models, one that was bacteria-specific. The model results demonstrated that exceedances in Basin E are limited in spatial influence during non-storm conditions. **REQUEST:** Clarify in the BPA for the MdR Bacteria TMDL that the City is a	See response to comment 1.7.

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			responsible jurisdiction for Back Basins E and G only. The City's compliance with the MdR TMDL should not be linked to attainment of WLAs in Basins A, C, D, F, or H. Note that the allocations for Inner Cabrillo Beach are an example of WLAs for specific sites being assigned to specific agencies. Please note although the comments submitted herein are specific to City concerns, the City will continue to coordinate and assist the lead agency, County of Los Angeles, and other watershed agencies to implement the TMDL.	
		[See the City of Los Angeles comment letter for tables and figures.]		
1.20	LABOS	Marina del Rey The Bureau respectfully requests an extension of the dry weather compliance schedule for the Marina del Rey Bacteria TMDL	The Watershed Agencies in MdR have made great strides to reduce and eliminate discharges of urban runoff and bacteria, as follows: • Implemented three (3) Low Flow Diversion (LFD) projects (owned and operated by County of Los Angeles) • Installed five bio-retention filters in drainage areas that are under tidal influence and not served by the LFDs(installed in December 2006) • Continuous implementation of institutional measures o Catch basin cleaning (three to four times per year) o Street sweeping (ranging from daily to monthly)	See response to comment 1.8.

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			○ Trash Management (restaurant and grocery store inspections, outreach, and enforcement) • 100% retrofit of catch basins to install screens for trash capture • Continuous public educations and outreach • Adopted City-wide Low Impact Development Ordinance and Water Conservation Ordinance At the time of TMDL adoption, the Regional Board staff and responsible jurisdictions were not fully aware of the technical challenges associated with controlling bacteria in an enclosed harbor. In particular, the following issues have! extended the time needed to comply with the TMDL WLAs. • **Length of time to construct and start-up BMPs:** the experience gained by the City during implementation of Prop O projects has changed our understanding of how long it takes to design, permit, construct, and start- up major BMP projects. Individual projects can easily take 5+ years to start-up. In MdR, the County of Los Angeles is implementing the Oxford Retention Basin Flood Protection Multiuse Enhancement Project at an estimated cost exceeding $11 million, which is to be funded by responsible agencies in the watershed and grants, and is expected to be completed in	

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			2013. The project will address dry and wet-weather requirements of not only the Bacteria TMDL but also the Toxic Pollutants TMDL. • Non-anthropogenic sources: In 2007, Los Angeles County submitted a Nonpoint Source Study that found that non-anthropogenic sources are significantly affecting water quality in MdR. Based on the information presented in the report, approximately 70% of dry weather inputs of bacteria in Basin E may originate from birds (based on the measured proportions of source-specific bacteria isolates). Similarly, source tracking data collected during the study also suggested that only 4% of inputs to Basin E were from human fecal sources. Note this was a required study, and responsible jurisdictions expected the results (significant impact of birds on water quality) to affect the determination of MS4 compliance, but there was no effect. Overall, the City has made a good faith effort to meet the dry weather compliance date of 2007, but the above issues have led the Bureau to respectfully request a dry weather schedule extension. **REQUEST:** Please revise the MdR final dry weather compliance deadline from 2007	

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			to 2016. This will provide the responsible jurisdictions the additional time needed to complete the Oxford Basin Multiuse Project, refine existing actions, fully evaluate and quantify natural sources, and, if appropriate, provide the Regional Board sufficient time to consider a Natural Source Exclusion. Given the linkage between the Oxford Basin Multi-use Project and Basin E, it might be appropriate to extend the schedule for Basin E only (as opposed to all of the basins).	
1.21	LABOS	All TMDLs Geometric Mean Exceedances at Leo Carrillo Beach are a Primary Reason to Schedule Explicit Reopeners in the Future	According to the Staff Report and the Bureau's calculations, the reference site Leo Carrillo Beach exceeds the geometric mean target frequently. The Staff Report lists Enterococcus exceedance rates greater than 20% using various different geometric mean approaches. However, compliance monitoring locations at beaches are not allowed to have any exceedances of the geometric mean targets. The implication of the elevated rate of exceedance at the reference beach is (1) the reference site will be out of compliance with the TMDL after 2021 and (2) MS4s are required to maintain a level of water quality that is "cleaner" than the reference site. The frequent rate of geometric mean exceedance at Leo Carrillo Beach is a critical reason for each Beach TMDL to schedule an explicit reopener prior to the final compliance dates. Further analysis of the seasonal geometric mean	During the data period examined, exceedances of the geometric mean water quality objectives were observed at Leo Carrillo Beach. However, Leo Carrillo remains the best available reference system. Staff acknowledges further study and corrective actions may be required at Leo Carrillo Beach. The epidemiological studies referenced in USEPA's 1986 ambient water quality criteria make the link between geometric mean concentrations and health risk. Therefore, in order to protect public health, there should be no allowable exceedances of the geometric mean. In addition, USEPA has not been willing to endorse exceedances of the geometric mean water quality objective during any period.

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			calculation alternatives that were provided in the staff report may clarify the best alternative for geometric mean calculation. Additionally, since the calculation of a rolling geometric mean provides retroactive data, it does not reflect the immediate health of a beach. The City looks forward to working with the Regional Board on this and other critical reopener issues. **Request:** Please revise the BPA for each beach TMDL to include an explicit TMDL re-opener in the implementation schedule prior to 2019. Also see additional discussion regarding this comment in the Bureau's comment letter (page 4).	Also see response to comment 1.3.
1.22	LABOS	Santa Monica Bay Marina del Rey CMP Monitoring Locations	The strikethrough version of the SMB BPA could be interpreted as the Regional Board is requiring responsible jurisdictions to monitor additional sites and increase monitoring frequency beyond the current CMP requirements. The City is concerned that re-opening the CMP to change the geomean calculation approach will lead to requirements/requests to change other aspects of the CMP (as opposed to simply revising the geomean calculations). **Request #1:** Please clarify in the Regional Board's response to this comment that it is not the intent of the Regional Board to add sites or sampling frequency to the current CMP for	It is not the Regional Board's intent, by this action, to add sites or sampling frequency. The added language only serves to state and clarify the previous language and should not be construed as suggesting additional or revised monitoring locations or monitoring frequencies. We note that accelerated monitoring provisions were included in the original TMDL BPA. A letter is sufficient to revise CMP.

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			Santa Monica Bay Beaches or Marina del Rey. **Request #2:** Please clarify in the Regional Board's response to this comment that the revision to the SMB and MdR CMPs can be conducted through submittal of a simple letter, as opposed to an extensive process to re-open and revise the CMP.	
1.23	LABOS	Santa Monica Bay Compliance requirements for Ballona Creek mouth site BC-1 should be linked to the Ballona TMDL and not the Santa Monica Bay TMDL	The site BC-1 at the Ballona Creek mouth is a currently a compliance location for the Santa Monica Bay bacteria TMDL. A very nearby site at BCB-8 is a compliance location for the Ballona Creek Bacteria. The map below shows the CMP monitoring locations in proximity to the Ballona Creek mouth attainment of WQOs at site BC-1 depends entirely on BMPs and implementation activities in the Ballona Creek watershed not the Santa Monica Bay watershed. In addition, unlike any other SMB CMP the site BC-1 is not a wave wash site, it is collected from deep water at the jetty. Thus, there is a contradiction among the TMDLs, and it does not make sense for compliance at site BC-1 to be linked to the Monica Bay TMDL. **Request:** Please strike the site BC-1 from Table 7-4.2a. Compliance determination for site BC-1 should linked to the Ballona Creek TMDL and not the Santa Monica Bay TMDL. Activities along the Santa Monica Bay beaches	Because the site BC-1 reflects conditions in Ballona Creek and not at the beaches and because there are sufficient required monitoring sites in the Ballona Creek estuary, site BC-1 will be deleted from the Santa Monica Bay beaches TMDL. A letter is sufficient to revise CMP. The BPA for the Santa Monica Bay Bacteria TMDL will be revised for clarification and to address this comment.

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			will have little to no effect on the Ballona Creek mouth. Attainment of WLAs at site BC-1 should be linked to activities in Ballona Creek watershed instead.	
		[See the City of Los Angeles comment letter for tables and figures.]		
1.24	LABOS	Santa Monica Bay Equation used to calculate milestones does not output "Allowable Exceedance Days"	To calculate wet weather milestones, the equation provided by the Regional Board indicates that the allowable number of exceedances are subtracted from the current number of exceedances. In this manner, the equation produces the number of exceedances allowed <u>in excess</u> of the allowable number of Exceedance Days. For example, if a site is currently exceeding 27 days per year but only allowed17 days per year, then the calculated milestone is 27 - 17 = 10 days per year times the fraction. These 10 days are in excess of the17 that are allowed. **Recommendation:** Change the header of the far right columns from "Interim Compliance Targets as Maximum Allowable Exceedance Days during Wet Weather" to "Interim Compliance Targets as Maximum Exceedances Beyond those Allowed." Or alternatively, change the milestone calculation approach such that Table 7-4.2b reports the *total* exceedances allowed (i.e., the *allowable* exceedance days plus the additional exceedances *beyond* those allowed).	Comment noted. The BPA for the Santa Monica Bay Bacteria TMDL will be revised for clarification and to address this comment.
1.25	LABOS	Santa Monica Bay	Some of the Sample Stations and Location	Comment noted. The BPA for the Santa

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		Incorrect names for monitoring locations	names in Table 3 of the Draft Staff Report for the Santa Monica Bay Beaches Bacteria TMDL do not match. For example, SMB-1-2 is listed as Las Flores State Beach at Las Flores Creek and station SMB-1-18 is listed as Carbon Beach at Sweetwater Canyon Storm Drain; however, SMB-1-2 is El Pescador State Beach and SMB-l-18 is Topanga Canyon at Topanga State Beach. **Request:** Please review and revise Table 3, Table 4, and Table 5 of the Draft Staff Report to ensure location names correctly correspond with the sample stations. This is especially important considering Table5 of the Draft Staff Report is the same as Table 7-4.2a of the Santa Monica Bay Beaches Bacteria TMDL Implementation Schedule.	Monica Bay Bacteria TMDL and staff report will be revised to address this comment.
1.26	LABOS	Santa Monica Bay Incorrect names for monitoring locations	SMB 2-5 Location Name: Temescal Storm Drain is incorrect. Please change the Location Name to Bay Club Storm Drain SMB 2-6 Location Name: Bay Club Storm Drain is incorrect. Please change the Location Name to Temescal Storm Drain.	Comment noted. The BPA for the Santa Monica Bay Bacteria TMDL and staff report will be revised to address this comment.
1.27	LABOS	Santa Monica Bay Missing Compliance monitoring locations	On December 3, 2009 the City received approval from the Regional Board to upgrade two observation station SMB O-1 SMB O-2 (Puerco Canyon SD, Puerco Beach) to bacterial monitoring sites based on persistent runoff and accessibility. These shoreline monitoring stations are not listed and should be included in	Comment noted. The BPA for the Santa Monica Bay Bacteria TMDL and staff report will be revised to address this comment. Sites were not originally compliance sampling locations and were not originally

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			Table 7-4.2a (page 14) and Table 7-4.2b (page 15): • SMB O-1 (Zumeriz Drive; Subwatershed: Ramirez Canyon; Coordinates: 34.01690, -118.78900) • SMB O-2 (Puerco Canyon Storm Drive on Puerco Beach; Subwatershed: Corral Canyon; Coordinates: 34.03160, -18871300). **Request:** Please add sites SMB O-1 and SMB O-2 to Tables 7-4.2a (page 14) and Table 7-4.2b (page 15). Please revise the interim wet weather milestones for jurisdictional Group #1 accordingly.	assigned WLA given that they were new sites.
1.28	LABOS	Marina del Rey BPA refers to "seasonal periods" for geomean attainment	The BPA states the geometric mean targets for point and non-point sources is "zero (0) exceedances during seasonal periods." It is unclear what is meant by "seasonal periods." Please clarify.	Comment noted. The BPA for the Marina del Rey Bacteria TMDL and staff report will be revised to address this comment.
2.1	POLA	This letter is submitted as an informational update on planned measures at Inner Cabrillo Beach. After working closely with the Los Angeles Regional Water Quality Control Board staff, we are scheduling the following activities for implementation to improve water quality at Cabrillo Beach. The City intends to implement the following structural measures: 1) Expanding the bird exclusion structure into the tidal zone across the beach face (October, 2012) and;		Comment noted. Staff is committed to continuing to work closely with the City of Los Angeles on solutions to bacterial contamination at Inner Cabrillo Beach.

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		2) Designing and implementing a water circulation system, with defined operational parameters (July, 2012 (interim), June, 2013 (refined design)). It is our view that, with the implementation of these structural control measures, the human related sources have been mitigated to the maximum extent practicable. The City would like to commence the process to obtain a Natural Source Exclusion (NSE) designation for the Inner Cabrillo Beach Bacteria TMDL. These efforts would include risk assessment work, potentially using the Quantitative Microbial Risk Assessment (QMRA) methodology, to identify residual sources of non-human related bacteria and associated health risk. It is our intent that the NSE process culminates in a subsequent Basin Plan Amendment that acknowledges the control measures and best management practices in place, the physical environmental conditions inherent in the Inner Cabrillo Beach system that limit the efficacy of further structural measures, the natural source character of the remaining bacterial contamination, and modifies the TMDL accordingly. The City has been working closely with Regional Board staff to develop a work plan with a detailed project scope for the bird exclusion structure extension, interim circulation system implementation, and NSE-related technical work. This workplan, which will be updated as necessary to incorporate new information and strategies, will be submitted to the Regional Board in May 2012. The City of Los Angeles is committed to resolving the Bacteria TMDL at Cabrillo Beach. We intend to continue our productive interaction with your staff to insure the successful implementation of the aforementioned activities. If you have any questions, please	

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		contact us.	
3.1	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 Regional Board Resolution No. 02-004. 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 have several major concerns regarding the proposed Amendment to the Basin Plan to revise the SMBBB TMDL, discussed below. Additional detailed and specific comments on the proposed Basin Plan Amendment are provided in Attachment A to this letter. <u>Source Analysis and Load Allocations</u> Our first concern 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) for the municipal separate storm sewer system (MS4). 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. Furthermore, at "open beach" monitoring stations not associated with freshwater outlets, neither with MS4 outfalls nor natural streams, evidence of non-point	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. Also see response to comment 1.2.

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		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. Therefore non-point source load allocations separate from MS4 waste load allocations have been scientifically proven and must be accounted for in the SMBBB TMDL.	
3.2	Jurisdictional Group 5 & 6	Summer Dry Weather Targets The summer dry weather targets must be revised 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 Regional Board is not precluded from reconsidering aspects of the TMDL that were not envisioned for reconsideration at the time of adoption of a TMDL if new data and information is gathered which supports reconsidering other aspects of the TMDL, nor should it be. Data collected at the reference 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. Continued use of the zero	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 observed at the reference beach and are tabulated in both the updated BPA and staff report. The proposed BPA for this reconsideration

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		summer dry weather exceedance level will make compliance with the SMBBB TMDL impossible for the Jurisdictional agencies. 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"*.	(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 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

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			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. Also see response to comment 1.2.
3.3	Jurisdictional Group 5 & 6	<u>Identify Completed Implementation Actions and Milestones</u> The findings in the Tentative Resolution and the implementation schedule shown in Table 7-4.3 of Attachment A to the proposed Basin Plan Amendment do not acknowledge the many implementation actions that have been completed and milestones that have been met 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. For example, the proposed Basin Plan Amendment does not acknowledge the extensive, collaborative effort that has been undertaken to develop and implement the Coordinated Shoreline Monitoring Plan (CSMP) for the SMBBB TMDL with the participation and approval of Regional Board staff. The CSMP established the compliance monitoring locations based on the provisions required by the original SMBBB TMDL adopted in 2002. The proposed Basin Plan Amendment should be modified to reference the SMBBB TMDL Coordinated Shoreline Monitoring Plan approved by the Regional Board staff and that CSMP should be incorporated	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

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		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.	Resolution Finding 9. Also see response to comment 1.22.
3.4	Jurisdictional Group 5 & 6	The CSMP established that compliance monitoring would be conducted on a weekly basis, and although some monitoring sites are being monitored on additional days of the week, none of the sites are monitored seven days per week, thus it is highly confusing and misleading to refer throughout the proposed Basin Plan Amendment to "daily monitoring".	Staff note that in each case that the three BPAs refer to daily sampling they also refer to weekly sampling (except, naturally, in the discussion of accelerated monitoring after exceedances).
3.5	Jurisdictional Group 5 & 6	The responsible agencies of Jurisdictional Groups 5 and 6 have been and are committed to implementing both the Dry Weather and Wet Weather Bacteria TMDLs to the best of our ability given the resources available. To date all storm drains discharging at point zero shoreline monitoring locations within the Hermosa and Redondo subwatersheds have been diverted through cooperation with Los Angeles County Flood Control District and the Sanitation Districts of Los Angeles. A total of seven low flow diversions are operational year-round during dry weather on six major outfalls within the two subwatersheds. We have also undertaken programmatic measures and source identification investigations as well as a conceptual BMP siting study to develop a proposed system of strategically sited structural BMPs.	Comment noted.
3.6	Jurisdictional Group 5 & 6	<u>Implementation Schedule</u> Attachment B to this 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	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

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		study and has not been adopted or approved by the jurisdictions' City Councils, however it provides 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 Targets. Grant funding of $4.4 million has been secured for three of the nine projects, however the Jurisdictional Groups 5 and 6 agencies have no funding source for the remaining $55.9 million in identified structural BMP projects. Based on the significant funding gap faced by the responsible agencies and the need to conduct integrated watershed planning to develop the most cost effective BMPS to address the SMBBB TMDL and the newly adopted Santa Monica Bay Marine Debris TMDL and DDT/PCB TMDL, 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.	lapsed since the TMDL has been become effective and the responsible parties have successful diverted dry weather flows from storm drains discharging within the Jurisdictional area. Also see response to comment 1.8.
3.7	Jurisdictional Group 5 & 6	The staff report minimizes the exceedances that have occurred during the summer dry weather period. In addition the most recent summer, 2011, was left out of the analysis. The statement: "… few exceedances, which brought the exceedance rate to 10%, happened early in the summer season during a single year (2006). The rest of the years of data showed no exceedances in the summer dry weather." is not correct. The data analysis shows: 1) full data has been collected for 7 summer seasons 2004 thru 2011 not just 6 summer seasons as was used in the Staff analysis. 2) The reference beach had exceedance days in four of the last 7 summer seasons (2005, 2006, 2008 and 2011). 3) Over this 7 summer period water quality targets were exceeded in 21 of the 214 samples collected. 4) The average exceedance rate was 10%. 5) In 2010, 5 of 34 samples exceeded the water quality targets.	Staff used all data available when conducting the evaluations of calculations, data for 2004 through 2010. The staff report will be revised for added clarity. Load allocations (birds, other wildlife etc.) are not addressed in this reconsideration, see response to comment 1.2 and 3.1. Also see response to comment 3.2 regarding the summer dry weather allocation.

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		6) In 2006, 8 of 31 samples exceeded the water quality targets and they occurred in May, June and July. While the staff report minimizes the summer dry weather, it accepts that winter dry weather data as being sufficient to set waste load allocations other than zero for this period. However the data analysis shows: 1) Over the last 7 years exceedance days occurred in 5 of the winter seasons (2004-5, 2005-6, 2006-7, 2007-7, and 2010-11). 2) Over the 7 winter seasons water quality targets were exceeded in 10 of 101 samples collected 3) The average exceedance rate was 10%. 4) In 2010-11, 1 of 11 samples exceeded the water quality targets 5) In 2004-5, 5 of 16 samples exceeded the water quality targets and they occurred in January, February, and March. In reviewing this information it is hard to understand the logic in setting a waste load allocation based on actual reference beach data for the winter while not for the summer dry weather period. There is also no mention or analysis of the potential local sources of bacteria such as birds and other wild life, swimmers, and piers. Exhibit A attached to these comments provides such an analysis. ***The conclusion of this information can only be that a waste load allocation other than zero needs to be set for the summer dry weather period***.	
3.8	Jurisdictional Group 5 & 6	Columns two and three in Table 3 are incorrect beginning with SMB 2-2 and down through the remainder of the table – please verify that the data associated with the sample stations is correct and has not also been misaligned.	Comment noted. The BPA and staff report will be revised to address this comment. See, also, response to comment 1.25.
3.9	Jurisdictional	Some data collected at some stations doesn't appear to be used.	Staff disagrees. All readily available data

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	Group 5 & 6	Examples: Stations SMB-5-1, 5-3, 5-5, 6-5, and 6-6 were monitored by two labs. Between 11/2004 and 7/2005 one lab monitoring each station five days per week and the other lab one day per week. During this period one sample per week by each lab was collected on the same day but at a different time. Between 7/2005 and 11/2010 each lab collected a sample one day per week; one sampled on Monday and the other sampled on Tuesday. Total number of samples collected for these stations including accelerated samples ranged between 758 to 767. Approximately 40 of the total were collected on the same day. Around 725 samples were collected on different days. Table 3 shows 370 to 474 samples collected at these stations over the entire period. Not using all of the data could result in an incorrect calculation of the number of exceedances allowed for anti-degradation stations. Specifically, SMB-5-3 is listed to be an anti-degradation station with 8% wet weather exceedances. If all samples collected were used in the calculation the percentage of wet weather exceedances would increase to 16%.	was requested from the responsible parties sampling those locations and were tabulated in the staff report. And as described in the staff report, the arithmetic mean was calculated when multiple samples were taken on the same day by the same sampling agency or different sampling agencies. Samples taken on the same day were not considered temporally independent and were combined.
3.10	Jurisdictional Group 5 & 6	The statement that samples collected on the same day are not temporally independent is not entirely correct. Studies have shown that samples collected on the same day but just hours apart can result in far different results thus it may not be appropriate to use an arithmetic mean. It is recommended that all results be used provided they are not duplicates.	Considering samples taken on the same day at the same site not temporally independent is consistent with the State Listing policy *(Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) list)* for evaluating data,
3.11	Jurisdictional Group 5 & 6	***Proposed Language:*** "** Exceedance days calculated by multiplying % exceedance days observed by the number of summer dry days (___), winter dry days (___) or wet days (___) that would occur in the 10th/90th percentile year." ***Comment****:* Recommend that a general formula and explanation showing how the exceedance days were calculated be placed as	Table 4 of the staff report list the previous allowable and adjusted allowable exceedance based on point zero. A column for summer dry weather would be out of place in this table. However, the staff report will be revised to

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		footnote to Table 4. Specifically show the number of wet and summer & winter dry days used. Table 4 should also include columns showing the calculated results for summer dry weather exceedance days.	provide added clarity. Also see response to comment 3.1.
3.12	Jurisdictional Group 5 & 6	The subwatershed for SMB-6-6 should be "Redondo" not "Palos Verdes"	Comment noted. The BPA and staff report will be revised to address this comment. See, also, response to comment 1.25.
3.13	Jurisdictional Group 5 & 6	The reference beach shows that even a natural discharge can exceed the geometric mean up to 23% of the time. Since a reference system is being used for all singles sample exceedance allowances the same approach should be used for the Geomean limit. The zero exceedance limit is not justified.	See response to comment 1.21.
3.14	Jurisdictional Group 5 & 6	The fact that the change in frequency of geometric mean exceedances is small between 3.7 and 10 doesn't mean it shouldn't be used. Using a number less than 10 for enterococcus when there is no detection will be more accurate. In addition Table 10 shows that, by using 3.7 in lieu of 10 for the enterococcus, the number of exceedances of the geomean at the reference beach is reduced from 6 to 4. This is a 33% reduction which is significant and more accurate. Recommendation should be changed to allow use of the value 3.7 in lieu of the detection limit of 10 for the enterococcus geomean calculation.	The staff report does recommend use of 3.7 in lieu of the detection limit 10 when that number (or other appropriate number) is established for a specific beach or analytical method. Staff notes that the seasonal geometric mean alternative outlined in Table 10 is not the recommended alternative.
3.15	Jurisdictional Group 5 & 6	If the natural source exclusion approach is eliminated for the Santa Monica Bay Beaches Bacteria TMDL, then the reference beach approach must be used fully for summer dry weather as well as winter dry weather and wet weather and the geometric mean. The reference beach data shows a history of summer dry weather exceedances and, contrary to the statement in the Staff Report, those summer dry weather exceedances were not limited to a single year, but occurred in multiple years: 2005, 2006, 2008, and 2011. Thus there is no basis for using the reference beach approach in establishing zero waste load	See response to comment 3.1 and 3.7.

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		allocation for summer dry weather when in fact the exceedance rate is 10% during both summer dry weather and winter dry weather at the reference beach based on the data presented in Table 3 of the Staff Report.	
3.16	Jurisdictional Group 5 & 6	Include findings regarding all of the actions that responsible agencies have taken to comply with the Significant Dates/Actions listed in Table 7-4.3 to date. In some cases there have been Regional Board resolutions acknowledging the submittals (e.g., Implementation Plan submittals Resolution No. 2006-07 (Appendix A)), yet no findings were included recognizing these actions.	An additional finding has been added to the Resolution to acknowledge work by responsible parties, see revised tentative Resolution Finding 9.
3.17	Jurisdictional Group 5 & 6	Finding 13 states "This reconsideration is not a general reconsideration of each and every element of these TMDLs, but a re-examination of certain technical issues which, as recognized at the time of TMDL adoption, might need revision upon further data collection and analysis, study, or experience as indicated in Tables 7-4.3, 7-4.7, 7-5.3 and 7-11.3." The Regional Board is not precluded from reconsidering aspects of the TMDL that were not envisioned for reconsideration at the time of adoption if new data and information is gathered which supports reconsidering other aspects of the TMDL, nor should it be. Although not envisioned by the Board staff as needing revision at the time the TMDL was promulgated, data collected under the Coordinated Shoreline Monitoring Program has made it clear that the Regional Board staff assumption that the reference beach exhibits zero summer dry weather exceedances is not supported by the data collected since adoption. Monitoring data also shows that exceedances are caused by discharges from natural watersheds as demonstrated by the10% of samples exceeding limits at the reference beach during dry weather and from local non-point and natural sources as demonstrated by the occurrence of limit exceedance when there is zero discharge from the MS4 and at "Open Beach"	See response to comment 1.2 and 3.1.

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		locations where there is no MS4 influence. Despite the caveat this is not a "reconsideration of each and every element of the TMDL," it would be arbitrary to ignore some data and use others. All available data relative to this TMDL should be considered at this time.	
3.18	Jurisdictional Group 5 & 6	***Proposed Language:*** ~~The geometric mean targets may not be exceeded at any time.~~ For purposes of this TMDL, the geometric mean shall be calculated weekly as a rolling geometric mean using 5 or more samples, for six week periods starting all calculation weeks on Sunday. <u>The value to be used in the geometric mean calculation for enterococcus when a sample result in less than the lower detection limit of 10 / 100ml shall be 3.7. During any 52 week period the geometric mean for any target shall not be exceeded more than 7 times.</u> For the single sample targets, each existing shoreline monitoring site is assigned an allowable number of exceedance days for two three time periods as defined in Table 7-4.2a (summer dry weather, and winter dry weather, and wet weather [defined as days with 0.1 inch of rain or greater and the three days following the rain event).	See response to comment 1.21 and 3.14.
		Comment: The geometric mean target per the statement in paragraph four is to achieve numeric target using the "reference system/anti-degradation approach". The historical data between November 2004 and October 2010 was used to determine the reference beach limits for compliance of the single sample limits. This same approach should be used for achieving the Geometric Mean limit. The calculated geometric mean at the reference beach, using the once per week - six week rolling approach, exceeded one of the objective targets 48 of 307 (16%) of the calculation days. Therefore, the geometric mean exceedance day limit should not be set at zero. The annual (52 week) limit should be set at 9. In addition based on the study referenced in the Staff Report the value to be used in the	

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		Geometric mean calculation for enterococcus when the result is less than 10 should be 3.7 / 100ml. This change would lower the percentage of objective limits exceedances at the reference beach to 42 of 307 (14%) of the calculation days and the annual limit would then be lowered to 7. The paragraph should be revised as shown.	
3.19	Jurisdictional Group 5 & 6	Do not omit but instead restore the final statement under Numeric Target: "The allowable number of exceedance days is set such that (1) bacteriological water quality at any site is at least as good as at designated reference site within the watershed and (2) there is no degradation of existing shoreline bacteriological water quality." The staff report clearly says the TMDL is based on reference beach and exclusion of this clause excludes consideration of any natural contributions.	That statement is included in the BPA under the Waste Load Allocations where it is more appropriate.
3.20	Jurisdictional Group 5 & 6	***Proposed Language:*** ~~With the exception of isolated sewage spills,~~ ~~d~~Dry weather urban runoff and stormwater runoff conveyed by storm drains and creeks ~~is~~are~~the~~significant~~primary~~ sources of elevated bacterial indicator densities to SMB beaches ~~during dry weather~~. ~~Limited n~~Natural runoff and groundwater ~~may~~ also ~~potentially~~ contribute to elevated bacterial indicator densities during ~~winter~~ dry weather. Because the bacterial indicators used as targets in the TMDL are not specific to human sewage, dry weather and stormwater runoff from undeveloped areas ~~may~~ also ~~be a~~are sources of elevated bacterial indicator densities. For example, dry weather and stormwater runoff from natural areas ~~may~~ convey fecal matter from wildlife and birds or bacteria from soil. This is supported by the finding that at the reference beach the probability of exceedance of the single sample targets during summer dry weather, winter dry weather, and wet weather ~~is~~are 0.10, 0.10 and 0.22 respectively. Local sources of indicator bacterial also contribute to elevated densities to SMB beaches. This is supported by the finding that~~during summer dry~~	See response to comment 3.1.

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		~~weather and winter dry weather~~at<u>the 23 "Open Beach~~es~~" compliance locations, where there are no MS4 or fresh water outlets ~~that could~~to provide a source of dry weather runoff~~, that would contribute indicator bacteria from the a watershed, exceed~~water quality objectives are exceeded 3% of the time during summer dry weather and 4% of the time during winter dry weather.</u>	
		Comment: Natural sources of indicator bacteria in the watershed and local sources of indicator bacteria along the beach need to be acknowledged. As explained in comments provided above to the Staff Report, these sources are not insignificant and it would require eliminating natural sources of bacteria to comply with the zero exceedance allowance proposed during summer dry weather. Additional language needs to be added to the Source Analysis address this issue.	
3.21	Jurisdictional Group 5 & 6	***Proposed Language:*** <u>Waste load allocations as measured in the receiving waters only apply to the MS4 to the extent that they are caused by MS4 discharge.</u> Waste load allocations assigned to municipal separate storm sewer system discharges are expressed as the number of sample days at a shoreline monitoring site that may exceed the single sample targets identified under "Numeric Target." Waste load allocations are expressed as allowable exceedance days because the bacterial density and frequency of single sample exceedances are the most relevant to public health protection. For each shoreline monitoring site and corresponding subwatershed, the allowable number of exceedance days is set for three time periods. These three periods are: 1. Summer dry weather (April 1 to October 31), 2. Winter dry weather (November 1 to March 31), and 3. Wet weather (year-round).	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. This reconsideration is not re-evaluating the source assessment at this time. See also comment 1.4.

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		The allowable number of exceedance days for a shoreline monitoring site for each time period 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. This ensures that shoreline bacteriological water quality is as least as good as that of a largely undeveloped system and that there is degradation of existing shoreline bacteriological water quality.[2] All responsible jurisdictions and responsible agencies within a subwatershed are jointly responsible for complying with the allowable number of exceedance days for the compliance locations~~each associated shoreline monitoring site~~ identified in Table 7-4.2a below. The three Publicly Owned Treatment Works (PTOWs) discharging to Santa Monica Bay are each given individual WLAs equal to the bacteriological objectives contained in Chapter 3 during summer dry weather, winter dry weather, and wet weather. Discharges from general NPDES permits, general industrial storm water permits and general construction storm water permits are ~~not expected to be a significant source of bacteria. Additionally, these discharges are~~ not eligible for the reference system approach set forth in the implementation provisions for the bacteriological objectives in Chapter 3. Therefore, the waste load allocations for these discharges for all time periods are the bacteriological objectives contained in Chapter 3. Any future enrollees under a general NPDES permit, general industrial storm water permit or general construction storm water permit within the Santa Monica Bay watershed management area will also be subject to a WLA based on these bacteriological objectives.	
		Comment: Because the waste load allocations assigned to the	

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		municipal separate storm sewer system discharges are measured in the receiving water where, as discussed previously, there are other nonpoint sources which also contribute to exceedance, MS4 agencies are only responsible through the MS4 permit for compliance with waste load allocations associated with MS4 discharges. If there is no flow from the MS4 at the time of sampling of the receiving water, then the exceedance is not associated with a waste load allocation but with a load allocation. All responsible jurisdictions and agencies within a sub watershed (Jurisdictional Group) should not be jointly responsible for complying with allowable exceedance days at all shoreline compliance locations associated with that subwatershed. Only responsible agencies that own or operate MS4 or have land area tributary to a specific MS4 outfall at a shoreline compliance location should be responsible for compliance with a Waste Load Allocation at that specific compliance location. At "Open Beach" locations not associated with an MS4 outfall, the responsible agencies should be the owner or operator of the beach and jurisdictions with beach front land area that drains directly to the wave wash. See proposed Table 7-4.2a. Disagree that discharges from general NPDES Permits, especially general industrial and construction permits are not expected to be significant sources of bacteria, there is no such evidence provided in the staff report. In our experience stormwater runoff from parking lots can carry loading of indicator bacteria above the targets, furthermore soil at construction sites is very likely to contain high levels of indicator bacteria since such bacteria are ubiquitous in the environment. Accordingly, those General Industrial Stormwater Permittees and General Construction Stormwater Permittees which are required to conduct water quality monitoring for other pollutants must also be required to include indicator bacteria in the stormwater	

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		discharge monitoring.	
3.22	Jurisdictional Group 5 & 6	**Attachment A, Footnote 2, p. 5** Although the goal of protecting public health as stated in the footnote is important, it contradicts the reference system approach that is the basis for establishing the waste load allocations and would necessitate responsible agencies to remove natural sources of bacteria. Based on the most current monitoring results that show discharges from natural watershed and local natural sources can cause exceedances of water quality targets during summer dry weather this footnote should be removed.	See response to comment 3.2.
3.23	Jurisdictional Group 5 & 6	***Proposed Language***: ~~Because all dry weather urban runoff and stormwater to SMB beaches is regulated as a point source, load allocations of zero days of exceedance are set in this TMDL.~~ If a nonpoint source is directly impacting shoreline bacteriological quality and causing an exceedance of numeric target(s), the permittee(s) under the municipal separate storm sewer system NPDES permits are not responsible through these permits. However, the jurisdiction or agency adjacent to the shoreline monitoring location may have further obligations as described under "Compliance Monitoring" below.	See response to comment 3.1.
		Comment: The logic in the first sentence about load allocations is faulty. First, there are areas of the coastline where stormwater runoff reaches the shoreline via non-point sources. Second, there is ample evidence that non-point source associated conditions during dry weather are responsible for exceedances of the TMDL targets. It may be that the goal is to have a load allocation of zero, but that is not because there are naturally zero exceedances as shown by the reference beach, it is because that is what would be desired by the Board staff at an ideal, sterile beach. Non-point source load allocations separate from MS4 waste load allocations have not been	

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		accounted for and should be acknowledged in this TMDL.	
3.24	Jurisdictional Group 5 & 6	***Proposed Language***: This TMDL will be implemented in three phases over a 18 year period. The regulatory mechanisms used to implement the TMDL include, but are not limited to, the municipal separate storm sewer system NPDES permits (MS4 permits) covering areas within the Santa Monica Bay watershed management area, including any future Phase II MS4 permits, the General Industrial Stormwater Permit, the General Construction Stormwater Permit, the Caltrans Stormwater Permit, the three NPDES permits for the POTWs, the authority contained in sections 13263,13267 and 13383 of the Water Code, and regulations to be adopted pursuant to section 13291 of the Water Code. Each NPDES permit assigned a waste load allocation shall be reopened or amended at reissuance, in accordance with applicable laws, to incorporate the applicable waste load allocation(s) as a permit requirement. By July 15, 2006, summer dry-weather allowable exceedance days must be achieved. By November 1, 2009, winter dry-weather allowable exceedance days must be achieved. For those ~~beach monitoring~~compliance locations subject to the antidegradation provision, there shall be no increase in exceedance days during the implementation period above that estimated for the beach monitoring location in the critical year as identified in Table 7-4.2a. The implementation schedule for achieving the wet weather allocations shall be determined on the basis of the implementation plan(s), which ~~must be~~were submitted to the Regional Board by responsible jurisdictions and agencies by July 15, 2005 (see Table 7-4.3). Responsible	The General Industrial Stormwater Permit, the General Construction Stormwater Permit will be added for consistancy with other bacteria TMDLs in the Region. Also see response to comment 3.3. For MS4 permit, see response to comment 1.4. A revised Table 7-4.2a changing responsible parties for each individual shoreline monitoring location has not been considered for this action, and has not been noticed and is outside the scope of this reconsideration. The BPA will be revised for added clarity. For extended schedule see response to comment 3.6.

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		jurisdictions and agencies must have clearly demonstrated in the above-mentioned plan whether they intend to pursue an integrated water resources approach.5 The subwatersheds associated with each beach monitoring location may include multiple responsible jurisdictions and responsible agencies. Therefore, a "primary jurisdiction," defined as the jurisdiction comprising greater than fifty percent of the subwatershed land area, is identified for each subwatershed (see Table 7-4.2b). Nine primary jurisdictions are identified within the Santa Monica Bay watershed management area, each with a group of associated subwatersheds and beach monitoring locations. These are identified as "jurisdictional groups" (see Table 7-4.2b). The primary jurisdiction of each "jurisdictional group" ~~shall be~~was responsible for submitting the implementation plan described above, which will determine the implementation timeframe to achieve the wet weather allocations for the subwatershed. A jurisdictional group may change its primary jurisdiction by submitting a joint, written request, submitted by the current primary jurisdiction and the proposed primary jurisdiction, to the Executive Officer requesting a reassignment of primary responsibility. Two jurisdictional groups may also choose to change the assignment of monitoring locations between the two groups by submitting a joint, written request, submitted by the current primary jurisdiction and the proposed primary jurisdiction, to the Executive Officer requesting a reassignment of the monitoring location. Jurisdictional group(s) must achieve a 10% cumulative percentage reduction from the total wet weather exceedance-day reduction required for the group of compliance~~beach monitoring~~ locations by July 15, 2009, a 25% reduction July 15, ~~2013~~2015, and a 50% reduction by July 15, 2018.[6]	

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		The final implementation targets in terms of allowable wet-weather exceedance days must be achieved at each individual beach location no later than July 15, 2021. In addition, the geometric mean targets must be achieved for each individual beach location no later than July 15, 2021.	
		Comment: The General Industrial Stormwater Permit and the General Construction Stormwater Permit are also relevant with respect to implementation of the bacteria TMDLs and should be included in the regulatory mechanisms used to implement the TMDLs. While it makes sense for the Jurisdictional Groups previously identified in the TMDLs to work jointly to carry out implementation plans to meet the interim reductions, only the responsible agencies with land use or MS4 tributary to a specific shoreline monitoring location can be held responsible for the final implementation targets to be achieved at each individual compliance location. A revised Table 7-4.2a is provided showing the responsible agencies for each individual shoreline monitoring location. Revise the "July 15, 2013" date to "July 15, 2015." There has been no funding source for the BMPs needed to comply with wet weather discharges, therefore agencies will be out of compliance when the TMDL is incorporated into the MS4 Permit. Regional Board should acknowledge that, for example, out of the $60.3 million identified for wet weather TMDL compliance for Jurisdictional Groups 5 & 6, only $3.3 million has been funded by State grants. Changing the date now would acknowledge the lack of funding while also acknowledging the potential for funding via the County Stormwater Fee that could start providing funding by 2014. It would also provide additional time to integrate watershed implementation planning for this TMDL as well as the newly adopted Marine Debris and DDT-PCB TMDLs into a watershed plan consistent with the upcoming reissuance of the MS4	

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		Permit. Integration of multiple TMDLs are essential to achieve cost effective use of public funds in attaining water quality standards.	
3.25	Jurisdictional Group 5 & 6	***Proposed Language***: Seasonal variations are addressed by developing separate waste load allocations for three time periods (summer dry weather, winter dry weather and wet weather,) based on public health concerns and observed natural background levels of exceedance of bacterial indicators. ~~The critical dry-weather period for this dry weather bacteria TMDL is during winter months, when historic shoreline monitoring data for the reference beach indicate that the single sample bacteria objectives are exceeded on average 310% of the dry weather days sampled.~~ The critical condition for this bacteria TMDL is wet weather generally, when historic shoreline monitoring data for the reference beach indicate that the single sample bacteria objectives are exceeded on 22% of the wet-weather days sampled. To more specifically identify a critical condition within wet weather in order to set the allowable exceedance days shown in Tables 7-4.2a and 7-4.2b, the 90th percentile ~~,~~'storm year'~~"7~~ in terms of wet days is used as the reference year. Selecting the 90th percentile year avoids a situation where the reference beach is frequently out of compliance.	The critical condition applies to winter due to precipitation patterns in southern California occurring primarily in the winter months (i.e., November to March). Exceedance rates also increase significantly in wet weather compared to dry weather. The paragraph describing the dry weather critical period has been removed from the Santa Monica Bay BPA for clarity.
		Comment: The statement about critical dry weather conditions omits the fact that seven years of shoreline monitoring data for the reference beach during summer dry weather as shown in Table 3 of the staff report exceeds the single sample bacteria objectives at the same rate as during the winter dry weather, i.e., in 10% of the days sampled. It is unclear then, why the winter is the critical condition for dry weather.	
3.26	Jurisdictional Group 5 & 6	***Proposed Language***: Responsible jurisdictions and agencies as defined in Footnote ~~2~~3 shall conduct ~~daily or~~ systematic weekly	The language was modified for consistency between bacteria TMDLs and the MS4

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		sampling in the wave ~~wash at all major drains8 and creeks or at existing monitoring stations at beaches without storm drains or freshwater outlets~~at the compliance locations identified in Table 7-4.2a and specifically in the CSMP to determine compliance.[9] At all locations, samples shall be taken at ankle depth and on an incoming wave. At locations where there is a freshwater outlet, during wet weather, samples should be taken as close as possible to the wave wash, and no further away than 10 meters down current of the major drain or outlet.[10] At locations where there is a freshwater outlet, samples shall be taken when the freshwater outlet is flowing into the surf zone. If the number of exceedance days exceeds the allowable number of exceedance days for a compliance location~~target beach at~~after the final implementation deadline, the responsible jurisdictions and agencies within the contributing subwatershed shall be considered out-of-compliance with the TMDL. However, r~~R~~esponsible jurisdictions or agencies shall not be deemed out of compliance with the TMDL if: 1) there were no discharge from the outfall to the wave wash or 2) if a source investigation demonstrated that the discharge from the MS4 was caused by a permitted or exempted discharge or 3) if the investigations described in the paragraph below demonstrates that bacterial sources originating within the jurisdiction of the responsible agency have not caused or contributed to the exceedance. If a wave wash compliance location is~~single sample shows the discharge or contributing area to be~~ out-of-compliance as determined in the pree~~r~~vious paragraph~~the Regional Board may require, through permit requirements or the authority contained in Water Code section 13267, daily sampling in the wave wash or at the existing open shoreline monitoring location (if it is not already) until all single sample events meet bacteria water quality objectives. Furthermore, if~~	permit. The language does not suggest the adjusting existing monitoring locations. Language is included in the Santa Monica Bay Beaches bacteria TMDL BPA for daily sampling in addition to weekly sampling because some sites are sampled daily (or 5 days a week as an approximation of daily). Also see response to comment 1.22. For compliance determination see response to comment 1.4 and for non-point sources allocations see response to comment 3.1.

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		~~a beach location is out-of-compliance as determined in the previous paragraph,~~ responsible agencies shall initiate a~~n~~source investigation, which at a minimum shall include daily sampling ~~in the wave wash or at the existing open shoreline monitoring location~~ until all single sample events meet bacteria water quality objectives. If bacteriological water quality objectives are exceeded in any three weeks of a four-week ~~period when weekly sampling is performed, or, for areas where testing is done more than once a week, 75% of testing days produce an exceedance of bacteria water quality objectives~~, the responsible agencies shall conduct a source investigation of the subwatershed(s) pursuant to protocols established under Water Code 13178. If a ~~beach~~ compliance location without a freshwater outlet is out-of-compliance or if the outlet is diverted or being treated, the adjacent municipality, County agency(s), or State or federal agency(s) shall be responsible for conducting the investigation and shall submit its findings to the Regional Board to facilitate the Regional Board exercising further authority to regulate the source of the exceedance in conformance with the Cal. Water Code and Statewide Policy for Implementation and Enforcement of the Nonpoint Source Control Program. [9] ~~The frequency of sampling (i.e., daily versus weekly) will shall be at the discretion of the implementing agencies determined in~~ The~~The~~ approved Coordinated Shoreline M~~m~~onitoring Plan shall be integrated into the monitoring and reporting programs of the permits through which the waste load allocations are implemented. ~~However, the number of sample days that may exceed the objectives will be scaled accordingly.~~	
		Comment: The compliance locations have already been established in the Coordinated Shoreline Monitoring Plan in accordance with the provisions of the adopted TMDL. Modifying this footnote suggests that there is a need to change the monitoring locations, yet there has	

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		been no information presented which suggests that these locations need to be revisited, indeed the Board staff have relied heavily on this data in this reconsideration and to further modify these locations would be counterproductive in evaluating long term trends The permit monitoring plan should incorporate the approved CSMP which has been implemented since 2004. The CSMP already set the sampling frequency at weekly; why does daily sampling even need to be mentioned again since none of the sites are being sampled seven days per week. Eliminate Footnote 8 and modify Footnote 9 to state that the permits monitoring plan should incorporate the CSMP. Table 7-4.2a has identified "compliance location" this term should be used throughout. The MS4 Permittees are only responsible for exceedances caused by discharges from the MS4 of which they are tributary. Monitoring sites ~~are beaches~~ without storm drain outfalls or freshwater outlets can only indicate if there are exceedances caused by non-point sources or natural causes, so monitoring at those locations should continue for that purpose. Only those agencies with land area tributary to an MS4 outlet associated with a given shoreline monitoring location should be held responsible for attaining the TMDL targets at that monitoring location. The standard should be that waste load allocations have not been exceeded, i.e., discharges from the MS4 have not caused or contributed to the exceedance. MS4 agencies are not responsible for exceedances of load allocations due to permitted discharges, non-point sources, natural causes or discharges otherwise exempted in the MS4 Permit. Since we are not monitoring the "discharge" of an outlet, the sampling	

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		isn't showing if the discharge is out of compliance only that the compliance location is out-of-compliance. The two conditions that required a source investigation seem redundant. If a site is out-of-compliance with the waste load allocation and exemption 1 above isn't triggered the an investigation is needed. Why say the same thing twice. The words "(if it is not already)" should be omitted since weekly sampling is the frequency of the approved CSMP and no compliance location is being monitored daily. This TMDL is requiring the investigation of non-point sources of exceedances, therefore it should assign responsibility for compliance with non-point source load allocations, as has been done in many other TMDLs, to agencies with responsibility for those loads, not to the MS4 operators. Weekly sampling frequency has already been established in the CSMP. Therefore any reference to daily sampling should be removed. Since the CSMP has been approved and should be incorporated into the NPDES permit monitoring and reporting plan with only minor modifications	
3.27	Jurisdictional Group 5 & 6	Santa Monica Bay Beaches Bacteria TMDL Significant Dates: Many of the actions required in this table have already been accomplished through the extensive good-faith efforts of the responsible agencies and this should be recognized, in the form of "findings" that document the submittals, and by modifications to Table 7-4.3 for each action that has been met. Responsible agencies would be happy to provide as further evidence a list of all actions taken and the dates of submittals to the Regional Board.	See response to comment 3.3 and 3.6.

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		Revise the "July 15, 2013" date to "July 15, 2015." There has been no funding source for the BMPs needed to comply with wet weather discharges, therefore agencies will be out of compliance when the TMDL is incorporated into the MS4 Permit. Regional Board should acknowledge that, for example, out of the $60.3 million identified for wet weather TMDL compliance for Jurisdictional Groups 5 & 6, only $3.3 million has been funded by State grants. Changing the date now would acknowledge the lack of funding while also acknowledging the potential for funding via the County Stormwater Fee that could start providing funding by 2014. It would also provide additional time to integrate watershed implementation planning for this TMDL as well as the newly adopted Marine Debris and DDT-PCB TMDLs into a watershed plan consistent with the upcoming reissuance of the MS4 Permit. Integration of multiple TMDLs are essential to achieve cost effective use of public funds in attaining water quality standards.	
3.28	Jurisdictional Group 5 & 6	***Proposed Language***: See attached Exhibit B showing a partial list of compliance locations ***Comment***: For the reasons stated above Table 7-4.2a needs to be revised to add the Responsible Agencies for each compliance location; add exceedance days for summer dry weather; remove the daily limit; change the title. In addition SMB-6-6 subwatershed should be "Redondo" not "Palos Verdes"	See response to comment1.4, 1.25, 3.1, and3.26.
4.1	City of Malibu	Thank you for undergoing this reconsideration process and for the opportunity to comment on the subject revisions to the Santa Monica bay Beaches Bacteria TMDL and Basin Plan. Before addressing the substantive comments on the Santa Monica Bay Beaches Bacteria TMDL, the City first requests that the Los Angeles Regional Water Quality Control Board (LARWQCB) separate out the reconsideration hearings, so that the LARWQCB consider the freshwater TMDLs before the beaches TMDLs. The City appreciates LARWQCB staff	Staff acknowledges efforts of responsible parties in participation and review of the relevant documents. Five complete TMDLs are not being heard on one day but only certain technical aspects of five TMDLs several of which are shared by all the TMDLs to be

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		efforts to reconsider and revise the TMDLs based on new information; however, given the complexity of the issues, the hearing to reconsider the fresh water TMDLs (such as Malibu Creek) should be bifurcated from the hearing to reconsider beach TMDLs, especially the SMBBB TMDL. One hearing to reconsider all TMDLs together will limit the efficacy of these hugely important hearings. Hearing a TMDL is complex on its own. Having five TMDLs heard and considered on the same day is sure to be a complicated and contentious hearing. It is also unreasonable to expect agencies to juggle comments for multiple TMDLs in the review period that was provided, at the same time that draft MS4 permit language and Request for Information were issued from your office. Therefore, the City requests that the LARWQCB proceed with considering the Malibu Creek and other freshwater bacteria TMDLs and delay the beaches TMDLs, in particular the SMBBB TMDL, until a later hearing. Additionally, it would be premature to reconsider the Santa Monica Bay TMDL before the final epidemiology study results are published (see Technical Comment 1 below). For purposes of the May 7, 2012 deadline, the City submits the following comments with respect to the Santa Monica Bay Beaches Bacteria TMDL. A compact disc (CD) containing all of the documents referenced in the City's comments will be provided directly to your office under separate cover.	reconsidered. The designated time to reconsider the SMBBB bacteria, in particular, has passed. As such, staff feels that reconsidering these TMDLs at this time is appropriate.
4.2	City of Malibu	**<u>Introduction</u>** The Wet and Dry Weather Santa Monica Bay Beaches Bacteria (SMBBB) Total Maximum Daily Loads (TMDLs) (Resolutions 2002-002 and 2002-004, respectively) became effective on July 15, 2003.1 A total of 11,296 acres of the largely undeveloped Santa Monica Bay and Malibu Creek watersheds is located within the City. Also draining	Comment noted. 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

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		into the City of Malibu are the upper watershed acres of unincorporated Los Angeles County and the thousands of acres owned and operated by park agencies. There are 20 SMBBB TMDL shoreline compliance monitoring sites within the City (Figure 1). The City of Malibu already operates a successful, and award winning, water quality program, which includes stormwater storage and treatment infrastructure, an aggressive public education and outreach campaign, and participation in cutting-edge research on the sources of pollutants at local beaches. For example, Malibu built the Civic Center's $6 million dollar state-of-the-art stormwater treatment facility to filter and disinfect stormwater flows from the Civic Center drainage system. Malibu also purchased a $25 million dollar piece of property to build Legacy Park, and then invested another $6 million to construct the project. Malibu applied for and received over $3 million dollars in Proposition 84 grants funds, and is providing matching funds, to install two drainage improvement and infiltration projects in the City's Area of Special Biological Significance (ASBS), and created the Coastal Preservation Specialist position (a position funded for the duration of the grant) to conduct a focused outreach program regarding the ASBS, eliminating non-storm runoff, and stormwater pollution prevention. A complete summary of Malibu's aggressive and proactive water quality program is attached to this letter as Attachment 3. Malibu is committed to protecting water quality, and is eager to work with the Regional Water Quality Control Board and staff to create reasonable and appropriate water quality standards and waste load allocations to achieve this goal. The ten year period since the SMBBB TMDL was originally considered has provided a valuable opportunity to assess the efficacy of the TMDL and re-evaluate the assumptions upon which the TMDL was originally based. As such, there are a few significant general	staff, have not been noticed for stakeholders comment and are, therefore, outside the scope of this reconsideration.

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		points that must be noted. Through this process, the LARWQCB will receive comments and complaints from various agencies about the science used to create the TMDLs in 2002. The good news is that many of the mysteries from 2002 have now been explored and answered. Science has advanced tremendously over the past ten years and 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.	
4.3	City of Malibu	In 2002[2] when the TMDL was first considered, LARWQCB staff under-estimated the cost of addressing dry weather runoff from some of the natural creeks that impact beaches, such as Topanga Creek: The City expects that similar prevention and treatment measures to those being implemented in the Malibu watershed will be needed. Specifically, storm drain disinfection systems may need to be installed and, in addition, a watershed source control program will need to be implemented to reduce anthropogenic nonpoint sources of bacteria such as from malfunctioning septic systems. The estimated cost per watershed is $1 to $2 million based on estimates for similar management measures in the Malibu watershed. Dry weather implementation programs are likely to be needed in eight subwatersheds based on the historical data analysis: Nicholas Canyon, Trancas Canyon, Zuma Canyon, Latigo Canyon, Corral Canyon, Las Flores Canyon, Piedra Gorda Canyon, and Topanga Canyon. Estimating on average $1.5 million per watershed equals a total cost	Staff acknowledges the comment made by the City and City's efforts in implementing the TMDL allocations. It should be noted that the original TMDL included a reasonable estimate of cost based on the information available at that time. Also see response to comment 1.2.

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		of $12 million ($1.1 million in annualized costs). Again, for households in the Santa Monica Bay watershed, this translates into an annual cost of $1.52 per household. In reality, the costs were significantly higher. Actual Malibu expenditures for the past ten years are approximately $50,000,000. This translates to expenditures of $7,700 per Malibu household or $770 per year, a miscalculation of over 500% with no end in sight to implement an integrated water resources management plan to meet Basin Plan objectives. Many of the factors that drive these extraordinary expenditures are addressed in this comment letter.	
4.4	City of Malibu	Another important factor the science community has learned over the past 10 years is that natural sources of Fecal Indicator Bacteria have been found to be a primary cause of bacteria exceedances for beaches without dry weather storm drain discharges. For this reason, the underlying causes of persistent fecal indicator bacteria (FIB) need to be more fully documented before requiring municipalities to undertake projects and programs aimed at activities that do not create the bacteria exceedances. Bacterial TMDLs can produce unintended consequences as well. For instance, because kelp and sea grasses have been found to be a primary source of FIB at these beaches, municipalities' only option to control FIB at beaches impacted by kelp and sea grasses would be to groom the beaches. However, grooming is controversial in and of itself because it damages critical nesting and foraging habitat for shorebirds such as plovers, and is an incredibly expensive option. While new studies of the impacts of wrack illustrate a potential role for kelp in adversely affecting beach water quality as determined by concentrations of enterococci and *E. coli*, it should be noted that wrack plays an important role in the beach ecosystem by providing nutrients to the beach food web. Sea birds,	See response to comment 3.1 If demonstrated that, "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 be permitted based on the residual exceedance frequency in the specific water body…", or a quantitative microbial risk assessment maybe pursued and brought to the Regional Board for consideration. While an NSE for Marina del Rey and Inner Cabrillo Beach were contemplated at the time of Regional Board adoption of those

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		invertebrates, and insects all rely on kelp as a food source. Beach grooming to remove stranded kelp has been shown to adversely impact the beach ecosystem (Dugan & Hubbard, 2010). Thus, a decision to remove wrack from a beach should only be undertaken after careful consideration of both water quality and ecosystem needs (Imamura, 2011). Unfortunately, that may be the only measure currently available for mitigating natural sources of FIB at beaches impacted by kelp wrack in Malibu unless there is a defined natural source exclusion (NSE) process specifically outlined in the reconsideration. Additional information on natural sources of FIB is provided in the technical comments below.	TMDLs and while this reconsideration did evaluate the 'readiness' of data to support a potential NSE at those beaches, no such NSE for Santa Monica Bay Beaches was specifically contemplated and has not been evaluated for this action, has not been noticed for public comment and is outside the scope of this reconsideration.
4.5	City of Malibu	It is also critical that the TMDLs and relevant Basin Plan Amendment language be clear that the TMDL standards cover both the Basin Plan AND the Ocean Plan standards. Because this was not clear in the original TMDLs, the Ocean Plan standards could arguably be applied to municipalities notwithstanding the existence of the TMDLs. Failing to do so makes responsible agencies vulnerable to additional legal liabilities.	The TMDLs are based on the water quality standards in the Basin Plan, which are the same as in the Ocean Plan. Thus, there is no conflict between the Basin Plan and the Ocean Plan. In addition, the Ocean Plan, states "To the extent there is a conflict between a provision of this plan and a provision of another statewide plan or policy, or a regional water quality control plan (basin plan), the more stringent provision shall apply except where pursuant to Chap. III.J of this Plan, the SWRCB has approved an exception to the Plan requirements. (Intro, section B.1.b.). So, although there is no conflict since they are the same standards, if there was, then the most stringent would apply and the responsible agencies wouldn not be subject to additional standards.
4.6	City of	Lastly, municipalities cannot achieve the objectives working alone.	Consideration of additional responsible

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	Malibu	All agencies responsible for compliance with TMDLs must actively participate in the process to address water quality exceedances through monitoring, implementation plans strategies and source control, and should be held accountable for compliance and correcting their potential anthropogenic contributions. A TMDL cannot be achieved if it does not consider all potential sources and responsible agencies' actions simultaneously (including managed park sites, open space agencies, and highways). Without including all contributing agencies, the TMDL does not provide a representative picture to evaluate FIB sources and effective control mechanisms, and will provide a flawed analysis of allocations and enforcement burden on those participating agencies. Similarly to past comments submitted by the City to the SWRCB and LARWQCB for the Marine Debris TMDL, the City of Malibu requests that the Basin Plan Amendment add the following responsible agencies in the Malibu coastal watersheds, that own or operate land and facilities that could contribute to water quality degradation wherever applicable. These following listed agencies should be specifically added to the list of responsible agencies in Jurisdictions 1 and 9 in Table 7- 4.2b.3 Maps with more specific land ownership information can be provided upon request. • California State Parks • Santa Monica Mountains Conservancy • Mountains Recreation and Conservation Authority • Santa Monica Mountains National Recreation Area • Santa Monica Malibu Unified School District • Santa Monica College • Pepperdine University	parties to the Santa Monica Bay Debris TMDL has not been evaluated for this action, has not been noticed for public comment and is outside the scope of this reconsideration. Also see response to comment 1.2 and 1.4.

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		With that context in mind, the following are the City's specific technical comments and requests regarding the draft SMBBB TMDL reconsideration, for LARWQCB staff consideration and response:	
4.7	City of Malibu	**Comments** 1. Reconsideration Schedule • Draft SMBBB TMDL Reconsideration: Comments are due to the LARWQCB on May 7, 2012 and the TMDL reconsideration hearing is scheduled for June 7, 2012. • Comment: Since the purpose of the TMDL is to protect the waters for recreation purposes, the City requests that the SMBBB TMDL reconsideration be delayed until the Southern California Coastal Water Research Project (SCCWRP) Pacific Coast Water Quality Study final epidemiological results from shoreline compliance monitoring site SMB MC-2 (Malibu Creek and Lagoon at Surfrider Beach), become available, so these results can be considered in setting any revised waste load allocations (WLAs). This study is relevant and important to reconsideration of the standards since it's the only recent local study that tells us: (a) whether swimmers are getting sick at rates above United States Environmental Protection Agency (USEPA) tolerable levels (and whether this might be due to bather shedding [Goodwin et al 2012] or other uncontrollable pathogen sources), (b) whether FIB concentrations are reliable metrics for predicting swimmer illness rates at a local Santa Monica Bay beach, and (c) whether existing full body contact recreation (REC-1) single sample and geometric mean objective values are protective of	See response to comment 1.2 and 4.16. Staff also notes that waiting for the final SCCWRP results, fully evaluating the results in context with other science and incorporating this most recent science into a bacterial TMDL will take much, much, longer than a few months.

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		or related to swimmer illness rates. Preliminary results at Surfrider Beach have found no correlation between illness rates and indicator bacteria concentrations (Griffith 2011). Other recent Southern California beach epidemiological studies have also questioned the correlation between traditional bacterial indicators and human health risks (Colford et al 2005). Other recent Southern California beach water quality studies have also found that Enterococcus in particular originates in plants and kelp (Moore et al 2007 and Imamura et al 2011), thereby further questioning the presumed human health linkage for urban runoff impacted receiving waters. Several recent USEPA Quantitative Microbial Risk Assessment (QMRA) studies (Soller et al 2010 and Schoen et al 2010) also indicate that REC objectives, specifically Enterococcus geometric mean, correspond to swimmer illness rates that are well below USEPA's tolerable levels at beaches with minimal human bacteria sources. Therefore the epidemiological results of the important Pacific Coast Water Quality Study should most certainly affect how REC use compliance is measured and assessed within the TMDL watersheds, since the setting of compliance limits is a fundamental component of this TMDL reconsideration. The City understands that the Regional Board would like to complete this and the other TMDL reconsiderations prior to the adoption of the new Los Angeles regional municipal separate storm sewer system (MS4) permit, and in general supports this concept. However, any amendments to this and other the TMDLs will not be in effect until after a lengthy regulatory review process including approvals by the State Water Resources Control Board (SWRCB), USEPA and the Office of Administrative Law (OAL) and will thusly only be adopted	

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		into the permit by reference. This allows some flexibility in waiting a few months to work more closely with the stakeholders to ensure the most recent science is included and proper compliance options are incorporated. Therefore, the City strongly urges the Regional Board to delay this SMBBB TMDL reconsideration a few months.	
4.8	City of Malibu	2. Daily Sampling Investigation • Draft SMBBB TMDL Reconsideration: If a single sample shows the discharge or contributing area to be out of compliance with the number of allowable exceedances days at the final implementation deadline, the LARWQCB may require daily sampling in the wave wash or at the existing open shoreline compliance monitoring site until all single sample limits meet bacteria water quality objectives. A source investigation is also required if 75% of testing days produce an exceedance. • Comment: The City requests that the timeline for daily sampling be clarified (i.e., when is it required, on what basis will the LARWQCB be determining this need, etc.). The City requests that for sites sampled on a weekly basis, being out-of-compliance should trigger an investigation plan, which lays out the approach for identifying and addressing sources, rather than triggering daily sampling immediately. The investigation plan will be much more valuable than daily beach sampling. Mobilizing a team to begin daily sampling within 24 hours for an unknown length of time is anticipated to be an extreme burden on resources. Furthermore, the end point for daily sampling should also be better clarified, as it is currently unclear as to when "all single sample events [would] meet the objectives." The City also recommend clarification	The language was modified for consistency between bacteria TMDLs and the MS4 permit and may be more appropriately addressed in the CSMP and or relevant implementing permits. Also see response to comment 1.2.

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		that, if daily sampling is chosen, weekends, holidays, and days with unusually unsafe conditions (such as a storm or inaccessible location) would be excluded. • The City request that the source investigation also be defined, including more detail on the 75% threshold (e.g., is the 75% applicable to all seasons combined or seasons individually, is it applicable only to single sample limits or also to geometric mean limits, etc.).	
4.9	City of Malibu	3. Remove Total and Fecal Coliform Limits • Draft SMBBB TMDL Reconsideration: Compliance limits are set for total coliform, fecal coliform, and Enterococcus for both the geometric mean and the single sample. • Comment: We request that only enterococci, and not total and fecal coliform, be used in the TMDL for compliance assessment. This is consistent with the 2012 Draft USEPA Recreational Water Quality Criteria Report, which states, "Scientific advancements in microbiological, statistical, and epidemiological methods have demonstrated *E. coli* [for freshwater] and enterococci for marine sites] are better indicators of health than the previous indicators, total coliforms (TC) and fecal coliforms (FC)" (USEPA 2012). This is also consistent with USEPA's Ambient Water Quality Criteria for Bacteria (1986) which states, "The freshwater studies confirmed the findings of the marine studies with respect to Enterococci and fecal coliforms in that densities of the former in bathing water showed strong correlation with swimming associated gastroenteritis rates and densities of the latter showed no correlation at all…. *E. coli* is the most fecal	Changes to targets have not been evaluated for this action, have not been noticed for public comment and are outside the scope of this reconsideration. See, also, response to comment 1.2.

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		specific of the coliform indicators; and Enterococci, another fecal indicator, better emulates the virus than do the coliforms with respect to survival in marine waters" (USEPA, 1986). This change would not reduce the protectiveness of the TMDL as the Enterococcus single sample and geometric mean limits would remain. Enterococcus is the indicator that most frequently exceeds REC limits and the Enterococcus geometric mean is best linked to public health. If the LARWQCB is unwilling or unable to make this change until it is adopted by the SWRCB and incorporated into the California Ocean Plan, then Malibu requests that this change will be incorporated by reference into the Basin Plan so that they are automatically adopted without the time consuming process of needing to reopen the MS4 permit or TMDL again.	
4.10	City of Malibu	4. Natural Source Exclusion – Site Specific Objective Pathway or Process • Draft SMBBB TMDL Reconsideration: Proposed amendments do not include a pathway for determining site-specific objectives when uncontrollable sources exist. • Comment: The City requests that a clear compliance alternative, in the presence of uncontrollable natural sources, be included in the SMBBB TMDL (and other bacteria TMDLs) and include a pathway to clarify the process for either adjustments to the site- specific WLAs or site delisting when compliance cannot be met due to uncontrollable natural sources. The pathway should also clarify what data responsible agencies need to collect/submit, and what study results should indicate in order for LARWQCB staff to	See response to comment 1.2.

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		consider a water body for TMDL adjustment. •	
4.11	City of Malibu	5. Remove Delisting Candidate Sites from TMDL • Draft SMBBB TMDL Reconsideration: Proposed amendments do not acknowledge the ability to delist sites based on the State's delisting criteria. • Comment: The California State Water Resources Control Board's (SWRCB) Water Quality Control Policy (2004), Section 4.3, states, "If a site-specific exceedance frequency[4]was used to place the water on the section 303(d) list, then the same exceedance frequency shall be used in the assessment to remove waters from the section 303(d) list. To the extent possible and allowed by water quality objectives, RWQCBs shall identify one or more reference beaches or water segments in a relatively unimpacted watershed to compare the measurements." Based on an analysis of monitoring data relative to these delisting criteria, the City requests that the following five (5) beaches be delisted: SMB 4-1 (Nicholas Canyon at San Nicholas Creek), SMB 1-2 (Los Alisos Canyon at El Pescador Beach), SMB 1-3 (Encinal Canyon at El Matador Beach), SMB 1-14 (Las Flores Creek), and SMB 1-16 (Pena Canyon at Big Rock/Tunas Beach). Our delisting data analysis is summarized here (Attachments 1 and 2), and the relevant data are illustrated in Exhibit 1 below. Over the last 4 years combined (2008 – 2011)5, these sites have measured a lower exceedance frequency than the Leo Carrillo reference beach for all three single sample WLAs (summer dry weather, winter dry weather, and wet weather) as well as the rolling 6-week geometric mean (Attachment 2). While this acknowledges geometric mean exceedances at the	The current staff recommendation still includes zero allowable exceedances for summer dry weather as well as zero exceedances of the geometric mean standard. Based on this recommendation, the sites listed by the commenter continue to exceed the water quality objectives in excess of the site specific exceedance rates designed in the original adopted TMDLs and reaffirmed during this reconsideration. This request could have been directed towards State Board during previous 303(d) and integrated report solicitation period or can be made during the solicitation period for the next 303(d) and integrated report. Currently the State Board is preparing Lines of Evidence for the next iteration of the 303(d) list. When a proposed next list is ready, the Regional Board will notice it for public comment. Also see response to comment 1.2 and 1.21.

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		requested beaches, LARWQCB staff should note that, of those analyzed, there are no beaches -- including the reference beach Leo Carrillo -- that meet the geometric mean limits 100% of the time. Therefore, it is requested that the five sites specified above be delisted, and that the delisting be retained in the next integrated report/303(d) list, and that these sites be removed from the Compliance Monitoring Plan and TMDL. Please refer to Exhibit 1 below[…] **[See the City of Malibu comment letter for tables and figures.]**	
4.12	City of Malibu	6. Natural Source Exclusion Compliance Approach • Draft SMBBB TMDL Reconsideration: Reference system approach is retained for the Santa Monica Bay Beaches as there has been no documenting evidence submitted to demonstrate that all anthropogenic sources have been controlled. • Comment: The City requests that the NSE approach be used for several beaches where a weight of evidence, including recent bacteria source studies, supports this. Several bacteria source investigations have been performed at beaches in Malibu. These studies are summarized here, and in general have found that human fecal sources are minimal or not present in the water bodies sampled. Furthermore, various other bacteria source studies are summarized here, and these further support the understanding that predominant SMBBB FIB sources are natural in origin, particularly since the implementation of numerous source and treatment controls by the City. Therefore, it is requested a revised NSE-based WLAs in the SMBBB TMDL. NSE-based WLAs would be	See response to comment 1.2 and 3.1.

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		consistent with the San Diego Regional Water Quality Control Board's (SDRWQCB) NSE Basin Plan Amendment (BPA), which was also approved by the State Water Resources Control Board (SDRWQCB 2008). [**See City of Malibu's letter for the complete discussion of NSE**]	
4.13	City of Malibu	7. Reference System – Watershed Characterization • Draft SMBBB TMDL Reconsideration: Shoreline compliance monitoring site SMB 1-1 (Arroyo Sequit Canyon at Leo Carrillo Beach) is retained as the reference beach for all Santa Monica Bay Beaches. • Comment: Page 9 of the TMDL staff report (LARWQCB, 2012a) states that the 2006 SCCWRP study "Microbiological water quality at non-human impacted reference beaches in southern California during wet weather" found that exceedances of water quality objectives for bacterial indicator densities in wet weather occurred more frequently in large (>100 km^2) watersheds (~30%) than in medium (28-56 km^2) watersheds (~12%) or small (3- 12 km^2) watersheds (~7%). Shoreline compliance monitoring site SMB MC-2 (Malibu Creek and Lagoon at Surfrider Beach), at the outlet of Malibu Creek Watershed, meets the SCCWRP definition of a large watershed. It follows then that the exceedance rate at Leo Carrillo (approximately 30 km^2), which qualifies as medium size watershed, is not suitable for Surfrider Beach which also has a 13-acre poorly functioning lagoon contributing to natural sources as well. It is requested that at the outlet of	Staff disagrees. The Santa Clara River Bacteria TMDL lists allowable exceedances percentages for the both fresh water and estuarine waters, and the allowable exceedance rates for wet weather are listed by the commenter. While the drainage area for Malibu Creek meets the definition of a large watershed as defined in the SCCWRP study, other factors of the watershed are not similar. The Malibu Creek Watershed is approximately 109 square miles; the Santa Clara River Watershed is approximately 1,600 square miles. Additionally, water quality data does not indicate impaired beaches downstream from the Santa Clara River Estuary, while historical and the current water quality data confirms the continued impairment of Surfrider Beach for elevated levels of indicator bacteria.

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		Malibu Creek Watershed, shoreline compliance monitoring site SMB MC-2 therefore be allowed a higher wet weather allowable exceedance rate (i.e., the 30% cited in the SCCWRP report) to the WLAs for this large watershed.	
4.14	City of Malibu	8. TMDL Critical Year • Draft SMBBB TMDL Reconsideration: The number of wet and dry days used to calculate the WLAs is based on the 90th percentile year (1993) in terms of the number of wet weather days. • Comment: The use of a conservative year to approximate the number of wet weather days should similarly be applied to dry weather days. The use of 1993, a wet year, to approximate the number of dry weather days results in an unfair underestimate of the number of allowable dry weather exceedance days. The City requests that similar to the wet weather approach, the 90th percentile "dry year" should be used to approximate the number of dry days used in the calculation of the number of allowable dry weather exceedance days. The 90th percentile critical year, based on the number of dry days at LAX, should be 1948 and the number of dry days should be 330.	The requested action was not noticed for public comment and is beyond the scope of the TMDL reconsideration. Furthermore, as stated in the BPA in "Seasonal Variations and Critical Conditions", "The critical condition for this bacteria TMDL is wet weather generally." Exceedance rates increase significantly in wet weather in comparison with dry weather and this is why wet-weather is the critical condition. Therefore, staff disagrees to use the 90th percentile dry year to set the number of dry days.
4.15	City of Malibu	9. Remove Single Sample WLAs • Draft SMBBB TMDL Reconsideration: The single sample limits are derived from the single sample maximum for REC-1 beneficial use based on the reference system and anti-degradation approach.	See response to comment 1.2.

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		• Comment: The City requests that single samples continue to be collected for purposes of beach posting and calculations, but that single sample WLAs be removed as compliance limits from the Draft SMBBB TMDL Reconsideration. Boehm et al (2007) found Enterococcus concentrations vary over short time scales; in some cases, changes between consecutive samples collected one to ten minutes apart were found to be greater than the single sample limit. The study recommends that multiple, rather than single, samples be used to form an accurate snapshot of water quality. The removal of single sample limits is also consistent with the recent draft Santa Ana Regional Water Quality Control Board (SARWQCB, 2012) Basin Pan Amendment which removes single sample limits and only keeps the geometric mean limits, as well as the USEPA's analysis for the Draft Recreational Water Quality Criteria (2012) report which looked at numerous epidemiological studies and only showed a public health linkage with the Enterococcus geometric mean. The USEPA report further states that because fecal indicator bacteria are highly variable in environmental waters, distributional estimates are more robust than single point estimates. Page 23 of the TMDL staff report also acknowledges, "The geometric mean is a more reliable measure of long term water quality than single sample criteria. It is also directly linked to the underlying epidemiological studies upon which the bacteria water quality objectives were based." In general, single sample exceedances – especially based on wet weather grab sample data, and especially for FIB – constituents that are known to vary over orders of magnitude – are unreliable means of assessing whether water quality at a compliance monitoring site is statistically different than a reference site, at an	

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		acceptable level of confidence.	
4.16	City of Malibu	10. Revise Single Sample WLAs using Reference Beach Approach • Draft SMBBB TMDL Reconsideration: The SMBBB TMDL relies on the Leo Carrillo reference beach to set allowable single sample exceedance rates based on the average exceedance rate at all 20 shoreline compliance monitoring sites in Malibu. The allowable exceedance rates have been reevaluated and revised to 0% for summer dry (unchanged from original TMDL), 10% for winter dry (increased from 3%), and 22% for wet weather (unchanged). • Comment: If LARWQCB decide to keep the single sample based WLAs (see Comment #9), it is requested that the WLAs be revised. This is particularly important considering SMB 1-1, the Leo Carrillo reference beach, has been shown to be out of compliance with the single sample WLAs during wet weather for 5 of the past 8 years (2003-2011), which is in direct contrast to the statement on page 9 of the draft BPA which states, "Selecting the 90th percentile 'storm year' in terms of wet days avoids a situation where the reference beach is frequently out of compliance." Therefore it is requested the following adjustments be made to the WLAs, in order of preference: A. The City requests that the LARWQCB account for natural water quality variability by setting the allowed rate to the 90th percentile at the reference beach (similar to how the LARWQCB deals with setting the number of wet days to account for hydrologic variability as discussed in Comment #8), rather than the average. The 90th	As stated in the staff report, staff recommends use of 2004-2010 data due to the revised monitoring locations (i.e., point zero compared to monitoring 50 yards North or South of the fresh water outlet), which may render data taken prior to November 2004 less representative of the current water quality sampled at point zero. Also the exceedance percentage listed in Tables 2 and 3 of the staff report are not the average but simply the cumulative exceedance rate from November 2004 to October 2010. The method for setting exceedance rates that the City of Malibu proposes is much *less* conservative than the current method, was not a technical element considered during this reconsideration, was not noticed for public comment, and is out of the scope of this reconsideration. Also see response to comment 1.2 and 3.1.

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		percentile allowable exceedance rates, based on data collected 2003 – 2011 at Leo Carrillo (and results summarized in Attachment 5), would then be 20% during summer dry weather, 18% during winter dry weather, and 46% during wet weather. Therefore, the City requests that these rates, in combination with the number for dry days proposed in Comment #8, be used to determine the WLAs shown in Attachment 6. In contrast to LARWQCB staff analysis which uses 2004 – 2010, these proposed WLAs are derived from data collected from Arroyo Sequit Canyon at Leo Carrillo Beach (SMB 1-1) between 2003 and 2011, and from other compliance monitoring sites between 2005 and 2011. We believe this range to be a more representative post-TMDL dataset given that it is larger and more robust, more recent, and SMB 1-1 data includes 2003, the year of TMDL effective date. The 2010 data also ends in October, which cuts off two wet weather years where data is available and should be included. However, regardless of years used, our request remains that a non-average statistic be used to more conservatively assess exceedance rates, otherwise the situation remains where the reference beach exceeds this rate roughly half of the years (by nature of an average statistic), and so Leo Carrillo could not be delisted since it would not meet the State's delisting criteria which is exceedance frequency based (see Comment #5). B. If LARWQCB does not agree with Option A, the City requests that instead of using the single sample maximum to derive a year-round WLA, use the 2012 USEPA Draft	

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		Recreational Water Quality Criteria 75th percentile STV which was computed based on the water quality variance observed during USEPA's epidemiological studies and allows a 25% exceedance rate. This would also increase consistency between states, which the USEPA has encouraged. C. Our review of compliance monitoring data show that on average, between 2003 and 2011, exceedance rates at the Leo Carrillo reference beach were 9% during winter dry weather and 27% during wet weather (Attachment 5). It is believed the 2003- 2011 data to be a more representative post-TMDL dataset given that it is larger and more robust, more recent, and includes 2003, the year of TMDL effective date. Therefore, if the LARWQCB will not accept the proposed WLAs based on the 90th percentile exceedance rates (Option A), or WLAs based on the STV (Option B), we propose that the winter dry weather allowable exceedance rate of 9% be used in combination with the number of dry days proposed in Comment #8 to determine the winter dry weather WLAs. We similarly propose that the wet weather allowable exceedance rate of 27% be used to determine the winter dry weather WLAs. D. The draft TMDL staff report (top of page 12) states that the summer dry weather allowable exceedance rate of 0% is retained, despite evidence presented on page 11 (Table 2) that a 10% rate would be more appropriate. LARWQCB staff rationale for this is there were no exceedances at the Leo Carrillo reference beach for 5 of the past 6 years between 2004 and 2010 during summer	

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		dry weather. However, this is not consistent with our review of the data and in fact, between 2004 (interpreted as November, per TMDL staff report Table 3) and 2010, FIB concentrations at Leo Carrillo have exceeded the single sample limits during summer dry weather in 2005, 2006, and 2008, or for 3 those 6 years (Attachment 5). Upon close examination, the actual monitoring results do not support the LARWQCB staff conclusions. Therefore, if the LARWQCB will not accept the proposed WLAs based on the 90th percentile exceedance rates (Option A), WLAs based on the STV (Option B), or WLAs based on shoreline compliance monitoring data collected at the Leo Carrillo reference beach (SMB 1-1) between 2003-2011 (Option C), it is proposed that, at minimum, the summer dry weather allowable exceedance rate of 10% be used in combination with the number for dry days proposed in Comment #8 to determine the summer dry weather WLAs.	
4.17	City of Malibu	11. Calculation of Single Sample WLAs for Winter Dry Weather • Draft SMBBB TMDL Reconsideration: The SMBBB TMDL relies on the Leo Carrillo reference beach to determine the allowable single sample exceedance rates applied to the number of wet days (75) and dry days (290) to get the WLAs, or number of allowable exceedance days per year. Table 7-4.2 of the draft TMDL lists 9 allowable exceedance days during winter dry weather at Leo Carrillo, assuming daily sampling, a WLA that is also applied to other shoreline compliance monitoring sites where anti-degradation does not apply.	Staff disagrees. The critical year did not contain 145 winter dry days (winter, as defined in these TMDLs and under SB411, is five months long and summer is seven months long) and would be inappropriate to adjust the allowable exceedance day based on an inaccurate number of winter days. Also see response to comment 3.1.

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		• Comment: It is unclear how an allowable exceedance of 9 days was calculated using a 10% allowable exceedance rate during winter dry weather. Section 3.3 of the TMDL staff report indicates that 290 dry weather days are split between summer dry and winter dry periods. The City understands this to mean that the 10% allowable exceedance rate should be applied to 145 days (290 divided by 2). At Leo Carrillo reference beach this results in 14.5, rounded to 15, allowable exceedance days per year during winter dry weather. Therefore, if the LARWQCB will not accept the proposed WLAs requested in Comment #10, the City requests that at minimum, the winter dry weather allowable exceedance days at Leo Carrillo, under daily sampling, be revised from 9 days to 15 days per year. It is also requested that a revision of the allowable exceedance days for all other compliance monitoring sites to which a 9 day allowance was incorrectly applied.	
4.18	City of Malibu	12. Geometric Mean Methodology • Draft SMBBB TMDL Reconsideration: Similar to the original SMBBB TMDL, no exceedances are allowed for the geometric mean limits. The draft TMDL geometric mean calculation does not distinguish between wet and dry weather days. • Comment: The City requests that the geometric mean calculation be applied to dry weather days only. This is consistent with the bacteria TMDL geometric mean limits expressed in the Draft San Diego County MS4 Permit	Staff disagrees. Strict application of the geometric mean during dry weather only may not accurately characterize background conditions, especially in Southern California where recreation occurs regardless of seasonality and weather. Geometric means express the overall risk of exposure during a longer period including dry and wet weather, if any, and a dry weather-only calculation is artificial. USEPA's draft Recreational Water Criteria

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		(SDRWQCB, 2012), which would allow greater consistency between regions. This is also supported by the fact that the geometric mean statistic is inherently intended to characterize chronic water quality conditions, rather than episodic acute periods of excursion as would be expected during wet weather. Finally, recreational uses and public exposure to beach waters would be expected to be greatest during dry weather, therefore this clarification is expected to continue to be protective of public health.	(USEPA, 2011) recommends use of both wet and dry weather, stating, "Sampling of waterbodies should be representative of meteorological conditions (e.g., wet and dry weather)."
4.19	City of Malibu	13. Geometric Mean Averaging Period • Draft SMBBB TMDL Reconsideration: Rolling geometric mean changed from daily to weekly calculation (5 or more samples, all calculations begin on Sunday), over a six week period, rather than a 30-day period. • Comment: We support changing the rolling 30-day geometric mean approach but request the following improvement: It is suggested an alternative geometric mean averaging period that meets the need of minimizing exceedances at the reference beach, while still being consistent with USEPA's draft recommended REC criteria (which allow up to 90 day geometric mean averaging periods). The LARWQCB's current proposed 6-week rolling average geometric mean calculation approach results in substantial exceedance at the Leo Carrillo reference beach (up to exceedance rates of 47% in a year), based on our data analysis summarized in Attachment 4. As an alternative to an allowed geometric mean exceedance rate, it is suggested that a "hybrid" approach detailed earlier in this comment consisting of	Staff disagrees. Most portions of the hybrid approach discussed by the commenter have been examined and discussed in the staff report. Staff have identified and discussed both the advantages of shortcomings of a rolling versus discrete geometric means. Also, as discussed in the staff report, "to identify water quality impairment, the rolling geometric mean calculation is preferred. This is consistent with the discussion of listing and delisting decisions in the Functional Equivalent Document for the State Water Resources Control Board (SWRCB) 2004. Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) list. Sept. 30, 2004."

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		monthly (calendar, not rolling) geometric mean during the AB411 period (April – September) and two 75-day geometric means during November through March. This would help to avoid confusion for reporting, compliance assessment, and enforcement penalty determination purposes. As shown in Exhibits 2 to 5 below, based on 2003-2011 Enterococcus monitoring data at Leo Carrillo, this would result in fewer geometric mean[8] exceedances at the reference beach, while still being protective of human health by being consistent with USEPA's REC criteria guidance, which primarily links illness risks with the Enterococcus geometric mean limit (35 MPN/100mL) based on epidemiological study results. In fact, applying the 35 MPN/100mL limit at non-wastewater impacted beaches is a conservative (overly stringent) approach since recent peer-reviewed QMRA work by USEPA's contractor (Soller et al 2010) and USEPA (Schoen et al 2010) shows that the 35 MPN/100mL limit can be greatly increased at beaches where bacteria sources are primarily non-human, while still being protective of USEPA's tolerable illness rates (8 per thousand swimmers), as shown in Exhibit 6 from USEPA (Schoen et al 2010). Therefore, it is requested that the rolling 6-week geometric mean approach be replaced with our hybrid geometric mean approach proposed here. This approach is also generally consistent with that proposed by LARWQCB staff as stated during a March 19, 2012 meeting with Lower Malibu Creek Watershed MS4s. The City also understands that Los Angeles County is requesting a fixed (non- rolling) 6-week averaging period, and	

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		if the LARWQCB does not accept our proposed hybrid approach, the City will support Los Angeles County in their recommendation. **[See the City of Malibu comment letter for tables and figures.]**	
4.20	City of Malibu	14. Non-Detect Value Substitution for Geometric Mean Calculation • Draft SMBBB TMDL Reconsideration: As discussed in the TMDL staff report, the substitution of any value for a non-detect (ND) result must be supported and submitted to the LARWQCB in a revised Monitoring Plan. At this time all ND results are required to substitute the detection limit in geometric mean calculations, which will overestimate the geometric mean, particularly where exceedance frequencies are low. • Comment: As described on page 28 of the TMDL staff report, the City of Los Angeles Environmental Monitoring Division found that, assuming a normal distribution of the log results, 90% of results reported less than 10 MPN/100mL would be less than 3.7 MPN/100mL. The SMBBB TMDL Jurisdictional Groups 5 and 6 then suggested using a ND substitution value of 3.7 MPN/100mL as the Enterococcus value in the geometric mean calculations when the Enterolert result is less than the detection limit of 10 MPN/100mL. We request that the use of 3.7 MPN/100mL be written into the SMBBB TMDL as an allowable ND result substitution for Enterococcus when the detection limit is 10 MPN/100mL. Alternatively, if a value less than 3.7 MPN/100mL is desired to be substituted for another method, then the revised TMDL should state that responsible agencies may submit a proposal	See response to comment 3.14.

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		to the LARWQCB staff for review and approval.	
4.21	City of Malibu	15. Compliance Schedule • Draft SMBBB TMDL Reconsideration: Original compliance deadlines for both single sample and geometric mean targets were July 15, 2006 for summer dry weather and November 1, 2009 for winter dry weather. The dry weather single sample compliance deadlines have not been extended. However, the geometric mean compliance deadline has been extended to July 15, 2021. Due to the integrated monitoring approach undertaken by all jurisdictional groups, the wet weather deadline has also been extended to July 15, 2021. • Comment: Support wet weather and geometric mean compliance deadline extensions. The City requests a dry weather extension until the SCCWRP Pacific Coast Water Quality Study epidemiological results become publicly available and are interpreted by LARWQCB staff (see Comment #1). An extension will not result in inaction. The City of Malibu provides for your confirmation in Attachment 3, a comprehensive outline of the City's integrated watershed management programs; demonstrate that since 2000, the City has undertaken a variety of progressive projects and programs to address potential sources and remedies to meet Clean Water Act regulations. Participating agencies will be unable to achieve compliance without the participation of all responsible agencies in the watershed and the acknowledgement of prevalent and persistent sources of natural bacteria in the North Santa Monica Bay watersheds and beaches, no amount of money.	See response to comment 1.2 and 4.7.

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4.22	City of Malibu	16. Items for Future Reconsideration • Draft SMBBB TMDL Reconsideration: A reconsideration date is not included and no specific items for future reconsideration are listed. • Comment: A reconsideration should be included 4 years from the effective date of the revised TMDL, for reconsideration of the following: o Site specific REC objectives based on quantitative microbial risk assessment (QMRA) or epidemiological study results; o NSE WLAs based on source investigation results, showing no or minimal human or anthropogenic sources present; o Revised exceedance rates based on new reference beach results; and o Other items, including items requested in this comment letter (particularly the delisting requirements for beaches with better water quality than the reference beach), if requests are not granted.	See response to comment 1.3.
4.23	City of Malibu	17. Reasonable Assurance Plan based Compliance Option o Draft SMBBB TMDL Reconsideration: There is no alternative to the numeric based compliance pathway. However, page 9 of the TMDL staff report cites the potential for a responsible party to pursue action-based interim limits in	See response to comment 1.3.

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		the MS4 Permit, beginning with the submittal of a Reasonable Assurance Plan (RAP). o Comment: The Draft Los Angeles County MS4 Permit (LARWQCB 2012b), and Washington State's Department of Ecology (Ecology) Draft Industrial Stormwater General Permit (Ecology 2012), and Ecology's MS4 General Permit (Ecology 2007) all include action-based pathways as alternatives to the numeric-based compliance pathway for bacteria. The draft Los Angeles County MS4 Permit currently includes a compliance option for a reasonable assurance program, which would provide the LARWQCB reasonable assurance that the alternative requirements would provide equal or greater reduction in storm water discharge pollutant loading as would have been obtained through compliance with certain control criteria. The recently proposed modifications to Ecology's Industrial Stormwater General Permit (Ecology 2012) would similarly revise the draft effluent limits for fecal coliform by replacing the draft numeric standard with BMP-based requirements. The permittees may be required to implement a new set of BMPs including methods to prevent wildlife from feeding, nesting, or roosting at the facility, annual dry weather inspections to address potential sewer cross-connections, and structural control of any on- site bacterial sources. Ecology's MS4 General Permit (Ecology 2007) also includes action- based limits for compliance with bacteria TMDLs. We therefore request that the revised SMBBB TMDL state that MS4 Co-Permittees may choose an action-based compliance pathway as an alternative to the numeric based compliance pathway.	
4.24	City of	Conclusion	Staff disagrees. See also responses to

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	Malibu	As a final summary, Exhibits 6 through 8 below depict the annual single sample exceedance rates (ERs) measured at the Leo Carrillo reference beach, between 2003 and 2011, in comparison to the alternative ERs discussed in earlier comments. Separate summer-dry, winter-dry, and wet charts are shown. For each compliance season, the following data are depicted: the original TMDL allowable exceedance rate (AER), the draft TMDL reconsideration AER, the USEPA STV AER, the average and 90th percentile ERs measured at the Leo Carrillo reference beach, as well as the annual ERs measured at the Leo Carrillo reference beach during summer dry weather (2003-2011), winter dry weather (2004-2011), and wet weather (2004-2011). By presenting year-by-year reference beach data, these charts demonstrate the difficulty of delisting based on single sample exceedance rates, particularly at the existing TMDL AERs, while also noting here that compliance with the additional geometric mean limits further complicate the feasibility of completely achieving the State's delisting criteria. Without adjusted AERs, delisting is likely an impossibility, since if an undeveloped reference beach isn't close to meeting its own AERs, then a developed area would have little hope. **[See the City of Malibu comment letter for tables and figures.]**	earlier City of Malibu comments. See response to comment 1.4 and 3.1.
5.1	Jurisdictional Group 7 #1	The Cities of Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills and Rolling Hills Estates comprise the peninsula agencies of Jurisdictional Group 7 (J7). These are primarily low density residential communities with hillside and rocky coastlines. As such, J7 is in a unique situation as compared to the more alluvial plain cities draining into Santa Monica Bay. The Palos Verdes Peninsula beaches and monitoring locations consistently have fewer exceedances of indicator bacteria as compared with Leo Carrillo, the existing reference beach. While most of the proposed changes to the TMDL	See response to comment 1.2 and 4.16.

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		appear more applicable to other Jurisdictions, J7 does have several comments with the intent of making the TMDL a less ambiguous document. We appreciate the Regional Board reopening the Santa Monica Beaches Bacteria TMDL with the purpose of incorporating recent monitoring and other scientific advances that have occurred since the original adoption date. J7 has had a long standing concern that the indicator bacteria monitoring currently taking place may not be the most indicative of anthropogenic causes of shoreline and point zero bacterial exceedances. J7 understands that the current monitoring may be following the best available parameters, but it is requested that wording be inserted into the TMDL to allow for improvements in monitoring and beach management approaches with the anticipated release of new US EPA guidelines.	
5.2	Jurisdictional Group 7 #1	Specific comments regarding the proposed reopener are: 1. There is an error on Table 3 in the Staff Report. Sample stations SMB 7-1 through 7-9 are listed as being in or near the City of Santa Monica. The locations for these stations are incorrectly listed as being in Jurisdiction 2 and others in Jurisdiction 3. This correction appears to have been made in the related MS4 permit working proposal, but they also need to be made in the Basin Plan Amendment.	Comment noted. The BPA for the Santa Monica Bay TMDL and staff report will be revised to address this comment.
5.3	Jurisdictional Group 7 #1	2. Similarly, Table 7-4.2a in the proposed Basin Plan Amendment and Table 5 of the Staff Report show sample point SMB 6-6 and 7-1 both in Malaga cove and the Palos Verdes Subwatershed. SMB 6-6 should be shown in the Redondo subwatershed.	Comment noted. The BPA for the Santa Monica Bay TMDL and staff report will be revised to address this comment.
5.4	Jurisdictional	3. Page 5 of the proposed Basin Plan Amendment and the associated	Wet weather allowable exceedance days

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	Group 7 #1	Table 7-4.2b: The proposed change from the current compliance targets of 36 (as shown in strikeout in Table7-4.2b) for each milestone has now been reduced to 29, 24 and 18. This has been changed back to 36, 36,36 in the related MS4 permit draft proposal, but the change needs to be made in the proposed Basin Plan Amendment also. In other words, the original wet weather reduction targets should be restored. ***(The correct compliance targets, should be 33,33 and 33 to take into account the reassignment of monitoring point 6-6 to Jurisdictional Group 6)***	were based on additional data from sampling at point zero. Interim wet weather allocations were adjusted based on this new sampling data. The Los Angeles County MS4 permit is still in draft. Corrections to this Table have been made see response to comment 1.6.
5.5	Jurisdictional Group 7 #1	4. The fourth paragraph under Waste Load allocations (also page 5) should be revised to reflect the lack of authority cities have over one another. The J7 group was originally established somewhat arbitrarily, and while the peninsula cities have no objection to working together, the cities lack the ability to regulate and enforce requirements within another city's jurisdiction. While it makes sense for the Jurisdictional Groups previously identified in the TMDLs to work jointly to carry out implementation plans to meet the interim reductions, only the responsible agencies with land use or MS4 tributary to a specific shoreline monitoring location can be held responsible for the implementation targets to be achieved at each respective beach location. The former and proposed wording designates all jurisdictional group members be jointly responsible for exceedances, even if an individual member's contribution to exceedance was essentially zero. As you will recall, Notices of Violation were issued twice,(and subsequently retracted) to all J7 members, even though in one case, a J7 member was located approximately 10 coastline miles away and the four monitoring stations in between recorded no exceedances in the applicable timeframe.	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.

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		Suggested changes (shown in ~~strikeout~~ and blue) would be: *~~All~~ Responsible jurisdictions and responsible agencies 3 within a subwatershed are ~~jointly~~ responsible for investigating exceedances, determining the subwatershed members tributary to any monitoring site where exceedance(s) occurred and, for those members determined to be tributary, for complying with the allowable number of exceedance days for each associated shoreline monitoring site as assigned in Table 7-4.2a below* SMB 7-1 Palos Verdes Estates, Rancho Palos Verdes, and County of Los Angeles SMB 7-2 Palos Verdes Estates and County of Los Angeles SMB 7-3 Rancho Palos Verdes and County of Los Angeles SMB 7-4 Rancho Palos Verdes and Rolling Hills Estates and County of Los Angeles SMB 7-5 Rancho Palos Verdes and Rolling Hills and County of Los Angeles SMB 7-6 City and County of Los Angeles SMB 7-7 City and County of Los Angeles ***(A request to remove this site had been submitted in a separate letter)*** SMB 7-8 City and County of Los Angeles SMB 7-9 City and County of Los Angeles	Accordingly, MS4 permittees would be 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. Also see response to comment 1.4 and 1.7.
5.6	Jurisdictional	5. Under Numeric Targets on page 3, the proposed revisions update	USEPA draft recommendations for

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	Group 7 #1	the requirements for geometric mean calculations in the Basin Plan and in several TMDLs, including the SMBBB TMDL. For the TMDLs, the current 30-day rolling geometric mean calculated daily would be replaced with a 6-week rolling geometric mean calculated weekly. While we believe that this change provides a more accurate assessment of water quality than the previous method, we are still concerned that even a 6-week monitoring period would not provide the statistical strength to provide reliable and representative water quality determinations. We agree with and support the recent EPA draft recommendations for recreational water quality criteria (76 Federal Register 79176,December 21, 2011) to include more sample results in the geometric mean calculations to improve the accuracy of the characterization of water quality, and therefore prevent the chance of misclassifying water bodies. EPA showed that, for beaches with actual geometric means less than 25 CFU/100 ml (the geometric means observed at Jurisdiction 7 beaches are generally less than this value), the likelihood of misclassifying water bodies is more than 20% with 4 samples and 14% with 5 samples. EPA has been conducting research since 2004 to support the updated criteria and went to great lengths to clarify the intended purpose and use of the geometric mean, as well as how it should be calculated. We support the EPA recommendation to minimize the risk of inaccurate water quality determinations by calculating geometric means over a longer time period, and recommend that geometric means be based on 90-day periods.	recreational water quality criteria recommend between a 30 day and a 90 day period for calculation of the geometric mean. A six week calculation period will include, most often, 6 samples with which to calculate the geometric mean, a sufficient number to ensure an accurate assessment.
5.7	Jurisdictional Group 7 #1	The Staff Report and proposed TMDL revisions reflect and acknowledge the anticipated update to EPA's Recreational Bacteria Criteria, forthcoming in 2012. Possible future regulatory updates to California's bacteria water quality standards should be easily adaptable into future updates to the TMDLs. Therefore, it	When the USEPA draft recommendations for recreational water quality become final, State Board and Regional Boards staff will evaluate the criteria and work with USEPA to best apply the criteria to this Region.

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		would be helpful to include flexibility in the TMDLs and Basin Plan Amendment to allow such a transition.	See, also, response to comment 1.2,
5.8	Jurisdictional Group 7 #1	6. Under Load Allocations (for non-point sources) on Page 7,the proposed revisions are assigning responsibilities to adjacent agencies that may or may not have any control of the shoreline site where the monitoring station is located. Suggested changes are: *Because dry weather urban runoff and stormwater to SMB beaches is regulated as a point source, if a non point source is directly impacting shoreline bacteriological quality and causing an exceedance of the numeric targets(s), the permittee(s) under the municipal separate stormwater system NPDES permits are not responsible through these permits. However, the jurisdiction or agency ~~adjacent to~~ owning or operating the shoreline where the monitoring location is located may have further obligations as described under "Compliance Monitoring" below.*	See response to comment 1.4, 1.7, and 5.5.
5.9	Jurisdictional Group 7 #1	7. Seasonal Variations and Critical Conditions The allowable wet-weather exceedance days are based upon a 90th percentile storm years of 75 wet days. There is no provision for increasing the number of allowable exceedance days for those 10 percent of years when the number of wet-weather days exceeds 75.	This reconsideration addressed inter-annual variability at the reference beach and whether a different year should be used as the reference year. A provision for increasing the allowable number of exceedance days in years which have more than 75 wet days was nort evaluated, noticed for public comment and is out of the scope of this reconsideration. Selecting the 90th percentile year avoids a

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			situation where the reference system is frequently out of compliance, allows responsible jurisdictions and agencies to plan for a 'worst-case scenario', as a critical condition is intended to do, and fewer exceedance days should occur in drier years, since structural controls will be designed for the 90th percentile year. It was not the intent of TMDL to set allowable exceedance at the 100th percentile storm or such that sampling sites would never exceed the allowable exceedance rate.
5.10	Jurisdictional Group 7 #1	8. Under "Compliance Monitoring" (page 10) The proposed TMDL language provides no guidance to how far up current or down current the cause or source any shoreline exceedance may be located. While any proscriptive designation would be arbitrary to some degree, it is recommended that at least a starting point be defined. Suggested wording of the last paragraph of this section is: *If a ~~single~~ daily or weekly sample shows the discharge or contributing area to be out of compliance, the Regional board may require, through permit requirements of the authority contained in the Water code section 13267, ~~daily~~every other [note: changed due to current 48 hour turnaround time for samples] day sampling in the wave wash or at the existing open shoreline monitoring location until all single sample events meet water quality objectives. Furthermore, if a beach location is out-of-compliance as determined in the previous paragraph, agencies responsible for the operation and/or*	See response to comment 4.8.

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		ownership of the beach (unless further investigation determines a larger or smaller investigative area is more appropriate) shall initiate a beach investigation, which at a minimum shall include ~~daily~~every other day monitoring in the wave wash or at the existing open shoreline monitoring location until all single sampling events meet bacteria waste quality objectives. - - -	
5.11	Jurisdictional Group 7 #1	9. Also Under "Compliance Monitoring" (page 10) The proposed TMDL language is not consistent with efforts to develop model monitoring programs throughout the region and could lead to extensive unwarranted monitoring. It is important to identify and mitigate potential public health risks, when warranted. The following suggested language would be protective and adaptive to changes in basin plan bacteria water quality objectives: *If routine monitoring ~~a single sample~~exceeds the water quality objectives of the Basin Plan, ~~shows the discharge or contributing area to be out of compliance~~ Regional Board may require ~~through permit requirements or the authority contained in Water Code section 13267,~~ temporary accelerated monitoring ~~daily sampling~~ in the wave wash or at - - - (note: the reference to 13267 is unnecessary)*	See response to comment 4.8.
5.12	Jurisdictional Group 7 #1	10. Footnote 10 on page 10 should be changed: *[10]Safety considerations due to rocky shorelines, access road closures and during wet weather may preclude taking the sample at point zero or in the wave wash.*	See response to comment 6.1.
5.13	Jurisdictional	11. *Attachment A to BPA: Source Analysis (p.4):* The source analysis	See response to comment 1.2 and 3.1.

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	Group 7 #1	fails to consider natural sources of elevated bacteria densities present in beach and shoreline waters which are not associated with runoff but may be associated with presence of ocean debris, birds, dead birds or marine mammals, heavy surf, increased wave height and wind speed.[1]Thus natural background conditions on the beach and in marine waters may contribute to exceedances absent any runoff, whether point or non-point.	
5.14	Jurisdictional Group 7 #1	12. *Attachment A to BPA: Waste Load Allocations (p. 5): It should be clarified that waste load allocations as measured in receiving waters only apply to the MS4 to the extent that they are caused by MS4 discharge.*	See response to comment 1.4, 1.7, and 3.1.
5.15	Jurisdictional Group 7 #1	13. *Attachment A to BPA: Seasonal Variations and Critical Conditions (p. 9):* The statement about critical dry weather conditions omits the fact that historic shoreline monitoring data for the reference beach during summer dry weather as shown in Table 3 of the staff report exceeds the single sample bacteria objectives at the same rate as during the winter, i.e., in 10% of the days sampled. It is unclear then, why the winter is the critical condition for dry weather	See response to comment 3.25.
5.16	Jurisdictional Group 7 #1	14. *Attachment A to BPA:* Compliance Monitoring (p.10): Not all agencies within each subwatershed identified in the TMDL have land area tributary to every shoreline monitoring location listed within the subwatershed. Only those agencies with land area tributary to an MS4 outfall associated with a given shoreline monitoring location should be held responsible for attaining the TMDL targets at that monitoring location. Therefore a separate table needs to be created, and this can be provided by the responsible agencies, which shows those agencies with responsibility for each individual shoreline monitoring location.	See response to comment 5.5

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5.17	Jurisdictional Group 7 #1	15. *Attachment A to BPA: Compliance Monitoring (p.10):* Need to modify the last sentence in the second paragraph-it is virtually impossible to demonstrate the geographic origin of bacterial sources. The standard should be that waste load allocations have not been exceeded such that discharges from the MS4 have not caused or contributed to the exceedance. So if a responsible agency demonstrates that MS4 discharges did not reach the shoreline from its jurisdiction, then a waste load allocation is not exceeded.	See response to comment 1.4.
5.18	Jurisdictional Group 7 #1	16. *Attachment A to BPA: Compliance Monitoring (p.10):* If this TMDL is requiring the investigation of non-point sources of exceedances, then it should assign responsibility for compliance with load allocations, as has been done in many other TMDLs, to agencies with responsibility for those loads, not to the MS4 operators or dischargers who are strictly responsible for waste load allocations.	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 Basin Plan Amendment indicates that the MS4 permittees would not be responsible for exceedances unrelated to MS4 discharges. See response to comment 1.2 and 3.1.
5.19	Jurisdictional Group 7 #1	17. *Attachment A to BPA: Table 7-4.3 Santa Monica Bay Beaches Bacteria TMDL Significant Dates:* Many of the actions required in this table have already been accomplished through the extensive good-faith efforts of the responsible agencies and this should be recognized by modifications to Table 7-4.3 for each action that has been met.	See response to comment 3.3.
5.20	Jurisdictional Group 7 #1	18. *Attachment A to BPA: Table 7-4.2a:* The summer dry weather targets need to be revised so that they are based on the reference	See response to comment 3.2.

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		beach/anti-degradation approach based on actual data collected and discussed in the staff report rather than on an arbitrary zero target that cannot be attained in mathematical reality. Rather than making the target be based on exceedance days, it may be better to make them based on an exceedance rate expressed as a percentage of sampling days as has been done in Table 3 of the staff report, such an approach makes sense especially with respect to antidegradation monitoring locations where the frequency of exceedances during dry weather is very low such that there may be one exceedance every other year or every three years in which case this is consistent with the historic data and should not be a basis for finding the location out of compliance.	
5.21	Jurisdictional Group 7 #1	19. *Also, Bluff Cove SMB 7-2 is the only monitoring point in the entire Santo Monica Bay that has a zero wet-weather allowable day. This needs to be raised to allow for natural cycles. Similarly, it is one of only two monitoring points that has a zero winter dry weather allotment. This needs to be increased as well.*	Most of monitoring stations in jurisdictional group 7 had observed exceedance rates lower than the reference in either winter dry weather or wet weather. As such, to be consistent with the antidegradation policy, these locations including SMB 7-2 were assigned allowable exceedance rates lower than the reference beach. Due to point zero monitoring, allowable exceedance rates were adjusted if monitoring warranted an adjustment based on increase of exceedance rates.
5.22	Jurisdictional Group 7 #1	20. *Staff Report Section 3.5, p.36-37 Natural Sources Exclusion:* If the staff are eliminating the option of using the natural source exclusion approach for the Santa Monica Bay Beaches Bacteria TMDL, then they must use the reference approach fully, and that applies to summer dry weather as well as winter dry weather and wet weather. The reference beach data shows a history of summer	The Regional Board has not eliminated the option of using a Natural Sources Exclusion, although staff has concluded that no Natural Sources Exclusion has been developed and is ready for use at this time.

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		dry weather exceedances, and contrary to the Board staffs statement those summer dry weather exceedances were not limited to a single year, but occurred in multiple years: 2005, 2006,2008 and 2011. Thus there is no basis for using the reference beach approach in establishing a zero objective for summer dry weather exceedances when in fact the exceedance rate is 10% during both summer dry weather and winter dry weather at the reference beach based on the data presented in Table 3 of the Staff Report.	See response to comment 3.1.
5.23	Jurisdictional Group 7 #1	21. *Resolution:* There should be findings regarding all of the actions that responsible agencies have taken to comply with the Significant Dates/Actions listed in Table 7-4.3 to date (Implementation Plan submittals, coordinated shoreline plan submittals, etc.". In some cases there have been Regional Board resolutions acknowledging the submittals (e.g., Implementation Plan submittals), yet no findings were included recognizing these actions.	See response to comment 3.3.
5.24	Jurisdictional Group 7 #1	22. *Resolution Finding 13*. "States that this reconsideration is not a general reconsideration of each and every element of these TMDLs, but a re-examination of certain technical issues which, as recognized at the time of TMDL adoption, might need revision upon further data collection and analysis, study or experience as indicated in Tables". The Regional Board is not precluded from reconsidering aspects of the TMDL that were not envisioned for reconsideration at the time of adoption if new data and information is gathered which supports reconsidering other aspects of the TMDL, nor should it be. Although not envisioned by the Board staff as needing revision at the time the TMDL was promulgated, data collected under the Coordinated Shoreline Monitoring Program has made it clear that the Regional Board	See response to comment 1.2.

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		staff assumption that the reference beach exhibits zero summer dry weather exceedances is not supported by the data collected since adoption.	
6.1	Jurisdictional Group 7 #2	Through an agreement described in the Santa Monica Bay Beaches Bacteria (SMBBB) TMDLs Coordinated Shoreline Monitoring Plan, the Sanitation Districts of Los Angeles County (Sanitation Districts) has been conducting the weekly compliance monitoring for Jurisdictional Group 7 at nine locations (see attached map) since the onset of the monitoring program. Sampling point SMB 7-7 is located along a rocky section of the shoreline at the end of a dirt road (see attached aerial photo). In December 2009, Los Angeles County closed the dirt access road due to safety concerns unrelated to the bacteria monitoring program. The Sanitation Districts were forced to access the wave wash sampling point via a long trek over the rocky shoreline. As a result, sampling personnel sustained injuries on more than one occasion. The Sanitation Districts has not monitored SMB 7-7 since the road was closed. Since then, the area immediately adjacent to the SMB 7-7 shoreline monitoring location has experienced a landslide that eliminated the dirt access road, a large section of the paved road, and a 900 foot section of the paved road has been closed indefinitely (see center of attached aerial which photo clearly shows landslide). This road closure eliminates an easily accessible entry point to the shoreline and thus reduces the potential for exposure to the public at this point. Jurisdiction 7 is requesting that the SMB 7-7 monitoring location be permanently removed from the monitoring program for safety reasons. As the monitoring results show bacteria levels of the Jurisdiction 7sampling points continue to be lower than the reference beach and that all the Jurisdiction 7 monitoring sites are subject to anti-degradation provision, there is no need to select a substitute	Staff agrees with the commenter as well as the CSMP which states, "safety of the sample collector is the top priority and should preclude scheduled sampling." The Santa Monica Bay TMDL BPA has been revised to address this comment. If the site becomes accessible in the future, the CSMP can re-evaluate.

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		monitoring location.	
7.1	City of Santa Monica #1	The City of Santa Monica (City) appreciates this opportunity to provide comments and recommendations to the Los Angeles Regional Water Quality Control Board (Board) on the tentative basin plan amendment for the Santa Monica Bay Beaches Bacterial Total Maximum Daily Load (TMDL). Since the TMDLs went into effect in July of 2003, the City has aggressively pursued compliance through the implementation of numerous strategies such as low flow diversion structures, infiltration systems, green streets, pervious pavement, bird deterrents and many others. After review of the proposed amendment to the Water Quality Control Plan – Los Angeles Region, the City submits the following comments and recommendations: **Wet Weather Reduction Milestone Formulas** – the term "+ sum of allowable number of wet weather exceedance days for each site within the jurisdiction group" should be added to each equation in the footnotes to table 7-4.2b.	Comment noted. The BPA for the Santa Monica Bay TMDL has been revised for clarify the wet weather milestones. Also see response to comment 1.6 and 1.24.
7.2	City of Santa Monica #1	**Wet Weather Reduction Milestone Calculation** – It is not clear how the interim compliance targets were calculated. It appears that the wet weather exceedance reduction milestones were calculated using estimated exceedances based on averages from monitoring results from 2004 to 2010. We recommend setting 2004 -2005 as the critical year and using actual exceedances and allowable exceedances (17 for daily monitoring and 3 for weekly monitoring) to determine the milestones. Jurisdiction Group 3 exceedance reduction milestones would be 229 at 10%, 202 at 25% and 158 at 50% (using the corrected formulas per our prior comment).	See response to comment 1.6 and 1.24.

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7.3	City of Santa Monica #1	**SMB 3-9, Strand Location** – This location is an open beach with no storm drain outlet. Please clarify the purpose of this monitoring station and why it should be considered in a TMDL that addresses pollution due runoff discharge.	Many of the compliance locations include sites with fresh water flows or storm drain outlets, while other sites are characterized as open beach sites. All these sites were included in the TMDL
7.4	City of Santa Monica #1	**No Discharge = No Violation** – The TMDL should include clear language indicating that permittees will not be held in violation for exceedances if data show that no runoff was discharged at the outfall. Data may be readings from flow meters or pressure transducers or photographic records, inspection logs, etc.	See response to comment 1.4.
7.5	City of Santa Monica #1	**Improve Definition of Wet Weather** – Redefine wet weather as a 24-hour period within which precipitation is measured to be 0.1 inch. Precipitation of 0.05 inch before a rain gauge reading would be listed as dry weather for that day. If precipitation of 0.06 inches occurred after the reading, this again would be listed as dry weather for the following day. The sum of these two precipitation amounts exceed the 0.1 inch wet weather threshold and may very well result in discharges at the outfall. Without an improved definition in the TMDL, there is no consideration for wet weather in these types of situations and a dry weather exceedance may be recorded against a permittee.	Refining the definition of wet weather may be considered by the Regional Board at a different time but has not been evaluated for this action, has not been noticed for public comment and is outside the scope of this reconsideration. Also see response to comment 1.2.
7.6	City of Santa Monica #1	**Erratum** – The descriptive locations for the sampling stations in Table 3 of the Staff Report dated March, 2012 are incorrect. For Example, SMB 3-1, which is the Montana Avenue station in Santa Monica, is listed as Long Point in Rancho Palos Verdes.	See response to comment 1.25.
8.1	City of Santa Monica #2	We sent our comment letter regarding the bacterial TMDL opener via email earlier today. I inadvertently left out one of our observations regarding the descriptive location for each Monitoring station in Table 7-4.2a. We're not sure how the descriptions were decided upon, but	See response to comment 1.25.

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		for consistency with the Coordinated Monitoring Plan, we recommend the following descriptions for stations in our Jurisdictional Group 3: SMB 3-2: Wilshire Blvd. Storm Drain SMB 3-3: Santa Monica Pier Storm Drain SMB 3-4: Pico-Kenter Storm Drain SMB 3-5: Ashland Ave. Storm Drain SMB 3-6: Rose Ave. Storm Drain SMB 3-7: Brooks Ave. Storm Drain SMB 3-8: Windward Ave. Storm Drain	
9.1	LACDPW	The County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD) appreciate the opportunity to comment on the proposed amendments to the Basin Plan regarding the re-consideration of Total Maximum Daily Loads (TMDLs) for coastal water-bodies of Santa Monica Bay Beaches, Marina del Rey, Los Angeles Harbor, Ballona Creek, and Malibu Creek. We would like to thank Regional Board staff for their consideration of the 2009 proposal by Jurisdictional Groups in revising the TMDLs. However, we are concerned about some of the proposed revisions as discussed below. Comments A, B, C, H, and L apply to all five TMDLs, while the remaining comments apply to specific TMDLs as indicated there in. **A. The Rolling Geometric Mean Should Be Calculated Every Four Weeks.** Regional Board staff has conducted a thorough analysis of two approaches to calculate the geometric mean - rolling versus discrete approach -and arrived at the following conclusion and recommendations:	Staff disagrees. The method suggested by County is more of a discrete calculation method with overlap; only the last two weeks of any month would be included into more than one calculation (and never the first two weeks). Since most sites sample weekly (and none less than weekly) a weekly calculation is appropriate. Also see response to comment 4.19.

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		"A rolling geometric mean may, in some cases, determine a beach does not meet standards when it does. For example, a single very high sample can influence the geometric mean calculation week after week into a period where the water quality is, in fact, meeting standards. Alternatively, a discrete geometric mean can, in some cases, arbitrarily split a period of low water quality such that the geometric mean calculation determines the beach does meet water quality standards when there was a period when it did no... In the superior interest of not failing to identify water quality impairment, the rolling geometric calculation is preferred. ...calculate geometric mean weekly using 5 or more samples for rolling six week period." [Page 36 of Staff Report] While we are not opposed to the rolling approach, calculating the rolling geometric mean on a weekly basis as proposed by staff is very problematic and should be revised as described below. As stated in the staff report, geometric mean was meant to measure the quality of a water-body long term. Therefore, calculating the geometric mean weekly is not meaningful. More importantly, calculating geometric mean for a certain week by using data collected over previous six weeks would not reflect the condition of the water-body in that week because about 83% of the data used in the calculation was taken from outside of the week. We propose the following revision to staff's recommended language for calculating geometric mean: "For purposes of this TMDL, the geometric means shall be calculated ~~weekly~~every four weeks as a	

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		rolling geometric mean using 5 or more samples, ~~for~~ over six week periods, starting all calculation weeks on Sunday." This proposed change would make geometric mean calculation and application more meaningful and, at the same time, reasonably addresses staff's and our concerns for the following reasons: • The rolling approach is still used and provides a two-week overlap between geometric mean calculation periods. Thus, seasonal interdependency and continuity in the calculation are maintained. This would address staff's concern about the arbitrary boundaries between seasons or calculation periods. • It reduces the false positive conclusion about exceedances, i.e., the conclusion that "a beach does not meet standards when it does" would be minimized. • It is in line with USEPA's draft criteria approach of 30-90 days duration for geometric mean calculation.	
9.2	LACDPW	**B. The Reference System Approach Should Apply to Geometric Means.** As stated in the TMDLs under this re-consideration and other various Regional Board documents, Regional Board supports the reference system approach as a mechanism of implementing recreational standards in Los Angeles Region: "[The reference system] approach is used in recognition of the fact that there are natural sources of bacteria that may cause or contribute to exceedances of bacteria objectives and that it is not	See response to comment 1.21.

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		the intent of Regional Board to require treatment or diversion of natural coastal creeks or to require treatment of natural sources of bacteria.... or to hold a non-reference beach to a higher standard than a reference beach." According to Appendix 8 of the draft Staff Report and summarized in the table below, there are about 20-25% exceedances of geometric mean at the reference site (i.e., Leo Carrillo Beach). These exceedances are very similar to single-sample exceedances for wet-weather, which explains the impact of wet-weather on geometric mean results. Despite these significant exceedances of geometric mean at the reference site, staff continues to recommend allowing no exceedances of geometric mean objectives. This inconsistent application of the reference system approach is not based on science and potentially would require the treatment of non-anthropogenic sources of bacteria. Given the complex nature of bacteria and, more importantly, the fact that non- anthropogenic sources can cause significant exceedances of the geometric mean (as seen in the above table), staff should re-assess its approach on the implementation of the geometric mean standards. It is unreasonable to hold dischargers to a standard that cannot be met at the reference site. Therefore, appropriate number of geometric mean exceedances should be allowed based on findings at the reference site. **[See the County of Los Angeles comment letter for tables and figures.]**	
9.3	LACDPW	**C. The Reference System Approach Should Apply to Single Sample Limits During Summer Dry Weather**	See response to comment 3.2.

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		Staff's examination of single sample exceedances at the reference beach (i.e., Leo Carrillo Beach) using data from 2004 to 2010 shows exceedance rates of 22% during wet weather, 10% during winter dry weather, and 10% during summer dry weather. These exceedance rates were used to set allowable exceedance days for wet weather and winter dry weather. On the other hand, staff continues to recommend the no exceedance policy for the summer dry weather. Once again, as with the geometric mean, this is inconsistent with the reference system approach and holds dischargers to a standard that cannot be met at a natural site. Staff has used two main reasons for not allowing single sample exceedances during summer dry weather, the first being that summer is the period of highest recreational use. The County and the LACFCD recognize that summer is the period when most people use beaches. We also recognize that the high summer time usage is true for all beaches, including those beaches receiving flows from natural or undeveloped watersheds and yet having exceedances as shown for the reference site. Our understanding is that beaches that receive natural sources (such as reference beaches) are not subjected to bacteria objectives despite the level of public usage at those beaches and the number of exceedances observed. Therefore, setting targets for non-reference beaches for summer period beyond what can be attained at the reference site, which also has similar level of public usage during summer, is unjustified.	
9.4	LACDPW	As a second reason for not allowing exceedances during summer dry weather, staff has asserted that the 10% exceedance rate observed for summer dry "happened during a single year (2006) ... indicating that five out of six years there were no exceedances at Leo Carrillo Beach during summer dry weather." The result of our analysis appears to	See response to comment 3.7.

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		contradict staff's assertion. Our finding indicates that the summer dry exceedances at Leo Carrillo Beach were not limited to one year, but instead were distributed among several years as shown in the table below. Based on the above analysis, we request that staff apply the reference system approach consistently throughout all three seasons identified in the TMDLs. Accordingly, a 11% allowable exceedance rate should be used to set waste load allocations during summer dry weather. **[See the County of Los Angeles comment letter for tables and figures.]**	
9.5	LACDPW	Alternatively, staff could adopt USEPA's draft criteria for single sample applications. According to the USEPA, single sample values have never been meant for a not to exceed criteria. To avoid confusion on the application of the single sample standard for regulatory purposes, the USEPA re-named the "single sample maximum (SSM)" criteria as "Statistical Threshold Valve", or STV, and clearly stated that the STV can be exceeded up to 25% of the time during a recommended duration of 30-90 days. These 25% STV exceedances are allowed at all times of the year, independent of particular season.	This Regional Board applies a fecal-indicating bacteria target both for the maximum value and for geometric mean to be protective of public health. In addition, this Regional Board uses a reference beach approach which is more site specific than the generic 25% in USEPA's draft criteria. Use of a generic 25% exceedance rate instead of the reference beach approach has not been considered for this action, has not been noticed for public comment and is outside the scope of this reconsideration.
9.6	LACDPW	**D. The Revised Interim Waste Load Allocations for Santa Monica Bay TMDL Is Not Appropriate**	See response to comment 1.6.

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		As part of the re-opener, staff re-calculated the jurisdictional-based interim allocations for wet weather based on data collected from 2004-2010. The re- calculation resulted in significant reduction in interim waste load allocations for all jurisdictional groups. Whereas jurisdictional groups were previously meeting the 10% and 25% interim targets, the recalculation would bring the jurisdictional groups into non-compliance. The table below compares the original interim targets, the newly estimated exceedances, and the newly recalculated interim targets. Comparing the average actual annual exceedance (4th column), with the original10% target (2nd column) and 25% target (3rd column), all jurisdictional groups (except jurisdiction 5) are already in compliance with the compliance targets. Recalculating the interim targets as proposed (i.e. the 5th column) would have the unintended consequence of throwing the jurisdictional groups into noncompliance. It is our understanding that the reason for recalculating the interim targets is to use available new data from the wave wash instead of older data collected at 50 yards away from the wave wash. However, the use the newer data disregards the actions dischargers have taken to improve water quality since 2003. If it were not for dischargers actions, the new data from the wave wash very likely would have resulted in an increase in the exceedances or, at least, similar exceedances as the previous locations. This can be illustrated by the data at the reference site (Leo Carrillo Beach), where no actions were taken and the monitoring at the wave wash showed similar exceedance rates for wet weather and an increase during dry weathers compared to the old sampling location at 50 yards away. It is clear that the exceedance reductions observed at the compliance sites is related to actions taken by dischargers.	

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		Therefore, the interim allocations should be re-instated as the original targets which were calculated based on the baseline before 2003. Alternatively, staff could use data collected during 2004-05 storm season, which is represents the first sampling conducted at the re-located sites, to re-calculate the baseline interim allocations. **[See the County of Los Angeles comment letter for tables and figures.]**	
9.7	LACDPW	**E. Leo Carrillo Beach Is Not an Appropriate Reference System for Marina del Rey Harbor.** The use of Leo Carrillo Beach as a reference site for enclosed bays and harbors such as Marina del Rey Harbor is not appropriate. First, beaches at enclosed bays have very different hydro-dynamic characteristics compared to beaches that are open to the ocean. For example, open beaches are characterized by fast and high- energy wave dynamics (thus, high flushing and dilution), whereas enclosed bays typically have less circulation. The limited circulation at enclosed bays results in poor flushing and long hydraulic residence time, which creates an environment much more conducive for bacteria re-growth and persistence than water-bodies open to high-energy waves.	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 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

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			data record; and ensures equal protection across Santa Monica Bay beaches.
9.8	LACDPW	Secondly, natural sources of bacteria at enclosed bays are known to be higher than those at open beaches due to high bird population at enclosed bays. For example, a source identification study conducted for Marina del Rey Harbor in 2007 found that non-human sources account for about 95% of the bacteria sources. The weak water circulation and longer microbial survival/re-growth at enclosed bays further aggravates the contribution of natural sources. Studies conducted at other enclosed bays in California supports this assertion. Given that reference sites are meant to represent natural sources, these distinct water-bodies should have their own reference sites.	See response to comment 3.1 and 9.7.
9.9	LACDPW	In the absence of appropriate reference site for enclosed bays, the logical approach (as stated in the TMDL) would be to use the "natural sources exclusion" approach. However, staff rejected this approach by reasoning that no documentation has been provided to the Regional Board indicating that all anthropogenic sources of bacteria have been controlled, which is a required pre-requisite for the consideration of natural sources exclusion approach. In this regard, we would like to note that all storm drains discharging in to Marina del Rey Harbor have been retrofitted with LFDs to the extent feasible. Also, it is not feasible to control all anthropogenic sources of bacteria. This fact was recognized, for example, by the San Diego Regional Water Quality Control Board in its "Amendment to the Water Quality Control Plan for the San Diego Basin to Incorporate Implementation Provisions for Indicator Bacteria Water Quality Objectives," Resolution No. R9-2008-0028. That resolution states: "The requirement to control all sources of anthropogenic indicator bacteria does not mean the	See response to comment 3.1 and also 1.6 This comment is insufficient information to appropriately evaluate the validity of a NSE approach for Marina del Rey. However, a Natural Source Exclusion can be developed, if appropriate, at a later date.

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		complete elimination of all anthropogenic sources of bacteria as this is both impractical as well as impossible."	
9.10	LACDPW	If staff continues to reject the use of the natural sources exclusion approach at this time, it should consider using a multiplier to adjust the allowable exceedance days for enclosed water-bodies such as Marina del Rey Harbor. Specifically, the allowable exceedance days for Marina del Rey would be established by multiplying the allowable exceedance days at the Leo Carrillo reference site by a pre-determined multiplier, whose value would be greater than one (1) to account for the unique conditions at enclosed bays and estuaries that tend to lead to higher natural bacteria counts. The value of the multiplier can be approximated based on the findings of the source identification study for Marina del Rey.	The use of a 'multiplier' is unprecedented and would require sufficient study and stakeholder involvement to consider at some future date. Also see response to comment 1.2 and 3.1.
9.11	LACDPW	Another alternative that may be considered for Marina del Rey would be to calculate the allowable exceedance days based on the results of SCCWRP's reference beach study, where data from reference sites that have the influence of lagoons can be used. This is consistent with the approach that the Regional Board used for the Santa Clara River Estuary Bacteria TMDL. This approach would lead to exceedance probabilities of 30% for wet weather, 13% for winter dry weather, and 5% for summer dry weather.	The Regional Board used the other exceedance probabilities for the estuary in the Santa Clara River TMDL because the large size of the watershed; Marina del Rey has a very small watershed.
9.12	LACDPW	**H. Additional Re-Consideration** With the continuous evolution of the science behind bacteria and health risks associated with recreational activities, it is important to evaluate these TMDLs every five years. There are still many unanswered questions about bacteria that need to be addressed in the future as the science evolves. Some of the issues that warrant re-	See response to comment 1.3.

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		opener includes (i) the USEPA's new recreational criteria, slated for November2012, with the associated implementation guidance to come in November 2013; (ii) the development of site-specific recreational criteria using quantitative microbial risk assessment (QMRA) tool for beaches impacted by non-POTW discharges; (iii) the epidemiological studies being conducted in southern California for non-point source impacted beaches; and (iv) consideration of natural sources exclusion once anthropogenic sources are addressed.	
9.13	LACDPW	**I. Bacteria Indicator for Marine Waters** USEPA's draft 2012 recreational water quality criteria, released in December 2011, 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 in epidemiological studies are entrococci in both fresh and marine water and *E. coli* in fresh water. 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 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 health risks, and have cast doubt on the application of these indicators for regulatory purposes. Despite recent science and USEPA's recommendations, staff continues to use traditional bacteria indicators (total coliform, fecal	Changes to bacterial standards have not been considered for this action, have not been noticed for public comment and are outside the scope of this reconsideration. Also see response to comment 4.9.

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		coliform, enterococcus, and fecal- to-total coliform ratio), which were originally established by the State Department of Public Services under the authority given to it via Assembly Bill (AB) 411. The AB411 bacteria standard was intended for beach notification or advisory purposes (such as postings, closings, and restrictions) and never was intended to be used for TMDL or permit compliance assessment. Therefore, the continued use of these multiple indicators for TMDLs is inappropriate. In 2010, the Regional Board removed the fecal coliform indicator from freshwater standard based on USEPA recommendations and epidemiological study findings that enterococcus and *E. coli* were the indicators that most strongly correlate with swimming associated illness in freshwater. The same is true for marine waters, where only enterococcus has shown strong correlation with illness. Therefore, staff should update its bacteria standard as part of this re-opener to reflect enterococcus as the sole bacteria indicator for marine waters, which is consistent with USEPA's draft new criteria.	
9.14	LACDPW	**J. Los Angeles Harbor: Main Ship Channel** In a letter submitted to the Regional Board on March 10, 2010, the City of Los Angeles indicated that the Main Ship Channel has been consistently in compliance with the bacteria objective since monitoring started in 2005. Data collected from March 2010 until present also show no exceedances at the Main Ship Channel. For the record, a summary of the data (for station HW-07) is provided in the table below. Therefore, the Main Ship Channel is meeting standards and should be removed from the 303(d) list.	Changes to the 303(d) list can be made according to the State's Listing Policy, *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List.* The data solicitation period for the next list has passed and currently State Board is developing the Lines of Evidence for the next list. When a proposed next list is ready, the Regional Board will notice it for public comment.

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		[See the County of Los Angeles comment letter for tables and figures.]	
9.15	LACDPW	**K. Time Extension for Dry Weather Compliance** Since the promulgation of the Santa Monica Bay TMDL in 2003, we have completed various implementation actions that have improved beach water quality along Santa Monica Bay. In particular, significant resources have been expended to address dry weather flows by implementing low flow diversions (LFD) and treatment systems. As of April 2012, more than 30 LFDs have been installed and are being operated along Santa Monica Bay, including three LFDs at Marina del Rey. As a result of these actions, the water quality at the beaches has improved significantly which has been acknowledged by Heal the Bay's annual beach report cards. Despite all these actions and improvements, however, there still exist exceedances of bacteria objectives in the receiving water during dry weather. We do not believe that these exceedances are caused by MS4 discharges, especially at beaches where storm drain flows were diverted or no storm drain exists. At present, however, neither Regional Board staff nor the regulated community know the sources of the bacteria that are causing the dry weather TMDL exceedances. Until these sources are known, it is impossible to address them, and thus impossible to reduce dry weather exceedances to zero. The staff report neither identifies the sources of the bacteria that are continuing to cause dry weather exceedances, nor discusses how they could be addressed. Accordingly, to allow stakeholders to better understand and address (if needed) these uncounted-for sources, the dry weather compliance	See response to comment 1.8 and 3.3.

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		dates shall be extended to 2015. During this additional time, the regulated community, in collaboration with the Regional Board and research agencies like SCCWRP, could develop a study to assess the causes of these exceedances and, if needed.	
9.16	LACDPW	**L. Definition of Joint Responsibility** The TMDLs, under the waste load allocation section, provide that responsible jurisdictions and responsible agencies are "jointly responsible" for complying with the waste load allocations. 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 assigned waste load allocations must have programs to meet those allocations, not just some jurisdictions. Because "jointly responsible" is not defined, however, a single jurisdiction can and has been solely held responsible for the contributions from other jurisdictions. This could discourage a jurisdiction from implementing a program to meet the TMDL due to another jurisdiction will be held responsible and meet the obligation. We therefore request that the Regional Board clarify the meaning of "jointly responsible" by adding the following language to each waste load allocation section where there is a reference to jointly responsible: "Jointly responsible" means that the responsible jurisdictions and agencies within a watershed [or	See response to comment 5.5 and 3.21. Also see response to comment 1.4.

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		sub watershed] are all responsible for implementing programs in their respective jurisdictions to meet the waste load allocations. No jurisdiction or agency shall be individually responsible for meeting the waste load allocations by itself nor shall any jurisdiction or agency be responsible for meeting another	
9.17	LACDPW	**M. Miscellaneous Comments** a. In Table 3 of the Staff Report for Santa Monica Bay TMDL, the station ID (column 1) and associated station descriptions (columns 2 and 3) do not match and should be corrected.	See response to comment 1.25.
9.18	LACDPW	b. On page 7 of the revised Basin Plan Amendment (implementation section) for Malibu Creek Bacteria TMDL, January 24, 2009 is presented as the compliance date for the dry weather. This appears to be a typo-error and should be corrected as January 24, 2012, consistent with the schedule given on page 14.	Comment noted. The Malibu Creek BPA has been corrected to address this comment.
10.1	LACSD	***JWPCP Waste Load Allocations*** The existing WLA for the JWPCP in the SMBBB TMDL is "zero (0) days of exceedance." As the JWPCP does not cause or contribute to indicator bacteria exceedances at shoreline monitoring points, no action was required on the part of the Sanitation Districts to comply with this WLA. The Staff Report for the Bacteria Amendments does not mention any contributions by the JWPCP to indicator bacteria exceedances, nor does it discuss any need to make the JWPCP WLA more stringent. However, the Bacteria Amendments propose to revise the WLA to being "equal to the bacteriological objectives contained in	See response to comment 1.5.

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		Chapter 3 during summer dry weather, winter dry weather, and wet weather." As written, the updated WLA language could inadvertently be interpreted as meaning that the JWPCP discharge would have to meet Basin Plan bacteriological objectives at end of pipe. Such an interpretation would require extensive treatment plant upgrades at the JWPCP, which would be unwarranted since the JWPCP does not cause or contribute to beach indicator bacteria exceedances. Therefore, the Sanitation Districts request that the proposed JWPCP WLA be revised. Suggested language is provided below. "The three Publicly Owned Treatment Works (POTWs)[4] discharging to Santa Monica Bay are each assigned individual WLAs expressed, as receiving water limitations, as follows: the Discharger shall ensure that bacterial concentrations in the effluent do not cause or contribute to exceedances at shoreline monitoring points of bacteriological objectives contained in Chapter 3 during summer dry weather, winter dry weather, and wet weather. The POTWs are not expected to be sources of bacteria to Santa Monica Bay Beaches, so no additional actions are expected to be necessary to be in compliance with TMDL WLAs."	
10.2	LACSD	***Geometric Mean Calculations*** The Bacteria Amendments revise the requirements for geometric mean calculations in the Basin Plan and in several TMDLs, including the SMBBB TMDL. For the TMDLs, the current 30-day rolling geometric mean calculated daily would be replaced with a 6-week rolling geometric mean calculated weekly. While we believe that this change provides a more accurate assessment of water quality than the previous method, we are still concerned that even a 6-week monitoring period would not provide adequate sample results to provide reliable and representative water quality determinations. We	See response to comment 5.6.

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		agree with and support the recent EPA draft recommendations for recreational water quality criteria (76 Federal Register 79176, December 21, 2011) to include more samples in the geometric mean calculations to improve the accuracy of the characterization of water quality, and therefore prevent the chance of misclassifying water bodies. EPA showed that, for beaches with actual geometric means less than 25 CFU/100 ml (the geometric means observed at Jurisdiction 7 beaches are generally less than this value), the likelihood of misclassifying water bodies is more than 20% with 4 samples and 14% with 5 samples. EPA has been conducting research since 2004 to support the updated criteria and went to great lengths to clarify the intended purpose and use of the geometric mean, as well as how it should be calculated. We support the EPA recommendation to minimize the risk of inaccurate water quality determinations by calculating geometric means over a longer time period, and recommend that geometric means be based on90-day periods.	
10.3	LACSD	***Basin Plan Implementation Provisions for Water Contact Recreation Bacteria Objectives*** The Bacteria Amendments propose to change the first paragraph under "Implementation Provisions for Water Contact Recreation Bacteria Objectives" in Chapter 3 of the Basin Plan as follows, "The geometric mean values ~~should~~shall be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over ~~a 30-day~~the calculation period." The Sanitation Districts are concerned that the meaning of the term "the calculation period" is unclear. The Basin Plan does not specify a calculation period for geometric means for fresh or marine waters designated for water contact recreation. While the Bacteria Amendments are providing specific time periods in the beach TMDLs for geometric mean calculations, it will be difficult for dischargers to	The revision to the Basin Plan allows sufficient flexibility to be compliant with USEPA guidance and future TMDLs. The USEPA draft recreational waters criteria which currently recommends a 30- to 90 day period for the calculation of the geometric mean, Also, see response to comment 5.6.

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		waterbodies without indicator bacteria TMDLs to interpret the phrase "the calculation period." We recommend that a 90-day period be used to calculate all indicator bacteria geometric means, to provide the most accurate characterization of water quality.	
10.4	LACSD	Additionally, the third paragraph under "Implementation Provisions for Water Contact Recreation Bacteria Objectives" in Chapter 3 of the Basin Plan also states that a "30-day period shall be used to calculate the geometric mean." However, no changes to this paragraph have been proposed. Language in the third paragraph of this Basin Plan section should be changed to be consistent with any changes to the first paragraph. As stated above, we recommend that a 90-period be specified for calculating the indicator bacteria geometric mean.	Comment noted. The Chapter 3 BPA has been revised to address this comment.
10.5	LACSD	***Table Corrections*** The second and third columns ("Type" and "Location") in Table 3 of the Staff Report do not correctly correspond with the other columns. Additionally, the sample stations in Table 7-4.2a in the Bacteria Amendment and Table 5 of the Staff Report are incorrectly described. These tables should be revised accordingly.	See response to comment 1.25.
11.1	Heal the Bay	As the plaintiffs in the 1998 Clean Water Act citizen action which led to the adoption of the Santa Monica Bay Beaches Bacteria TMDL and as key stakeholders in the development of the Santa Monica Bay Beaches Bacteria TMDL, which serves as a model for other Bacteria TMDLs in the Region, Heal the Bay and Baykeeper have a strong interest in ensuring that all Bacteria TMDLs provide maximum public health protection. Our groups have closely followed the development of each Bacteria TMDL, providing public comments during every step of their development and implementation. We firmly believe that the regulatory framework, the science and the data underlying the	Comment noted.

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		TMDLs all demonstrate the need to strengthen these TMDLs and the critical protections against human illnesses resulting from exposure to bacteria at our rivers and beaches. We urge the Board to do just that.[1]	
11.2	Heal the Bay	**<u>The Regional Board should preserve a rolling 30-day geometric mean period</u>** We urge the Regional Board to preserve **a rolling 30-day geometric mean period**, which is critical for tracking and identifying chronic water quality problems. This is extremely important for public health protection of beachgoers on a day to day basis. The Regional Board staff is proposing a longer six-week geometric mean period. A shorter geometric mean period is more technically sound because it allows for a more comprehensive analysis, which can better account for the beach water quality fluctuations that may be masked with a longer period. As demonstrated in the attached Table, using the six week geomean period results in lower protection. According to EPA's 1986 Recreational Beach Water Quality Criteria, the current water quality monitoring recommendation is no less than five samples equally spaced over a 30-day period. California's Ocean Plan is identical to USEPA's geometric mean water quality monitoring guidelines. Additionally, the California Department of Health Services' *Draft Guidance for Salt and Freshwater Beaches recommends a "...a 30-day sampling period in order to provide the minimum protective bacteriological standards for waters adjacent to public beaches and public water-contact sports areas."* There is no justification for the Regional Board to provide a different calculation in the Draft Amendments. While we support zero (0) exceedances of the geometric mean, we believe the proposed increase in the geometric mean period is	The shorter calculation period for the geometric mean is not more technically sound - the 6 week calculation period will ensure in almost all cases at least 6 samples in each geometric mean calculation – the 30 day will often have 5 and often have only 4 which can result in a much less accurate geometric mean. The Regional Board recommended method provides a more accurate geometric mean every week instead of a less accurate geometric mean calculation. In addition to the sources Heal the Bay quotes, USEPA recently-released draft Recreational Water Quality Criteria recommends a 30 to 90 day period for the calculation of geometric means. The day to day health protection of beachgoers is addressed also by the single sample maximum. The Regional Board uses a dual method: both single sample maximum and geometric mean ensure adequate protection of human health. No beach water quality fluctuation is ever masked.

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		unjustified as it will result in decrease in public health protections. Instead, the Regional Board should take the most protective approach and maintain the existing rolling 30-day geometric mean period, at the minimum.	
11.3	Heal the Bay	**<u>The Regional Board should use a more appropriate reference beach such as Nicholas Beach</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. Consequently, the Regional Board can no longer rely on Leo Carrillo Beach as the reference beach for our Region but should instead explore other, more appropriate reference beach locations such as Nicholas Beach in the Draft Amendments. 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 decision to choose Leo Carrillo as an interim reference site was primarily driven by the limited availability of	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 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. Also see response to comment 9.7.

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		historical shoreline monitoring data but the 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 septic systems located near the bottom of the creek and heavy use by campers of the areas in close proximity to the beach. Staff's proposed Draft Amendments contain no assessment of the current condition and effectiveness of these old and heavily used septic systems. An analysis of the contributions of these systems to bacterial contamination in the lower watershed is long overdue and should be provided before the Regional Board can continue to rely on Leo Carrillo Beach as a reference site. 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 (see attached Tables 1&2). Furthermore, Nicholas 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, the Regional Board should use another reference beach alternative, such as Nicholas Beach.	

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11.4	Heal the Bay	**The Regional Board should use a more representative data analysis period for Leo Carrillo Beach** While the best approach for the Draft Amendment is to select a new reference site such as Nicolas Beach, we urge the Regional Board, at the minimum, to select a more appropriate data analysis time period if Leo Carrillo Beach remains as a reference site. The Regional Board's analysis of monitoring data (2004 to 2010) collected at "point zero" from Leo Carrillo Beach shows an exceedance increase during summer and winter dry weather periods. Thus, the Regional Board should include only the last five years of monitoring data (2006 to 2011) to remove any bias in the exceedance probability created due to the extreme wet weather conditions experienced in the 2005-2006 winter season. This bias is demonstrated in the attached Table 1.	Staff disagrees. Based on an examination of the historical rainfall records at LAX, included as Appendix A in the staff report, it was determine that the 2005 rain year would classify as the 77 percentile rain year based on wet days. However, 2007 and 2008 would be classified at or near the bottom quartile in terms of wet days. As such, the presence of highly variable rain years in the 2004 to 2010 may rather serve to dampen bias and serve as a more appropriate data range than simply excluding 2004-2005 from the calculations.
11.5	Heal the Bay	**The Regional Board should not use the 90th percentile storm year to determine exceedance rates** The proposed Draft Amendment uses the number of wet weather days during the 90th percentile storm year to determine the number of days of allowable number of exceedances. Because the 90th percentile rain event year is used to determine the number of allowable exceedances, during 90% of all years analyzed, the actual number of exceedances at the reference location will be less than the allowable number of exceedances. Thus, in 90% of the years the TMDL does not truly account only for natural conditions. Heal the Bay has expressed its concern over this methodology in our comment letters regarding both the dry and wet bacteria TMDL's for Santa Monica Bay Beaches. Instead, we suggest that the Regional Board use the median or 50th percentile storm year.	The critical condition for bacteria exceedances is wet weather, and the 90th percentile year, in terms of the number of wet-weather days, has a return frequency consistent with that used in other TMDLs. Establishing the WLA based on the historical exceedances of the reference watershed during a dry year would result in the reference watershed itself being in non-compliance. This would undermine the intent of the reference watershed approach, which is to make allowances for natural sources of bacteria and to avoid diverting natural creeks and drainages. In addition, the methods employed to meet the WLAs based on the critical wet-year will reduce

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			exceedances during drier years as well. Use of the 90th percentile year assists implementing agencies in planning for a worst-case scenario and it is expected that in years with fewer wet days a decline in exceedance days will be observed. \ A change from the 90th percentile year to the 50th percentile year was not evaluated for this action, has not been noticed for public comment and is outside the scope of this reconsideration.
11.6	Heal the Bay	**<u>Miscellaneous</u>** • As you know, the TMDL allows for additional compliance time when an integrated approach to wet weather TMDLs is pursued. We supported this concept, as it is extremely important to look at water issues comprehensively. Most dischargers appear to be taking this added time as a "given." What evaluation has been done by the Regional Board to ensure that this extra time is truly merited and progress to this end is occurring? We have seen no confirmation to date. As part of this reopener process, we strongly urge the Regional Board to set strong criteria for being eligible for this extra time and to evaluate what has occurred to date.	Staff disagrees. Based on the documents submitted to the Regional Board for consideration, stakeholders have met the minimum requirement of the TMDLs to qualify as implementing an integrated approach. As such, the alternate implementation milestones in the TMDL are triggered and stakeholders are to now meet the extended schedule as specified in the TMDL.
11.7	Heal the Bay	• The notice mentions an amendment to Chapter 3. What does this entail? We do not see any such proposed changes in the documents distributed.	The proposed Tentative Basin Plan Amendment amends the implementation provisions for Water Contact Recreation in Chapter 3 which is included in Attachment

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			D to the Tentative Regional Board Resolution and can be found on the Regional Board website in the following link: http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_90_R12-XXX_td.shtml or provided upon request.
11.8	Heal the Bay	• We are encouraged that the Regional Board decided not to use "ghost data"[5] when determining the geometric mean. These data may misrepresent actual water quality and fluctuations, thereby giving the public a false sense of security or misrepresentation of poor water quality conditions.	Comment noted. Regional Board staff still remains unclear of the meaning of the term "ghost data"
11.9	Heal the Bay	In summary, Heal the Bay and Baykeeper strongly urge the Regional Board to ensure that water quality standards are met and public health is not compromised for years to come. The Bacteria TMDLs reconsiderations should not be used to relax water quality protection at the expense of beachgoers and our vitally important tourist economy. To that end, the proposed Draft Amendments should be revised to preserve the rolling 30-day geometric mean to accurately account for water quality fluctuations and better protect the public from bacteria pollution. Furthermore the proposed static seasonal geometric mean should be removed from the Ballona TMDL. Finally, the Regional Board should not longer use Leo Carrillo Beach as the most appropriate reference beach for our Region but should instead rely on Nicholas Beach or another more appropriate location.	See response to comment 11.2 and 11.3. Changing from a 30 day to a six week calculation period does **not** relax water quality protection. The targets and allocations are unchanged and the length of the geometric mean calculation period is lengthened to ensure a reasonably accurate assessment of the central tendency of the beach data. The Ballona Creek TMDL Basin Plan Amendment has been revised to delete the reference to the discrete geometric mean calculation.
12.1	Joyce Dillard	We question that you have not indicated any performance measures of	Staff is unable to establish the relevance

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		pipeline conditions including sewers, stormwater, gas, oil and other fluids.	between the comment and the TMDL reconsideration. See response to comment 1.2.
12.2	Joyce Dillard	You have not asked if there are overweight trucks allowed on the streets in the WMA.	Staff is unable to establish the relevance between the comment and the TMDL reconsideration. See response to comment 1.2.
12.3	Joyce Dillard	You have not analyzed any "earthquake" potential whether it be from a fault or from other vibrations.	Staff is unable to establish the relevance between the comment and the TMDL reconsideration. See response to comment 1.2.
12.4	Joyce Dillard	Bacteria should be identified with some sense of the entire picture, not just a test tube.	Staff is unable to establish the relevance between the comment and the TMDL reconsideration. See response to comment 1.2.
12.5	Joyce Dillard	Underground storage tanks are being omitted as a source of contamination. Because of homelessness and other issues of vehicle living, is sewage being dumped without concern of the consequences. This process needs to encompass a complete understanding of the issue, identification and allowances.	Staff is unable to establish the relevance between the comment and the TMDL reconsideration. See response to comment 1.2.
12.6	Joyce Dillard	Cost-Benefit Analysis should be part of the process and we see none.	Staff is unable to establish the relevance between the comment and the TMDL reconsideration. See response to comment 1.2.

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12.7	Joyce Dillard	Public Health and Safety issues should be forefront including the disease potential of migrating birds and wildlife. Who measures and analyzes that aspect.	Staff is unable to establish the relevance between the comment and the TMDL reconsideration. See response to comment 1.2.
12.8	Joyce Dillard	We have seen approaches to TMDLs with no sense of source, cost or results.	Staff is unable to establish the relevance between the comment and the TMDL reconsideration. See response to comment 1.2.