Response to Comments July 9, 2010
Los Angeles River Watershed Bacteria TMDL
Comment due date: June 05, 2010

Comment Letters
1. Boeing
2. California Department of Transportation (Caltrans)
3. City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Monrovia, Signal Hill, South Gate, and Vernon
4. City of Burbank
5. City of Carson
6. City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and South El Monte
7. City of Downey (2)
8. City of Inglewood
9. City of La Canada Flintridge
10. City of Long Beach
11. City of Los Angeles Bureau of Sanitation (LABOS)
12. City of Los Angeles Department of Water and Power (LADWP)
13. County of Los Angeles Flood Control District (LACFCD)
14. County of Los Angeles Department of Public Works (LACDPW)
15. County Sanitation District of Los Angeles County (LACSD)
16. Flow Science for Cities of Arcadia, Bellflower, Carson, Cerritos, Claremont, Commerce, Downey, Duarte, Glendora, Hawaiian Gardens, Irwindale, Lawndale, Lynwood, Monterey Park, Paramount, Santa Fe Springs, Signal Hill, Vernon, and Whittier
17. Heal the Bay
18. Santa Monica Bay Keeper
19. United States Environmental Protection Agency (USEPA)
20. Rutan and Tucker, LLP (1) and (2) for Cities of Arcadia, Bellflower, Carson, Cerritos, Claremont, Commerce, Downey, Duarte, Glendora, Hawaiian Gardens, Irwindale, Lawndale, Lynwood, Monterey Park, Paramount, Santa Fe Springs, Signal Hill, Vernon, and Whittier

No.	Author	Comment	Response
1	**Boeing: June 04, 2010**		
1.1	Boeing	The Boeing Company appreciates the opportunity to submit comments on the proposed amendment to the Water Quality Control Plan for the Los Angeles Region (Basin Plan) to incorporate Total Maximum Daily Load for Bacteria in the Los Angeles River ("Proposed TMDL") that is scheduled for a public hearing at the July meeting of the Los Angeles Regional Water Quality Control Board ("Regional Board"). Boeing requests that these comments also be considered in the development of any regulations or polices related to the proposed amendment.	Comment noted.
1.2	Boeing	Storm water from Boeing's Santa Susana Field Laboratory drains in part to the Los Angeles River watershed and is subject to regulation under NPDES Permit No. CA0001309. As amended by the Regional Board on June 3, 2010, the Santa Susana	Comment noted.

No.	Author	Comment	Response
		permit now contains monitoring requirements for indicator bacteria. Because the permit contains effluent limitations for a wide variety of other constituents, including limitations derived directly from other TMDLs for the Los Angeles River, we are concerned that the permit will be amended in the future to include effluent limitations based on the proposed TMDL.	
1.3	Boeing	The proposed TMDL utilizes an "allowable exceedance day approach," where MS4 dischargers are allowed the same number of exceedances as seen by the Southern California Coastal Water Research Project ("SCCWRP") in studies of runoff from natural, open space areas. Runoff from open space (i.e., US Forest Service Lands, CA Department of Parks and Recreation lands, National Park Service lands) is also allowed exceedances at the same frequency, based on the assumption that these exceedances are caused by natural, non-human sources. However, the draft TMDL Staff Report provides that general and individual Industrial Stormwater NPDES Dischargers: "are assigned wasteload allocations of zero (0) days of allowable exceedances for both wet and dry weather and for the single sample and the rolling 30-day geometric mean limits. To comply with the allocation, these dischargers will demonstrate compliance with the target concentration of 235 MPN *E. coli*/100 mL. This allocation will be included in NPDES permits and WDRs." Draft TMDL Staff Report at p. 52. We are concerned that this requirement will also be applied to the Santa Susana permit despite the conclusion that the Santa Susana site is "not known to be a significant source of bacteria to the watershed (see the Draft TMDL Staff Report at p. 25), and despite the fact that "it is not the intent of the Regional Board to require treatment or diversion of natural water bodies or to require treatment of natural sources of bacteria from undeveloped areas."[2] The majority of the Santa Susana site is open space with abundant wildlife. As detailed in the comments Boeing submitted May 12, 2010 on proposed amendments to its NPDES Permit for the Santa Susana facility (appended here as Attachment B), including numeric effluent limitations for indicator bacteria in the Santa Susana permit would be inappropriate because natural sources are the likely source of any bacteria in stormwater discharges from the site. Moreover, any such limits would be counterproductive because those bacteria likely could not be	Industrial stormwater permittees are required to meet concentration based limits in their effluent. However, staff understands that Boeing, under its NPDES permit, monitors, in some cases, in receiving waters. In that case, when Boeing's stormwater permit is amended or reissued, an exceedance day approach for those monitoring sites can be considered. The Staff Report and BPA have been modified to reflect this change. See response to comment 16.9 regarding Aliso Canyon.

No.	Author	Comment	Response
		successfully treated without causing significant harm. To the extent that bacteria may be detected in waters receiving stormwater discharges from Santa Susana, it is highly likely that they would originate from natural sources. Because Boeing collects sanitary waste and transports it from the site to an offsite POTW for treatment and disposal, there is no indication that human waste generated at the site will be exposed to or enter stormwater runoff. As detailed in Attachment B, a number of studies show that non-human sources; such as birds and wildlife, contribute to bacteria in stormwater runoff. Similarly, a Bacteria Source Identification ("BSI") study of the Los Angeles River found that the largest dry-weather E. call loading increase occurred along the downstream portion of Reach 2 of Los Angeles River and was far larger than the storm drain loading to this reach. The CREST BSI study also measured concentrations of human-specific bacteroidales and demonstrated that the increase in *E. coli* concentrations in this reach appeared to originate from non-human sources, potentially including regrowth in sediments and bioslimes, resuscitation of bacteria from POTW discharges, and/or birds and wildlife. Even if there were reason to believe that Santa Susana's stormwater discharges contain indicator bacteria in excess of Basin Plan objectives (which there is not), it is far from clear that those bacteria could be successfully reduced. Treated water often has bacteria concentrations that exceed water quality objectives just downstream of the point where they are discharged to receiving waters. For example, Orange County recently studied BMPs for reducing bacteria concentrations in Aliso Creek. The study found that a BMP that included multimedia filtration and ultraviolet sterilization greatly reduced concentrations of indicator bacteria, but that bacteria levels rebounded within a short distance downstream of the BMPs. See (Orange County 2005). The CREST BSI study (2008) also showed large increases in indicator bacteria concentrations in natural channels that appeared to be due to natural, non-human sources. Thus, it appears likely that even if stormwater runoff from Santa Susana were to meet water quality objectives for indicator bacteria, bacteria concentrations in those flows likely will increase due to natural sources even at short distances downstream of the site. In addition, the controls required to meet bacteria numeric limits probably would cause more harm than benefit. As explained above, it is likely that natural sources such as birds and other wildlife would be the primary cause of any exceedances of water quality objectives or TMDL targets. It would be infeasible and undesirable to control	

No.	Author	Comment	Response
		wildlife or eliminate habitat to avoid or reduce those exceedances. In addition, while additional treatment processes, including ultraviolet sterilization or other disinfection treatment methods, could be employed to meet TMDL targets, these processes have the potential to greatly increase energy use at the site, introduce chemicals for treatment, require construction of significant volumes of on-site storage, and/or alter flow patterns of runoff leaving the site. These measures could yield potentially significant environmental impacts whose harm could outweigh any purported benefit, especially given the available evidence that indicator bacteria concentrations likely would rebound after treated water is discharged to natural channels.	
1.4	Boeing	For these reasons, we respectfully request that the water quality objectives for indicator bacteria be amended to more appropriately exclude natural sources from regulation; that the TMDL for Bacteria in the Los Angeles River Watershed be amended to specify that runoff from open space areas subject to a General or Individual Industrial Permit shall be allowed to exceed water quality objectives for indicator bacteria at the same frequency as runoff from other open space areas; and that numeric effluent limitations shall not be used in these instances.	Revisions to water quality objectives are not being considered in this action. A natural sources exclusion approach, which is an alternative implementation procedure for the single sample bacteria objectives contained in the Basin Plan, may be used in some cases, and where supported by adequate data, to account for natural sources. See response to comment 16.10.
2	**California Department of Transportation (Caltrans): June 04, 2010**		
2.1	Caltrans	The California Department of Transportation (Caltrans) appreciates the opportunity to comment on the proposed amendment to the Water Quality Control Plan for the Los Angeles Region (Basin Plan) to incorporate a Total Maximum Daily Loads (TMDL) to reduce indicator bacteria exceedances observed in the impaired waterbodies of the Los Angeles River. Watershed. Caltrans strongly supports the Regional Board's efforts to protect human health and achieve the highest standard of water quality possible. Caltrans has reviewed the TMDL and BPA and has concerns in the following areas.	Comment noted.
2.2	Caltrans	**Dry Weather Conditions** Caltrans facilities typically do not have dry weather discharges. Caltrans conducted field investigations of facilities within the Los Angeles River, Ballona Creek, Santa Monica Bay, Malibu Creek, and Marina Del Rey watersheds to document if any dry weather runoff occurred from Caltrans facilities and activities, such as landscape irrigation. Over fifty-nine miles of roadway and a maintenance station were inspected over a two period from April through October. Areas with landscaping were mapped and any instances of dry weather flow were noted. Only eight occurrences of dry weather runoff from Caltrans irrigation systems at four locations were identified. Steps were taken to eliminate these discharges and a program has been implemented to	Comment noted. If Caltrans facilities are an insignificant load to watershed, the currently assigned interim and final allocations are wholly appropriate. Further, if Caltrans demonstrates no discharge from its facilities and activities during dry weather to the MS4, it will be considered in compliance with the dry weather allocations.

No.	Author	Comment	Response
		identify and address future discharges. Other observations of dry weather runoff were identified, primarily originating from runoff from commercial and residential facilities. The local MS4 Permittees were informed of the discharges. **Source of Waste Loads to the Los Angeles River.** Any bacterial indicator loads from Caltrans roadways located in the Los Angeles River watershed are from natural background sources such as wildlife and birds. Caltrans completed a study in May 2002 on the presence of human pathogens in urban storm drains. The study found that highway facilities, including park and rides and maintenance stations do not appear to be a significant source of pathogens in urban drainage. In addition, during the dry weather inspection study described above no homeless encampments, illegal discharges, or other obvious sources of bacterial indicators were observed. We request that the waste load allocations assigned to Caltrans in the TMDL be set equal to existing loads. In addition, the BPA states that "Discharges from general NPDES permits, general industrial stormwater permits, general construction stormwater permits, industrial waste water permits, and WDR permits are not a significant source of bacteria to the river." However, no justification is provided for this assumption. Please include a discussion of the basis for this conclusion and how this applies to both wet and dry weather conditions.	The US EPA does not distinguish between human and nonhuman sources of bacteria in its recommended water quality criteria for bacteria in ambient waters, recognizing that both may pose health risks as indicated by epidemiological studies conducted in recreational waters (EPA 2009). The technical report referred to by the commenter examined 12 known pathogens. No recreational water quality criteria have been established by the US EPA for these pathogens as reliable indicators of human health risk for protecting ambient water; US EPA continues to recommend the use of E. coli in states' water quality standards and TMDL programs. The Staff Report provides a source assessment for both dry and wet weather.
2.3	Caltrans	**Compliance Schedule** The TMDL outlines a complicated and cumbersome compliance schedule. The BPA establishes different requirements for the different subwatersheds defined in the TMDL (as shown in table 9-1 of the staff report). The WLAs must be met as early as 10 years and late as 25 years after the adoption of the TMDL, depending on the method of compliance and the segment. Caltrans has a very small amount of area in each of the subwatersheds and the Caltrans load is insignificant compared to the total loads in each. Caltrans comprises a very small portion of the overall watershed, as well as each of the subwatersheds. Caltrans should be allowed to comply with the TMDL by implementing a consistent and structured program for its facilities within the Los Angeles River watershed. This should include developing one complete approach rather piecemeal monitoring and implementation plans submitted for each subwatershed.	The TMDL allows responsible parties to use alternative compliance strategies, subject to approval by the Executive Officer. Nothing prevents a responsible party from planning and executing a strategy to comprehensively address all watershed areas under its authority earlier than the required TMDL deadlines. However, any alternative compliance strategies implemented by responsible parties must demonstrate compliance with final waste load allocations within each segment by the specific compliance deadline.
2.4	Caltrans	We hope these comments are helpful. If you have any questions or concerns, please contact me at (916) 653-2512.	Comment noted.

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No.	Author	Comment	Response
3	**City of Bell *et al.*: May 28 to June 04, 2010**		
3.1	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Monrovia, Signal Hill, South Gate, and Vernon	Our community supports environmental programs, including improvement to water quality, and desires to work with the Regional Water Board to implement cost-effective programs that will result in tangible improvements in the water quality of the Los Angeles River ("River"). However we are finding it increasingly difficult to provide funding to attempt to meet even the existing adopted TMDLs as they are starting to come on-line, particularly given that our revenues continue to decline due to the severe economic recession. The Bacteria TMDL will further erode existing City services and create new unfunded mandates. Our City should not be forced to fund efforts to comply with a TMDL that is not driven by actual uses of the River and may not be needed. This is especially the case in the Lower Los Angeles River which our community discharges into.	Comments noted. Responses to specific comments are below.
3.2	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Monrovia, Signal Hill, South Gate, and Vernon	One of our primary concerns is that the TMDL is being proposed to compel **"aggressive"** action to **"restore"** the entire River, including Reaches 1 and 2, to enable people to swim in this mostly concrete-lined flood control channel, much of which is fenced to restrict access. The Regional Water Board's estimated price tag for this goal of restoring the concrete-lined and restricted Los Angeles River for human contact recreation: ***$5.4 billion***. Further, we are very concerned that the proposed TMDL has been based on a series of unsound assumptions and is unachievable. The Regional Board's $5.4 billion cost estimate, by itself, should be a call to all stakeholders to re-examine the various designated uses upon which the proposed TMDL is based, in order to develop an appropriate Bacteria TMDL for the River. As an alternative to the Regional Water Board's TMDL, we support the Lower Los Angeles River Water Conservation Alternative being proposed by Cities in Reaches 1 and 2. Our community requests that the Regional Water Board review and adopt the Lower Los Angeles River Water Conservation Alternative, in lieu of the staff-proposed "one size fits all" TMDL. We believe this alternative will result in reduced environmental impacts and have broader public acceptance in Reaches 1 and 2.	The first paragraph of the Staff Report introduces the TMDL by touching on the importance and value of the Los Angeles River, which compels *all parties* to take action to restore the river for the benefit of current and future generations. Furthermore, it is imperative to restore not only the recreational uses of the river itself, but also the downstream beaches that are heavily used for recreation. It is the intent of the Clean Water Act to achieve fishable and swimmable waters of the United States. Costs and assumptions are discussed further, below. Also see response to comment 3.8. The Regional Board has addressed the designated uses issue in part through the high flow suspension, a Basin Plan amendment to suspend the recreational beneficial uses and associated bacteria objectives in engineered channels throughout Los Angeles County during wet weather conditions characterized by high flows and high velocity.

No.	Author	Comment	Response
			Also, staff has identified this issue as one that should be addressed on a case-by-case basis during the current triennial review of the Basin Plan. Staff has recommended that the Regional Board consider evaluating appropriate recreational beneficial uses for storm channels with conditions that may not be conducive to fully supporting their REC-1 designation. Any such evaluations would be conducted with the recognition that existing beneficial uses cannot be removed, and in conformance with federal regulations at 40 CFR 131.10(g) as well as US EPA's recommendations for conducting use attainability analyses and developing a subcategory of a designated use that is not an existing use. The Regional Board will therefore not conduct a blanket review of existing recreational beneficial uses in the Los Angeles Region. However, the Regional Board will re-asses, where appropriate, the application of the potential contact recreation use (REC-1) in highly engineered channels with limited flow and restricted access - on a case by case basis. The staff proposed implementation strategy is not "one size fits all" but is designed with sufficient flexibility to embrace the many ideas generated and preferred by the cities in the lower Los Angeles River including ideas which are included in a "Lower Los Angeles River Water Conservation Alternative."
3.3	City of Bell,	Issues with Public Review of the TMDL	The Regional Board is required by State

No.	Author	Comment	Response
	Bell Gardens, Commerce, Downey, Lynwood, Signal Hill, South Gate, and Vernon	The Regional Board released the draft TMDL on April 20th and public comments are due on June 4th. The TMDL consists of a 92-page staff report (not including attachments), a 27-page resolution with the TMDL compliance schedule and a supplemental environmental document (SED) that is 124-pages in length (not including attachments). There are several hundred pages of materials compiled by the City of Los Angeles for the dry-weather TMDL effort alone, known as CREST (Cleaner Rivers through Effective Stakeholder-led TMDLs). The public was afforded only six weeks to review this highly complex and lengthy TMDL, and to our dismay it varies significantly from the CREST-recommended approach. Both the complexity and the volume of documents make it exceedingly difficult for our community to provide comprehensive comments within the limited review time. Adding to the difficulties, the Regional Water Board staff conducted a TMDL workshop on May 26th, leaving only seven working days thereafter to respond to the information obtained at that time. These unrealistic review times, for such extensive and complicated regulations, severely constrain public review and comment, particularly considering that our community is in the middle of a challenging FY2010-2011 budget preparation process and is attempting to address significant resource reductions during this same time period. Several cities have requested that the Board consider postponing the July public hearing to August and that Board members conduct a field trip in the intervening time to Reaches 1 and 2 of the Los Angeles River. These are reasonable requests and will facilitate improved policy discussion of the TMDL. The timing for the adoption of the TMDL appears to be dictated by the TMDL Consent Decree for Los Angeles County; however, it is our understanding that neither the Regional Water Board nor the State Water Board are parties to this Consent Decree. Also, under the Consent Decree, the TMDL need not be approved by EPA until March 22, 2012, which is over 22 months away. Further, we believe that the request to move the public hearing from Ventura County to Los Angeles County is entirely appropriate in order to encourage, rather than discourage, informed public comment. The Regional Water Board has conducted all prior hearings involving Los Angeles River TMDLs in Los Angeles County. To hold the hearing on this TMDL in Ventura County will plainly result in limiting public participation - whether or not that is the Board's intention. The proposed TMDL is a very significant and complex TMDL that will have severe impacts on our communities. The voices of our communities deserve to be heard.	Water Board regulations to provide 45 days for public comment and the comment period met that requirement. The comment period was legally sufficient and was in keeping with the 33 other TMDL projects adopted by this Board since 2000. In addition, the volume of materials included in the public notice is similar to other TMDLs considered by this Board. The Staff Report and Basin Plan Amendment include almost all the CREST-developed features of the TMDL and do not represent a significant variation from the data, information and recommendations contained in CREST technical documents. In addition to the 45 days opportunity for public comment, the Regional Board has engaged in significant public outreach that have provided the public with many opportunities to participate in the development of the TMDL. Given the long period of outreach and meetings (Los Angeles River Bacteria TMDL meetings began in April of 2006), the long time that CREST documents have been available, the fact that the staff recommended TMDL largely comports with the CREST recommendations and a full 45-day review period for the Staff Report and Basin Plan Amendment, the review time was not unrealistic and as the provided time comports with the law and usual practice, it cannot be characterized as limited. The TMDL is complex as all TMDLs are complex, but this TMDL is built, in many respects, on previous bacteria TMDLs in this region and in this watershed with which

No.	Author	Comment	Response
			the commenter will be familiar and is built on work completed by the CREST stakeholder group over the past four years. Staff is not frequently able to hold additional public meetings during the public review and comment period, but did so in this case to give additional support to stakeholders as they reviewed the draft and tentative documents. Staff does not recommend postponement of consideration of the TMDL due to Regional Board resource limitations and the imperative to address the water quality impairments.
3.4	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Signal Hill, South Gate, and Vernon	<u>TMDL Stakeholder Process Broken</u> The City of Los Angeles entered into an MOU with the Regional Water Board and EPA in order to develop the science and engineering behind a dry-weather Bacteria TMDL, so as to obtain a better understanding of the dry-weather Bacteria TMDL costs for the River. This effort is known as CREST and has been an expensive, multi-year planning process, involving dozens of stakeholders. The cities participated in good faith in the CREST process for the development of the dry-weather TMDL. We attended dozens of Technical and Steering Committee meetings over the past two-years. We have devoted many hundreds of hours to reviewing and commenting on documents prepared by the CREST scientific and engineering team. The Regional Board staff participated as well. Our concern is simple. The CREST stakeholders were not given a reasonable opportunity to decide upon and present a TMDL recommendation, and the Regional Water Board's TMDL differs in important ways from the direction that the CREST process was taking. Regional Water Board staff released their recommended TMDL on April 20, 2010. The CREST team had scheduled a meeting of the city managers in the watershed on April 22, 2010, in order to brief them on the issues, obtain their input and formulate a recommendation. This briefing was planned months in advance by the Steering Committee.	The MOU between the City of Los Angeles, USEPA and the Regional Board has been followed in specific terms and in spirit. The CREST stakeholders participated in many recommendations during the development of the TMDL including the exceedance day approach and exceedance rates, high flow suspension approaches, the source assessment, the Load Reduction Strategy approach and other aspects of the implementation strategy. Additional time does not ensure that City managers would reach a consensus with the City of Los Angeles and the CREST development team on different approaches. Indeed, given the dramatic differences between the outlined, proposed Water Conservation Plan and the CREST-developed/staff recommended TMDL, it seems unlikely. The steering and technical committees met many times during the four years of CREST meetings with participation of many stakeholders. The

No.	Author	Comment	Response
		By releasing the Regional Water Board TMDL one day in advance of the city managers' briefing, the CREST process of stakeholder involvement was broken. The Regional Water Board staff also released a wet-weather TMDL the same day, while the CREST stakeholders had spent years working in collaboration with Regional Water Board staff only on the dry-weather TMDL. It is unfortunate that the stakeholder process of reaching consensus was not respected when it most mattered.	stakeholder process was not broken as evidenced by the many CREST recommendations developed and documents released, by the four years of meetings (including the City managers meeting, itself, which included the participation of CREST development team and Regional Board staff) and by a staff report and tentative Basin Plan Amendment, which largely comport with the CREST recommendations. In fact, the stakeholder process was especially robust. In addition, the CREST development process included wet weather in all respects except that CREST did not make recommendations for wet weather implementation. The CREST wet weather recommendations included continued use of an exceedance day and reference approach for wet weather as in previous Los Angeles Region bacteria TMDLs, exceedance rates for wet weather, targets and a new approach to wet weather and high flow suspension days.
3.5	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Signal Hill, South Gate, and Vernon	<u>Problems with Numeric Limits Proposed in the TMDL</u> Our community discharges to the lower portions of the Los Angeles River, a fully concrete lined flood control channel, approximately 400 feet in width. The TMDL is based on the River and its tributaries meeting the REC-1 (body contact) standard called out in the Region's Basin Plan. Body contact uses include swimming. The TMDL requires that the River meet numeric bacteria standards for both dry-weather and wet-weather conditions. Several credible independent scientific studies have demonstrated that the current standards are violated in pristine, natural conditions. We believe that it will be difficult, if not impossible, to meet the current indicator bacteria standards for dry-weather flows in the River. (Please see the letter submitted by Dr. Susan Paulsen of Flow Science for our scientific concerns.) In addition, there is no known method for compliance with the wet-weather TMDL. (The	The reference conditions used to set the numeric targets in this TMDL are based on credible independent scientific studies that have identified and evaluated reference conditions in the Los Angeles Region (i.e. Natural Landscapes Study (Stein and Yoon, 2007), the Reference Stream Study (Tiefenthaler *et al.*, 2008), and the Wet Weather Reference Beach Study (Schiff *et al.*, 2006)). Scientific issues are discussed more fully in the responses to the Flow Science letter (comments 16.1 through 16.23). The wet weather targets will be most challenging to meet. The City of Los

No.	Author	Comment	Response
		wet-weather issues are more fully detailed in a separate section of this letter below.) The REC-1 beneficial use designation in the lower sections of the River is neither appropriate nor technically feasible. These Reaches and their tributaries are fenced and public access is restricted, due to dangerous conditions in both the low-flow channel during dry-weather conditions and in the River as a whole during rainstorms. The River was extensively modified by the Army Corps of Engineers beginning in 1935 for flood control purposes, and additional substantial flood control improvements (over $216 million) were made to Reaches 1 and 2 as late as 2002. These Federal and Los Angeles County Flood Control District improvements will make it impractical, expensive and impossible to meet the REC-1 standard. These extensive modifications to the River for flood control purposes are one reason the City requests that the Regional Water Board re-evaluate the designated uses of the River. People do not and cannot safely participate in recreational activity in Reaches 1 and 2 of the River. Further, achieving the proposed numeric limits for both dry and wet-weather conditions, as called for in the staff recommended TMDL, is not reasonable and would be prohibitively expensive. In addition, use of the measures proposed to achieve the TMDL for wet-weather, e.g., the same diversion techniques to be used for dry-weather flow, could be dangerous as it may expose surrounding neighborhoods to undue risks of flooding. The Cities are thus instead proposing a Best Management Practices (BMP) alternative, known as the Water Conservation Alternative, which is more fully described below. As detailed below, the cities recognize that swimming actually occurs at downstream beaches (i.e. in Long Beach), and that these areas require water quality protection. The Lower Los Angeles River Water Conservation Alternative also addresses these concerns.	Angeles and County of Los Angeles implementation plans for Ballona Creek are credible plans for meeting wet weather targets, although they do acknowledge the difficulty in final compliance. The 25-year implementation plan (based on the CREST 31-year plan) recommended by Staff not only leaves time for the many implementation actions which will be required including source control and LID implementation methods but also provides sufficient time for refinement of implemented methods. Furthermore, this timeframe allows opportunities for reconsidering the TMDL if studies are undertaken to re-evaluate recreational beneficial uses, or if US EPA publishes revised recommendations regarding ambient water quality criteria for bacteria. Also, despite the challenges of achieving the REC-1 bacteria objectives, it is also essential to protect designated uses downstream of reaches 1 and 2.
3.6	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Signal Hill, and South Gate	Lack of a Comprehensive LA River Master Plan There are several references in the Board's staff report to the Los Angeles River Master Plan as one of the documents **"compelling"** the Regional Board to take **"aggressive action to protect and restore this river."** (See Page 1 of the TMDL staff report). First, we are not aware of any comprehensive master plan to "protect and restore" the River. The City of Los Angeles adopted a Los Angeles River Revitalization Plan, but the plan is limited only to the River areas in the City of Los Angeles. This plan was estimated to cost the City of Los Angeles over $2 billion to implement, is currently unfunded and was primarily a "greening" of the River along its banks.	While "Master Plans" are not a regulatory basis for TMDLs (as the Clean Water Act and Porter-Cologne Water Quality Control Act are) the first paragraph of the Staff Report touched on these plans to highlight the future potential of the river. Master Plans for the Los Angeles River include the City of Los Angeles Revitalization Master Plan dated April 2007 (http://www.lariverrmp.org/CommunityOutreach/masterplan_download.htm) and the County of Los Angeles' Los Angles River

No.	Author	Comment	Response
		Second and more importantly, there is no adopted master plan for the River south of the City of Los Angeles, The Cities that drain into Reaches 1 and 2 have not been contacted by the Army Corps of Engineers or the Los Angeles County Flood Control District to consider adopting a master plan. To what plan is the Regional Board staff referring for these areas? How much will it cost to implement, which federal or state agency is funding the plan and the improvements, and what is the timetable?	Master Plan dated June 13, 1996 (http://dpw.lacounty.gov/wmd/watershed/LA/Larmp/). The County Plan is not recent and the river front cities' and public's participation were reported to have taken place in 1992 and 1993. Citations to both the County Master Plan and the City of Los Angeles Revitalization Plan were included in the references section of the Staff Report. The first paragraph of the Staff Report has been modified to cite these references.
3.7	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Signal Hill, South Gate, and Vernon	Cost Estimate Assumptions - Dry Weather TMDL Based on CREST studies, the TMDL assumes that 20% of the dry-weather outfalls will require diversion to the sewer system for the River to meet water quality standards. The scientific review by Dr. Paulsen sheds reasonable doubt that the 20% diversion plan will work. The Regional Water Board has also included a subsequent iteration of controls, diverting more of the outfalls until compliance is achieved. There are 3,700 outfalls into the Los Angeles River. The CREST team surveyed the dry-weather outfalls (those flowing during dry season), documenting 280 flowing drains in the mainstream of the River and 330 in the tributaries. The TMDL assumes that the cities would install 122 diversions over a 25-year period, for a total of 56 outfalls (20% diversion). It should be noted that relying on a reasonable construction inflation factor (3% annually) results in total costs of $1.1 billion plus financing costs, and not the $588 million estimate included in the TMDL. Beyond the issue of the 3% annual inflation factor, the Regional Water Board's costs are underestimated in other areas. The Board's estimated costs do not include reasonable costs of constructing force mains to reach the sewer system, energy costs, connection fees and annual sewer fees, as well as property acquisition to construct the facilities if necessary. It appears that the Regional Water Board relied solely on the CREST cost estimates, which were derived from City of Los Angeles Department of Sanitation projects. However, the Los Angeles County Sanitation Districts report that they would serve as much as 50% of the planned diversions. For example, much of Reaches 1 and 2 are	The CREST/Staff recommended TMDL does not assume that 20% of the dry weather outfalls will require diversion but that the equivalent reduction in bacteria levels of approximately 20% of outfalls will be required. The distinction is important as source reduction instead of diversion may be a preferred implementation method to diversion. Responses to Dr. Paulson are found in response to the Flow Science letter (comments 16.1 through 16.23). The TMDL Staff Report includes a reasonable range of implementation costs with values presented in present day dollars. While some parts of the Cost Section discussed cost estimates based on dollar values of the late 1990s, most costs were expressed in 2007 or 2008 dollar values with the extensive CREST dry-weather estimates based on 2009 dollar values. This was maintained for ease of comparison between estimates and implementation plans. It should be noted that the 1.1 billion figure provided by

No.	Author	Comment	Response
		served by the County Sanitation Districts and not the City of Los Angeles. The Regional Water Board's costs estimates were also based on the sewers being located within 300 lineal feet of the storm drain outfall, and sewers having sufficient capacity, with no requirements for storage and upgrades. The Regional Water Board's cost estimates also did not include any provision for pretreatment to reduce concentrations of metals and toxics in the water to be diverted. The County Sanitation Districts report that it will be necessary for some diversions to include storage due to sewer capacity issues. The Districts also report that connection fees would be $122 million and the cities would be responsible to pay an annual surcharge of $3.1 million. The cost of diverting 610 outfalls would grow to $600 million in connection fees and $15 million in annual surcharges. The Sanitation Districts disclosed that in some cases their sewer system is up to 4,900 lineal feet from storm drain outfalls in the River. One sewer line would have to be constructed over the Long Beach Blue Line transit bridge. These costs were not reported in the Regional Board's estimates.	CREST as the dry weather implementation cost with a 3% inflation factor represents dollar values through the year 2042 or 2041 (depending on when implementation begins) which would be $588 million in 2009 dollars. The Regional Board Staff Report included a reasonable range of costs. The Regional Board Staff Report did not rely solely on CREST cost estimates but the range of costs presented included the CREST-developed costs for dry weather and cost estimates for different specific types of implementation methods (e.g. institutional methods, cisterns, filters, treatment plants, etc.) and costs derived from the City of Los Angeles and County of Los Angeles-developed cost estimates for the implementation of the Ballona Creek Watershed Bacteria TMDL. The City of Los Angeles and County of Los Angeles developed-costs represented the County and City's most complete estimate of their implementation costs. The $5.4 billion figure is the upper end of the range and was specifically included in an abundance of caution to be sure to include a "highest possible" cost estimate. The Regional Board staff report included a reasonable range of costs but did not, and is not required to detail all actual costs for every possible implementation possibility. Responsible parties have sufficient flexibility to develop a plan to include diversion and source reduction or treatment that considers costs and avoids the less

No.	Author	Comment	Response
			cost-effective projects. Those potential diversion projects which are further from sewer lines or which would have to cross bridges are not likely to be the most cost effective projects to include in an implementation plan or load reduction strategy. The CREST/Regional Board Staff implementation schedules include sufficient time for planning (2.5 years for each segment) specifically to include time to identify priority drainages or subwatersheds and to evaluate practicalities of potential implementation methods.
3.8	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Monrovia, Signal Hill, South Gate, and Vernon	<u>Unreasonable Local Government Implementation Costs - $5.4 Billion</u> Prior Regional Water Board members and non-governmental organizations (NGOs) have criticized the cities for overestimating the costs of the TMDL programs in Los Angeles County. The implementation costs of the TMDL program in Los Angeles County have been questioned since 2003, after the release of a November 2002 study by the University of Southern California examining the costs of the TMDL program. Determining the true costs of implementation is very important, especially considering the expectations of local governments that long-term and chronic federal and State budget deficits will result in further shifting of water quality program costs to local government. The USC study revealed that the costs to treat storm water in the County could range from $43.7 billion to $283.9 billion, based on the size storm event required by the Regional Board to be treated. The costs of the current TMDL are entirely in line with these earlier estimated. After reviewing the likely impact of the TMDL program on municipal budgets, the study's authors were concerned about the "regional water quality control boards' march toward uneconomic and unintended consequences." The USC study has become the new reality, primarily based on the unnecessary and improper request by the NGO's that the Board imposes numeric limits on stormwater, instead of continuing to utilize Best Management Practices (BMPs). The CREST engineers estimated that dry-weather compliance costs alone, over a 31-year period, would be **$1.1 billion** (with a 3% inflation adjustment). The Regional Board estimated total compliance for both dry and wet-weather would cost local	The included, $5.4 billion, upper range, estimate based on the City of Los Angeles and County of Los Angeles cost estimates for Ballona Creek falls enormously short of estimates in the USC study as quoted by the commenter. Especially in light of the fact that TMDL implementation is not addictive, that is, most methods to implement the metals TMDL also address bacteria and vice versa. In addition, it is anticipated that the responsible parties will focus on the projects with the highest potential return first wherever possible, evaluate results and attempt to optimize the overall program effectiveness and costs. Therefore, it is likely that the TMDL will be achieved with substantially less capital and associated operation and maintenance costs than presented in the Staff Report. When the MS4 NPDES permits are revised to incorporate this TMDL, the allocations may be incorporated in several different ways including the way the commenter suggests. However, the exact manner in

No.	Author	Comment	Response
		governments in the watershed some **$5.4 billion**. The Regional Board staff has recommended a 25-year compliance schedule for both wet and dry-weather implementation, which is six years shorter than the CREST request for dry-weather implementation alone. The accelerated schedule would cost local governments an average of $216 million annually (not adjusted for inflation) for the proposed TMDL.	which allocations are incorporated into permits is not established at the time of TMDL development, since the means of incorporating the allocations depends in part on the supporting evidence in the permit's administrative record. The CREST team estimated $588 million (in 2009 dollars) for dry weather implementation, alone, and the City of Los Angeles and County of Los Angeles cost estimates for Ballona Creek were used to estimate the $5.4 billion, upper range, estimate for both dry and wet weather. This schedule differs from the CREST-developed schedule in four ways: 1) the staff-recommended schedule provides no gap between first and second phases for "reconsideration" of the TMDL because implementation does not need to stop if the TMDL is re-considered 2) only 3 years is provided for the second phase of implementation (versus 4 years) because it is expected that the river will largely be in compliance as a result of actions in the first phase, and any watershed-wide BMPs will be beginning to have effect, 3) only 2 years for the second evaluation (versus 3 years) because planning for the second evaluation can take place during implementation, 4) the final three segments (Segment C tributaries, Segment D and Segment D tributaries) have been moved up parallel in time to Segment C because watershed-wide BMPs will be beginning to have effect and BMPs implemented for the Los Angeles River Watershed Metals TMDL, which are

No.	Author	Comment	Response
			designed to address multiple pollutants, will have effect. These modifications shortened the overall time allotted but do not represent a greatly accelerated schedule. An accelerated schedule would eliminate the second phase of implementation or eliminated the delay in beginning most of the reaches, or both. The start date and the length of the 1st phase of the implementation schedule is the same in the CREST-recommended schedule and the Staff-recommended schedule for this segment, so for dry weather there is little difference in the schedules for cities in the lower part of the watershed. CREST did not make a recommendation on a wet-weather schedule. The 25-year wet weather implementation schedule is the longest implementation period of any Los Angeles Region TMDL.
3.9	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Signal Hill, South Gate, and Vernon	Severe Municipal Budget Impacts from the TMDL Our City has been working with the other 39 watershed cities, Los Angeles County and Caltrans on implementing the Los Angeles River Metals TMDL. Local governments organized to fund the Coordinated Monitoring Plan and special scientific studies dictated by the TMDL in 2008. A watershed funding formula was adopted, in order to fairly assess all 42 government entities for their costs. We relied on the Metals TMDL funding formula to gauge the likely budget impact of the Bacteria TMDL on existing public services and our community on the whole. **City of Signal Hill Cost Estimate** **LA River Bacteria TMDL Implementation** Annual Budget Impact = $1,390,000 Percentage of City's General Fund = 8.21% Under the Regional Board's cost estimates, our City's costs would be $1.39 million	The Cities have completed important work as they have begun to implement the metals TMDL. Please note that the implementation methods to be undertaken for metals to divert, infiltrate or treat urban runoff and stormwater, also largely address bacteria. In the staff-recommended schedule, planning for Segment B (the upper portion of reach 2) will begin when the TMDL takes effect. Depending on the speed of TMDL approvals, actual implementation projects would begin approximately four years from now (although nothing prevents a responsible party from taking actions sooner). While planning has costs,

No.	Author	Comment	Response
		annually for the next 25-years in order to comply with the TMDL relying on the watershed funding formula. The watershed funding formula was adopted by the 40 watershed cities, Los Angeles County and Caltrans for funding both required and voluntary components of the Los Angeles River Metals TMDL. The $1.39 million cost is equivalent to 8.21% of our entire General Fund budget. We are currently running a $1.96 million deficit (approximately 11.4% of our general fund budget of $17.22 million. The city's general fund revenues have dropped by $2.96 million, beginning in 2007; the start of the current economic recession), from $18.32 million in FY2007-2008 to $15.36 million in FY2009-2010. The City has instituted a series of budget reductions in order to balance the budget, including 6% in budget cutbacks, which have resulted in a hiring freeze, across the board employee pay reductions of 3%, and significant reductions in City services. Additionally city service reductions are expected for the FY2010-2011 budget. We have received a series of likely service reductions in order to evaluate the municipal service impacts on our community of the bacteria TMDL: <u>Scenario One</u> City Library (close) $329,235 Police Detective Services $933,900 Police Community Outreach $97,150 Total ***$1,360,406*** <u>Scenario Two</u> City Library (close) $329,235 Community Services (close) $417,217 Recreation Program (eliminate) $563,758 Total ***$1,310,210*** <u>Scenario Three</u> Eliminate all street maintenance ***$1,418,205*** The City also continues to be under severe budget strain based on raids from the State of California. The City's redevelopment agency was forced to pay $5.1 million to the State in May of this year as part of the State's attempt to balance their chronically short	especially in staff time, costs will be low for the first four years. The public health benefit to improving water quality to support REC-1 is real. REC-1 activities take place now both in the river and at downstream beaches, and will continue into the future. See response to comment 20.12 regarding unfunded mandates.

No.	Author	Comment	Response
		budget. The Agency has used its funds to perform closure of abandoned oils wells and clean-up soil contamination from brown field sites, which are programs that improve both surface water and ground water in our region. It is expected that the State will continue to raid local government funds well into the future, placing more City and Agency programs in funding jeopardy As one can see, the Bacteria TMDL requirements will further severely impact our budget and reduce the City's ability to deliver critical public services. It should also be noted that raising tax revenues for compliance with the TMDL program is subject to the voting requirements of Proposition 218. The California courts have consistently ruled that stormwater fees are subject to a 213rds vote requirement (see Jarvis v. City of Salinas). There, have been several failed legislative attempts in the last five years to address the Salinas and other rulings, lower the requirement to 55% in order to assist cities in passing new fees to fund the NPDES Permit and TMDL programs. We believe that obtaining a 2/3rds voter approval in order to fund the Bacteria TMDL requirements in our community will be very difficult to achieve.. Signal Hill proposed a 3% utility users tax to fund bond payments to construct a new police station in November of 2005. This bond measure failed and only obtained 43% of the vote. The most likely scenario of the adoption of the TMDL would be to increase our budget deficit and eliminate existing vital public services, in order to fund a mandated water program of dubious scientific and engineering merit, as well as no practical foundation. It will also be difficult to pass regional storm water funding measures. The League of California Cities tracks local revenue ballot measures. The League has found that the 213rds voter approval requirement is an extremely high hurdle. Of local revenue measures in the June. 2008 ballot, only 47% of special tax measures (213rds voter measures) passed, while 80% of general tax majority vote measures passed. City of Long Beach Measure I failed in 2007, garnering only 52.44% approval. This measure would have raised funds specifically for the repair and replacement of storm drains and wetlands restoration. The Long Beach measure was estimated to cost homeowners $10 per month. (Source Michael Coleman, California City Finance, Local Revenue Measures, November 2007, November 2008 and November 2009) We do not see any public benefit to improving water quality to a level that would protect people swimming in the concrete-lined Reaches One and Two of the River, when swimming will continue to be dangerous and prohibited and when the	

No.	Author	Comment	Response
		consequences on our municipal services would be severe. We also believe that this TMDL is an unfunded mandate and reserve the right to file an application with the Commission on State Mandates for reimbursement of our expenses at the appropriate time.	
3.10	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Signal Hill, South Gate, and Vernon	Watershed Suffers from Chronic High Unemployment/ Declining Local Revenues The Gateway Cities Council of Governments (GCCOG) studied the economic and social issues facing the Los Angeles River watershed in 2004, prior to the "Great Recession," which began in 2007. That study concluded that the Los Angeles River Watershed was unique even ten years ago in its high unemployment, high poverty rates, low education levels, housing overcrowding and other socio-economic issues. The study found that in 2000: • 936,320 persons were living in poverty in the watershed • 237,440 persons were unemployed in the watershed (a 5.5% unemployment rate). The unemployment rate in the watershed is now estimated at 13%. • The TMDL would reduce the funding available for programs that assist the poor and disadvantaged in the watershed as cities will be forced to divert funds to comply with the TMDL. The Great Recession has severely impacted the nation, the State, the County of Los Angeles and the watershed communities. Data suggest that unemployment and other socio-economic conditions in the watershed have continued to worsen since the 2004 GCCOG study. Unemployment surged nationally as employers shed 4.7 million jobs in 2009, bringing the total number of jobs lost since the onset of the recession to 8.4 million. Economists believe that it will take more than a decade for employment to return to 2006 peak employment levels. A recent report by the Office of Economics, California State University of Long Beach (May, 2010), reported that in 2009 the region's economy shed 460,000 jobs. (Economic Forecast, California State University Long Beach, May 13, 2010, Office of Economics, Drs. Joseph Magaddino and Lisa M. Grobar). The job losses in 2009 were on top of 138,000 jobs lost in 2008, raising the cumulative job losses in the region to almost 600,000. Cal State Long Beach economists reported that "the region has not experienced such a devastating job loss since the early 1990s," which was previously thought to be the worst period of job loss since the Great Depression. (Page 3) The report's authors note that:	Comment noted.

No.	Author	Comment	Response
		"This recession is the longest and one of the steepest declines in the post World War II era. What made this recession different is that the economy has not faced a financial crisis of such magnitude since the Great Depression. The housing bubble, subprime interest loans, lax lending standards, and securitization of mortgages led to the near collapse of the financial markets, creating the first ever downturn in the global economy in the local era." (Page 7) *"The biggest challenge is the rate of unemployment. As stated earlier, the recession generated a loss of 8.4 million jobs and an unemployment rate above the 10 percent mark. While we are in the early stages of employment growth, employment growth will not occur fast enough to quickly return unemployment to an acceptable level. The labor markets need to generate 120,000 to 140,000 new jobs every month just to account for growth in the labor force, let alone generate jobs for the 8.4 million workers who have lost jobs. As a consequence, it will take another five years before the unemployment rate falls below 7 percent." (Page 8)* *"In 2009, the Southern California region experienced a severe contraction in employment, following national economic trends. At both the national and regional level, it has truly been a "Great Recession." The region lost 6.5% of its employment base in 2009, amounting to almost half a million jobs. It is going to be a number of years before we can reasonably expect to regain all of the jobs lost last year." (Page 9)* These high job losses are borne out by the high unemployment rate in our community, which is 18.7% as of April of this year. These job losses also have a very direct connection with the decrease in State and local government revenues. The Cal State Long Beach economists reported that the national recession has resulted in a dramatic impact on consumer spending. "The national recession has had dramatic impact on consumer behavior. Confronted with loss of wealth, rising unemployment and tight credit markets, households across the country have cut back on their consumption expenditures." (Page 5-6). *"One feature of the national recession has been a sharp pull back in consumer expenditures. This has had a devastating effect on the region's retail sector, which is the fourth-largest sector in the region.... The sharp*	

No.	Author	Comment	Response
		decline in the retail sector has also translated into a freefall in taxable sales. We estimate that taxable sales plummeted by 17% last year." (Page 10) Local governments depend heavily on sales tax revenues to fund general services, such as environmental programs. Fewer consumer expenditures translate directly into reduction in sales tax revenues. Last year our community's sales taxes dropped by 16%. It may take more than a decade for our local government revenues to return to 2007 levels. The Cal State Long Beach report also indicates that State and municipal governments face continued financial stress throughout this year and the next and that job losses will accelerate: *"The state's budget is under severe strain. Since tax revenues lag the economy, we are not likely to see much improvement in the current fiscal year; although, revenues should begin to grow beyond that point. This means that in the near term the state is going to be severely constrained in its spending by budgetary conditions. As a result, we expect job losses in state and local government sectors to worsen this year and extend through 2011." (Page 11)* Local governments in the region lost over 10,000 jobs in 2009. The Cal State Long Beach economists concluded that State and local governments will suffer more job losses in 2010 and 2011; "with large deficits in the State and many municipalities, expect deeper employment cuts and reductions in the level of services." (Page 6) These severe local government job and revenue losses make funding to meet the TMDL schedule, monitoring plan and implementation plan extremely problematic. Local government resources will be required immediately to develop the coordinated monitoring plan, as well as to fund implementation plan development. Within a two-year period our community will be required to secure funding for the construction of capital improvements designed to meet the water quality objectives in the TMDL. This accelerated schedule creates an extreme hardship to our community, especially considering that we must implement both dry and wet-weather TMDL requirements at the same time, during a period of severe revenue losses and budget deficits. Our city is also struggling to fund the new requirements of the Los Angeles River Metals TMDL, including monitoring and implementation planning.	
3.11	City of Signal	Gateway Cities Council of Governments Socio-Economic Review	Comment noted.

No.	Author	Comment	Response
	Hill	The Gateway Cities Council of Governments (GCCOG) has also reviewed the socio-economic impacts of the TMDL on local governments in the watershed. The GCCOG reviewed the socio-economic and housing conditions in the watershed in 2004, for the adoption of the Los Angeles River Metals TMDL (Metals TMDL). The GCCOG is currently administering the Metals TMDL funding plan, which included the installation of five separate auto sampling equipment this year, water quality sampling, laboratory analysis and reporting. The GCCOG is also moving forward to coordinate the special scientific studies envisioned under the Metals TMDL. These special scientific studies will cost the watershed's 42 local governments over $2.1 million. The GCCOG's recently completed a socio-economic study of the Bacteria TMDL (June 3, 2010). This study found that the: • The socio-economic conditions in the watershed have worsened significantly from 2004, due in a good part to the Recession of 2007- 2010. The GCCOG • found that 237, 440 persons were unemployed in the watershed in 2000 and there are currently 533,120 persons unemployed in the watershed. Twenty-three of the watershed's communities have April 2010 unemployment rates above 10% and 11 of the watersheds communities have unemployment rates of over 15% • The watershed's communities are finding it increasingly difficult to provide for basic municipal services, due to dramatic drops in sales tax and other local government revenues. Local sales taxes are in "free fall," with average decreases of 17%. A survey of the 21 of the watershed's communities revealed that municipal budgets are in severe deficits, with shortages of $51.4 million from 21 responding cities. The survey reveals that the TMDL as proposed by the Regional Board will increase municipal budget deficits by 8.4% annually. There is an uneven distribution of unemployment and poverty in the watershed. Sixteen cities draining into the Lower Los Angeles River (Reaches One and Two) suffer from the highest unemployment in the watershed. The Cities of Commerce and Compton have April 2010 unemployment rates of over 20%. There is compelling socio-economic argument for the Regional Board to consider Reach specific TMDLs, implementation plans and schedules in order to mitigate the adverse economic impacts of the proposed TMDL on the economically disadvantaged communities that drain into the Lower Los Angeles River.	Prioritization of segments to be addressed was an outgrowth of stakeholder input stemming from the implementation workshop in October of 2009 and continued discussions with stakeholders through the CREST process. See also response to comment 3.9.

Response to Comments July 2010
Los Angeles River Watershed Bacteria TMDL

No.	Author	Comment	Response
3.12	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Monrovia, Signal Hill, South Gate, and Vernon	<u>The Wet Weather TMDL is Ambiguous</u> The wet-weather component of the TMDL is ambiguous and entirely unachievable. Although the TMDL specifies that wet weather compliance can be achieved by "employing any viable implementation strategy," we are not aware of any measures that our city can implement that will achieve the wet-weather Waste Load Allocations (WLAs) specified in the TMDL. The volumes of water that are required to be diverted and/or treated in wet weather are simply too large. For the 2004-2005 water year and after, application of the high flow suspension and the "natural sources exclusion" (as proposed in the staff TMDL), flow in the River at Wardlow Road is roughly 5 billion gallons of water per day, which is more than 10 times the design flow rate of the Hyperion Wastewater Treatment Plant, or enough water in a single day to fill the Rose Bowl 40 times. The TMDL requires that the cities develop the science and engineering for the wet-weather TMDL during the next ten-year period. During this period of time, the cities will also be required to design, fund and construct a dry-weather plan. The Regional Water Board staff TMDL report and the SED mention that as the cities implement the dry-weather TMDL, they will be working towards compliance with the wet-weather TMDL requirements. Yet, it is entirely unreasonable for the Regional Water Board to assume that by implementing Best Management Practices (BMPs) or diversions and treatment for dry-weather flows, a city could achieve compliance with the wet-weather WLAs. The dry-weather flows that are treated by sewer diversions and infiltration devices are a small fraction of the wet-weather flows expected during even small storm events, and large storm flows will easily overtop these facilities. As the Board is aware, the CREST effort developed detailed science, engineering, monitoring, implementation and scheduling for a dry-weather TMDL. The CREST effort evolved over a two-year period of time and required hundreds of thousands of dollars of investment by the City of Los Angeles in Dry Weather TMDL development. At a minimum, a similar effort must be undertaken by the Regional Water Board before adopting a TMDL for wet-weather conditions. USEPA and the Regional Water Board should secure funding to complete the wet-weather science and engineering. Our community would participate in any committee that the Board would form to develop the science and implementation measures. In the meantime, our City will continue to implement existing programs, which should help to some degree in diverting wet-weather flows, such as including SUSMP controls on new development during the planning period.	While diversion and treatment can contribute to achieving the wet-weather WLAs, especially with some retention of wet weather flows, source reduction, SUSMP controls on new and re-development, and greater water re-use and infiltration can significantly contribute to achievement of the wet weather WLAs, also. The implementation strategy in the Staff Report does not assume that by implementing BMPs sufficient to meet dry weather WLAs that compliance with wet weather WLAs will also be met. However, dry weather measures including infiltration, source reduction, SUSMP controls on new and re-development, and any actions taken to ensure wastewater sewer lines are not cross connected or leaking to storm drains will help meet wet weather goals. In addition, the BPA has been modified to include the possibility of wet-weather load-based compliance at MS4 outfalls to attain the allowable number of exceedance days instream. The bacteria TMDLs which have been established in Ballona Creek and Malibu Creek and for the Santa Monica Bay beaches have longer implementation periods for wet weather compliance than dry weather due to the increased difficulty and number of actions that will be required. In this case, because the final segment of the River after the second phase of implementation will not be required to

No.	Author	Comment	Response
			reach dry weather compliance for 25 years, the wet weather compliance for all segments of the River will be required at 25 years. We look forward to continuing to working together on science and implementation measures.
3.13	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Signal Hill, South Gate, and Vernon	<u>Concerned with Exceedence Days</u> The draft TMDL includes interim waste load allocations (WLAs) in the form of allowable *E. coli* loadings from storm drains to a given River segment or tributary for MS4 permittees. However, the final WLAs are expressed in terms of an allowable number of exceedance days in the River itself, based upon a reference watershed approach. Further, with the "allowable exceedance days" approach of the TMDL, it is unclear how compliance with the TMDL (and the MS4 permits based on the TMDL) would be assessed. As shown by CREST studies, *E. coli* concentrations exceeding standards in one segment of Reach 2 100% of the time, but these exceedances were mostly due to non-human sources. The CREST studies also showed that in Reach 2, tributaries and storm drains contribute only about 10% to 50% of the bacteria loading to the reach, and the bacteria objective would be exceeded irrespective of the efforts of the Cities. Thus, compliance with interim WLAs (by reducing *E. coli* loadings from storm drain pipes) is unlikely to result in compliance with final WLAs (which are measured in the River itself), because much of the bacteria loading is either natural or in-stream, and beyond the control of dischargers. Although no data is available for Reach 1, it has physical characteristics and bacteria sources as Reach 2, and the same situation is expected there. The University of Southern California completed an extensive study reviewing 70 years of data in order to determine the historic rainfall patterns in Los Angeles County (An Economic Impact Evaluation of Proposed Storm Water Treatment for Los Angeles County, November 2002). The study examined data from 76 weather stations maintained by the Los Angeles County Department of Public Works. USC engineers reviewed over 1,484,090 station-days and found that 132,299 station days had rainfall. The data illustrated that:	Compliance with the final WLA will be assessed in River. When the MS4 NPDES permits are revised to incorporate this TMDL, the allocations may be incorporated in several different ways including the way the commenter suggests. However, the exact manner in which allocations are incorporated into permits is not established at the time of TMDL development, since the means of incorporating the allocations depends in part on the supporting evidence in the permit's administrative record. Many things were learned in the CREST studies. The interim WLA have been set to address only the dry-weather, storm drain loadings because the storm drains are by far the largest source of fecal indicating bacteria to the River and because those sources are controllable by the MS4 permittees. A dramatic decrease in loadings to the river, as required by the interim WLA, from MS4 sources may, itself, change conditions in the river in terms of supporting unnaturally large populations of fecal indicating bacteria (reference streams, for example, do not maintain large in-stream

No.	Author	Comment	Response
		69% of the time, 24-hour rainfall was between 0 and 0.05" 16% of the time, daily rainfall was between 0.5" and 1.0inch 7% of the time, daily rainfall was between 1.0 and 1.5 inches 8% of the time, daily rainfall was above 1.5 inches USC researchers found that on average the Los Angeles area experiences about 32 days of rainfall per year. Typically 22 (70%) of these wet days result in 0 to 0.5" rain, 7 of these wet days result in 0.5" to 1.5 inches, 1.5 inches to 2.25 inches for 2 wet days and on one wet day per year more than 2.25 inches of rain will fall. The Wet Weather portion of the TMDL Staff Report appears to rely on a high flow suspension (HFS) and exceedance days approach in the HSF waterbodies only. Treatment would not be required for 26 days of the year during rain events. The Tentative Basin plan Amendment than allows for 10 exceedance days per year where daily sampling is conducted for wet weather flows in Non-HFA waterbodies, and 15 exceedance days per year where daily sampling is conducted for wet weather flows in HFS water bodies, and only 2 exceedances per year for both, where weekly sampling is conducted for wet weather flows. We asked Flow Sciences to estimate the volume of water that would be need to be treated after the 15 highest flow days are eliminated, relying on flow data from the Los Angeles River for 2004-2005, which was a typical rain year. The sixteenth-largest daily flow rate in the river (the volume that would need to be treated) was 7,740 cfs, or 5 billion gallons of water per day, which is about 10 times the design flow rate of the Hyperion Treatment Plan, or enough water in a single day to fill the Rose Bowl 56 times. It was our understanding that the high-flow suspension approved by the Board was based on safety considerations and on the fact that for certain size storm events and for a period of time during and after the event, the River was not safe for recreational purposes. It is counter-intuitive to limit the exceedance days based on a hypothetical number for wet weather runoff. Further, it seems inappropriate to limit the HFS policy to only portions of the River. Moreover, given that it is very unlikely that the Cities will be able conduct daily sampling for bacteria at all monitoring stations throughout the watershed for 365 days, a limit of 2 exceedance days for bacteria where weekly sampling is conducted, is entirely unreasonable. The Regional Board's proposal will essentially hold the Cities will be held responsible for wet weather exceedance that are completely uncontrollable. Unfortunately rainfall cannot be controlled - when it rains it rains - and the allowable exceedances should be based on storm events that cannot	sources of fecal indicating bacteria). A Natural Source Exclusion approach to calculating allowable exceedance days is available after anthropogenic sources have been controlled such that they do not cause or contribute to exceedances. It is important to note that exposure to non-human fecal matter also represents a risk to human health, i.e. many diseases are shared between humans and other warm blooded animals. Fecal coliform at reference levels represents an acceptable risk. TMDL Staff Report and the Basin Plan Amendment rely on an exceedance day approach. Exceedance days allowed are *in addition* to HFS days in the HSF waterbodies. The allowable number of exceedance days under daily sampling and under weekly sampling represent the same exceedance *rate*, essentially the same ratio of number of times exceeded to number of times sampled. Staff already evaluated the extension of the high flow suspension of the REC-1 use and associated bacteria objectives to a broader array of channels and time periods when developing the "Amendment to Suspend Recreational Beneficial Uses in Engineered Channels during Unsafe Wet Weather Conditions," Final Resolution and Amendments (as adopted on July 10, 2003). Staff determined that a suspension was only

No.	Author	Comment	Response
		be reasonably, economically or practically controlled.	appropriate under certain conditions. Using available information, staff identified those water body segments that for their entire length meet the definition of an engineered flood control channel. Engineered channels are defined as inland, flowing surface water bodies with a box, V-shaped or trapezoidal configuration that have been lined on the sides and/or bottom with concrete.
3.14	City of Monrovia	The draft TMDL includes interim waste load allocations (WLAs) in the form of allowable *E. coli* loadings from storm drains to a given river segment or tributary for MS4 permittees. However, the final WLAs are expressed in terms of an allowable number of exceedance days in the River itself, based upon a reference watershed approach. Further, with the "allowable exceedance days" approach of the TMDL, it is unclear how compliance with the TMDL (and the MS4 permits based on the TMDL) would be assessed. As shown by CREST studies, much of the bacteria loading is either natural or in-stream, and beyond the control of dischargers. Thus, compliance with interim WLAs by reducing *E. coli* loadings from storm drain pipes is unlikely to result in compliance with final WLAs, which are measured in the River itself. Furthermore, holding MS4s responsible for in-stream WLAs is unreasonable as there are many other permittees that contribute flow whose compliance is based on effluent imitations, not in-stream WLAs. Applying in-stream WLAs for MS4s effectively could make MS4s responsible for thousands of dischargers across the Watershed. To prevent being held jointly liable for WLA exceedances due to other dischargers, each City would effectively need to set up auto sampling at each entry and effluent site throughout its system to prove an exceedance was from an upstream source. This process, for a smaller city such as Monrovia, would be extremely expensive and tedious since the stormdrain system is interwoven with LA County Flood Control system and receives drainage flows at several points from LA County unincorporated areas.	The other permitted discharges in the watershed are not known to be a significant source of bacteria to the river and are not permitted to contribute discharges that would contribute to exceedances of the WLA. Allocations have been assigned to these permitted discharges. Responsible parties can comply with the TMDL by achieving the final WLAs or demonstrating non-compliance is due to upstream contributions. Additional language has been added to the Basin Plan Amendment to clarify how responsible parties might distinguish their contributions from another. See also response to comment 3.13 and comment 11.10 regarding the new BPA language.
3.15	City of Signal Hill	<u>Mandatory Penalties for Exceedances</u> We are also concerned that the structure of the TMDLs may result in the use of numeric effluent limits within the Municipal NPDES Permits, and that this approach will then lead to assessment of mandatory minimum penalties under Porter-Cologne Sections 13385(h) and 13385(1), or other penalties being imposed against the Cities. As the Board is aware, violations of the mandatory minimum penalty provisions fall	See response to comments 10.2 and 11.4. The commenter is correct that dischargers may be subject to mandatory penalties for violations of effluent limits. The method of incorporation of the TMDL into NPDES permits will occur at the time of adoption of

No.	Author	Comment	Response
		into serious and on-going violations when waste discharge limits are exceeded. Mandatory penalties could potentially then be assessed for both wet and dry-weather violations of the exceedance days. Monthly fines for a single serious violation for a 30-day period would total $180,000. With the Bacteria TMDL the Regional Board staff is proposing a compliance standard that not only exceeds federal requirements, but places the Cities in serious financial peril. The Cities should be allowed to translate the TMDL WLA into a narrative, non-numeric Water Quality Based Effluent Limit, consisting of BMPs that address the WLA. With this approach, the Cities would be required to implement BMPs and to step-up BMPs through the adaptive approach.	the permits. In general a TMDL results in allowing dischargers more time to comply than normally required by the Clean Water Act and would reduce the possibility of mandatory penalties. See response to comment 7.11 regarding "exceeds federal requirements"
3.16	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Signal Hill, and South Gate	<u>Lower Los Angeles River Water Conservation Plan (WCP) Alternative</u> The Cities request that the Regional Board consider the unique characteristics of Reaches One and Two when considering the Bacteria TMDL requirements. We have prepared an alternative for these two Reaches that respects the flood control purposes of the River improvements, while, at the same time, improving water quality through the implementation of water conservation methods and Best Management Practices (BMPs). I have included a copy of the "Lower Los Angeles River Water Conservation Plan (MCP)" with this letter. The alternative is more fully described in the document and identifies the problems, sets water quality objectives, includes source assessment, water conservation and flood control plans, a BMP based implementation strategy and timelines. The plan includes the construction of two water reclamation plants along the Rio Hondo River (a tributary to the main River). The Rio Hondo drains a very large area, including major portions of the San Gabriel Valley. The plan also includes participation in a regrowth study and in certain pilot programs, such as the anti-microbial filter study. The upstream cities recognize the need to protect water quality at Long Beach beaches, where high levels of recreation occur. The City of Long Beach has conducted a breakwater study to identify water quality issues exacerbated by reduced water circulation in the Long Beach area due to the breakwater and harbor construction. The Army Corp of Engineers is currently conducting an $8 million study to evaluate modifications to or removal of sections of the breakwater, or construction of new breakwaters to reroute Los Angeles River flows away from the beaches (East San Pedro Bay Eco-Restoration Project). The Cities in Reaches 1 and 2 support these approaches. The Cities would also assist the City of Long Beach in the federal study of the Long Beach Breakwater. The Cities wish to make recreation safe at the beaches;	Staff recognizes your effort in addressing the bacterial impairment through the Water Conservation Plan (WCP). The WCP usefully discusses the important intersection between water conservation and TMDL implementation. he WCP markedly misstates the conclusions of CREST and the Bacteria Source Assessment (BSI) study. Establishment of a TMDL is required by the Clean Water Act and the consent decree and the WCP does not substitute for such an action. While staff disagrees with many of the assumptions and statements in the discussions in the WCP, the WCP outlines several important and potentially effective BMPs especially the diversion of outfalls to strategically located infiltration and re-use facilities, which both helps meet the Los Angeles River TMDLs and conserve water. Such actions can be an important part of the implementation of this TMDL. The WCP states that two facilities have been proposed and grants applied for under the Gateway Region Integrated Water Management Authority to be used for irrigation and re-

No.	Author	Comment	Response
		where swimming is legal and encouraged, rather than to spend resources to attempt to meet the REC--1 water quality standards in the lower reaches of the river, where swimming is dangerous and illegal. The wet weather approach would include an extension of the high flow suspension policy to other flood control channels serving Reaches One and Two, whether concrete-lined or otherwise and potentially an extension of the high flow suspension to storms with less than 0.5 inches of rain, if conditions in the channel are demonstrated to be unsafe for smaller storms. Cities would continue to implement the SUSMP controls for new development and redevelopment projects, while US EPA and the Regional Board would fund the necessary studies of wet-weather conditions, along with reasonable implementation measures. We strongly believe that the Regional Board should ultimately be pursuing a comprehensive analysis of the designated "beneficial uses" of Reaches One and Two of the River, and potential revisions to water quality objectives to require control of "controllable water quality factors," ***before*** developing any Bacteria TMDL for the River, if one is then found to even be necessary for such Reaches.	charging groundwater. Staff understands that the facilities are still being sited, assessed and are awaiting funding, but strongly supports the effort in this regard. The other operational BMPs listed in the WCP, water conservation, SUSMP/LID, Equestrian controls, and Outreach/education are also important source control efforts which will be important parts of an implementation plan under a WCP, as you suggest or under the TMDL, as proposed. The prioritization method as discussed under "Second, Dry-Weather Diversion" on page 6 of the WCP is compatible with the development of a Load Reduction Strategy as outlined in the Staff Report and Basin Plan Amendment. The WCP suggests that, in addition to the high concentrations of *E. coli* over multiple events, the indication of chronic human sources (using an evaluation of Bacteroidales data) would be particularly relied on for the development of a priority list of outfalls to be targeted. This approach is consistent with the development of a Load Reduction Strategy as outlined in the Staff Report and Basin Plan Amendment.
3.17	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Signal Hill, South Gate, and Vernon	<u>Legal Concerns and CEQA Concerns</u> There are a series of legal and CEQA concerns, which are contained in two separate documents being submitted by Mr. Richard Montevideo on behalf of the Cities (see Legal Comments and CEQA Comments). We will only review two of those major concerns in this letter. The Regional Water Board appears to be imposing the TMDL with the intent to "restore" the swimming use to the River, when the River and its tributaries have been extensively modified over the last 70 years for flood control purposes in wet weather, when swimming is dangerous, and when the public is	Modifications to the Los Angeles River over the past 70 years have been for the purposes of flood control at the expense of other uses. While flood control is an essential use of the river channel, it is not the only use of the river, nor should it be. The first paragraph of the Staff Report introduces the TMDL by touching on the

No.	Author	Comment	Response
		prohibited for safety reasons from being in the River. In reality, the proposed Bacteria TMDL is directly at odds with the very purpose of the River's 70 years of development into a flood control channel. We believe that the Clean Water Act provides for an exception based on the unique history of manmade improvements to the River, especially in the Lower Los Angeles River. As recently as 2002, the U.S. Army Corps of Engineers completed a 15-year project, costing $216 million, designed to raise the height of 21 miles of levees along the River, by building up the earthen levee embankments, constructing parapet walls on top of the levees, armoring the backside of some of the levees and modifying some of the bridges. The purpose of this massive improvement project was to eliminate the flood insurance mandates imposed by the Federal Emergency Management Agency on thousands of properties adjacent to levee, when studies indicated that the River had the potential of flooding substantial areas. Less than eight years after the completion of this major project, the Regional Board is now ***"compelling"*** the cities to ***"take aggressive action to ....restore the river."*** The Basin Plan contains a very important "foot note" (Access prohibited by Los Angeles County DPW), listing large portions of the River not presently appropriate for the REC-1 and REC-2 uses, where the River is fenced for safety purposes. The REC-1 and REC-2 uses were not in existence or even practical in 1975, when the Clean Water Act was adopted. We believe that the Regional Board can demonstrate under the Clean Water Act that: • *"Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use;"* • *"Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place;"* • *Dams, diversions or other types of hydrological modifications preclude the attainment of the use;" and* • *Controls more stringent than those required by sections 301(b) and 306 of the act would result in substantial and widespread economic and social impact."* We are concerned from the CEQA standpoint that the Regional Water Board has only considered one alternative to the TMDL in the supplemental environment document (the adoption of the TMDL by USEPA). This is far from a reasonable review of	importance and value of the Los Angeles River which would compel *all parties* to take action to protect and restore the river. While the balance of flood control with recreation and aquatic life beneficial uses can be a challenge to achieve at times, the importance of flood control does not eliminate the need to protect the beneficial uses of the river. On the REC-1 and REC-2 uses, see response to comment 3.2. Comments on the CEQA process are discussed more thoroughly in the responses to the comment letter from Rutan and Tucker. In short, the CEQA analysis provides a complete discussion of the appropriate alternatives for this action as mandated by federal law.

No.	Author	Comment	Response
		alternatives to the project. For example, there is no consideration of the Water Conservation Alternative as proposed by the cities for Reaches 1 and 2. One of the main purposes of CEQA is to give decision makers, in this case the Regional Water Board, a range of reasonable alternatives to consider, such that the Board can fully comprehend and lessen the adverse impacts of the TMDL on the environment, including reducing or eliminating the impacts of the TMDL on local government services, such as public safety, public works, maintenance programs and other services.	
3.18	City of Signal Hill	The Limits of Storm-Water Treatment The USC report explained in 2002 that Bacteria was listed as a major problem on the region's rivers by the Regional Board and would ***"most likely have to be controlled by the use of chlorination, the way sewage is now treated in the region's nine wastewater plants. We estimate that the capital costs for facilities to provide this level of treatment to storm-water flows 364 days per year would approach $30 billion."*** The report concluded that the current regulatory scheme of TMDLs and NPDES permits would require that storm water be cleaned prior to release into federal waterways. This would mean that existing flood retention facilities, like the Sepulveda Basin, could not be used to store untreated storm water, triggering the need to assembly land for storm water retention areas. The land assembly costs were estimated at another $50 billion. The study forecast tremendous economic stress on the region's communities if more practical solutions were not found. At the time, the study was widely criticized by then Regional Board members and environmental organizations. However, with this one TMDL only, for this one waterbody, we are starting to realize the inherently high costs and problems created by the TMDLs and NPDES permit process being advocated by the Regional Board staff and the environmental organizations, contrary to federal and state regulations. The University of Southern California study concluded in 2002 that the likely outcome o present course of the TMDL and NPDES programs would be massive expenditures of local government revenues, if the programs were based on the imposition of numeric limits, in lieu of a reasonable and affordable BMP approach.	Staff continues to disagree with assumptions and findings of the USC study. See response to comment 3.8 on costs.

No.	Author	Comment	Response
		"This would be massively expensive, and local regulators know it. They contend that they have never intended to require advanced treatment of storm water, and that cities can meet water quality standards by taking inexpensive steps. We conclude the opposite."	
3.19	City of Bell, Bell Gardens, Commerce, Downey, Lynwood, Monrovia, Signal Hill, South Gate, and Vernon	<u>Conclusion</u> Signal Hill and the local governments in the Los Angeles River watershed are facing a series of unique challenges. Unemployment is at record levels; resulting in an unprecedented three-year drop in local government revenues, in turn causing severe budgetary stress to our community and others. Watershed communities are implementing budget cutbacks, hiring freezes, layoffs and program reductions. Regional economists believe that it will take the better part of this decade for jobs and revenues to recover. The TMDL will be an unfunded mandate, as local governments could be forced by the Regional Board to expend scare public resources on complying with impossible to reach water quality standards and would be forced to reduce critical municipal services. Southern California is also facing severe water shortages for the foreseeable future. These include uncertainty and litigation over water transfers through the Sacramento Delta, less imported water from the Colorado River and the playing out of historic drought patterns in California. The current drought in California began in 2007 and despite an above average rainfall and snowpack this year, reservoirs are still below levels necessary to eliminate water shortages. It is incumbent upon the Regional Board to work with the Cities to conserve and reuse urban runoff. The TMDL program presents a unique opportunity for the Regional Board to partner with the Cities to develop water conservation programs that will also benefit surface water quality. We stand ready to work with the Regional Board as you adopt of the Lower Los Angeles Water Conservation Plan (WCP). The alternative plan is well suited for Reaches One and Two, since the REC-1 and REC-2 uses are not practicable in these Reaches. Also, the dry-weather flows can be more effectively reused with the plan's BMPs, with fewer adverse environmental impacts. We urge the Regional Board to hold a workshop in Reaches One and Two in order to see first-hand the issues that the cities are attempting to address and to discuss the Water Conservation Alternative.	Comments noted. Regional Board staff stand ready to work with the Cities on implementation of the TMDL and as the constructive ideas in the WCP are implemented.
4	**City of Burbank: June 04, 2010**		
4.1	City of	Thank you for the opportunity to comment on the proposed Amendment to the Water	Comment noted.

Response to Comments July 2010
Los Angeles River Watershed Bacteria TMDL

No.	Author	Comment	Response
	Burbank	Quality Control Plan for the Los Angeles Region (Basin Plan) to incorporate Total Maximum Daily Load for Bacteria for Los Angeles River and its tributaries (Bacteria TMDL). The following are our comments: **Issues with Final In-Stream Compliance** The City of Burbank (City) will need to work with the Los Angeles County Flood Control District (County) to achieve compliance, regardless of the compliance approach, since approximately 1,400 County catch basin facilities within the City drain into the Burbank Western Channel or the Los Angeles River. Recently, the County sent a letter indicating it will require cities to submit a flood permit application and assume all operational and maintenance responsibility for water quality devices in County-owned facilities. Should the County decide to delay or refuse our flood permit or otherwise not work cooperatively with the City, we would not be able to achieve the Bacteria TMDL compliance in-stream requirements.	At the implementation workshop in October of 2009, stakeholders expressed the need for time for cooperating responsible parties to hammer out agreements and understandings. The CREST/Staff recommended schedules were developed especially with time for working out such agreements.
4.2	City of Burbank	Additionally, since the load reduction strategy (LRS) is designed to have responsible panties achieve final compliance with in-stream limits, there is no existing mechanism to distinguish the "good actors" from the "bad actors." Under this scenario, the City would get penalized for others' discharges even if we completely removed our bacteria loadings from discharges into the Burbank Western Channel or the Los Angeles River.	See response to comment 11.4.
4.3	City of Burbank	The Bacteria TMDL must not require in-stream compliance limits, as it has the potential to 1) discourage responsible parties from working-together (i.e., no requirements to distinguish the "good actors" from the "bad actors"), which is the whole drive behind the LRS approach, 2) prevent responsible parties from having a means to demonstrate compliance (i.e., mass based approach with compliance measured at each responsible party's outfalls), 3) prevent the action based compliance approach developed by the Cleaner Rivers through Effective Stakeholder led TMDLs (CREST) team, and 4) terminate any incentive for reducing discharge quantities into the impaired waterbodies through infiltration and low impact development [i.e., the Municipal Separate Storm Sewer System (MS4) permit only allows stormwater runoff to enter MS4 system, yet Regional Board staff at the May 26 CREST workshop stated that a reduction in discharges into the impaired waterbodies may actually work against responsible parties since the dilution factor is minimized].	Additional clarification on demonstrating compliance has been added to the BPA. See response to comment 11.4. When the MS4 NPDES permits are revised to incorporate this TMDL, the allocations may be incorporated in several different ways including the way the commenter suggests. However, the exact manner in which allocations are incorporated into permits is not established at the time of TMDL development, since the means of incorporating the allocations depends in part on the supporting evidence in the permit's administrative record. The 'dilution factor' referenced is not from MS4 discharges, but from wastewater treatment facility discharges.
4.4	City of	**Issues with Dry-Weather Compliance Approaches**	The TMDL does allow, when a responsible

No.	Author	Comment	Response
	Burbank	Although individual responsible parties may choose to develop and implement alternative implementation strategies for dry weather implementation, responsible parties are essentially given the option to achieve Bacteria TMDL dry-weather compliance thru the LRS, to work in sub-groups, or to work individually. The LRS allows responsible parties to consider a two-phase, iterative compliance approach, whereas not being a part of the LRS group only allows a one-phase approach for compliance. The Implementation schedule is not clear if the Bacteria TMDL would allow 25 years for implementation if a responsible party was to pursue its own compliance approach, nor what the milestones or deadlines would be for a sub-group or individual, 1-phase approach. Thus, the schedule in Attachment A to Resolution No. R10-XXX (Basin Plan Amendment) must be revised to address these issues.	party pursues its own compliance approach, a specific number of years for dry weather compliance depending on the segment addressed and 25 years for wet weather compliance. The implementation plan submitted by responsible parties shall include implementation methods, an implementation schedule, and proposed milestones, as stated in the BPA. The schedule in the Basin Plan Amendment has been clarified to address this comment.
4.5	City of Burbank	Furthermore, as indicated in the March 30, 2010 California Environmental Quality Act (CEQA) letter written by the Chair of the Los Angeles River Watershed Management Committee, several issues remain unresolved in the Supplemental Environmental Document (SED), such as public-owned treatment works (POTW) dry weather diversion capacity, or the amount of land and its acquisition necessary to infiltrate and the potential for liquefaction. If the issues in that letter remain unresolved, implementation requirements and deadlines described in the Bacteria TMDL may need to be considered infeasible due to the lack of consideration to the environmental impacts	Staff disagrees. The issues discussed in the March 30, 2010 letter were taken into account as the SED was prepared Both WWTP capacity and liquefaction were analyzed in the SED. The SED is a programmatic environmental document and accounts for the reasonable foreseeable means of compliance. As the LRSs and implementation plans are developed for the TMDL and as specific implementation methods are designed and implemented, responsible parties, as they also follow CEQA, may need to conduct separate, more specific environmental reviews.
4.6	City of Burbank	Finally, the study conducted by the CREST team estimated a cost of $5.4 billion to achieve dry weather compliance thru the LRS approach, with the City's annual share being $5.9 million per year over 25 years. This cost estimate does not include other factors such as land acquisition, permit(s) application/approval and associated fees , other system retrofits (i.e., relocating other utilities), and operation and maintenance. Further, these costs are separate from wet-weather compliance costs. The City's general fund is not in a position to meet the CREST estimated costs nor the additional costs.	The CREST team estimated $588 million (in 2009 dollars) for dry weather implementation and the City of Los Angeles and County of Los Angeles cost estimates for Ballona Creek were used to estimate the $5.4 billion, upper range, estimate *for both dry and wet weather* and do include estimates of total construction, operations and maintenance costs.
4.7	City of Burbank	**Inappropriateness of REC-1 Use Designations and Necessary Corrections** More than 60 percent of the watershed is highly urbanized, and most parts of the Los	See response to comment 3.2.

No.	Author	Comment	Response
		Angeles River and its tributaries are heavily engineered (concrete-lined and/or straightened) to provide flood protection. The County restricts public access to these engineered channels for safety reasons. In the Basin Plan, these engineered channels are denoted as "access prohibited by Los Angeles County DPW". Thus, most of these channels are fenced, with no public contact with the water therein. Further, most of these channels are dry or effluent dominated during most of the year. REC-1 use in these engineered channels has never been attained in the past and is not likely to be attained in the future. Therefore, requiring attainment of REC-1 use in these channels is inappropriate, and has no value to the public as access to the heavily engineered channels is prohibited, illegal and considered trespassing. Further, per Table 2-1 of the Basin Plan, access to all of the bacteria impaired segments of Los Angeles River and its tributaries is prohibited. We request that Tables 2-2 and 2-3 of the draft Staff Report be corrected to accurately reflect the designations in Table 2-1 of the Basin Plan. In particular, corrections are required for REC-1 uses for Bell Creek, Bull Creek, Verdugo Wash, Arroyo Seco, and Reaches 4 and 6 of the Los Angeles River.	Tables 2-2 and 2-3 of the Staff Report have been corrected.
4.8	City of Burbank	**Inappropriateness of Reach/Segment Designations and Implementation Schedule** On page 4 of the Basin Plan Amendment, reference is made to Segments A through E and the attributable Los Angeles River Reaches and tributaries. However, on page 5 of the Basin Plan Amendment, no reference is made to the individual segments for the *E. coli* Load (i.e., 274 MPN/Day for Los Angeles River Segment A). Furthermore, in Table 7-39.5 on page 10 of the Basin Plan Amendment, the City is listed for Segments B and C. The City should be listed for Segments C and D. Please make these appropriate revisions, including revisions in the Implementation Schedule on page 13 of the Basin Plan Amendment. Further, the schedules for Segments C and D allow 11 years for the submittal of a LRS, but only four and a half years after the submittal of the LRS to complete the implementation of the LRS. Less time should be given to the submittal of the LRS in order to have more time to prepare, commence and complete the implementation of the approved LRS.	Comment noted. The Table on page 5 of the BPA has been corrected. Nothing prevents responsible parties from beginning planning or implementation sooner that the schedule presented in the BPA.
4.9	City of Burbank	**Point Source Final Compliance** As currently proposed, the final waste-load allocations (WLAs) for the point-source parties are prescribed based on bacteria targets within the receiving water. Per the study conducted by the CREST team for the Los Angeles River, such an approach would make point-source agencies liable for bacteria generated outside of point-sources. This is because a significant portion (more than 50 percent) of the bacteria	The indicator bacteria limits listed in the Basin Plan to protect REC-1 and REC-2 beneficial uses, are ambient water quality objectives that are to be achieved instream. *E coli* loading that is “unaccounted for”

No.	Author	Comment	Response
		loading to the Los Angeles River is unaccounted for and beyond the control of point-sources. This means that even if point-source discharges completely removed bacteria, the target in the receiving water would still not be attained. Therefore, requiring point-source agencies to comply in the receiving water would create a goal in which point-source agencies have no control over the sources that are unaccounted for. Accordingly, we request that the final WLAs for the point-source agencies be set at the end-of-pipe, and not in the receiving water. Further, we request that the unaccounted levels be dealt through a natural sources exclusion approach.	may be dealt with through a natural sources exclusion approach. See also response to comment 16.11.
4.10	City of Burbank	**Inappropriate Use of Geometric Mean** The manner in which geometric mean is being calculated and applied for evaluating compliance in our region is of great concern. As appropriately recognized by the United States Environmental Protection Agency (EPA), the geometric mean should be used as a tool to determine the state or condition of a water-body over a longer period of time, and thus, to determine sites and/or reaches with chronic bacteria problems that need attention. Accordingly, EPA recognizes that the geometric mean be used for ensuring that appropriate actions are taken to protect and improve water quality, but not as a parameter for measuring compliance. Therefore, we request that compliance in the Bacteria TMDL be measured based on single-sample exceedances only. In the 40 Code of Federal Regulations Part 131, EPA states that ..."because a geometric mean provides information pertaining to water quality that looks backwards in time, it is not necessarily useful in determining whether a [waterbody) is safe for swimming on a particular day." Further, EPA states that "... it would be technically appropriate to apply the averaging period on a set basis such as monthly or recreational season." These indicate that geometric mean is not meant to be used for assessing the condition of a water-body on a daily basis, but rather on a longer time period such as monthly, seasonal, or annual. However, the proposed Bacteria TMDL seems to use the rolling 30-day approach for calculating the geometric mean on a daily basis. The calculation of geometric mean on a daily basis lacks the essence of averaging over a time period and, thus, is inconsistent with EPA's recommendation and contradicts the very basis it is meant to be used for. We recommend EPA's position and that the geometric mean be calculated based on a monthly or seasonal time period.	The Basin Plan includes both single sample maximum bacteria objectives and 30-day average bacteria objectives as recommended by US EPA. Regarding the method of calculating the geometric mean, US EPA has indicated that it expects most states will calculate the geometric mean as a rolling average, but has given states discretion to consider, if appropriate, calendar or seasonal averages.
4.11	City of Burbank	**Non-Point Source Monitoring and Implementation Responsibilities Should Be Incorporated** The Bacteria TMDL prescribes compliance monitoring to the responsible (point-source) parties. However, no such requirements were prescribed to non-point source dischargers even though the draft Bacteria TMDL already identified such responsible	Responsible parties with LAs are expected to be low contributors (i.e. below the bacterial exceedance day allocations). If evidence is obtained which shows that not to be the case, then the Regional Board can

No.	Author	Comment	Response
		parties on Page 6 of the Basin Plan Amendment; which includes the US Forest service, California Department of Parks and Recreation, and National Parks Services. Although contributions from non-point sources are difficult to monitor, there is no justification to not prescribe equitable monitoring and implementation responsibilities in the Bacteria TMDL since non-point sources also contribute to the impairment of the Los Angeles River and tributaries. We request that specific monitoring and implementation requirements be included in the Bacteria TMDL for all non-point source parties. Such monitoring shall synchronize with the point-source efforts to properly determine the responsible party and sources causing exceedances in the Los Angeles River and tributaries, and thus dictate the necessary implementation actions by both the point and non-point source parties.	follow up with other regulatory tools such as CWC § 13267 Investigative Orders to require monitoring or, when appropriate, actions such as Cleanup and Abatement Orders. In addition, the BPA has been modified to include that NPS monitoring shall be implemented as part of WDR and waiver requirements, and through implementation of the Nonpoint Source Implementation and Enforcement Policy.
4.12	City of Burbank	**Need for Special Studies/Re-Openers** At the May 26 CREST Bacteria TMDL workshop, the Regional Board stated that no re-openers or special studies are considered for this TMDL as "there is no link to the decisions in the TMDL." However, sources other than the point sources are likely contributing bacteria. These need to be considered and studied. Thus, it is imperative that the Bacteria TMDL add a source identification optional special study and include a re-opener in the schedule.	See response to comment 11.7.
4.13	City of Burbank	**Request for Wet Weather Phased Implementation Option** The wet weather implementation involves very difficult challenges with respect to dealing with urban sources of bacteria. The draft Bacteria TMDL allows for a two-phase approach using the CREST proposed LRS for dry weather, but no such allowance is offered for wet weather implementation. We request that a phased implementation option be extended to the wet weather component of the Bacteria TMDL as well. Further, due to the need for more time to better understand and design implementation measures for wet weather, the final compliance date for wet weather should be longer than the schedule provided for dry weather.	The wet-weather compliance is required in 25 years and the responsible parties are required to develop a wet weather implementation plan to include milestones for approval by the Regional Board Executive Officer. This plan to be developed by responsible parties could include a phased implementation approach within the 25 years.
4.14	City of Burbank	**Adjustment of Interim Mass-Based WLA Time Scale** As indicated on page 5 of the Basin Plan Amendment, the interim WLA for the dry weather is assigned on a daily basis. Setting it on a daily basis is no different from a concentration-based WLA. It is more appropriate to calculate the mass on a longer time scale to capture the day-to-day fluctuation of bacteria concentrations. Thus, we request that the mass-based allocation be specified on a monthly or annual basis.	These interims are not equivalent to concentration-based allocation because a concentration-based allocation would apply to each, individual, outfall at all times. This approach is MPN/day for the segment, that is, over the collection of outfalls in the segment. Therefore, some outfalls may load higher amounts of *E coli* (above any concentration-based limit) when other outfalls are loading lesser amounts. See

No.	Author	Comment	Response
			also response to comment 14.10.
4.15	City of Burbank	**Refine Dry Weather Allowable Number of Exceedances** The Bacteria TMDL prescribes 5 days of allowable single sample exceedance days for dry weather. As described in the CREST Technical Report, this is true only when sites with elevated bacteria concentrations, which the study calls them "minimally impacted" sites, are removed from the analysis. With the inclusion of minimally impacted sites in the analysis, the single sample exceedance days at the reference site is 21, which is significantly different from the proposed 5 days. The exclusion of sites that exhibited high bacteria levels from the dataset used to calculate the exceedance days at the reference site is not appropriate. Therefore, we request that the dry weather single sample allowable number of exceedance days presented on page 4 of the Basin Plan Amendment be set to 21 days for daily sampling or 3 weeks for weekly sampling. Additionally, it is not clear if the allowable single sample exceedance days for dry weather are per cycle or per season/annually. We request added language to clearly define the period of dry weather for allowable single sample exceedances.	The allowable exceedance days were based on a large scale study performed by SCCWRP over two years in reference watersheds across southern California (over 400 samples). At this time, this is the most reliable dataset for determination of naturally occurring exceedance rates. The use of the data including the exclusion of the "minimally impacted" sites was discussed at several CREST stakeholder meetings including how the exceedance rates change with the inclusion or exclusion of those sites. The CREST-developed targets section has been available since October of 2009 with a discussion of the issue. The sites were removed from analysis because of the potential of anthropogenic sources of bacteria such that they were not considered true reference sites. The allowable single sample exceedance days for dry weather are per year.
4.16	City of Burbank	**LAX Rainfall Data is not Representative** For defining dry and wet weather events and for determining the associated load allocations and WLAs, the proposed Bacteria TMDL has used the rainfall data recorded at the Los Angeles International Airport (LAX). It is implied that the same station would be used later as a reference for compliance assessment purposes. Though the data at LAX covers longer time period and is of good quality, its application to the entire watershed is not appropriate. Therefore, it is imperative to have two reference rainfall stations to capture the existing hydrologic and climatic variability within the watershed. **Compliance Evaluation Should Take into Account The Year-to-Year Variability of Rainfall in The Region** The selection of the 90th percentile storm year in terms of number of wet days) as a reference year for the determination of allowable exceedance days implies that 10 percent of the time it is highly likely that the number of wet days is larger than the	An addition has been made to the BPA to allow for the potential adjustment. Alternative methods of compliance evaluation have been considered with this and other bacteria TMDLs and is currently, specifically, under consideration in the upcoming re-consideration of the Santa Monica Bay Beaches, and Marina del Rey Beaches bacteria TMDLs. While this method means that the rarer, wetter, year is harder for wet weather compliance, the more usual, drier, year is more achievable in dry weather. The

No.	Author	Comment	Response
		reference year. That means even if Best Management Practices (BMPs) are designed for the 90"' percentile storm year, it is evident that 10 percent of the time these BMPs would not attain the TMDL target as there would be more number of exceedances than allowed. In order to account for such extreme climatological conditions, it would be more appropriate to assess final compliance such that compliance in a given year would be met if either- the number of exceedance days in that year or the average number of exceedance days over X years (X being annual rainfall periodicity for tile region) is less than or equal to the allowable exceedance days for the site. This would dampen the effect of a very extreme rain year and would provide a reasonable annual assessment of compliance with the target milestones.	current method has the advantage of providing more surety for responsible parties for implementation planning and method design purposes.
4.17	City of Burbank	**The Margin of Safety is Excessively High** A margin of safety (MOS) is required to account for the uncertainty associated with the analysis made in establishing the linkage between the pollutant loading and the impacts on the receiving waterbody. To our knowledge, the MOS shall be in the order of 10 percent or less of the loading capacity of the waterbody. In Table 7-1 of the draft Staff Report, the MOS is considered to be as high as 80% of the loading capacity Such an excessively large MOS is unjustified. Thus, we request that the MOS be limited to no more than 10 percent of the loading capacities for the various impaired reaches.	When an explicit margin of safety is applied, it is often 10%. An implicit margin of safety is met through conservative assumptions in the development of the allocations. In this case, we did not apply the usual 10% explicit margin of safety because the assumptions made in the development of the allocations were demonstrably conservative. Also, please note that these interim allocations were based on flow rates in the Los Angeles River which are expected to decrease over the course of the next years as water conservation and re-use are implemented by the WWTPs in the watershed. As this happens, the interims will be further from achieving the final allocations and therefore not as conservative.
4.18	City of Burbank	**Redefine Wet Weather** In the proposed Bacteria TMDL the wet weather is defined as "days with rainfall of 0.1 inch or more plus the three days following the rain event". Due to the high urbanization and the associated impervious cover in the Los Angeles River Watershed, rainfall of less than 0.1 inch will trigger stormwater runoff. In such a case, the event is no longer of dry weather urban non-stormwater runoff. We recommend that wet weather be defined instead as "... days with rainfall plus three days following the rain event."	This is the definition used in previous bacteria TMDLs in this Region. This provides consistency across the different watersheds and for the responsible parties who will comply with bacteria TMDLs in different watersheds. In addition, this definition is the same as that used by the Los Angeles County Department of Public Health for rain-related beach postings.

Response to Comments July 2010
Los Angeles River Watershed Bacteria TMDL

No.	Author	Comment	Response
4.19	City of Burbank	Thank you for this opportunity to comment on the Bacteria TMDL. We look forward to working with your staff on developing solutions to address the bacteria impairments. Please contact me if you have any questions at (818) 238-3940 or drvnn@ci_burbank.ca.us	Comment noted.
5	**City of Carson: May 25, 2010**		
5.1	City of Carson	Thank you for the opportunity to comment on the Los Angeles River Bacteria TMDL. I noticed that the city of Carson is erroneously indicated as a responsible party for waste load allocations to both the Los Angeles River Segment A and to Compton Creek. The city of Carson contracted with California Watershed Engineering (CWE) to prepare a Hydrologic Area Delineation for the Los Angeles River Metals 7MDL. This report was submitted to the Regional Board and the Executive Officer at the time, Tracy Egoscue, acknowledged its accuracy by letter dated November 12, 2009. The report identifies a total of 125.59 acres or 0.196 square miles as draining to Compton Creek. Page 9 of the CWE report identifies all 5.44 acres of Carson that drain to the main stem of the Los Angeles River as Caltrans' Long Beach Maintenance Facility. Since Caltrans is a responsible party to the Los Angeles River Bacteria TMDL, the city of Carson is, therefore, only responsible for those areas that drain to Compton Creek. Accordingly, the city of Carson respectfully requests that the LA River Bacterial TMDL be corrected to reflect that 1) the city of Carson is responsible for only those areas within the city that drain to Compton Creek; and 2) the city of Carson is not a responsible party for waste load allocations to the Los Angeles River Segment A. If you have any questions, please contact me at (310) 847-3529 or pelkins@carson.ca.us.	The staff report and BPA will be revised to address this comment.
6	**City of Carson *et al.*: June 01 to June 03, 2010**		
6.1	City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and South El Monte	The city of Carson is pleased to submit herewith, for your serious consideration comments concerning the proposed bacteria TMDL for the Los Angeles River. The city believes that the TMDL is in need of revision and should not be adopted until corrections are made. This would of course necessitate a postponement of the TMDL public hearing, which is scheduled for July 9.	Comment noted. See response to comment 3.3.
6.2	City of	The city also recommends that the Regional Board convene a workshop to discuss the	Comments noted. Responses to specific

No.	Author	Comment	Response
	Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and South El Monte	manifold issues associated with the TMDL, including: • its lack of specificity in identifying REC1 beneficial uses for each water body within the expansive Los Angeles River system and how indicator bacteria impairs those uses • the need to narrow the type of bacteria and identify other pathogens that pose human health risks to those. who make recreational water contact in water bodies within the Los Angeles River system • the paucity of study data demonstrating a statistically supported causal relationship between indicator bacteria and human illnesses for each water body in the Los Angeles River system that has been deemed to be REC1-impaired (suggesting the need for better epidemiological studies). • remodeling the TMDL after the San Diego beaches bacteria TMDL which: (1)-translates waste load allocations (WLAs) into water quality based effluent limits (WQBELs), with which compliance is determined by implementing a set of iteratively progressive best management practices (BMPs) - instead of strictly meeting numeric WLAs with BMPs; and (2) limiting compliance with WQBEL translated WLAs to "controllable" sources of bacteria.	comments are below
6.3	City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and South El Monte	Given that the consent decree deadline date for complying with the bacteria TMDL is set for March of 2012 - same 19 months from now - and it should not take longer than a year to fully adopt the TMDL, there is sufficient time to address these concerns.	See response to comment 3.3.
6.4	City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San	Lastly, it should be noted that the public hearing, as the city has been informed, is scheduled for July 9th, which falls on a Friday. The city however, as well as many other municipalities, is typically closed on Fridays.	The Regional Board meeting dates are typically set well in advance and as much as a year in advance. Due to the number of items being considered at the July Board meeting, the Regional Board decided to add an additional day for the hearing. Fridays are a business/working day. The two-day

No.	Author	Comment	Response
	Marino, and South El Monte		meeting was noticed for this TMDL on April 21, 2010.
6.5	City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and South El Monte	The city looks forward to a favorable response to its concerns as soon as possible. In the meantime, should you have any questions, please do not hesitate contacting me at (310) 847-3529	Comment noted.
6.6	City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and South El Monte	I. *City Supports Comments Made by the City of Signal Hill on Behalf of the Coalition for Practical Regulation* CPR addresses a number of issues not referenced herein. The City is in support of CPR's comments with the exception of its proposal to meet waste load allocations (WLA) for those permittees that are situated in Reaches 1 and 2 of the Los Angeles River.	Comment noted. City of Signal Hill comments are comments 3.1 through 3.19.
6.7	City of El Monte, Irwindale, San Gabriel, San Marino, and South El Monte	It should be noted that the City, though identified in the LAR-BTMDL as being located in Reach 2 of the Los Angeles River, is more specifically located in Reach 2 of the Rio Hondo River. This distinction is important because Reach 2 of the Rio Hondo is situated upstream the spreading grounds.	Staff agrees. The city of El Monte, Irwindale, San Gabriel, San Marino, and South El Monte are located in the drainage of Rio Hondo Reach 2. They have in fact already been identified as responsible parties in the BPA and staff report for Rio Hondo only and not Segment B.
6.8	City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and	II. *LAR-BTMDL Does Not Identify REC1 Beneficial Use Impairments to Reach 2, Rio Hondo River* The LAR-BTMDL does not specify the REC1 beneficial use impairment that bacteria contained in wet and dry weather runoff discharged from within its boundaries is presumed to impair. Nowhere in the TMDL is there mention of the water bodies that are impaired for REC1 due to indicator bacteria. The City does not know which water body is impacted and which REC1 (e.g., swimming, bathing, water skiing, etc.) is	The waterbodies impaired for REC-1 are listed in Tables 2-2 and 2-3of the Staff Report. Rio Hondo Reach 2 is included in both Tables. The Los Angeles River Reach 2 and Rio Hondo are listed on the 303(d) list of impaired waterbodies for elevated levels

No.	Author	Comment	Response
	South El Monte	being impaired due to indicator bacteria. The TMDL merely asserts that: (1) indicator bacteria counts exceeded the federal standard for all reaches of the Los Angeles River; and (2) that bacteria have been known to pose a human health risk.	coliform bacteria. The Basin Plan lists waterbodies in the regional along with their designated beneficial uses. The Basin Plan also lists water quality objectives to protect listed beneficial uses. For the REC-1 and REC-2 beneficial uses the Basin Plan includes water quality objectives for indicator bacteria such as fecal coliform and *E. coli* for fresh waters. Newer data was not readily available for Rio Hondo Reach 2 and was not summarized in the staff report. Older data, which includes 61 samples for coliform ranging from non-detect to 91,000 organisms per 100 ml. The Staff Report will be revised to address this comment.
6.9	City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and South El Monte	III. *Beneficial Use Survey Needed* Even USEPA will admit that an exceedance of the federal standard for indicator bacteria does not automatically mean that a human health risk exists for those who make contact with a water body. Indeed, the USEPA has funded a beneficial use survey for REC1 under a 205(j) grant on behalf of middle Santa Ana River permittees who are also subject to a bacteria indicator TMDL. A beneficial use study is also needed for each of the affected reaches of the Los Angeles River. The study should identify how bacteria, human and non-human, are responsible for causing illness in humans who make water contact with specific bodies within each reach. Study results, along with additional monitoring, are likely to necessitate a reduction in the final waste load allocation (WLA) for each reach. <u>The Regional Board should not adopt the LAR-BTMDL until a REC1 beneficial use study is completed for all reaches.</u>	See response to comment 3.2 for discussion of re-assessing beneficial uses and 16.8 for discussion of human health risk.
6.10	City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and	IV. *LAR-BTMDL Is Overtly Concerned with All Bacteria* The LAR-BTMDL is not concerned, apparently, with identifying human bacteria and distinguishing it from non-human sources, including birds and wildlife that should be considered as "uncontrollable" non-anthropogenic background sources. The TMDL admits that *the indicator bacteria used to assess water quality are not specific to human sewage; therefore, fecal matter from animals and birds can also be a source of elevated levels of bacteria.* The TMDL assumes that all bacteria cause human illness.	Staff disagrees. The TMDL does not assume that all bacteria cause human illness, but instead relies on the proven value of indicator bacteria (in this case *E. coli*) as indicators of human health risk. The Load Reduction Strategy approach developed by CREST and included in the

No.	Author	Comment	Response
	South El Monte	This is also revealed in the TMDL's position on bacteriodales monitoring human indicators and pathogens such as the adenovirus. It states that monitoring of them is "encouraged but not required." Treating all bacteria as pathogenic culprits harmful to humans is ill advised. To begin with it is not clear if bacteria alone are responsible for causing illness in those who make contact with water that exceeds the federal bacteria indicator standard. Illnesses could be caused by viruses and protozoa in addition to specific bacteria. Further, the Santa Monica Bay epidemiologic study done in 1999, which is referred in the TMDL, implies a causal relationship, albeit highly generalized, between indicator bacteria and illnesses. The TMDL states that the study: *...found swimming in urban runoff-contaminated waters resulted in an increased risk of chills, ear discharge, vomiting, coughing with phlegm and significant respiratory diseases. These studies demonstrate that there is a causal relationship between illness and recreational water quality, as measured by fecal indicator bacteria densities.*[1] The TMDL appears to use the study to justify the need for a bacteria TMDL that calls for structural and non-structural BMPs at a cost of 5.4 billion dollars over 23 year period. The Santa Monica study, however, is not a true epidemiological study as mentioned in a 2008 National Resource Council report commissioned by USEPA. To begin with, the study generally concluded that fecal indicator densities demonstrate a causal relationship between recreational water quality and illness. The NRC report, on the hand, asserted that the Santa Monica study merely *indicated that the risks of several health outcomes <u>were higher for people who swam at storm-drain locations compared to those who swam farther from the drain</u>*. Further, the NRC report suggests that the Santa Monica epidemiological study was not like most other studies because: *... it did not include highly credible gastrointestinal illness, which is curious because the vast majority of epidemiological studies worldwide suggests a causal dose-related relationship between gastrointestinal symptoms and recreational water quality measured by bacterial indicator counts*[2] The LAR-BTMDL should be revised to include a genuine epidemiological study, such as the one completed by the City of Dana Point and the California Regional Boards.	staff recommendation encourages the use of bacteriodales data (or other human specific pathogen data) to develop priorities in storm drain or subwatershed actions. There are no bacteriodales or adenovirus water quality standards recommended by EPA or in the Basin Plan. No TMDL or allocations were developed for these indicators so no monitoring is required. The indicator bacteria, themselves, are not likely to be human pathogens, but they are a reliable indicator of fecal matter-potentially containing viruses and protozoa-and are a reliable indicator of health risk. See response 16.8 for a discussion of the potential health risk from animal fecal matter. The Santa Monica Bay epidemiological study was just one of the studies cited. Other studies including Cheung *et al.* 1990, *Health effects of beach water pollution in Hong Kong*. Epidemiol. Infect. 105:139-162, has also associated skin rash, respiratory and total diseases with increased indicator bacteria. The 2008 National Resource Council report did *not* say, nor did it imply, that the Haile study was 'not a true epidemiological study,' but instead that the most statistically significant health outcomes were fever chills, ear discharge, cough and phlegm and significant respiratory illness; the more usual gastrointestinal outcome was less

No.	Author	Comment	Response
		The study examined several new techniques for measuring traditional fecal indicator bacteria, new species of bacteria, and viruses to determine whether they yield a better relationship to human health outcomes than the indicators presently used in California.[3]	statistically significant. The science of recreational water quality is rapidly advancing. The federal BEACH Act (40 CFR 32.1) requires USEPA to conduct a *Criteria Development Plan* (R/7-097-432). Under the ongoing *Plan*, the USEPA is conducting additional epidemiological studies and quantitative microbial risk assessments for fresh- and marine waters impacted by point- and nonpoint sources. The assays being utilized by USEPA include *Enterococcus*, *E. coli*, and *Bacteroidales*. Under a legal settlement, USEPA is committed to issuing new and/or revised criteria by October 15, 2012. The State will likely have several years to implement these new/revised criteria after promulgation by USEPA. Therefore, during the expected timeframe for implementation of this TMDL, targets, themselves, may change and this TMDL may be revised by the Regional Board through a Basin Plan Amendment, if appropriate. See response to comment 16.2 regarding 'uncontrollable' sources.
6.11	City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and South El Monte	V. *LAR-BTMDL Exceeds Federal Requirements In Re: TMDL Implementation* The LAR-BTMDL requires affected municipal NPDES permittees (permittees) to comply with strict numeric waste load allocations for indicator bacteria. Regional Board staff asserts that *Porter Cologne Water Quality Control Act prohibits it from prescribing the method of achieving compliance with water quality standards, and likewise TMDLs (Water Code §13360).* Nevertheless, Regional Board staff has developed "potential" implementation strategies to meet the WLA, but with the proviso that *there is no requirement to follow the particular strategies proposed herein as long as the maximum allowable exceedance days are not exceeded.* In other words,	Staff disagrees. The San Diego Region TMDL and this TMDL are significantly similar. Both have the required elements of a TMDL including targets, loads, waste load allocations and load allocations. Both set allocations in days of exceedance of the water quality objective (although this TMDL does also include interim targets in total loading).

No.	Author	Comment	Response
		a permittee is not required to pursue any of the implementation strategies "recommended" by Regional Board staff but if a permittee proposes its own and that strategy, and that strategy fails to meet the WLA, then that permittee will be out of compliance and subject to enforcement action and third party litigation. In effect Los Angeles Regional Board staff is proposing a compliance standard that exceeds federal requirements. This is in sharp contrast to the San Diego Regional Board's bacteria TMDL for San Diego beaches, which asserts: *Federal regulations require that NPDES requirements incorporate water quality based effluent limitations (WQBELs) that must be consistent with the requirements and assumptions of any available WLAs which may be expressed as numeric effluent limitations, when feasible, and/or as a best management practice (BMP) program of expanded or better-tailored BMPs*[4] In other words, subject permittees should be able to translate a TMDL WLA into a narrative, non-numeric WQBEL consisting of BMPs that address the WLA. If, however, the BMPs do not succeed in meeting the WLA, the permittee would not be found in violation of the TMDL, but would instead, be required to ramp-up BMPs. This provision is no different from the adaptive/iterative process that is suggested in the current MS4 permit (albeit not as clearly as other Southern California MS4 permits) in responding to a receiving water exceedance. In the San Diego County MS4 permit adopted in 2007, the use of WQBELs to meet TMDLs is required as the following excerpt from it illustrates: *The establishment of WQBELs expressed as iterative BMPs to achieve the Waste Load Allocation (WLA) compliance schedule is appropriate and is expected to be sufficient to achieve the WLAs specified in the TMDL*[5] It should be noted that the aforementioned San Diego beach bacteria TMDL has yet to be incorporated into the 2007 San Diego permit. But based on the language in the TMDL it is clear that the San Diego Regional Board intends to use WQBELs to determine WLA compliance.	Both TMDLs will be incorporated into NPDES permits after they are finally approved by USEPA. The commenter's quote is from the Executive Summary of the San Diego TMDL Staff Report which refers to incorporation into permits. The sentence before the quote reads, "The TMDLs will be implemented primarily by revising and re-issuing the existing WDRs and National Pollutant Discharge Elimination System (NPDES) requirements that have been issued for discharges from Phase I MS4s and Caltrans MS4s." This, like the quote the commenter provides, is true for both TMDLs. Federal regulation requires that NPDES permits must contain requirements necessary to achieve water quality standards (40 CFR § 122.44(d)(1)). Additionally, federal regulations require that water quality based effluent limits are set consistent with the assumptions and requirements of any available WLA for the discharge (40 CFR § 122.44(d)(1)(vii)(B)). While federal regulations allow the permitting authority to specify - as conditions of a NPDES permit - the use of BMPs to control or abate the discharge of pollutants in stormwater pursuant to Clean Water Act section 402(p) (40 CFR § 122.44(k)(2)), this is only supportable under specified circumstances where the permit's administrative record supports that the BMPs are expected to be sufficient to

No.	Author	Comment	Response
			implement the WLA in the TMDL (US EPA 2002). Furthermore, this does not substitute for the permitting authority's obligation to include other requirements such as numeric effluent limits that may be necessary to achieve water quality standards. USEPA recently stated in a comment letter dated May 29, 2008 on the tentative Ventura County MS4 Permit, "EPA supports the approach used for incorporating TMDL WLAs in the August 28, 2007 second draft of this permit, in which the WLAs were incorporated as numeric water quality-based effluent limits (WQBELs) … Under this approach, clear compliance determinations may be made, and the effectiveness of stormwater controls on water quality may be assessed. As a general matter, MS4 permits, many of which represent the fourth generation of permits to control municipal stormwater, should enable permitting authorities to more effectively determine compliance and evaluate impacts on water quality." The State Board also recently addressed the issue of translating TMDL wasteload allocations into effluent limits in MS4 Permits and concluded that, "whether a future municipal storm water permit requirement appropriately implements a storm water wasteload allocation will need to be decided based on the regional water quality control board's findings supporting either the numeric or non-numeric effluent limitations contained in the permit" (Order

No.	Author	Comment	Response
			WQ 2009-0008). Furthermore, federal regulations do not suggest that the iterative/adaptive process is an inherent component of BMP-based permit requirements. That notwithstanding, the Regional Board has provided permittees under the LA County MS4 NPDES Permit 19 years, since the first MS4 Permit was adopted in 1990, to iteratively apply BMPs to achieve water quality standards. TMDLs are the backstop for the Clean Water Act in cases where effluent limitations, or BMPs in the case of MS4 permits, have been inadequate to achieve water quality standards. Indefinitely continuing such an iterative/adaptive approach without greater specificity in terms of implementation schedules and numeric limitations is not in the best interest of water quality.
6.12	City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and South El Monte	VI. *LAR-BTMDL Is Concerned with All Bacteria* The LAR-BTMDL is not interested, apparently, in identifying human bacteria and distinguishing it from non-human sources, including birds and wildlife, which should actually be considered as "uncontrollable" non-anthropogenic background sources. The TMDL admits that the *indicator bacteria used to assess water quality are not specific to human sewage; therefore, fecal matter from animals and birds can also be a source of elevated levels of bacteria.* The TMDL assumes, incorrectly, that all bacteria cause human illness. This is also revealed in the TMDL's position on relying on bacteriodales monitoring to evaluate human-specific indicators such as the adenovirus as pathogens. It states that monitoring of them *is encouraged but not required.* Focusing on all bacteria instead of human and animal sources and other pathogens identified through bacteriodales monitoring would pinpoint the pathogen problem. This would give permittees an important tool in choosing appropriate best management practices (BMPs) - structural and non-structural to deploy against a correctly assessed pathogen problem. It would, in other words, facilitate cost-effective	See response to comment 6.10.

No.	Author	Comment	Response
		compliance.	
6.13	City of Carson, Duarte, El Monte, Irwindale, San Fernando, San Gabriel, San Marino, and South El Monte	VII. *Compliance with WLAs Should Be Limited to Controllable Sources* The LAR-BTMDL requires compliance with WLAs regardless of whether bacteria sources are controllable or not. In fact, the TMDL does not make a distinction between the two, unlike the San Diego beaches bacteria TMDL. This TMDL defines controllable sources of bacteria as anthropogenic non-point sources, *identified by land use types and coverages.*[6] This category includes agriculture, dairy/intensive livestock, and horse ranches. Uncontrollable nonpoint sources, on the other hand, include discharges from open recreation, open space, and water land uses (collectively referred to as open space land uses). They are considered uncontrollable because they come from mostly natural sources (e.g. bird and wildlife feces). In the interest of economy and in reducing bacteria loadings from pollution sources in urban runoff, Regional Board staff should amend the TMDL to be subject only to controllable sources of bacteria.	See response to comment 6.10 and 16.2. In addition, a natural sources exclusion approach could be developed in the future, as discussed, to address natural sources such as birds and other wildlife after the anthropogenic sources have been controlled such that they do not cause or contribute to exceedances.
6.14	City of Carson, Duarte, Irwindale, San Fernando, San Marino, and South El Monte	VIII. *Questions* a. TMDLs adopted by other regional boards in Southern California provide for WLA to BMP translator through WQBELs as required by federal law. Why has not the Regional Board done the same with the LAR-BTMDL?	See response to comment 6.11.
6.15	City of Carson, Duarte, Irwindale, San Fernando, San Marino, and South El Monte	b. Why does not the LAR-BTMDL make a distinction between controllable and non-controllable sources of bacteria as does other TMDLs adopted by other regional Southern California Regional Boards?	This Regional Board distinguishes between natural and anthropogenic sources instead of using the "controllable/non-controllable" construct. This terminology focuses more on the important issue of the source of the bacteria.
6.16	City of Carson, Duarte, Irwindale, San Fernando, San Marino, and South El	c. Given that the consent decree does not require USEPA or the regional board to adopt the LAR-BTDML until March of 2012 (21 months from now), why is there a need to compress the adoption process? According to USEPA staff scientist Cindy Lin, it should take 6 to 12 months to adopt a TMDL. To provides more than enough time to meet the consent decree deadline.	Staff does not recommend postponement of consideration of the TMDL due to Regional Board resource limitations and the imperative to address the water quality impairments. See also response to comment 3.3.

No.	Author	Comment	Response
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6.17	City of Carson, Duarte, Irwindale, San Fernando, San Marino, and South El Monte	d. The LAR-BTMDL only refers to REC1-related health issues for Santa Monica Bay. Why has not Regional Board staff discussed how bacteria impacts all of the subject reaches within the Los Angeles River?	See response to comment 6.10 and 16.8.
6.18	City of Carson, Duarte, Irwindale, San Fernando, San Marino, and South El Monte	e. Regional Board staff contends that the LAR-BTMDL was produced through a cooperative stakeholder process. Yet many impacted stakeholder groups were not ask to participate. The CREST project cannot be considered a true stakeholder process because it did not reach-out to community groups that were not City of Los Angeles-resident.	Staff disagrees. Staff has sent various notices through our email notification lists (lyris) along with posting official notices in the newspapers. Staff has also conducted outreach to watershed groups as well as the affected municipalities. Staff has always encouraged municipalities as well as other responsible parties to distribute information to interested parties not named. Also see response to comment 3.3.
6.19	City of Carson, Duarte, Irwindale, San Fernando, San Marino, and South El Monte on	f. Does the Regional Board intend to control bacteria in dry weather discharges through the discharge prohibition section of the MS4 permit as it had with the Santa Monica Bay Beaches dry weather bacteria TMDL?	The exact manner in which allocations are incorporated into permits is not established at the time of TMDL development, since the means of incorporating the allocations depends in part on the supporting evidence in the permit's administrative record.
6.20	City of Carson, Duarte, Irwindale, San Fernando, San Marino, and South El Monte	g. The LAR-BTMDL asserts that a CEQA review not required because it does not establish new water quality objectives. The TMDL may not establish new water quality objectives but it does require an implementation program for achieving water quality objectives. The City believes that the implementation program for achieving water quality objectives comply with Porter-Cologne section 13242, which requires a basin plan amendment. The City believes that the implementation plan is CEQA subject. Furthermore, the Regional Board is responsible for adopting the implementation plan. Does the Regional Board intend to adopt the implementation plan consonant with Section 13242?	See response to comment 20.4. The commenter is correct that the Regional Board must comply with section 13242 in adopting the implementation program. In addition, the Staff Report states that as a "certified regulatory program," the Regional Board must satisfy the substantive requirements of 23 CCR § 3777(a), which requires a written report that includes a description of the proposed activity, an

No.	Author	Comment	Response
			alternatives analysis, and an identification of mitigation measures to minimize any significant adverse impacts. Mitigation measures and a CEQA checklist were included in the Substitute Environmental Documents of the TMDL. The proposed amendment to the Basin Plan is part of the basin planning process, the environmental information developed for and included with the amendment is considered a substitute for an initial study, negative declaration, and/or environmental impact report.
7	**City of Downey (2): June 4, 2010**		
7.1	City of Downey	The City of Downey appreciates this opportunity to provide comments on the subject Los Angeles Basin Plan Amendment and express our gratitude to the Board for holding this extraordinarily important hearing within the Los Angeles River Watershed. We would like to reiterate our support for the letters provided by Mr. Richard Montevideo of Rutan and Tucker regarding legal issues and conflicts, Dr. Susan Paulson of Flow Science Inc. regarding scientific and technical deficiencies, and Mr. John Hunter as Chair of Los Angeles River Watershed Management Committee regarding the resource challenges currently being encountered by the watershed cities.	Comment noted.
7.2	City of Downey	**Allow the CREST Process to Conclude:** The City of Downey has actively participated in the City of Los Angeles Cleaner Rivers through Effective Stakeholder TMDLs (CREST). We appreciate the participation and support of the regulatory agencies and watershed stakeholders, especially the City of Los Angeles. We have repeatedly voiced our concerns and tried to contribute to moving the process forward in resolving challenges. The technical consultants deserve accolades for their scientific ingenuity, risk prioritizing methodology; and attempting to "thread the needle" between competing regulatory objectives. Perhaps, if it were not for the time constraints imposed on the Board by the consent decree agreed to by the U.S. EPA, CREST would have ultimately succeeded. Having asserted this, municipalities are instead confronted by a multi billion dollar TMDL that inadequately addresses the issues of wet-weather runoff and lack of state and local resources by "kicking the can down the road". With less than half of the City in the watershed, this TMDL could	Adoption of the TMD has already been significantly delayed. Regional Board Adoption was scheduled for April of 2009: http://crestmdl.org/meetings/June_2008_LA_River_Bacteria_TMDL_Schedule.pdf and for December of 2009 in the CREST Workplan http://crestmdl.org/about/index.html. While CREST participants might have preferred a continued delay of the adoption of this TMDL and while delay can always be rationalized when dealing with complex environmental systems and evolving

No.	Author	Comment	Response
		consume nearly 4% of annual General Fund. This goal-setting approach is precisely what has led us to the precipice where agencies with shared water quality objectives are unable to rationally communicate and develop a predictable and assured path to compliance. We encourage the Board to allow the CREST team to continue to negotiate and attempt to resolve the many remaining hurdles that confront our respective agencies	science, delay on this TMDL can no longer be justified. The CREST Process was successful. Staff agrees that the technical consultants deserve accolades for their scientific ingenuity, risk prioritizing methodology. The CREST team has submitted comments to address several remaining issues. The responses to CREST comments are found in comments 11.1 through 11.13.
7.3	City of Downey	**Modify the SED to Conform with Programmatic EIR Objectives:** As was repeatedly and forcefully conveyed to Board staff at the March 10, 2010 CEQA Scoping Workshop for this TMDL and in our comment letter of March 17, 2010, this draft TMDL is essentially a multi-billion dollar government Capital Improvement Program that if adopted will impose serious environmental impacts and likely prohibit local agencies from meeting other environmental objectives (e.g. green house gas emissions). The current Supplemental Environmental Document (SED) is a shameful mockery of the state legislature's intent under CEQA. It purports impacts equivalent to a modest pump station, rather than the construction of dozen of diversions that will significantly impact various aspect of natural and urban environment for decades to come. The SED should comprehensively address watershed and regional issues, so that local project scale environmental documents can be limited to the specifics of the project. By shirking this responsibility, the state is also simultaneously delegating to local agencies the herculean task of resolving the conflicting goals and objectives of the legislature and constituents in adopting goal setting regulation and constitutional amendments.	Staff disagrees. The issues discussed in the March 17, 2010 letter were taken into account as the SED was prepared. The CEQA analysis provides a complete discussion of the appropriate alternatives for this action as mandated by federal law.
7.4	City of Downey	**Refer this TMDL to the US EPA:** In an apparent acknowledgement of the scientific and regulatory challenge to proclaiming that indicator bacteria, freely replicating in rivers and deposited by wildlife, are a pollutant, the U.S. EPA notified local agencies in Mid April 2010, that many coliform impairments would be eliminated from the consent decree. It is unfortunate that in many respects, the state has been left "holding the (consent decree) bag", while the US EPA properly prioritizes its resources on more serious environmental challenges. We hope that by returning this chimera to its maker, that both our agencies can resume a dialogue that focuses our extremely limited *resources on the most significant* environment challenges, *such as* improving *water* quality at	While EPA has recently formed a new plan with the plaintiffs in the Consent Decree (notified to local agencies in Mid April 2010) which included a schedule for completion of remaining TMDLs in the Consent Decree, and some TMDLs were removed from, or added to, the Consent Decree, there was no reason for EPA to assign this one to themselves because work on this TMDL was essentially complete and

No.	Author	Comment	Response
		beaches that are commonly used for full body contact recreation.	because an EPA-adopted TMDL will not include an implementation plan and an implementation schedule, which will limit flexibility in prioritizing and spreading out implementation actions. In fact, one of the TMDLs *added* to the Consent Decree schedule is the Long Beach bacteria TMDL.
7.5	City of Downey	**Allow Recent Sanitary Sewer Spill Control Programs to Take Effect:** The state recently extended requirements to better operate and maintain local sanitary sewers. A similar effort was recently proposed by the U.S. EPA although its requirements have not taken final form. Recently, many of the watershed cities have responded to the Board and more seriously report and track these spills. The City of Downey City Council recently adopted a Sanitary Sewer Management Plan (SSMP) and raised water rates to support development of a more effective spill control program. We believe the draft TMDL under estimates or simply does not understand that pressurized (surcharged) sewer mains cross and flow under the Los Angeles River and Tributaries and unless discharges are clearly discernible, they can easily go undetected as urban runoff flows downstream. The state should focus its limited resources in verifying that local agencies have instituted the SSMP program including developing new technologies or methods to identify and assess where sewage spills are occurring in the river itself.	The Sanitary Sewer Spill Control Programs are important new programs and Sanitary Sewer Management Plans, such as adopted by the City of Downey, which include detection of sanitary sewer flows to the Los Angeles River may be an important part of achieving the goals of this TMDL. The Regional and State Boards recognize the importance of having a system-wide operation, maintenance and management plan in place to reduce the number and frequency of sanitary sewer overflows within the state, as evidenced by the requirements established by the State Board in the Statewide General WDR for Sanitary Sewer Systems Order, WQO No. 2006-0003-DWQ. Additionally, the State Board is in the process of reviewing and updating the Sanitary Sewer Overflow Reduction Program. The TMDL sets priorities in which certain segments are addressed first, and allows for responsible parties to prioritize how each segment is brought into compliance in terms of which storm drains or subwatersheds are targeted, but the important goals of addressing MS4 contributions to the River cannot be, itself,

No.	Author	Comment	Response
			without priority and simply wait as Sanitary Sewer Management Plans take effect. In fact these actions may complement each other.
7.6	City of Downey	**Expand the Natural Source Exclusion Exemption**: Our understanding is that the natural source exclusion is based on studies made of relatively steep narrow canyon discharges. As shown in the attached photos, the Los Angeles River and its tributaries are often comparable to mud flats where hundreds of birds congregate and defecate. The TMDL should more accurately the continual impact of this natural source. **[See City of Downey Comment Letter Figure 1 and 2 for the photos]**	Commenter may be referring to the reference system approach of the TMDL and the data used to establish reference conditions. The number of allowable exceedance days is based on studies performed by SCCWRP over two years in reference watersheds across southern California (over 400 samples). At this time, this is the most reliable dataset for determining reference conditions. A natural source exclusion may be applied in the future after anthropogenic sources to the river no longer cause or contribute to exceedances. See response 16.10.
7.7	City of Downey	**Support for Tributary or End of Reach Actions:** One of the important CREST contributions was asserting the cost effectiveness of instituting "end of tributary" diversion projects to protect water quality. As an example, despite draining a catchment of about 120 square miles, nearly a fifth of the urban watershed, during dry-weather the Rio Hondo discharge is either indiscernible or around 0.1 CFS, the equivalent of two garden hoses. Clearly, asserting that dozens of discharge points should be intercepted would be a calamitous waste of resources and indefensible from an environmental impact standpoint. We encourage the Board to consider the value of negotiating with the municipal Permittees to address only these discharges during the upcoming permit cycle. Given the substantial hurdles that exist, this would be a significant accomplishment and lay the ground work for increased agency cooperation.	While there are challenges in implementing a “downstream solution,” the implementation plan for this TMDL specifically includes this sort of approach as a potential approach.
7.8	City of Downey	**Provide Wet-weather Runoff Reduction Incentives:** The Regional Board, State Board and U.S. EPA continue to advocate for wet-weather runoff reduction through increased incorporation of green technologies and Low Impact Development (LID) in the urban development and redevelopment process. Unfortunately this TMDL misses the opportunity to incentivize this by providing a "safe harbor" provision or load reduction credit to those agencies that can successfully assert or demonstrate the volume of water or pollutant load removed. Despite the assertions of many individuals and based on the experience from permitting over a thousand infiltration' systems, LID is not a painless process for local agencies to implement. Until LID is incentivized by	The wet weather compliance deadline is 25 years, which is sufficient time to incorporate green technologies and Low Impact Development (LID) in the watershed. The Regional Board has limited ways to protect responsible parties from liability from citizen suits.

No.	Author	Comment	Response
		the regulatory agencies, municipal staff will continue to avoid the conflict and lose the opportunity to institute the Board's objectives, every time a building permit is signed.	
7.9	City of Downey	In closing, the City of Downey appreciates this opportunity to comment on the proposed Los Angeles River Bacteria TMDL and while we share the Regional Board's concern for water quality protection and improvement, this TMDL best represents a shotgun blast, when a thoughtful scalpel cut is warranted. Resources should be directed at water bodies where swimming is encouraged, not prohibited. We commend the substantial scientific and technical accomplishments of the CREST effort, but regret that it was cut short due to a consent decree deadline that the U. S. EPA is no longer following in similar water bodies. If you should have any questions regarding this matter, please feel free to call me at 562-904-7112 or email me at ggreene@downeyca.org.	Comments noted.
8	**City of Inglewood: June 03, 2010**		
8.1	City of Inglewood	The City of Inglewood (City) writes to notify you that the proposed Los Angeles River Bacteria TMDL staff report identifies the City as being located within the Los Angeles River system - specifically through the Compton Creek tributary. This is indicated in *Table 9-1, Responsible Parties for Waste Load Allocations Assigned in the Los Angeles River Bacteria TMDL.* The City, however, is not aware that it partially drains into Compton Creek. The City is only aware that it drains to Dominguez Channel primarily, and to Ballona Creek to a lesser extent. If you have information indicating that the City partially drains to Compton Creek, please provide that information to the City. If such information is not available, please remove the City from Table 9-1 Should you require additional information or need further assistance, please feel free to contact me at (310) 412-5333.	The staff report and Basin Plan Amendment have been corrected to address this comment.
9	**The City of La Canada Flintridge: June 04, 2010**		
9.1	City of La Canada Flintridge	Thank you for providing this opportunity to present comments related to the proposed Bacteria TMDL. We at the City of La Canada Flintridge support the efforts for improving water quality in the Los Angeles Region. The pictures of the trash captured at the mouths of the Los Angeles River and Ballona Creek show that there is a problem for which all citizens of Los Angeles County are responsible. Certainly data collected over the last 20 years shows that there is also a problem with bacteria that must be addressed. With that said the following comments are presented to highlight elements of the proposed Bacteria TMDL that are serious problems.	Comment noted.
9.2	City of La Canada	**WET WEATHER IMPLEMENTATION**	Staff is unfamiliar with a "solution" which consists of buying enough property in the

No.	Author	Comment	Response
	Flintridge	Throughout the document the staff report acknowledges how difficult it will be to meet the Wet Weather standards set out in the proposed TMDL, yet the TMDL requires that the Permittees comply with the goals. That solution consists of buying enough of the properties in the City of Long Beach to build a huge water quality treatment plant and operate it for the seven to ten rainy days that we have each year in the Los Angeles Area. I do not have any false ideas how costly and impossible that would be to accomplish. I am requesting a clarification on what you are asking the Permittees to do is not the same thing only spread over the width and breadth of the Los Angeles River Watershed. Certainly, looking at the provisions contained in section 9.2.1.2 of the staff report, page 42, you see the description of Vegetated Biofiltration systems, filter strips, bioretention areas and storm water planters. Considering that we are talking about a watershed that has an area of 834 square miles of which approximately 471 square miles is urbanized. It is likely that to provide the required area to properly treat the storm flows from the watershed will require a combined area equal to 2 to 5% of the watershed. That means that for the treatment of seven to ten storm events each year we are going to purchase property equal to 9.4 to 23.5 square miles and set it aside for storm water treatment. Certainly, I understand that this land can be used for recreation purposes much like the Sepulveda Basin. But I ask you if you cannot think of a better use of your tax dollars. **As an alternative I would ask that the Board consider waiving the requirements for a <u>wet weather treatment system</u> and limit the TMDL to dry weather only**. Based on the staff report that would mean that for the 329 days of sunshine plus those cloudy days when it is not raining the permittees would comply with dry weather TMDL. While this is not a cheap solution at $588 million it eliminates the cost required to treat storm flows. For the 10 to 15 days a year that we may have to close the beaches due to elevated bacterial levels, I think that we can come up with a more cost effective use for the billions that a treatment program would cost.	City of Long Beach and building a water quality treatment plant to be operated in wet weather. The permittees have the flexibility and time to develop their own Load Reduction Strategy or other implementation approaches to take the actions that they think are most likely to achieve the allocations in the TMDL in the most effective manner. Staff anticipates that multiple methods will be used to achieve compliance with the allowable number of exceedance days in wet weather. The water quality standards apply during both dry and wet weather. However, the TMDL targets allows 15 exceedance days under wet-weather conditions. In addition, the BPA has been modified to include the possibility of wet-weather load-based compliance at MS4 outfalls to attain the allowable number of exceedance days instream.
9.3	City of La Canada Flintridge	**DRY WEATHER IMPLEMENTATION FOR NON-POINT SOURCES** Section 9.4.1 of the staff report, page 51, is an interesting discussion. It starts by saying "Lands not covered by a MS4 permit..." and the list includes the US Forest Service, National Park Service and the California Department of Parks and Recreation are assigned a **Load Allocation** equal to the number of allowable exceedances based on the reference system. Most of the northern part of our City is adjacent to the Angeles National Forest consisting of 100th of acres along the foothills. The City has	See response to comment 4.11.

No.	Author	Comment	Response
		experienced a significant post fire storm runoff and mudflow generated from these areas. First, will any of these Federal or State Agencies care that the Regional Board has assigned them a Load Allocation? My first reaction is they could care less. The land for the most part is natural and remote from the Urban Core. They have all of the natural BMPS in place such as Vegetated Swales, lakes and Bio-swales to treat their runoff. They will not even care what the Board thinks. As a Permittee if it will take a single day away from my exceedances days then I am going to be faced with greater fines:' This cannot be included in the TMDL. What standards will be applied after a significant fire 'in a large watershed such as the Station Fire and mudflow events? **I strongly recommend the removal of paragraph 9.4.1 where it refers to Federal and State agencies that are not Permittees under the States authority.**	
9.4	City of La Canada Flintridge	**BENEFICIAL USES** Page 1, Section 1 starts by stating a significant fact about the Los Angeles River. "The natural waterway, so greatly altered that it is now sometimes maligned as mere 'concrete ditch', has an ' important past, present and future." I agree with this statement, though not in the way the Board staff intended. The Los Angeles' River is Concrete Ditch for one reason and one reason only, and that is because it is a county and Federal flood control facility. Because of Water Reclamation Plants along its Mainstem and because of high ground water, water flows in the stream year around. These uses are incidental to its primary purpose, which is to protect the Health, Safety and Welfare of the general public from storm runoff. With out the flood control purpose the river would probably be ten times as 'wide and thousands of residents would be killed or injured every year. To say that the river has all of the beneficial uses identified in section 2.1.1 is wishful thinking. To say that on non-storm days that the concrete ditch is REC-1 or REC-2 use is asking people to use the discharge from the WRP for swimming. I realize that plant manager 'are likely to lead tours of their facilities and hold up a glass of the effluent and say that it is drinking quality, but I dare say that most people would pass on the offer. Likewise, the WARM, WILD, WET and RARE do not stand the test of rationality. Sure raccoons, possums and deer can be found in and around the river, but to call is a dependable habitat for wildlife is a nightmare. Like a fire in the forest, a storm in the river will devastate the wildlife and we can anticipate the rains will occur more frequently than a fire. Are there some limited reaches of the Los Angeles River that support wildlife? Of course, but to say that the entire Mainstem of the river has recreational and wildlife beneficial uses are not realistic	See response to comment 3.17. Also for beneficial uses more generally, see response to comment 3.2.

No.	Author	Comment	Response
9.5	City of La Canada Flintridge	**CALCULATING ALLOWABLE EXCEEDANCE DAYS AT A TARGET LOCATION** Section 6.2.5 needs to be written in an understandable manner. As a semi-informed reader, I do not understand what is trying to be said. I could never go to a public official and from the information provided tell them what the number of exceedance days that the TMDL would allow. Let us short cut the misinformation now and provide a clear statement on how to determine the number of exceedance days that are allowable under the TMDL.	The allowable numbers of exceedance days are listed explicitly in Table 6-3 of the Staff Report and in the Basin Plan Amendment. The commenter may contact Staff to discuss the methods of calculating exceedance days to help determine what parts of the calculation are unclear.
9.6	City of La Canada Flintridge	**MARGIN OF SAFETY IN 109 MPN/DAY** Table 7-1 on page 43 of the staff report is not clear to a reader that is not involved in the CREST project. During the MS4 LRS Permittees will be sampling and testing flow from many storm drains. The readings will be indicative of the levels of Bacteria in the non-storm flows. Does the value in Table 7-1 represent the total of all discharges to the receiving waters or do they represent the average of all discharges to the receiving waters? Certainly some storm drains will be discharging greater *E. coli* contamination than others, thus the diversion focus on the highest ranked discharges. It will be important to know if the value is a sum or if it is an average.	The values in Table 7.1 show the calculated margin of safety implicit in the development of the interim wasteload allocations. The interim wasteload allocations, themselves, are in Table 6-1. These numbers represent a total loading so, therefore, some storm drains may discharge greater *E. coli* levels than others (even above concentration-based targets which could have been applied), and others lower. These numbers also take into account bacteria decay and dilution.
9.7	City of La Canada Flintridge	Thank you for this opportunity to comment on the proposed TMDL. As stated, the City of La Canada Flintridge wants to support the Regional Boards' effort to maintain water quality in the receiving waters of Los Angeles County. However, the cost benefit ratio must make sense and we believe that for wet weather the Board's action will lead to bankruptcies rather than compliance. The billions that it will cost to comply with the Wet Weather requirements are not justified based on the characteristics of the Southern California weather. We look forward to having this discussion at the Board hearing.	Comments noted.
10	**The City of Long Beach: June 04, 2010**		
10.1	City of Long Beach	The City of Long Beach (City), lies at the terminus of the two major rivers in Los Angeles County, the Los Angeles River (LAR) and the San Gabriel River (SGR). Both of these rivers impact the water quality along the City's coastline. The City has long supported efforts to improve the quality of storm water run-off which outfalls into these rivers. For example, before the Los Angeles River Trash Total Maximum Daily Load (Trash TMDL) was even adopted, the City had begun installing trash collection	Comment noted.

No.	Author	Comment	Response
		devices within its municipal storm drain system to reduce the trash impact on public beaches. Similarly, the City has already installed some bacteria filters and low flow diverters to begin addressing the issue of bacteria along the coastline and river outfalls. The City is encouraged by the Los Angeles Regional Water Quality Control Board's (LARWQCB) recent release of a draft LAR Bacteria Total Maximum Daily Load (Bacteria TMDL) as a major step in helping to address the water quality along the coastline. City staff has completed their review of this draft document and is providing the following comments for the LARWQCB's consideration prior to finalizing and adopting this Bacteria TMDL at the Board meeting on July 9, 2010.	
10.2	City of Long Beach	<u>Rejection of an action-based compliance plan</u> The City was disappointed that the LARWQCB has rejected the premise of an action-based compliance plan in favor of a compliance plan based simply on meeting numeric targets. The science associated with reducing 'the natural and human generated bacteria found in the LAR outfalls, as well as the LAR itself, is still in its infancy. Diversion of storm water flows either to a treatment plant, or to a retention facility are the only 100 percent effective means currently available for bacteria elimination. These methods are both capital and land intensive and likely unachievable in most cases. For the City, compliance by this method has an order of magnitude estimated cost of $125 to $250 million and would likely have an annual associated maintenance and operation cost of $6 to $10 million per year. In comparison, in-line filter media such as bacteria sponge filters, or sand/soil containment and percolation-basins can be installed and maintained for one-tenth the .cost of full diversion. Unfortunately, longitudinal studies have not yet been developed to demonstrate that these devices will meet the numeric targets established in the draft Bacteria TMDL. This means that the City could spend $12 to $25 million installing these cost efficient bacteria sponge filters, or sand/soil containment and percolation basins on its entire storm drain system and still find itself subjected to , Notices of Violation (NOV) from the LARQWCB. Further, the City could be subjected to lawsuits from third party groups for non-compliance with the Bacteria TMDL even though significant progress in bacteria reduction in the LAR would most likely have been achieved. Compliance based on an action plan that would allow a city to cooperatively agree to the planned installation of specific solutions based on current available technology appears to make more sense. The City could be assured that its good faith effort through its investment, in implementing such a plan would prevent NOV's and third party lawsuits. Once implemented, ongoing monitoring of the LAR and the coastline	The TMDL developed the allocations but has not specified the exact manner in which the allocations will be incorporated into the MS4 permits. There are a number of ways that the wasteload allocations developed in this TMDL for MS4 dischargers could be incorporated into MS4 NPDES permits. Action-based compliance, as the commenter describes, is one such method that may be considered by the Regional Board where adequately supported by the permit's administrative record. Alternatively, the MS4 permit could be written such that MS4 dischargers could demonstrate compliance with the TMDL by achieving a specific loading from the storm drains (estimated from outfall monitoring) or MS4 dischargers could demonstrate compliance by achieving specific exceedance day numbers instream (calculated from instream monitoring). Target and allocations are established through the TMDL, but the specific means of incorporating the allocations into permits is appropriately addressed at the time of permit reissuance or a re-opener based on

No.	Author	Comment	Response
		would be conducted, and based on those findings, any needed additional compliance plans could be initiated utilizing the advances in bacteria removal technology that will inevitably occur over the next fifteen years. The City would like the LARWQCB in conjunction with the Environmental Protection Agency (EPA) to reconsider the possibility of an action-based compliance plan in lieu of the currently proposed draft Bacteria TMDL based on numeric exceedance compliance.	the permit's administrative record and findings.
10.3	City of Long Beach	Third party exceedances The City is concerned that, as written, the City bears the responsibility for third party exceedances that are detected in the City's outfall structures to the LAR. Simply put, the storm drain system leading to the LAR through the City of Long Beach is a complicated interconnected system of channels, pipes, and pump' stations that both accept storm water from other agencies and LARWQCB permittees, and also discharges Long Beach storm water into these non-city facilities. Because of this interconnected system, and the current language in the draft Bacteria TMDL, the City, even though it may have spent hundreds of millions of dollars to comply with the bacteria TMDL, would find itself getting issued a NOV from the LARWQCB due to an omission, or deliberate act of non compliance, by one of the agencies or LARWQCB permittees connected to these storm drain facilities. Of even more concern to the City is that such action would allow third party groups to sue the City for non-compliance. To avoid this, the City would have to continuously test all upstream and downstream connections on its storm drain, system. With such connections numbering in the hundreds, the City could find itself spending millions of dollars each year testing its storm water to prevent NOV's or third party lawsuits. Such funding would be better spent on improving the quality of storm water, not testing it. The City's concern on this matter becomes more acute, when in the latter years of the Bacteria TMDL program, the compliance testing moves from a numeric level at the outfalls to an in-river testing based on exceedance days. The proposed language confers responsibility to the City for all bacteria that may end up in the Lower Reach of the LAR, even though most flows entering this Reach are not under the City's control. Additionally, the City cannot control human activity in this Reach of the LAR (the LAR is not within the City's jurisdiction), nor can the City account for the natural bacteria that may occur within this Reach. Inevitably, the City will be subjected to	See response to comment 3.14. Also, when an NOV is issued by the Regional Board, it is generally accompanied by an CWC § 13267 Investigative Order, precisely so that the party believed to be in non-compliance can have time to develop the information to demonstrate the degree to which compliance is met, the potential contributions of other parties and so forth. If there is reasonable evidence that another party has caused or contributed to the exceedances, then the Regional Board can follow up with a CWC § 13267 order for the other party. A Notice of Violation is an informal enforcement action, so an "appeal hearing" prior to an NOV would not be appropriate. Additional language has been added to the BPA to clarify how responsible parties may distinguish E. coli contributions relative to other responsible parties.

No.	Author	Comment	Response
		NOV's and third party lawsuits for non-compliance. In defense of these actions, the City will be forced to spend millions of general fund tax dollars performing elaborate source testing that most experts today tell us will end up being non-conclusive. As previously stated, such funding would be better spent improving the quality of storm water, not testing it for lawsuit purposes. The LARWQCB, in conjunction with the EPA, needs to factor in an "agency good faith effort" provision on compliance testing to allow the LARWQCB to investigate an exceedance occurrence cooperatively with the agency deemed in violation and allow for administrative remedies including an appeal hearing before the LARWQCB prior to the full issuance of an NOV. This would allow LARWQCB staff to investigate in cooperation with the agency to determine if the agency had the reasonable ability to prevent or control the exceedance. This will prevent millions of dollars being spent unnecessarily on unproductive storm water testing and legal expenses, and instead of focusing on the exceedance, its health implications, and possible remedies.	
10.4	City of Long Beach	Single occurrence storm water quality testing violations Bacteria growth within the storm drain system; or the sources leading to the system, is neither predictable nor fully controllable. An outfall structure leading to the LAR may be' tested and be in full compliance with the proposed Bacteria TMDL's 364 days in the year, and on a single day be out of compliance due to a variety of uncontrollable factors. These factors could include an animal in the system, an accidental discharge from a broken residential sewer, or warm weather growth or re-growth within the drain itself, etc. It is well-established that these types of single occurrences will happen and are virtually impossible to trace back to their source. Based on the current language within the draft Bacteria TMDL, the, City would be issued a NOV and be subjected to third party lawsuits as a result of these single, non-traceable occurrences. In addition the City may find itself having to spend millions of general fund tax funds to correct a problem that was actually just an anomaly and not a systemic problem or health issue. The LARWQCB in conjunction with EPA should factor, in a procedure to allow for a "verification testing" provision on compliance testing to allow the agency to perform an agreed upon series of verification testing over the following 60 days from the initial date of exceedance and allow for administrative remedies including an appeal hearing before the LARWQG.B prior to the full issuance of an NOV. This would assure that testing anomalies are verified and that funding is not wasted on correcting single or rare occurrences, or on non-productive legal expenses	While the provisions of the MS4 permit to incorporate this TMDL are not written yet, the City would not be considered in violation for a single storm drain event. This TMDL requires interim allocations in total loading and final allocations in numbers of exceedance days over the year. Also see response to comment 9.4. See response to comment 11.6 for additional provisions of ‘unexpected discharges.’

No.	Author	Comment	Response
10.5	City of Long Beach	Compliance with the proposed Wet-Weather TMDL is unrealistic Based on current technology, land availability, and economic resources, the wet-weather component of the Bacteria TMDL appears to be unachievable. Although the TMDL specifies that wet weather compliance can be achieved by "employing any viable implementation strategy," the City is not aware of any measures that could reasonably be implemented that will achieve the wet-weather Waste Load Allocations (WLAs) specified in the Bacteria TMDL. The volumes of water that are required to be diverted and/or treated in wet weather are simply too large. For the 2004-2005 water year and after, application of the high flow suspension and the "natural sources exclusion" (as proposed in the staff Bacteria TMDL), in the LAR at Wardlow Road is roughly 5 billion gallons of water per day, which is more than 10 times the design flow rate of the Hyperion Wastewater Treatment Plant, or enough water in a single day to fill the Rose Bowl 40 times. The Bacteria TMDL requires that cities develop the science and engineering for the wet-weather TMDL during the next ten-year period. During this period of time, cities will also be required to design, fund and construct a dry-weather plan. The LARWQCB Bacteria TMDL staff report mentions that as the cities implement the dry-weather Bacteria TMDL, these improvements will assist the City with their compliance with the wet-weather Bacteria TMDL requirements. In reality the dry weather Bacteria TMDL compliance effort will have little to no benefit in meeting the wet weather requirements since the dry-weather flows that are treated by in-line filtration, sewer diversions and infiltration devices are a small fraction of the wet-weather flows expected during even small storm events, and large storm flows will easily overtop these facilities. The City of Los Angeles undertook a comprehensive study to determine what it would take to create and comply with a dry-weather Bacteria TMDL, known as CREST (Cleaner Rivers through Effective Stakeholder-led TMDLs). The CREST effort developed detailed science, engineering, monitoring, implementation and scheduling for a dry-weather TMDL. There are several hundred pages of materials compiled by the CREST effort, which evolved over a two-year period of time and required hundreds of thousands of dollars of investment by the City of Los Angeles in Dry Weather TMDL development. At a minimum, a similar effort should be undertaken by the LARWQCB before adopting a Bacteria TMDL for wet-weather conditions. EPA and the LARWQCB should secure funding to complete a specific wet-weather science and engineering study and not continue to assume that the dry weather solutions can	See response to comment 3.12.

No.	Author	Comment	Response
		simply be expanded to accommodate the additional wet weather flows.	
10.6	City of Long Beach	Concerns with exceedance days The draft Bacteria TMDL includes interim waste load allocations (WLAs) in the form of allowable *E. coli* loadings from storm drains to a given LAR segment or tributary for permittees. However, the final WLAs are expressed in terms of an allowable number of exceedance days in the LAR itself, based upon a reference watershed approach. As shown by the CREST studies, *E. coli* concentrations exceeded standards in one segment of Reach Two at the LAR 100 percent of the time, but these exceedances were mostly due to non-human sources. The CREST studies also showed that in Reach Two, tributaries and storm drains contribute only about 10 percent to 50 percent of the bacteria loading to the Reach, and the final WLAs would be exceeded. Thus, compliance with interim WLAs by reducing E. coif loadings from storm drain pipes is unlikely to result in compliance with final WLAs. This is because the *E. coli* loadings are measured in the LAR itself, because much of the bacteria loading is either natural or in-stream, and beyond the control of dischargers. Although no data is available for Reach One, it has physical characteristics and bacteria sources similar to Reach Two, and the same situation is to be expected there. As previously stated, the LARWQCB in conjunction with EPA should factor in an "agency good faith effort" provision on exceedance day compliance to allow the LARWQCB to investigate an exceedance occurrence cooperatively with the agency deemed in violation and allow for administrative remedies, including an appeal hearing before the LARWQCB, before the full issuance of an NOV. This would allow LARWQCB staff to investigate in cooperation with the agency to determine if the agency had the reasonable ability to prevent or control the exceedance. This will prevent millions of dollars being spent unnecessarily on unproductive storm water testing and legal expenses, and instead focus on the exceedance, its health implications, and possible remedies	See response to comment 10.3. In addition, a natural sources exclusion approach could be developed in the future, as discussed above, to address natural sources such as birds and other wildlife after the anthropogenic sources have been controlled such that they do not cause or contribute to exceedances.
10.7	City of Long Beach	Non-controllable delays related to implementation of a Load Reduction Strategy (LRS) Compliance with the proposed Bacteria TMDL will require the City to develop and implement a LRS that will include many forms of bacteria reduction strategies. Many of these will require the preparation of environmental reports leading to CEQA and NEPA clearances, the acquisition of land, the construction of treatment plants, the	It will be the City's responsibility to meet the allocation in the TMDL according to the schedule as it is incorporated into NPDES permits. See response to comment 10.2 for a discussion of incorporation of the TMDL

No.	Author	Comment	Response
		expansion of existing sewer systems, and the execution of interagency cooperative agreements it is not unreasonable to expect that some of the City's proposed projects under its LRS may get delayed due to inadequate funding, law suits, the need for eminent domain proceedings, or failure of other agencies to act in a timely manner. The current language in the draft Bacteria TMDL is clear: should the City not complete its LRS by the end of phase one, and as a result be in non-compliance, the City would be subject to the issuance of a NOV by the LARWQCB and be subjected to third party law suits for non-compliance. The LARWQCB in conjunction with the EPA should factor in an "agency good faith effort provision on the timely completion of an agreed upon LRS. This provision should grant the LARWQCB the ability, upon the timely request of an agency, to grant time extensions for compliance of Phase One Bacteria TMDL for specific locations. Assuming an agency has and continues to make a good faith effort to complete its LRS in a timely manner, it is clear that the issuance of a NOV will serve no purpose other than to divert resources, time, and funding from its intended purpose of improving storm water quality, and instead be spent unnecessarily on unproductive storm water legal expenses and possibly further delaying the full implementation of the LRS.	into the MS4 permit. See response to comment 10.3 regarding the purpose of a NOV. Additionally, the Regional Board takes a number of things into account when determining the degree of liability pursuant to Cal. Water Code section 13385, including “any voluntary cleanup efforts undertaken” and “the degree of culpability” among many others. Both of these factors are related to “agency good faith efforts” described by the commenter.
10.8	City of Long Beach	Recognition of the full intended purpose of the Bacteria TMDL The City is concerned that the REC-1 beneficial use designation, which allows for swimming and other full immersion activity in the lower sections of the LAR is neither appropriate nor technically feasible. These Reaches and their tributaries are fenced and public access is restricted, due to dangerous conditions in both the low-flow channel during dry-weather conditions and in the LAR as a whole during rainstorms. People currently do not and cannot safely participate in recreational activity in Reaches One and Two of the LAR. The LARWQCB's estimated cost for this goal of restoring the concrete-lined and restricted LAR for human contact recreation is $5.4 billion. The City believes the true focus of the Bacteria TMDL should be to improve the water quality at the public beaches and that some of the $5.4 billion would be better spent on projects that would further reduce the bacteria along the coastline. Through several studies conducted by the City and other agencies, it has been determined that the LAR contributes to the bacteria levels along the coastline, but is not the sole source. Even if the LAR were to be in full compliance today with the proposed Bacteria TMDL, the lack of coastal, circulation combined with the both human and feral animal contact, as well as other pollutants found in our coastal waters,	See response to comment 3.2 for a discussion of beneficial uses and also response to comment 16.15.

No.	Author	Comment	Response
		would result in ongoing bacteria level exceedances resulting in beach advisories/closures. For this reason, the City has been working with the Army Corps to pursue the reconfiguration of all or a portion of the breakwater that prevents wave action and coastal circulation along the coastline. It is believed that, through the reconfiguration of the breakwater or to the changes of the LAR mouth, restoration of wave action and coastal circulation along the coastline could be achieved resulting in a significant improvement in the water quality at the public beaches. To ultimately improve the water quality along the coastline, a more comprehensive approach to the issue of bacteria reduction that combines both the LAR and the reconfiguration of the breakwater should be considered. Because the lower Reach of the LAR cannot realistically accommodate a. REC-1 beneficial use designation, which allows for swimming and other full immersion activity, the City would advocate that these lower Reaches receive a more moderate REC-2 designation as a more realistic goal. Resources from all agencies affected by the lower Reaches Bacteria TMDL that would otherwise have been applied to achieve compliance with the more stringent REC-1 criteria could then be re-directed to assist with the City's efforts to improve wave action and coastal circulation along the coastline through the reconfiguration of all or a portion of the breakwater. The LARWQCB in conjunction with the EPA should evaluate a more comprehensive approach to improving the water quality along the coastline that may include a re-designation of the Lower Reaches of the LAR to a more moderate REC-2 designation, and the allocation of resources to improve coastline circulation.	

No.	Author	Comment	Response
10.9	City of Long Beach	Conclusion More than any other agency along the LAR, the City of Long Beach understands the need to reduce the bacteria loading within the LAR that ultimately impacts the public beaches along the coast. The City is encouraged that the LARWQCB in conjunction with the EPA is taking: this initial step with the proposed draft Bacteria TMDL. The City is concerned, however, that many of the provisions contained within the draft document can not be realistically achieved and therefore, may result in the wasteful use of scarce general fund tax dollars on responding to LARWQCB issued NOV's and third party lawsuits. As recommended in this comment letter, the City believes 'that, with some modifications, an effective dry weather Bacteria TMDL can be implemented that will ultimately improve the storm water quality in the LAR and get us all to the goal of reducing bacteria related beach closures along the coastline. Should you have any questions regarding the City's comments stated herein, please contact Mark Ohristoffels, Deputy Director of Public Works/City Engineer at (562) 570-6771.	Comment noted.
11	**City of Los Angeles Bureau of Sanitation (LABOS): June 03, 2010**		
11.1	LABOS	The City of Los Angeles, Bureau of Sanitation (Bureau) appreciates the opportunity to provide the following comments and recommendations to the Water Quality Control Board Los Angeles Region (Regional Board) on the April 20, 2010 Tentative Basin Plan Amendment to incorporate a Total Maximum Daily Load (TMDL) for Bacteria in the Los Angeles River. The Tentative Basin Plan Amendment (BPA) comes at the end of a lengthy and detailed stakeholder process called CREST (Cleaner Rivers through Effective Stakeholder-led TMDLs) during which the City of Los Angeles worked closely with Regional Board and USEPA staff as well as many other municipal and environmental stakeholders to conduct groundbreaking scientific studies and collaborate on content for the dry weather components of this TMDL. We thank the Regional Board staff for the time and energy contributed to the process and the many CREST contributions that were incorporated (described below). However, because the TMDL was released before completion of the stakeholder process there are several areas with which the Bureau has concerns. As such, the Bureau is submitting comments to support constructive changes to the BPA and draft Staff Report. The footnotes in this letter provide additional details regarding the stakeholder process that has been the driving force behind all CREST deliverables described herein.	Comment noted.
11.2	LABOS	**Background on Stakeholder TMDL Development Process** Based on a Memorandum of Understanding between the Regional Board, USEPA, and the City of Los Angeles, the CREST stakeholder group began focused efforts to evaluate and address bacteria issues within the Los Angeles River Watershed in 2005.	The scientific studies conducted by CREST greatly supported the TMDL development and the staff appreciate the cooperation that the MOU fostered.

No.	Author	Comment	Response
		The primary motivation behind those early efforts was to conduct scientific studies to support TMDL development and implementation.[1] In March 2008, relying heavily on the scientific data generated by CREST, a stakeholder-led process was begun to develop a bacteria TMDL for the Los Angeles River and tributaries. Due to the complicated nature of the TMDL – and a desire to develop a TMDL that was much more comprehensive than previous TMDLs with regards to integration of scientific information and detail of potential implementation actions – CREST took on the responsibility of supporting Regional Board staff by leading the development of the LA River Bacteria TMDL. The agreed-upon approach to TMDL development was based on CREST generating a "Technical Report"[2] (e.g., Stakeholder TMDL) using feedback on concepts discussed during a long series of stakeholder meetings.[3] Subsequently, the Regional Board Staff Report[4] would be presented section-by-section and discussed with stakeholders following the corresponding sections of the Technical Report.	Resource limitations prevented the Regional Board from presenting Staff Report Sections section by section. However, delays in developing the technical report sections by CREST could not continue to delay the issuance of a Staff Report and Basin Plan Amendment for Regional Board consideration. See also response to comment 7.2.
11.3	LABOS	***Incorporation of the Stakeholder TMDL into the draft Staff Report and Basin Plan Amendment*** Development of the stakeholder TMDL led to engaging and productive discussions on key TMDL issues identified by participants. CREST stakeholders now have a greatly expanded understanding of each other's perspectives and a better comprehension of the policies that affect various components of a TMDL. Outcomes of the CREST process that were successfully incorporated into the TMDL and Staff Report include the following: • Source Assessment: based on the CREST scientific studies and years of long-term data collected throughout the Watershed by various agencies, the Staff Report clearly identifies the need for further study of non-point, in-channel bacteria sources (e.g., growth) that may cause or contribute to exceedances of Water Quality Objectives. • Load Reduction Strategies: the Staff Report embraces the Load Reduction Strategy as a robust approach to plan, execute, and assess the numbers and locations of dry weather TMDL implementation actions for an LA River segment or tributary • Cost information: the Staff Report cites the dry weather cost estimates of the Technical Report, which were based on an intensive analysis of storm drain loading data coupled with costs and timelines of previous BMP implementation efforts (e.g., Santa Monica Bay). • Implementation Schedule: the prioritized schedule includes early	Comment noted.

No.	Author	Comment	Response
		implementation actions at the reaches where recreational users are most likely to be affected by bacteria discharges. The Regional Board's incorporation of the dry weather schedule demonstrates understanding of the challenges the City faces in implementing TMDLs in such a large, complex watershed where the City has responsibilities in nearly every reach and tributary. Although the BPA shortened that schedule presented in the stakeholder TMDL by six years, the prioritization and staggered implementation concepts were incorporated. These concepts and the corresponding lengths of time are imperative given the necessity to focus early efforts on protecting recreational users and efficiently use scare public resources. As such, the Bureau would like to express our support for the schedule in the TMDL.	
11.4	LABOS	***Requested Changes to the draft Staff Report and Basin Plan Amendment*** While there are many aspects of the draft Staff Report that are "next generation" with regards to bacteria TMDLs in the Los Angeles region, the BPA and draft Staff Report do not adequately address several key issues that were vetted through the stakeholder process and detailed in the stakeholder TMDL. It should be noted that many of these issues may remain after the lengthy CREST process because the envisioned stakeholder process (described above) was not completed due to the EPA consent decree time constraints which adversely affected the ability of stakeholders to engage on key issues. Recommendations to address these issues include: • Conditions that provide clear mechanisms for "good actor" MS4s to demonstrate compliance with final Waste Load Allocations (WLAs) should be detailed: the reliance of the BPA on final WLAs that are measured in-stream undermines the ability of MS4s to demonstrate compliance with the TMDL. There are multiple MS4s and thousands of other NPDES Permittees in the Watershed. An exceedance of the WLA at the downstream end of a reach should not equate to all upstream MS4s being in violation of the TMDL; conditions should be included to allow MS4s to demonstrate their loading does not cause or contribute to exceedances. Therefore, we suggest monitoring at the outfall. Furthermore, conditions for MS4 compliance with the final WLA should be built upon load reduction strategies that reduce bacteria discharges through outfall-based activities including dry weather diversions, source control, and in some cases, downstream-based approaches.	The value of responsible parties working together is great and the need for there to be clear ways for the Regional Board to assess the actions of responsible parties separate from other responsible parties is also important. Additional clarifying language has been added to the Basin Plan Amendment to address this concern. Clarifying language on demonstration of final wasteload allocations under certain conditions, for MS4s has been added to the BPA In addition, please note that it may be possible to add additional clarity or methods for determining separate compliance as allocations are brought into the MS4 permits.
11.5	LABOS	• Interim WLAs should be representative of interim, not final, conditions: the Regional Board converted the final WLAs of the Technical Report into interim	These interim WLA are stringent but do not represent the final conditions. While the

No.	Author	Comment	Response
		WLAs for the BPA and draft Staff Report. It is important to establish interim requirements that acknowledge the uncertainty associated with developing bacteria load reduction strategies in a highly urbanized watershed. The interim WLA should reflect a percentage of the final WLA.	calculations undertaken to develop the interim numbers were designed to restrict loading such that final WLAs expressed in exceedance days would be met, the calculations depended on flow regimes for the Los Angeles River, which will be almost certainly reduced by the time of final compliance. These loading calculations also depend on several snapshot sampling events and the final wasteload allocations will be determined by weekly sampling and therefore, a more comprehensive picture of conditions in the river. In addition, the interim allocation have been modified in the Staff Report and Basin Plan amendment to require loading less than 110% of the calculated final conditions. While the expectation is still that dischargers using an LRS approach will plan an LRS sufficient to meet final WLAs, the larger amount of loading allowed in the interim gives dischargers some additional flexibility especially considering the variable nature of bacteria loading levels from MS4 outfalls.
11.6	LABOS	• Compliance with WLAs should acknowledge variability of bacteria sources: a major concern of the Bureau with respect to dry weather implementation is the inherent variability of bacteria sources. The Bureau very much wants to avoid the situation that an "Unexpected Discharge" is observed during WLA compliance monitoring, and the City is found to be in violation even though we acted in good faith and implemented a large suite of bacteria control BMPs that were well-designed and executed. These types of discharges should be acknowledged when evaluating compliance with WLAs. Monitoring at the outfall can also help address these types of discharges.	The BPA has been modified to address the issue and now includes a method to exclude 'unexpected discharge' data in compliance reporting when the unexpected discharge is being addressed in a timely manner.
11.7	LABOS	• Special Studies and Reopeners should be included in the Staff Report and BPA: neither optional special studies nor reopeners to consider new information are	Staff acknowledge that the science continues to develop, and that new

No.	Author	Comment	Response
		identified in the BPA or draft Staff Report. However, inclusion of reopeners upon completion of optional special studies should be incorporated to provide stakeholders with confidence that the Regional Board is willing to consider outstanding issues during the early stages of TMDL implementation.	standards or policies from USEPA or State Board could be developed that may affect this TMDL, and especially that greater understanding via local studies of the specific functioning of the Los Angeles River will emerge over the implementation period of this TMDL. The Regional Board will reconsider the TMDL when such data, information and/or revised recommendations are available. Additions have been made to the Staff Report to discuss further special studies. While the Basin Plan can be amended at any time due to new science or policy, the BPA has been modified to identify at least two particular situations for which the TMDL will be re-considered: (1) Recreational beneficial use designations have been altered or (2) US EPA publishes revised recommended bacteria criteria.

No.	Author	Comment	Response
11.8	LABOS	A discussion of these issues and corresponding recommendations are presented in Attachment 1. Attachment 2 contains a detailed Comment Matrix that provides additional Bureau comments, proposed revisions, and further details on the above and other issues. To simplify Regional Board staff efforts when reviewing the Bureau's comments, Attachment 3 contains a marked-up BPA. The recommendations made in this letter are based on good science and sound policy, which will result in the protection of the environment that we all value so greatly. Addressing the remaining critical issues is paramount to having an implementable and effective TMDL that is scientifically and legally defensible. A major goal of these recommendations is simply to allow the Bureau to clearly demonstrate that actions taken by the City successfully address our contribution to the impairments of the Los Angeles River. Finally, incorporating these recommendations will promote future stakeholder TMDL processes, by instilling confidence in stakeholders that the Regional Board is willing to resolve critical issues with a TMDL through all phases of the stakeholder TMDL process. Thank you for your consideration of these comments. If you have any questions please contact Dr. Shahram Kharaghani, Watershed Protection Division Manager at (213) 485-0587 or Donna Toy-Chen, TMDL Section Manager at (213) 485-3928.	Comments noted. Revisions to the BPA based on the "Comment Matrix" have been made where appropriate.
11.9	LABOS	**1. <u>Clarify how multiple MS4s can demonstrate compliance with final WLAs</u>** The Los Angeles (LA) River Watershed has three MS4s and over 2,000 other types of NPDES permits (Table 4-1 in Staff Report). However, the final WLAs for MS4s are based on allowable numbers of Exceedance Days. In this manner, the TMDL makes MS4s wholly responsible for attainment of WQOs in the LA River segments and tributaries. That is, if the numbers of exceedances in a segment or tributary are higher than allowable, then MS4s that discharge to that segment or tributary are out of compliance regardless of whether the other 2,000 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 *E. coli*. Similarly, in LA River segments that have multiple MS4s (e.g., Segment A), an MS4 that knowingly disregarded the TMDL requirements ("bad actor") could lead to non-compliance for MS4s that had addressed loading from their outfalls ("good actors" because they had a sufficient number of effective BMPs across their jurisdictions). The only possible exception is if MS4s can "demonstrate the non-compliance is only due to upstream contributions" (Table 9-5 in Staff Report and	See response to comment 10.2 and No. 11.4. In addition, the other types of NPDES permits in the watershed have been assigned allocations and will have the appropriate requirements in their NPDES permits to prevent or control bacterial exceedances. In addition, more detail on how to demonstrate compliance with the final WLA can be developed for the MS4 NPDES permit, itself, including potentially what the commenter suggests.

No.	Author	Comment	Response
		Table 7-39.4 of the Basin Plan Amendment). However, the TMDL Staff Report provides no additional details on how an MS4 could provide this demonstration. Note that because of the prioritized order of implementation, this demonstration is expected to be necessary at the end of most implementation phases (e.g., when the implementation phase for Segment A is complete and compliance with final WLAs is required, implementation for upstream Segment B will still be ongoing, and thus Segment B is expected to contribute to downstream exceedances). ***REQUEST: The TMDL Staff Report and BPA should describe three "equivalent conditions" that represent MS4 compliance with final dry weather WLAs, which is similar to the approach taken in the LA River Trash TMDL. These three conditions correspond to: average concentrations of MS4 runoff being less than the WQO; zero flow from the MS4; or loading rates from the MS4s not causing or contributing to WQO exceedances. Furthermore, the language will allow "good actors" to demonstrate their actions address their discharges such that they are not causing or contributing to exceedances of the final WLAs. Please insert the following paragraph at the top of page 5 of the Tentative Basin Plan amendment (after the paragraph that begins with "The WLAs for" and ends with "allowable exceedances"), and into Section 9.4.5 of the Staff Report:***[1] This TMDL involves many responsible parties, and the dry weather implementation schedule includes actions at some downstream segments prior to upstream segments. MS4s can demonstrate compliance with the final WLAs – and differentiate their dry weather discharges from discharges from upstream sources and/or discharges from other responsible parties – by demonstrating one of the following equivalent conditions: 1. MS4 loading of *E. coli* to the corresponding LA River segment or tributary during dry weather is less than or equal to the loading rates detailed in the tables below. [note: these tables are described in comment #2] 2. Flow-weighted concentration of *E. coli* in MS4 discharges during dry weather is less than or equal to 235 MPN/100mL, based on a weighted-average using flow rates from all measured outfalls. 3. Zero discharge during dry weather	
11.10	LABOS	**2. <u>Adjust Interim Waste Load Allocations to be representative of an interim, not final, water quality condition</u>** The interim Waste Load Allocations (WLAs) in the Staff Report are based on the final WLAs of the Technical Report. These WLAs are designed such that if the *E. coli*	See response to comment 11.5.

No.	Author	Comment	Response
		loading rates of MS4 discharges are below those values, then MS4 discharges will not cause or contribute to WQO exceedances. As such, the interim WLAs are representative of a final water quality condition (not an interim condition). It is important to establish interim requirements that acknowledge the uncertainty associated with developing bacteria load reduction strategies in a highly urbanized watershed. That being said, the Bureau would support a requirement that bacteria implementation strategies be designed to attain the final WLAs (or their equivalent conditions); the interim WLAs would serve as a minimum performance measure of those implementation actions. The following request, coupled with Request #1, would establish *E. coli* loading rates from MS4s that can be used to demonstrate WLA compliance under both interim and final conditions. Establishment of these loading rates would allow MS4s to discriminate their *E. coli* discharges from those by other NPDES Permittees, and eliminate the need for the vague language in Table 9-5 of the Staff Report and Table 7-39.4 of the Basin Plan Amendment requiring MS4s to "demonstrate the non-compliance is only due to upstream contributions." As above, the language below will allow "good actors" to demonstrate their actions address their discharges such that they are not causing or contributing to exceedances of the final WLAs. ***REQUEST: The TMDL Staff Report should incorporate appropriate interim WLAs that are representative of interim rather than final conditions. Please insert the following paragraphs at the top of page 6 of the Tentative Basin Plan amendment (just below the language inserted for Request #1) and into Section 9.4.5 of the Staff Report:*** In addition, MS4 dischargers are assigned interim WLAs for dry weather to account for variability in bacteria discharges. Interim dry weather WLAs are set at 1.5 times the final WLAs. Responsible agencies can demonstrate compliance with these interim WLAs by demonstrating one of the three (3) equivalent conditions above, with the equivalent interim *E. coli* loading rates detailed in the Interim MS4 *E. coli* Loading Rates table below. It is expected that MS4s will implement a suite of BMPs/actions that are designed to attain the final WLAs; the interim WLAs represent a minimum performance threshold that must be attained after that suite of actions is implemented, per the implementation schedule. **[City of Los Angeles BOS Comment Letter Attachment 1 for the *E. coli* loading**	

No.	Author	Comment	Response
		rate tables]	
11.11	LABOS	**3. <u>Acknowledge inherent variability of bacteria sources during determination of compliance with WLAs</u>** The stakeholder Technical Report details an intensive dry weather approach to bacteria TMDL implementation, called a Load Reduction Strategy (LRS). The components of an LRS describe a scientific process by which MS4 bacteria discharges can be monitored, identified, and controlled with BMPs. As such, the LRS provides reasonable assurance that MS4 WLAs will be attained. The described BMP implementation process is so intensive, that the Technical Report proposed that MS4 compliance could be based on developing and implementing an LRS, referred to as "action-based compliance." Action-based compliance is not a component of the draft Staff Report; instead the Staff Report requires strict compliance with WLAs, regardless of the implemented actions or the observed conditions in the Watershed. A major concern of the Bureau with respect to dry weather implementation is the inherent variability of bacteria sources. In particular, the Bacteria Source Identification (BSI) Study demonstrated that "outlier" discharges are not uncommon; a storm drain outfall that was not problematic during previous monitoring events suddenly exhibits exceptionally high *E. coli* loading rates and then in the next event is not problematic. The Bureau very much wants to avoid the situation that an "Unexpected Discharge" is observed during WLA compliance monitoring, and the City is found to be in violation even though we acted in good faith and implemented a large suite of bacteria control BMPs that were well-designed and executed. Of course, these types of discharges would need to be addressed upon their discovery, which can be included in the implementation schedule. ***REQUEST: The TMDL Staff Report and BPA should incorporate language that acknowledges Unexpected Discharges. Please insert the following paragraphs at the top of page 7 of the Tentative Basin Plan amendment (prior to the paragraph that begins with "General NPDES Permits" and ends with "geometric mean target"), and into Section 9.4.5 of the Staff Report:*** Variability of bacteria sources is also addressed through categorization of some MS4 bacteria discharges as "unexpected." Unexpected Discharges are those outfalls that [1] exhibit *E. coli* loading rates that are less than 25th percentile during the monitoring events used to develop implementation strategies, but then [2] exhibit greater than 90th percentile loading rates during later monitoring events used to compare MS4 loading to the interim and final WLAs. These types of discharges are very challenging for	See response to comment 11.6.

No.	Author	Comment	Response
		MS4s to control, and thus are excluded from the calculations used to compare MS4 loading to interim and final WLAs for compliance purposes. However, MS4s are required to take action to abate identified Unexpected Discharges, per the implementation schedule. ***The combined requested changes from Request #1, #2, and #3 would also affect the implementation schedule table (Table 7-39.4 in the BPA and Table 9-5 in the Staff Report). As an example, the requested changes to the schedule for Segment B are shown below. Note that the table also includes deletion of the row specific to "Complete Implementation of LRS". In order to provide more flexibility to MS4s with regards to monitoring and BMP implementation, the schedule should only specify the date on which LRS completion and WLA attainment must be <u>demonstrated</u>*** . **[See City of Los Angeles BOS Comment Letter Attachment 1 for the modified Table 7-39.4]**	
11.12	LABOS	**4. <u>Include Process for Development and Implementation of Special Studies to Address Outstanding Issues and a Corresponding Reopener</u>** Special studies are an important aspect of TMDL implementation as they fill data gaps for both technical and policy issues. The CREST stakeholder group identified optional special studies in the stakeholder Technical Report that could support TMDL implementation, basin planning, and reopeners. Additionally, the draft Staff Report acknowledges the potential need for special studies and reopeners. Over the course of TMDL implementation, the TMDL may be re-considered to incorporate new information from TMDL special studies, or address revisions to water quality standards, such as adoption of revised water quality objectives based on recommendations of USEPA (draft Staff Report, page 45). In addition, early reduction of MS4 bacteria discharges to segment B/Reach 2 will provide a better starting point for concurrently conducting optional special studies to more fully characterize all sources within this segment (draft Staff Report, page 62). However, neither optional special studies nor reopeners to consider new information are identified in the Tentative Basin Plan amendment. Over half of the TMDLs adopted in the region acknowledge the potential value in conducting special studies and contain special study and corresponding reopener provisions. Specifically, bacteria TMDLs in the region (Ballona Creek, Los Angeles Harbor, and Marina Del Rey Harbor) include special studies similar in nature to those presented in the	See response to comment 11.7. Regional Board management and the Basin Planning program will identify the most effective approaches to implement the Triennial Review priorities consistent with EPA guidance. When a priority is addressed, stakeholders will be solicited for input and workgroups formed for that specific priority, if appropriate. For the development of this TMDL, the CREST workgroup was instrumental. Regional Board staff will continue to participate in CREST or other workgroups as resources allow.

No.	Author	Comment	Response
		Technical Report. Also presented in the Technical Report is an approach to integrating the special studies with the Basin Plan priorities adopted by the Regional Board on April 1, 2010 in Resolution R10-001. The outcome of the following two priorities could have a significant impact on the implementation of the Los Angeles River Bacteria TMDL: 1. Determine how bacteria water quality objectives should be applied in compliance determination based on more recent monitoring results. 2. Reconsider the application of REC-1 and REC-2 beneficial uses in specific instances, where appropriate. Because of the significance of the potential outcomes of these two Triennial Review priorities, the stakeholder Technical Report suggests the formation of LA River Water Quality Standards Work Group (LARWQSWG). It was proposed that if stakeholders form a LARWQSWG, then the Regional Board would coordinate with stakeholders and participate in the process. The LARWQSWG would be a stakeholder process tasked with [1] identifying approaches to implementing the Triennial Review priorities, [2] developing science based information to support evaluating changes to the Basin Plan, and, if appropriate, and [3] supporting Regional Board staff to develop Basin Plan amendments for the Regional Board's consideration. The optional special studies presented in the Technical Report provide an opportunity to address outstanding issues in the TMDL and Basin Plan in a cooperative manner. Additionally, the LAWQSWG process would provides the opportunity for stakeholders to share the workload burden of developing the scientific information to support Regional Board decisions. Lastly, it is imperative that a firm date for a reopener for the Regional Board be set to provide stakeholders investing in developing scientific information reasonable assurances that such information will be heard. If information is not developed at the time of the scheduled reopener there would be no burden on the Regional Board staff. Lastly, numerous stakeholders have requested that the issues intended to be addressed through the optional studies be addressed prior to TMDL adoption. The Bureau understands such an approach is infeasible. However, inclusion of optional special studies and an explicit reopener, as well as supporting the formation of a work group, would provide stakeholders with confidence that the Regional Board is willing to consider outstanding issues in the early stages of TMDL implementation. ***REQUEST: Revise the Basin Plan amendment to include the optional special***	

No.	Author	Comment	Response
		studies, particularly studies related to uncharacterized bacteria sources and information related to a stakeholder working group to support Basin Planning for recreational uses, as presented in the stakeholder Technical Report. Additionally, include at least one explicit reopener provision five years after the effective date of the TMDL. Section 9.5 of the Staff Report should include the optional special studies discussion from Section 8.4 of the Technical Report. Insert the following paragraph at the end of the Compliance Monitoring section of the Basin Plan Amendment (which should be re-named to "Compliance Monitoring and Special Studies").	
11.13	LABOS	**Optional Special Studies** Stakeholders are encouraged to develop special studies to evaluate the assumptions of this TMDL and to support the Basin Plan Triennial Review process. Two types of studies were highlighted by stakeholders as high priority, as described in the Staff Report: • Studies to assess recreational beneficial use designations, including formation of a Water Quality Standards Working Group. • Studies designed to characterize loadings from natural or in-stream sources and evaluate whether a Natural Source Exclusion is applicable. In addition, please insert the following rows at the end of Table 7-39.4 in the BPA and Table 9-5 in the Staff Report, below the row with the header "All Los Angeles River Segments and Tributaries": **[City of Los Angeles BOS comment letter Attachment 1 for the *E. coli* loading rate tables]**	See response to comment 11.7. See response to comment 16.10 regarding natural sources exclusion. See response to comment 3.2 regarding beneficial uses.
12	**City of Los Angeles Department of Water and Power (LADWP): June 04, 2010**		
12.1	LADWP	The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to provide comments on the proposed Los Angeles River Bacteria Total Maximum Daily Load LADWP supports that Escherichia coli (*E. coli*) replace fecal coliform as the Sole bacterial indicator to assess the quality of fresh waters used for water contact recreation, as well as the removal of unnecessary regulatory and monitoring requirements that would arise from having water quality objectives for both indicators.	Comment noted.
12.2	LADWP	LADWP has many concerns regarding the TMDL, the following five of which are most significant: 1) The TMDL may not achieve water quality objectives (WOOs), despite significant capital investments and impacts to operations, due to the highly unpredictable nature of bacteria in urbanized watersheds, 2) Waste Load Allocations	Comments noted. Responses to specific comments are below.

No.	Author	Comment	Response
		(WLAs) for permittees will not be equitable due to the nature of discharges from MS4 systems, which comingle pollutants from both point and non-point sources; 3) permittees are assuming the burden for non-point sources that are outside the direct purview of the Board; 4) increased re-use/recycling of wastewater streams, to "stretch" potable water supplies, will likely reduce overall flow and impact bacteria levels; and 5) general, individual, industrial and construction storm water permittees are allowed zero (0) exceedance days and no compliance schedule. Thus, requiring end of pipe numeric limits when these permits are renewed, and would be effective immediately. These points are elaborated below.	
12.3	LADWP	During the May 26, 2010, TMDL meeting, staff from the California Regional Water Quality Control Board (Board), Los Angeles Region, acknowledged the complexities associated with discharges of bacteria in urbanized watersheds. Even though the proposed TMDL is based on the best available science, the best science cannot "overcome" inherent uncertainties regarding bacteria loads, including extreme variability, conflicting results depending upon the indicators utilized, the potential for low-flows to result in high bacteria loading rates, the presence of natural and uncharacterized sources that may contribute to exceedances, and the like. Permittees within one river segment have no simple or compulsory mechanism for coordination among themselves to help facilitate segment compliance, and the interests of the multiple permittees may in fact conflict. One permittee may implement a suite of measures to ensure TMDL compliance, but upstream or downstream pollutant discharges may result in outfall discharges that obviate that. Further, permittees may have no or little control over the nature and amount of discharges into a shared storm drain they utilize. This is a critical shortcoming that ensures that WLAs assigned to permittees on shared storm drains cannot be equitable. In addition, it forces the permittees to assume responsibility for nonpoint source pollutants.	See response to comment 11.8 and the revised BPA for a discussion of the methods to account for upstream sources. See response to comment 16.10 for natural and uncharacterized sources and the natural source exclusion See response to comment 4.11 and 10.3 for nonpoint source pollution.
12.4	LADWP	Further, mandates and policies supporting the re-use/recycling of water may reduce flows and also impact bacteria loads, an issue acknowledged by staff. The following example illustrates some monitoring and operational burdens that were imposed upon LADWP, an MS4 co-permittee, which achieved no clear water quality benefit - in advance of the bacteria TMDL. There are very strict bacterial (total coliform bacteria) limits for drinking water, and LADWP is in full compliance with State and Federal Primary Standards for such. Yet when draining potable water from an LADWP reservoir, LADWP has been required to undertake bacteria monitoring for those discharges. Per the Board, monitoring was not conducted at the reservoir egress and prior to discharge into the MS4 system, which would have been the only	Comment noted.

No.	Author	Comment	Response
		appropriate monitoring location. Instead, the monitoring was required to be conducted at "the point at which the reservoir discharge enters the Ocean (i.e. wave wash or point zero), at the direction of the Board. This location was next to a bridge where numerous birds roost and/or rest. Under these circumstances, there could not have been an accurate one-to-one correlation between the water quality/bacterial levels of drinking water stored in LADWP's reservoir, and the water tested at point zero. For this reason, LADWP also obtained samples at the reservoir egress; comparison of samples from the two locations clearly demonstrated that the storm drain system introduced additional bacteria into the discharge. The time and resources expended for this monitoring did nothing to enhance or protect water quality. LADWP asserts that the outfall monitoring approach advocated for Phase I of the bacteria TMDL is akin to the potable water testing described in this paragraph.	
12.5	LADWP	Open reservoirs of course may acquire some bacteria from contaminated runoff, vectors and birds. The Board recognizes these natural sources of bacteria and has therefore allocated a number of allowable TMDL exceedance days. Yet these reservoirs represent a unique set of circumstances, and it is unclear whether the TMDL accounts for them. It would be operationally infeasible and unaffordable to treat this water prior to discharge, yet the TMDL may demand such.	See response to comment 16.10.
12.6	LADWP	The final issue of significance is the general, individual, industrial and construction storm water permittees are allowed zero (0) exceedance days and no compliance schedule. Thus, requiring end of pipe numeric limits when these permits are renewed that would be effective immediately. However, given that these discharges are comingled inside the MS4 system, it would be impossible to ascertain compliance and responsibility for the exceedance. The only equitable monitoring method would be prior to discharge into the MS4 system, but this would impose undue operational burdens such as modifications to facilities, piping systems, etc. Further, lack of a compliance schedule is highly inequitable.	All general, individual, industrial and construction stormwater permittees sample effluent before discharging or sample waters to represent typical discharges from a specified type of facility. Staff does not anticipate that NPDES permits will have difficulty appropriately accommodating the requirements of the TMDL with requirements in NPDES permits.
12.7	LADWP	In closing, too little time has been allotted between the May 26 scoping meeting and the July 8 and 9 governing Board meeting, at which the TMDL recommendation will be considered. At this juncture, it is still unclear whether the Board staff will present a revised TMDL proposal that incorporates comments provided by CREST (Cleaner Rivers through Effective Stake-holder-led TMDLs) that was discussed in May.	See response to comment 3.3.
12.8	LADWP	Thank you for this opportunity to provide comments. Should you have any questions, please contact me or Ms. Jennifer Pinkerton at (213) 367-0436 or (213) 367-4230, respectively.	Comment noted.
13	**County of Los Angeles Flood Control District (LACFCD) May 28, 2010**		
13.1	LACFCD	Thank you for the opportunity to comment on the proposed amendment to the Water	Comment noted.

No.	Author	Comment	Response
		Quality Control Plan for the Los Angeles Region (Basin Plan) to incorporate Total Maximum Daily Load (TMDL) for bacteria for the Los Angeles River and its tributaries. Based on a review of the proposed TMDL and the supporting Staff Report, the following comments are submitted on behalf of the Los Angeles County Flood Control District (LACFCD). The LACFCD also concurs with the comments submitted by the County of Los Angeles and hereby incorporates them by reference.	
13.2	LACFCD	**1. <u>The proposed TMDL should not name the LACFCD as a responsible party</u>** The proposed TMDL should not name the LACFCD as one of the responsible parties for meeting the TMDL's waste-load allocations for several reasons. First, land areas draining to the LACFCD storm drains that empty into the Los Angeles River and its tributaries are under the jurisdiction of upstream municipalities. The LACFCD storm drains function solely as a conveyance for urban and stormwater runoff from upstream entities and do not generate any of the pollutants of concern at issue in the TMDL. Further, the LACFCD does not control land uses within the municipalities and, therefore, has no feasible means of preventing the pollutants at issue flowing from those land uses from entering its facilities and the Los Angeles River Recommendation. Remove the LACFCD as a responsible party from Table 7-39.5 of the proposed Basin Plan Amendment and Table 9-1 of the draft Staff Report.	The LACFCD is listed as a permittee in the Los Angeles County MS4 permit, which is one of the regulatory permits identified in the TMDL to implement waste load allocations. Furthermore, the LACFCD, as the owner and operator of many of the storm drains in the watershed, is responsible for ensuring that water discharged from its facilities does not cause or contribute to exceedances of water quality standards. Unless the dischargers can demonstrate their discharges did not contribute to the exceedances coming from the outfall, MS4 discharges are jointly and severally liable for discharges from the common storm drain system. The inter-connected nature of the storm drain system 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 violations. Thus, permittees are jointly and severally liable 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 is responsible for pollutants discharged from its system. This joint and severally liability

No.	Author	Comment	Response
			is consistent with the law. The Clean Water Act, recognizing that permittees may seek permits based on system-wide, not jurisdiction-by-jurisdiction, discharges, imposes additional roles and responsibilities upon those permittees. By accepting this type of permit, the permittees implicitly agree to accept the responsibilities necessary to control and reduce the discharge of pollutants in commingled discharges [40 C.F.R. sections 122.26(d)(2)(iv), (d)(2)(vii), (d)(2)(i)(D),and (d)(2)(iv)(B)(3).] As the owner and operator of storm drains, LACFCD has responsibility for the routine maintenance of its facilities, including inspections, clean outs and other maintenance. Additionally, LACFCD has the authority to install pollutant controls at the points of entry to its facilities, or within its facilities. These activities are feasible means of preventing the pollutants at issue from entering the Los Angeles River.
13.3	LACFCD	**2. <u>Recreational use designations should not apply to flood control channels with restricted access</u>** More than 60 percent of the Los Angeles River Watershed is highly urbanized, and most parts of the Los Angeles River and its tributaries are heavily engineered for flood protection. As the agency statutorily mandated to provide flood protection for the region, the LACFCD owns, operates, and maintains a majority of these engineered channels. Most channel segments are fenced and public access is restricted to protect public safety; the restricted access also bars any legal public contact with the water. The Basin Plan recognizes the restricted access to these engineered channels by denoting them as "access prohibited by Los Angeles County DPW." Further, most of these channels are dry or effluent dominated in the absence of rain, which is during most of the year. We believe that REC-1 and REC-2 uses in these engineered channels have never been attained in the past and are not likely to be attained in the future.	Staff disagrees. The removal of beneficial uses to a water body is beyond the scope of this TMDL. Currently REC-1 and REC-2 beneficial uses are established uses as designated in the Basin Plan. Though fenced in many segments of the river, non contact recreation and water contact are existing uses in the Los Angeles River. Some of these uses were documented in CREST's recently released preliminary water body use survey. The designation of "access prohibited by the Los Angeles County DPW" was

No.	Author	Comment	Response
		Therefore, requiring attainment of REC-1 and REC-2 uses in these channels is inappropriate because it has no value to the public as access to these channels is already prohibited. Recommendation. Remove the waste-load allocations for those segments of the Los Angeles River and its tributaries where public access is restricted.	brought up and will be reviewed further under the 2008-2010 Triennial Review period.
13.4	LACFCD	**3. The REC-1 use designations for various reaches presented in the TMDL are inconsistent with the Basin Plan** Tables 2-2 and 2-3 of the draft Staff Report are intended to show the beneficial use designations of the 303(d) List listed water bodies in the Los Angeles River Watershed. However, both tables do not accurately reflect those designations as they are shown in Table 2-1 of the Basin Plan. Specifically, whereas the Basin Plan clearly denotes those reaches with restricted public access, Tables 2-2 and 2-3 of the draft Staff Report omit that information for certain reaches. Recommendation. Revise Tables 2-2 and 2-3 of the draft Staff Report to show where public access is restricted, namely Bell Creek, Bull Creek, Verdugo Wash, Arroyo Seco, and Reaches 4 and 6 of the Los Angeles River.	Comment noted. The staff report will be revised to address this comment.
13.5	LACFCD	**4. The TMDL should not apply to reaches with uses designated as "Potential"** The TMDL should not apply to reaches whose uses are designated as "Potential." There is no legal authority for designating a use as "Potential." See Water Code § 13241. Recommendation. Apply TMDL only to reaches with applicable "Probable" or "Existing" uses. We look forward to your consideration of our comments. If you have any questions, please contact me at (626) 458-4300 or ghildeb@dpw.lacounty.gov or your staff may contact Ms. Rossana D'Antonio at (626) 458-4325 or rdanton@dpw.lacounty.gov	See response to comment 20.2.
14	**County of Los Angles Department of Public Works (LACDPW): June 03, 2010**		
14.1	LACDPW	Thank you for the opportunity to comment on the proposed amendment to the Water Quality Control Plan for the Los Angeles Region (Basin Plan) to incorporate the Total Maximum Daily Load (TMDL) for bacteria for the Los Angeles River and its tributaries. Based on a review of the proposed TMDL and the supporting Staff Report, the following comments are submitted on behalf of the unincorporated areas of the County of Los Angeles.	Comment noted.

Response to Comments July 2010
Los Angeles River Watershed Bacteria TMDL

No.	Author	Comment	Response
14.2	LACDPW	**1. <u>Stormwater agencies should be responsible only for their own discharges</u>** The proposed TMDL requires stormwater agencies to comply with waste-load allocations (WLAs) in the receiving water where many factors potentially affect the quality of the water from the time it is treated to the time it is tested at the compliance monitoring location. According to a study conducted by Cleaner Rivers through Effective Stakeholder-led TMDLs (CREST) for the Los Angeles River, a significant portion (more than 50 percent) of the bacteria loading to the Los Angeles River is unaccounted for (i.e., sources are unknown) and beyond the control of stormwater agencies. Additionally, the Los Angeles County Municipal Storm Water Permit (MS4 Permit) provides that each discharger is responsible only for a discharge for which it is the operator (MS4 Permit, Finding G.4). The TMDL, as it applies to MS4 Permittees, should be consistent with the permit. <u>Recommendation.</u> Revise the proposed TMDL to provide that a stormwater agency is responsible only for an exceedance caused by its own discharge.	Staff disagrees. The CREST Bacterial Source Identification (BSI) Study examined potential dry weather sources of bacteria to Reaches 2 and 4 of the main stem of the river. Using a mass balance approach, the study determined that in-stream sources of bacteria in dry weather were minor compared to storm drain loading and tributaries in Reach 4. Using the same approach in Reach 4, the study characterized up to 55% of the loading with the outfall and tributary monitoring in Reach 2. The uncharacterized sources attributed to in-stream sources were assess and ranked which included: groundwater discharges, homeless persons, illicit/illegal direct discharges, wildlife and birds, regrowth and/or suspension of sediment-associated bacteria, and resuscitation of injured bacteria discharged with disinfected wastewater effluent. Staff recognizes that there are natural sources of bacteria that may cause or contribute to exceedances of the single sample objectives and that it is not the intent of the Regional Board to require treatment of natural sources of bacteria from natural areas. As such, a reference system approach has been proposed in the tentative Basin Plan Amendment which includes allowable exceedances of single sample bacteria objectives during dry weather. For application of the Natural Sources Exclusion approach see response to comment 16.10.

No.	Author	Comment	Response
			The inter-connected nature of the storm drain system 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. This joint and several liability is consistent with the law. The Clean Water Act, recognizing that permittees may seek permits based on system-wide, not jurisdiction-by-jurisdiction, discharges, imposes additional roles and responsibilities upon those permittees. By accepting this type of permit, the permittees implicitly agree to accept the responsibilities necessary to control and reduce the discharge of pollutants in commingled discharges [40 C.F.R.1 sections 22.26(d)(2)(iv), (d)(2)(vii), (d)(2)(i)(D),and (d)(2)(iv)(B)(3).] While the BPA has been modified to add some guidance on how dischargers can differentiate the loading from their discharge from others, unless the dischargers can demonstrate their discharges did not contribute to the exceedances coming from the outfall, MS4 discharges are jointly and severally liable for discharges from the common storm drain system.
14.3	LACDPW	**2. <u>The Load Reduction Strategy (LARS) as envisioned by CREST does not necessarily require multiagency coordination</u>** Based on our understanding and a discussion with the CREST consultant, the LRS as proposed by CREST is a phased and adaptive implementation strategy to reduce bacterial loading into the receiving waters; it does not necessarily require multiparty coordination. Page 7 of the proposed Basin Plan Amendment, implementation section,	An LRS may be difficult to implement without coordination with other MS4 permittees implementing the LRS. Stakeholders would need to demonstrate noncompliance is due to upstream sources and that they were not contributing to downstream loading.

No.	Author	Comment	Response
		and Section 9.4.5 of the draft Staff Report misinterpret the LRS as "requir[ing] a coordinated effort among MS4 Permittees within a segment or tributary." It is further stated that "For MS4 Permitees that choose to not follow a MS4 Load Reduction Strategy, the compliance schedule to attain final WLAs is shorter because only one implementation phase is allowed." This again appears to erroneously equate the LRS with a coordinated effort by multiple agencies. Recommendation. Revise page 7 of the proposed Basin Plan Amendment and Section 9.4.5 of the draft Staff Report to reflect the same implementation schedule regardless of whether or not an agency pursues the LRS, and if it does pursue a LRS, whether or not it pursues it independently or as part of a group.	The LRS approach requires outfall monitoring from every flowing outfall, a number of times. This required outfall monitoring enables a responsible party to demonstrate compliance with the interim waste load allocation. An alternative implementation strategy does not necessarily need to include intensive outfall monitoring, so responsible parties may not have the data to show compliance with the interim allocation. Therefore, the responsible party would have to show compliance with the final wasteload allocation in exceedance days.
14.4	LACDPW	**3. The geometric mean should not be calculated daily** The U.S. Environmental Protection Agency (EPA) originally intended the use of the geometric mean as a tool to determine the condition of a water body over a longer period of time and to detect chronic problems. The EPA's 69 Fed. Reg. 67218, 67225 (Nov. 16, 2004), states that "because a geometric mean provides information pertaining to water quality that looks backwards in time, it is not necessarily useful in determining whether a [water body] is safe for swimming on a particular day." Further, the EPA (page 67224 of the 69 Fed. Reg.) states that "it would be technically appropriate to apply the averaging period on a set basis such as monthly or recreational season." In other words, the geometric mean is intended as an assessment tool for condition over time and not from day to day. Therefore, the proposed TMDL's use of the rolling 30-day period is inconsistent with the EPA's original intent. Recommendation. Revise the proposed TMDL so that the geometric mean is calculated once per month or once per season	Staff disagrees. The calculation of a daily geometric mean is consistent with other bacterial TMDLs adopted previously in the region. Calculated as a calendar month geometric mean may not assess a condition in which the high bacteria and exceedances occur between months. Furthermore, a certain number of bacteria TMDLs are currently being reconsidered by the board for issues which include implementation of the 30-day rolling geometric mean. Implementation of other bacteria TMDLs in the region will be consistent with recommendations stemming from the reconsiderations.
14.5	LACDPW	**4. The definition of wet weather should be consistent with the metals TMDL** The existing metals TMDL for the Los Angeles River and its tributaries defines wet weather as "days when flow at the Wardlow Station is greater than 500 cubic feet per second," whereas the proposed bacteria TMDL defines wet weather as "days with rainfall of 0.1 inch or more plus the three days following the rain event." Such inconsistency between the two TMDLs would create a challenge in integrating the	The definition of wet weather is the same as in other bacteria TMDLs in the Region. This provides consistency across the different watersheds and for the responsible parties who will comply with bacteria TMDLs in different watersheds. In addition, this definition is the same as that

No.	Author	Comment	Response
		implementation activities of the two TMDLs. It is not appropriate to have two definitions of wet/dry weather for the same water body. Recommendation. The proposed TMDL should define wet weather the same way as the metals TMDL for Los Angeles River and its tributaries.	used by the Los Angeles County Department of Public Health for rain-related beach postings.
14.6	LACDPW	**5. More time should be provided for wet-weather implementation** The proposed TMDL prescribes the same final compliance schedule for dry and wet weather; neither the Staff Report nor the TMDL contain an analysis of whether the TMDL's limits can be reached within the time frame proposed. As it has been seen in other similar TMDLs, addressing the wet-weather problem poses larger technical and economic challenges than addressing the dry-weather. In light of this fact, the implementation schedule for the wet weather should be longer than for the dry weather to reflect the time needed to address the added challenges associated with the wet weather. Recommendation. Perform an analysis of whether the TMDL's limits can be reached within the time frame proposed before assigning time frames for each segment. Revise the proposed TMDL to extend the wet-weather implementation schedule to 30 years.	Staff notes that compliance with the TMDL during dry weather will facilitate compliance with the TMDL during wet weather. Staff acknowledges the technical challenges posed by complying with the TMDL during wet weather. As such, interim allocations are not assigned for wet weather and compliance with TMDL is not prescribed until the end of the implementation schedule.
14.7	LACDPW	**6. Level of monitoring should be commensurate with the level of use** Section 9.7 of the draft Staff Report requires monthly monitoring during the first implementation phase and weekly monitoring during the second implementation phase. Furthermore, as part of the LRS monitoring, all storm drain outfalls that are discharging to a segment or tributary must be monitored. This level of monitoring is excessive in light of the fact that there is no legal access to or recreational use in the Los Angeles River. There is no analysis in the Staff Report to substantiate this level of monitoring both in terms of frequency and number of sites. Recommendation. Revise Section 9.7 of the draft Staff Report to remove specific details related to compliance monitoring and LRS monitoring and provide that the frequency of monitoring and the number of monitoring locations should be addressed in the monitoring plan to be submitted by the parties.	Monitoring is necessary to determine compliance with allocations. Monthly monitoring is required, at a minimum, until the subject segment, reach or tributary is at the end of the execution part of its first implementation phase (i.e. 7 years after beginning the segment or tributary-specific phase), to determine compliance with the interim WLA. Weekly monitoring is then required to determine degree of compliance with the final wasteload allocations. If responsible parties choose to employ an alternative compliance strategy then interim wasteload allocations will not apply and intensive outfall monitoring will not be necessary.

No.	Author	Comment	Response
			The frequency of monitoring and the number of monitoring locations should be addressed in the monitoring plan to be submitted by the parties.
14.8	LACDPW	**7. <u>Monitoring responsibilities should be incorporated into the TMDL for nonpoint-source and non-MS4 point-source dischargers</u>** The proposed TMDL assigns WLAs and load allocations to a number of parties in addition to the municipal stormwater dischargers, including the U.S. Forest Service, California Department of Parks and Recreation, and National Parks Services. However, the monitoring responsibilities in the TMDL are given entirely to the municipal stormwater dischargers without adequate justification. Municipal stormwater dischargers should not solely bear this responsibility because the non-MS4 sources also contribute bacterial loading into the Los Angeles River and its tributaries. Without this monitoring, the parties and the public will not know whether any failure to meet water quality standards is due to a discharge from non-M54 sources. <u>Recommendation.</u> Revise the proposed TMDL to include specific monitoring requirements for all nonpoint-source and non-MS4 point-source parties. Monitoring should synchronize with that conducted by the municipal stormwater dischargers.	See response to comment 4.11.
14.9	LACDPW	**8. <u>Establishment of the WLAs should consistently follow the reference system approach</u>** The proposed TMDL appears to selectively adhere to the reference system approach as set forth by CREST. For example, as described in the CREST Technical Report, the five (5) days of allowable single-sample exceedances for dry weather was derived by excluding the so-called "minimally impacted" reference sites. By including the minimally impacted sites in the analysis, the single-sample exceedance days for the reference watershed is 21 days. Excluding minimally impacted sites is inappropriate for two reasons: First, the justification given to categorize those sites as "minimally impacted" is not convincing. For instance, one reason cited for characterizing a site as minimally impacted is the impact from wildfires. Wildfires are a naturally occurring phenomenon and, therefore, should not be considered as an "impact" in the sense of anthropogenic impact. Secondly, given the highly urbanized nature of the Los Angeles River Watershed, using minimally impacted sites as reference is appropriate. In the case of the geometric mean WLA, the proposed TMDL abandons the reference	See response to comment 4.15. In the past US EPA has indicated that it would not support modified targets for geometric mean objectives based on allowable exceedance days. As such, the TMDL does not include any allowable exceedances of geometric mean targets in the allocations, consistent with previous adopted bacteria TMDLs in the Los Angeles region. Furthermore, a reconsideration of some bacteria TMDLs is currently being developed by staff to address issues including implementation of the 30-day rolling geometric mean. Implementation of

No.	Author	Comment	Response
		system approach entirely without justification. According to the CREST study, significant exceedances of geometric mean were detected at the reference sites. Including results from the minimally impacted sites, the reference system exceeded the geometric mean numeric target 16 percent of the time; the number of exceedances is reduced to 1.5 percent when results from the minimally impacted sites are excluded. Additionally, by arbitrarily setting the geometric mean WLA at zero (0) exceedances, the proposed TMDL is essentially requiring the treatment or diversion of nonanthropogenic sources of bacteria. Further, setting a reference system-based geometric mean standard has been applied by other California Regional Water Quality Control Boards, such as the San Diego Regional Board. Recommendation. Revise the proposed TMDL so both the dry-weather single-sample and geometric mean WLAs are established in accordance with the reference system approach and include minimally impacted sites in the calculation.	other bacteria TMDLs in the region will be consistent with recommendations stemming from the reconsideration.
14.10	LACDPW	**9. The interim mass-based WLA should be expressed as a seasonal or an annual total instead of a daily average** The interim WLA for the dry weather are expressed currently as daily averages on page 5 of the proposed TMDL. It would be more appropriate to express the mass loading on a longer time scale to accommodate the day-to-day fluctuation of bacteria concentrations. Recommendation. Revise the proposed TMDL so the mass-based interim WLAs are expressed as seasonal or annual totals.	The interim WLA are expressed as total load. The interim WLA were calculated to meet 110% of the final WLA for single sample limits (given current flow rates in the River). The interim allocations in daily loading will be estimated based on intensive outfall monitoring to calculate the estimated daily load. Does the commenter suggest an estimated seasonal or annual load based on the same intensive sampling or with more required monitoring? In addition, the use of a seasonal and or annual total for interim allocations could result in the situation in which season and annual allocations are met but final allocations, measure instream, are not met for the day samples, resulting in impaired beneficial uses.
14.11	LACDPW	**10. The Los Angeles International Airport (LAX) rain gage is not reflective of rainfall in the entire Los Angeles River Watershed** The proposed TMDL uses rainfall data from the LAX rain gage to determine wet-weather condition. Using a single-rain gage in this instance is inappropriate for two reasons: First, the LAX rain gage is located outside of the Los Angeles River	An addition has been made to the BPA to allow for potential adjustment of the rain gage station.

No.	Author	Comment	Response
		Watershed and far away from the upstream part of the watershed. Secondly, the Los Angeles River Watershed covers a large geographical area with significant spatial variation in rainfall and other climatic attributes. Recommendation. Revise the proposed TMDL to use three or more rain gage stations in the Los Angeles River Watershed to more accurately reflect the hydrologic and climatic variability within the watershed.	
14.12	LACDPW	**11. The TMDL should recognize the ongoing scientific progress on bacteria** There are ongoing scientific studies of the bacteria indicators currently being used in the TMDLs. Recent studies conducted in Southern California have indicated the absence of correlation between traditional bacteria indicators and human health risks. The EPA recognizes the lack of sound science on bacteria and is currently conducting necessary scientific studies to establish new bacteria indicators and associated criteria for recreational waters by 2012. Further, the Southern California Coastal Water Research Project is also currently conducting an epidemiological study in Southern California and is expected to address some of the existing scientific limitations. Thus, developing the Los Angeles River Bacteria TMDL based on traditional indicators, which do not accurately predict the risk of illness, may lack scientific justification and needs reconsideration as new findings are made available. Recommendation. Revise the TMDL resolution to add a language that acknowledges the existence of ongoing studies and the possibility that the TMDL would be revised in the future to reflect the findings of the studies and/or new standards that may result thereof.	The proposed TMDL has been modified to incorporate reconsideration four years after the effective date of the TMDL if beneficial uses are modified or, or if US EPA publishes revised recommended bacteria criteria.
14.13	LACDPW	**12. The margin of safety as presented in Table 7-1 of the Staff Report is excessively high** A margin of safety (MOS) is used in a TMDL to account for the uncertainty inherent in the TMDL development process while being protective of beneficial uses. However, the MOS should not be excessive and should generally be no more than 10 percent of the loading capacity of the water body. For the proposed TMDL, the MOS is as high as 80 percent of the loading capacity for some reaches as shown in Table 7-1 of the draft Staff Report. Recommendation. Revise the proposed TMDL so that no MOS is more than 10 percent of the loading capacity of the reach in question.	See response to comment 4.17.
14.14	LACDPW	a. The proposed TMDL should consider the year-to-year rainfall variability in	See response to comment 4.16.

No.	Author	Comment	Response
		evaluating compliance.	
14.15	LACDPW	b. Table 7-39.4 should have headings that clearly distinguish the schedule for dry-weather compliance from the schedule for wet-weather compliance	Comment noted. The staff report and BPA will be revised to address this comment.
14.16	LACDPW	c. The title of the proposed TMDL should be revised as the 'Los Angeles River and its Tributary Bacteria TMDL' as opposed to the "Los Angeles River Watershed Bacteria TMDL." It is not the watershed that is on the 303(d) List, but the river reaches and its tributaries.	Staff disagrees. The TMDL maybe named in many different ways but the Los Angeles River Watershed Bacteria TMDL appropriately describes the TMDL's converge area.
14.17	LACDPW	d. The interim WLA table on page 5 of the Basin Plan Amendment was adopted from the CREST report that was developed for dry weather only. The table should be modified to clearly indicate that the interim WLAs are for dry weather only to avoid misinterpretation. The table should also be modified to reflect the letters "A", "B", etc. associated with each segment name.	Comment noted. The BPA will be revised to address this comment.
14.18	LACDPW	e. The regrouping of the Los Angeles River reaches into segments would inappropriately incorporate unimpaired reaches of the Los Angeles River (Reaches 3 and 5) into the TMDL. The proposed TMDL should be modified to revert back to the reach delineation.	Segments were used due to availability of flow data. Interim allocations based on bacteria mass and flow were appropriately extrapolated through existing flow gages and loading, which may not have been applicable to existing reach breaks.
14.19	LACDPW	f. To be consistent with the implementation schedule in Table 7-39.4, the implementation sections on pages 6 and 7 of the Basin Plan Amendment should indicate that the MS4 Load Reduction Strategy will be subject to the Regional Board Executive Officer's approval.	Comment noted. The staff report and BPA will be revised to address this comment.
14.20	LACDPW	g. On page 7, the third line of the third paragraph, "WLAs" should be replaced with 'interim WLAs.' We look forward to your consideration of our comments. If you have any questions, please contact me at (626) 458-4300 or ghildeb@dpw.lacounty.gov or your staff may contact Ms. Rossana D'Antonio at (626) 458-4325 or rdanton@dpw.lacounty.gov .	The section of the BPA has been modified for clarity.
15	**County Sanitation District of Los Angeles County (LACSD): June 3, 2010**		
15.1	LACSD	The Sanitation Districts of Los Angeles County (Sanitation Districts) are pleased to submit comments to the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) on the proposed amendment to the Water Quality Control Plan for the Los Angeles Region (Basin Plan) for incorporation of a total maximum daily load for bacteria in the Los Angeles River (LA River Bacteria TMDL). By way of background, the Sanitation Districts provide wastewater and solid waste management services to over 5 million -people in 78 cities and unincorporated	Comment noted.

No.	Author	Comment	Response
		areas of Los Angeles County. Of the 11 wastewater treatment plants owned and operated by the Sanitation Districts, nine are located within the boundaries of the Regional Board. These facilities are located in the San Gabriel River, Rio Hondo, Santa Clara River, and Santa Monica Bay watershed.	
15.2	LACSD	The Sanitation Districts have reviewed the tentative LA River Bacteria TMDL and corresponding Staff Report and have a concern about ambiguity in the language assigning waste load allocations (WLAs) for Water Reclamation Plants (WRPs). The LA River Bacteria TMDL assigns WLAs to three WRPs discharging in the LA River Watershed based on the current effluent discharge limitations placed on these WRPs, which require compliance with a 7-day median number of total coliforms in the effluent not to exceed 2.2 per 100 milliliters. Although the Staff Report and the NPDES permits for the WRPs refer to a 7-day median, it is not mentioned in the Staff Report for the LA River Bacteria TMDL or the proposed WLAs, which only include reference to a 2.2 MPN/I 00 mL WLA. This could be interpreted to be an instantaneous maximum, which is substantially different from the current bacteria effluent limitations in the WRP NPDES permits. This discrepancy is easily corrected by the addition of the phrase "a 7-day median of" as follows: "The WLAs for the three WRPs in the watershed, which include D.C. Tillman, Los Angeles-Glendale, and Burbank WRP, are set equal to a 7-day median of 2.2 MPN/100 mL of *E. coli* multiplied by the discharge rate at the time of sampling to ensure zero (0) days of allowable exceedances of the single sample target for both dry and wet weather and no exceedances of the geometric mean target."	The staff report and BPA will be revised to make this change
15.3	LACSD	It is also recommended that the Implementation section of the TMDL be amended to specifically state that no revisions to the WRP NPDES permits are necessary based on this TMDL.	The staff report will be revised to make this change.
15.4	LACSD	Thank you for the opportunity to comment on this important issue. If you have any questions or require additional information about the comments contained herein, please contact Ken Hoffman of my staff at (562) 908-4288, extension 2445, or khoffman@lacsd.org.	Comment noted.
16	**Flow Science: June 04, 2010**		
16.1	Flow Science	Flow Science Incorporated, on behalf of the Cities of Cities of Arcadia, Bellflower, Carson, Cerritos, Claremont, Commerce, Downey, Duarte, Glendora, Hawaiian Gardens, Irwindale, Lawndale, Lynwood, Monterey Park, Paramount, Santa Fe Springs, Signal Hill, Vernon, and Whittier ("Cities"), appreciates the opportunity to	Comment noted. Detailed responses to summary comments, are included with the detailed comments, below.

No.	Author	Comment	Response
		submit comments in response to the April 20, 2010 Public Hearing Notice and all related documentation for the above-captioned proposed Basin Plan amendment. As detailed below, Flow Science urges the Regional Water Quality Control Board (Regional Board) to delay adoption of the proposed TMDL until after water quality standards for REC-1 uses are reviewed and amended as appropriate. As detailed herein, this evaluation should include (1) a review of the designated beneficial uses of the Los Angeles River and its tributaries to determine the uses "actually attained," particularly for concrete-lined reaches of the River, including Reaches 1 and 2, and (2) considerations of modifications of the water quality objectives for indicator bacteria to consider "controllable water quality factors." In addition, and following a proper evaluation of the beneficial uses and water quality objectives, the Regional Board should consider alternative allocation formulations and implementation programs for both wet and dry weather TMDLs. It is unlikely that full implementation of the proposed TMDLs will achieve water quality standards for bacteria in the Los Angeles River; as such, the effectiveness of the TMDL as currently written is questionable.	
16.2	Flow Science	Bacteria can come from both human (e.g., sewage leaks and human waste) and non-human (e.g., birds and other wildlife) sources, and bacteria also re-grow in the environment, including within stormwater drains. Re growth and/or natural source contributions within certain sections of Reach 2 of Los Angeles River (LAR) have been demonstrated by data collected by the CREST effort, and are likely to occur in other reaches as well. Bacteria concentrations are likely to exceed water quality objectives even in treated (disinfected) water just downstream of the point where it is discharged to receiving waters due to these natural and uncontrollable sources. In addition, it is unreasonable, and we believe it is not the Regional Board's intent, to require control of non-human sources; control of non-human sources could require removal of wildlife and/or their habitat, thus posing an extraordinary environmental impact. For these reasons, achieving compliance with existing beneficial uses and objectives will be difficult if not impossible. Thus, it makes sense to evaluate whether changes to those standards are warranted before implementing a TMDL. First, we believe that it is imperative that the Regional Board review the designated uses of the Los Angeles River and its tributaries, and, where appropriate, change the designated beneficial uses, particularly for the concrete-lined portions of the River (e.g., Reaches 1 and 2), to reflect a designation of "uses actually attained" in the water body on or after November 28, 1975. Second, we request that the Regional Board consider, as an	As demonstrated by CREST's BSI study, bacteria are not likely to exceed water quality objectives just downstream of the point where treated (disinfected) water is discharged to receiving waters as a result of the dilution of the bacterial levels in the Los Angeles River below the outfalls of the wastewater treatment plants. It is important to note that 'natural' and 'uncontrollable' are terms which different stakeholders may define in different ways and are not, generally defined as overlapping terms. While achieving compliance with the proposed TMDL will surface many challenges, the flexibility of the implementation strategy and the long implementation schedule make it plausible that compliance is attainable. It does not make sense to delay the TMDL to see if standards will change. If standards

No.	Author	Comment	Response
		alternative, modifying the water quality objectives for indicator bacteria such that the objectives require compliance with *E. coli* concentrations "as a result of controllable water quality factors."	are changed or refined, either higher or lower, in the future then bacterial TMDLs can be modified appropriately. See response to comment 3.2 for a discussion of beneficial uses. Standards changes are not being considered as part of this action. The Regional Board always has the option to re-consider a TMDL and make changes to the Basin Plan. For instance, over the course of TMDL implementation, the TMDL may be re-considered to incorporate new information from scientific studies, or address revisions to water quality standards, such as adoption of revised water quality objectives based on recommendations of USEPA.
16.3	Flow Science	The draft LAR Bacteria TMDLs include allocations for both dry and wet weather conditions. However, it is unclear how "necessary load reductions" based on these allocations were derived, and the allocations are not supported by the available science. Importantly, it is unclear from the TMDLs how compliance will be determined for dischargers. Thus, consistent with the recommendations from the CREST process, we request that the TMDL should be modified so that compliance with the dry weather 'TMDL is achieved if measures to achieve allocations are implemented. Further, we recommend that no wet weather TMDL be established at this time, as there are presently no technically feasible means of addressing bacteria in wet weather runoff. Regarding the wet weather TMDL, we note that neither the Regional Board nor stakeholders know of any technical means of complying with the TMDL under wet weather conditions. Even with the proposed high flow suspension and "natural sources exclusion" approach, the volumes of water to be diverted and/or treated are extraordinarily large, and strict compliance with the waste load allocations (as the TMDL is currently written) is technically impossible. For example, the volume of water to be diverted and/or treated within the Arroyo Seco during the 2004-2005 water year would be 570 million gallons per day (570,000,000 gallons per day), enough to	"Necessary load reductions" can be calculated as discussed in Section 9.4.5 of the Staff Report and in even greater detail in the CREST document "Dry Weather Allocations Section" available on the CREST website. The expected storm drain loading based on a Monte Carlo or equivalent model can be used to determine the necessary load reduction, which can be expressed as the number of storm drain outfalls that will be addressed (whether addressed by diversion or infiltration, source reduction or combination) during TMDL implementation. See response to comment 10.2 and 11.4 for discussion of compliance determination and permits.

No.	Author	Comment	Response
		fill the Rose Bowl 7 times in a single day. In the Los Angeles River during 2004-2005, approximately 924 million gallons per day (equivalent to 11 Rose Bowls) would require diversion and/or treatment.[1] Thus, we request that the Board defer the Wet Weather TMDL until after the designated uses and water quality objectives have been reevaluated and until after additional studies are conducted to develop an appropriate wet weather TMDL. We also recommend, prior to the adoption of any wet weather TMDL, that the Regional Board extend the high flow suspension policy to additional channels and that the Board and evaluate and implement appropriate standards changes, including requiring compliance with objectives "as a result of controllable water quality factors."	See comment 3.12 for discussion of the wet weather TMDL. See response to comment 3.13 for discussion of extension of the HFS policy.
16.4	Flow Science	In addition to and following conducting the analyses described above, we recommend that the Board, when it does adopt TMDLs for bacteria in the Los Angeles River, should use adaptive management practices and a phased schedule, as has been done for TMDLs in other regions. Details of implementation alternatives and our concerns with the scientific and technical approach of the TMDLs are provided in the remainder of this document.	This TMDL includes phasing of segments and tributaries (i.e. first some segments and then, later, other segments) and phasing of implementation with in a segment or group of tributaries.
16.5	Flow Science	Finally, we request that the Regional Board consider all of the alternative approaches to the bacteria TMDL discussed herein, per CEQA, for environmental impacts.	The CEQA document sufficiently discusses all the types of implementation approaches including those identified by the commenter.. See response to comment 20.1.3
16.6	Flow Science	Detailed comments are provided in Attachment A, and a copy of my resume is provided as Attachment B, and electronic copies of the references cited in this letter are provided on CD. Additional Attachments C and D are described in these comments, and references will be provided electronically and on CD. Thank you for the opportunity to provide comments. Please contact me if you have any questions.	Comments noted.
16.7	Flow Science	**Bacteria originate from both human and non-human sources** Bacteria originate from multiple sources, including birds and wildlife (Bagshaw 2002; CREST 2008b; Grant *et al.* 2001; Griffith *et al.* 2009; Stein *et al.* 2007). Data collected by Los Angeles County demonstrate that storm water runoff from a variety of land use types, including vacant land/open space, exhibits concentrations of indicator bacteria that exceed water quality objectives (see, e.g., Table 4-12 of Los Angeles County Department of Public Works (2001). Recent work (Flow Science Incorporated 2005; Schiff and Kinney 2001; Stein and Yoon 2007) also demonstrates that runoff from open space, natural watersheds exhibits indicator bacteria concentrations that exceed water quality objectives, even when human sources are	Staff agrees that fecal indicating bacteria may come from many sources It should be noted that exceedances of the bacteria water quality objectives in open space, natural watersheds are accounted for by the reference watershed approach as part of this TMDL. Open space, natural watersheds are like a reference watershed.

No.	Author	Comment	Response
		absent.	
16.8	Flow Science	**Bacteria from non-human sources pose a lesser human health risk** Indicator bacteria are surrogates for the potential presence of human pathogens and do not themselves pose a human health risk. For this reason, and because indicator bacteria come from a wide range of sources, the presence of indicator bacteria does not necessarily indicate a human health risk. It is well-established that human recreational activity itself (i.e., human sources of pathogens) can result in elevated concentrations of indicator bacteria and increased risk of human illness. For example, an epidemiological study conducted at three Israeli coastal beaches in 1983 (Fattal *et al.* 1991) suggested that contamination from the bathers themselves was the source of the indicator bacteria (including E. colt) and swimming-associated illness at Gordon Beach. In swimming pools, chlorination is used to minimize disease outbreaks from exposure to human pathogens; potable water supplies, typically used to fill swimming pools, contain residual chlorine and thus low concentrations of both indicator bacteria and human pathogens. Numerous studies have reported outbreaks of water-borne diseases in swimming pools due to inadequate chlorination at swimming pools, where the disease-causing pathogens almost certainly arise from people during the swimming activity itself (Keswick *et al.* 1981; Levine and Stephenson 1990; Mood 1977; Papapetropoulou and Vantarakis 1998; Sinclair *et al.* 2009; World Health Organization 1999). Mood (1977) concluded that "an average person... might shed approximately 2x10$ organisms into the water while swimming." Available epidemiological studies have typically focused on health effects at marine beaches or, for freshwater recreation areas, have typically focused on lakes and/or recreation areas downstream of treated sewage discharges or other known sources of human waste (Colford *et al.* 2005; Colford *et al.* 2007; Ktsanes *et al.* 1981; Priiss 1998; Woelfel 2006). Likewise, the studies upon which water quality objectives for indicator bacteria are based typically examined swimming exposures (and subsequent incidence of illness) downstream of known human sources (e.g., downstream of sewage treatment plants) (see, e.g., USEPA (1986); Dufour (1984)). The water quality objectives for E. colt contained in the Los Angeles Basin Plan are based upon these studies and the observed correlation between indicator bacteria concentrations downstream of human sources and illness resulting from recreational exposures. However, until recently, very little information has been available to indicate whether bacteria from non-human sources pose a similar health risk.	The level of fecal indicator bacteria is a proven, reliable, indication of health risk and continues to be recommended by the US EPA. Public health standards are developed and applied to protect public health by reducing the risk to an acceptable level. While the public health risk from contact with water polluted by human sewage is greater that contact with waters contaminated solely non-human fecal matter sources (epidemiological studies have not established the degree of difference), many diseases which can be transmitted by fecal matter are shared between humans and other warmblooded animals. Diseases with zoonotic potential may include: *Salmonellosis, cryptosporidiosis, giardiasis,* and *Colibacillosis*. While less well established, several viruses such as Rotavirus and Norovirus may also have the potential to be spread through waterborne animal fecal matter. A complete understanding should also include a study conducted on our own southern California beaches (Haile *et al.*, 1999) which found swimming in urban runoff-contaminated waters resulted in an increased risk of chills, ear discharge, vomiting, coughing with phlegm and significant respiratory diseases. The study established the health risk indicated by bacteria where the source was storm drains

No.	Author	Comment	Response
		Recent epidemiological work in southern California indicates that, when human sources of indicator bacteria have been minimized or eliminated, indicator bacteria are uncorrelated with human health risk. For example, an extensive cohort epidemiological study of Mission Bay (Colford *et al.* 2005), where extensive efforts were made to eliminate human sources of bacteria, found that "[t]he risk of illness was uncorrelated with levels of traditional water quality indicators. Of particular note, the state water quality thresholds [including those for E. colt] were not predictive of swimming-related illnesses. Similarly, no correlation was found between increased risk of illness and increased levels of most non-traditional water quality indicators." Other research also indicates that the human health risk posed by swimming exposures to bacteria from non-human sources is likely lower than the risk posed by exposure to bacteria from human sources, including treated and untreated sewage (Schoen and Ashbolt 2010). A number of researchers have concluded that the primary risk to human health from recreational contact most likely comes from exposure to human viruses (Cabelli 1983; Levine and Stephenson 1990; Palmateer *et al.* 1991; Sinclair *et al.* 2009; World Health Organization 1999). Because human-specific viruses require a human host for replication, the presence of these viruses indicates that a human source is present, and those viruses are likely to be absent where human sources are absent. Epidemiological studies typically require large sample sizes to reach statistically significant results. Because existing water quality objectives are based upon a relatively low risk of illness (e.g., the criteria in the Los Angeles Basin Plan are based upon a risk of 8/1000, thus meaning that an exposure to indicator bacteria at the level of the criteria would theoretically lead to 8 gastrointestinal illnesses per 1000 swimmers; see Dufour (1984)), a large number of swimmers must be surveyed in order to form robust conclusions about health risks. The Colford *et al.* (2005) study surveyed 8800 swimmers. Because there is nowhere near this level of recreational use in the Los Angeles River (see CREST (2008b)), it is infeasible to conduct a site-specific epidemiological survey in the Los Angeles River Watershed.	– likely to be a mixture of human and non-human sourced bacteria. Urban runoff discharging to the Los Angeles beaches will be similar in content to the urban runoff discharging to the Los Angeles River. While the Mission Bay study failed to find a relationship between traditional water quality indicators and illness, many studies have established a relationship. It is important to consider the available information in its entirety. Other recent studies re-verifying the relationship between fecal indicating bacteria and human illness include: Brinks *et al. Health risk of bathing in Southern California coastal waters*. Arch Environ Occup Health. 2008 Fall;63(3):123-35; Heaney CD *et al. Contact with beach sand among beachgoers and risk of illness* Am J Epidemiol. 2009 Jul 15;170(2):164-72. It is infeasible to conduct a site-specific epidemiological survey in the Los Angeles River and it is also unnecessary. The health risk indicated by the level of fecal matter indicating bacteria is well established.
16.9	Flow Science	**Bacteria regrow in the environment** The propensity for bacteria to regrow, even in highly treated water, is evidenced by the requirement to maintain a residual level of chlorine in highly treated drinking water within the drinking water distribution system. In fact, the USEPA requires treated tap water to contain a detectable level of chlorine to help protect against pathogens all the way to consumers' taps (American Chemistry Council 2010). Before it enters the distribution system, surface waters used for drinking water are treated through a	The CREST BSI study indicated that at that time, in-stream sources were important in Reach 2 and were relatively unimportant in Reach 4. However, a dramatic decrease in loadings to the river, as required by the interim WLA, from MS4 sources may, itself, change conditions in the river in terms of supporting large populations of

No.	Author	Comment	Response
		variety of processes, typically including filtration, flocculation, and disinfection. Drinking water then flows into the distribution system, which is a controlled, low-temperature, dark environment (i.e., not highly conducive to regrowth). Even so, chlorination is required. Chlorine helps eliminate slime bacteria, molds and algae that commonly grow in water supply reservoirs, on the walls of water mains and in storage tanks, and prevents the growth (and regrowth) of indicator bacteria as well. We are now fortunate to have detailed data on *E. coli* and on human-specific bacteria (bacteroidales) from six dry weather sampling events in the Los Angeles River, which were collected as part of the CREST sampling effort. As shown in **Figure 7-26** of the CREST Bacteria Source Identification (BSI) study report (CREST 2008b) (at p. 7-59, and reproduced below), only about 10-50% of the bacteria measured in Reach 2 of the Los Angeles River during six dry weather sampling events originated from storm drains and tributaries. This indicates that elimination of inflows to this reach, or elimination of bacteria in inflows, would not eliminate the exceedances of the water quality objectives for *E. coli*. **[Flow Science Comment Letter Attachment 1 for the Figure 7-26]** The BSI study conducted by CREST also found that the largest dry weather *E. coli* loading increase occurred along the downstream portion of Reach 2 of Los Angeles River (CREST 2008b), while a majority of the storm drain loading occurred along the upstream portion of this reach. As shown in **Figure 6-3** of the CREST report (at p. 6-11 and reproduced below), concentrations of *E. coli* fell to levels mostly below water quality objectives for *E. coli* downstream of sewage treatment plants. Highly purified wastewater enters the Los Angeles River between river miles 5 and 8, and between river miles 14 and 26, and dilutes ambient concentrations of indicator bacteria. However, downstream of those locations, *E. coli* concentrations rose again. Note in particular the rise in *E. coli* concentrations between 6th St. and Slauson Ave. The CREST BSI study also measured concentrations of human-specific bacteroidales as shown in **Figure 6-12** (at p. 6-25 of the CREST report and reproduced below) in the same samples from which the *E. coli* measurements (shown in **Figure 6-3**) were obtained. Concentrations of human bacteroidales were essentially flat (did not increase) in Reach 2 of the river between 6th Street and Slauson Ave. The fact that *E. coli* concentrations in this river segment increased by more than an order of magnitude while human-specific bacteroidales concentrations did not indicates that the *E. coli* in this segment are from non-human sources. These data indicate that non-human sources (which may include wildlife and birds, or re-growth in sediments) are likely	fecal indicating bacteria in Reach 2. Reference streams, for example, while receiving occasional small loadings of fecal matter, do not maintain large in-stream sources of fecal indicating bacteria. First, the CREST BSI study concluded that *E. coli* from storm drains were causing exceedances *"As supported by the information below, it appears discharges of E. coli from storm drains and tributaries are potentially causing E. coli WQO exceedances, particularly in Reach 2. From this perspective the answer to Question 1a* [Are storm drains and tributaries responsible for the significant bacteria loads entering Reach 2 and 4 of the LA River and causing *E. coli* WQO exceedances?] is a *'probably yes' for Reach 4 and 'yes' for Reach 2."* Second, the CREST BSI study concluded *"A lack of significant increase in human Bacteroidales concentrations along an LA River segment does not necessarily mean that zero human sources were impacting the LA River. Rather, it means that human sources were not strong enough to induce a detectable increase, or "signal", in the LA River."* However, as the commenter maintains, re-growth of indicator bacteria may be a possibility in the Los Angeles River, especially given the extraordinarily high

No.	Author	Comment	Response
		responsible for the exceedances of water quality criteria in this river segment. **[Flow Science Comment Letter Attachment 1 for the Figure 6-12]** Other studies have also shown that indicator bacteria also re-grow in storm drains and in the environment. For example, Jones (2005) analyzed for fecal coliforms, *E. coli* and enterococci in influent and effluent from urban storm drains and receiving water samples in New Hampshire and found "possible re-growth of bacteria between storms, especially during warmer weather. Re-growth or illicit connections appear to impact effluent bacterial levels in many urban storm drains." Weekly monitoring conducted at Baby Beach at Dana Point Harbor, CA, indicates "sediments/sands may serve as a reservoir of fecal indicator bacteria from multiple sources...The organic nutrients in sediment enhance persistence and/or re-growth to levels that may exceed standards in the overlying water" (Ferguson *et al.* 2003). A study in Huntington Beach (Grant *et al.* 2001) showed that "urban runoff appears to have relatively little impact on surf zone water quality ...enterococci bacteria generated in a tidal saltwater marsh [e.g., from non-human sources and/or re-growth] located near the beach [were found to] significantly impact surf zone water quality." A bacterial source identification study at Santa Monica Pier (Heal the Bay 2006) showed that extensive re-growth of bacteria in the pond in front of the pier storm drain might be a chronic source of fecal bacteria to the sand and surfzone. In laboratory experiments that simulated tidally influenced storm drains, fecal coliforms and enterococci reproduced rapidly under conditions typical of coastal storm drains (Martin and Gruber 2005). A laboratory study using marine and estuarine sediments from Georgia, New Hampshire, and Puerto Rico showed that fecal enterococci survived desiccation and re-grew in rewetted sediment (Hartel *et al.* 2005). Even treated water often has bacteria concentrations that exceed water quality objectives just downstream of the point where it is discharged to receiving waters. For example, Orange County recently studied BMPs for reducing bacteria concentrations in Aliso Creek. The study found that a BMP that included multimedia filtration and ultraviolet (UV) disinfection greatly reduced concentrations of indicator bacteria in urban runoff, but bacteria levels rebounded within a short distance downstream of the BMPs (County of Orange 2005). ' Effluent from the filtration/sterilization BMP exhibited geometric mean fecal conform concentrations of 317 cfu/100 mL at the BMP outlet, but concentrations increased to 2575 cfu/100 mL in a natural channel at a	levels of indicator bacteria entering the River. It remains a significant question and conclusions from studies are equivocal such as the commenter quotes "possible re-growth of bacteria between storms, especially during warmer weather. Re-growth or illicit connections appear to impact effluent bacterial levels in many urban storm drains." The Regional Water Board will continue to support study of the issue to determine if re-growth, selected survival or other in-stream sources (seeping, accumulation and sloughing from sediment, instream wildlife) are significant in the Los Angeles River. For example, supported by the Regional Board, SCCWRP has begun to examine the issue in a preliminary study in the Los Angeles River. SCCWRP found a continual increase in *E. coli* and enterococci densities on the coupon designed to mimic storm drain surfaces over a 29-day period suggesting that the bacteria were capable of growing on storm drain surfaces at low temperatures (16 – 17°C) after about 3 - 4 weeks. The Orange County Aliso Creek BMPs have found some conflicting results but that experience may not be typical. For instance in Marie Canyon, Malibu, Los Angeles County installed a UV treatment facility at the storm drain outfall to treat bacteria in late summer 2007. The facility was designed to filter and treat as much as 100 gallons per minute of dry weather runoff.

No.	Author	Comment	Response
		distance of 35 ft downstream of the BMP. Similarly, dry weather flow in Cottonwood Creek, which flows to Moonlight State Beach, was treated through a UV facility with removal efficiency of greater than 99%. However, bacteria concentrations increased between the W facility and the mouth of the creek due to re-growth of bacteria (City of Encinitas 2006). Thus, it appears likely that even if stormwater or urban runoff were treated to meet water quality objectives for indicator bacteria, bacteria concentrations in those flows likely would increase due to natural sources even at short distances downstream of the treatment facility. In the Staff Report for the Los Angeles River Bacteria TMDL, the Regional Board acknowledges that "regrowth in sediments was considered [by the CREST studies] to have a moderate likelihood of being a significant component of the in-channel *E. coli* loading to Reach 2" (Staff Report at p. 29) and states that CREST BSI study results highlight regrowth/resuscitation "as a potential source that could be further evaluated." In spite of this, and in spite of the data and information summarized in this document, the Regional Board asserts that meeting interim wasteload and load allocations will result in compliance within receiving waters (e.g., Staff Report at p. 65: "it is expected that the River will be largely in compliance by the time the first phase of implementation is complete"). Clearly, this assertion is without support, and the weight of scientific evidence leads to the opposite conclusion, particularly in Reach 2: it is unlikely that the allocations and implementation measures proposed in the draft TMDL will result in compliance in the Los Angeles River. Likewise, it cannot be concluded (as in the SED for the LAR Bacteria TMDL at p. 11) that the proposed TMDL alternative "will restore water contact recreational uses to the Los Angeles River Watershed by attaining water quality standards..."	While experiencing some initial problems, the pump ran 24 hours a day during the summer and winter dry weather period starting in October 2008. Water quality has improved substantially during dry weather and Marie Canyon beach waters are markedly improved. Because of the studies conducted in the Los Angeles River and many other waterbodies, the scientific underpinnings of years of work on bacterial TMDLs in the Los Angeles Region, and considering, even, the review of selected data by the commenter, it is reasonable to expect that the allocations and implementation measures proposed in the draft TMDL will result in compliance in the Los Angeles River Watershed.
16.10	Flow Science	**It is unreasonable to require control of non-human sources** The Los Angeles Regional Board historically has recognized that control of certain non-human sources (e.g., birds, wildlife) is undesirable. The Board has proposed a "natural sources exclusion approach" so that control of these sources is not required. The Los Angeles Basin Plan (as amended by Resolution No. 2002-022) states "These [natural sources exclusion] approaches recognize that there are natural sources of bacteria, which may cause or contribute to exceedances of the single sample objectives for bacterial indicators. They also acknowledge that it is not the intent of the Regional Board to require treatment or diversion of natural water bodies or to require treatment of natural sources of bacteria from undeveloped areas. Such requirements, if imposed by the Regional Board, could adversely affect valuable aquatic life and wildlife beneficial uses supported by natural water bodies in the Region."	The Staff recommendation is *not* a natural source exclusion approach but a reference system approach. While the Basin Plan allows both approaches, the distinction is important. The reference system approach allows exceedances in a river but not to exceed the number of exceedances in reference, i.e. 'natural,' rivers. The natural sources exclusion approach requires that anthropogenic sources of

No.	Author	Comment	Response
		Under a "reference" or "natural" watershed approach, an "allowable exceedance frequency" is determined using monitoring data for indicator bacteria in an undeveloped watershed; the subject watershed is then allowed to exceed standards at the same frequency as the natural watershed. However, this approach is problematic for several reasons. For example, dry weather flows in urban watersheds come from many sources, including POTW effluent, overland flows, and flows through storm drains (including NPDES-permitted flows), while dry weather flows in natural watersheds in southern California are often comprised mainly of groundwater inflow. Thus, there is less opportunity for the dry weather flows in natural watersheds to be exposed to natural sources of bacteria. In addition, the highly engineered environment of the storm drain/flood control system may be more conducive to bacteria growth and regrowth, as detailed above. As shown in the example of the CREST BSI study, natural sources are likely responsible for the exceedances in Reach 2 of the Los Angeles River, and natural sources may contribute significant amounts of indicator bacteria to other river reaches as well. It would be infeasible and undesirable to control wildlife or eliminate habitat to avoid or reduce those exceedances. Controlling natural sources could also require actions contrary to "the Los Angeles River Revitalization Master Plan," which was adopted by the Los Angeles City Council in May 2007 and was also mentioned in the Draft TMDL Staff Report (at p. 1). Objectives of the Master Plan include, for instance, revitalizing the river via enhancing flood storage, enhancing water quality, enabling safe public access, and restoring a functional ecosystem (City of Los Angeles 2007). One of goals of the Master Plan is to increase in-channel habitat; this action would likely consequently increase potential non-human and natural sources (birds and wildlife) of bacteria to the LAR. As detailed below, we recommend that the Regional Board consider revising water quality objectives for bacteria to require compliance with E. colt objectives "as a result of controllable water quality factors."	bacteria be controlled such that they do not cause or contribute to exceedances and that natural sources be identified and quantified to, then, set an allowable exceedance rate. In-stream sources (which the BSI study found to be a portion of the loadings in Reach 2 and which may also exist at some level in other reaches) may include birds and other wildlife utilizing the river. As shown in the CREST BSI study, *E. coli* from storm drains were causing exceedances in Reach 2. Natural rivers support habitat and wildlife and do not exceed the bacterial standards often. The reference approach used in this TMDL accounts for the natural level of exceedances. Should natural sources in this river account for a larger proportion of exceedances than in natural rivers then the Natural Source Exclusion approach can be pursued.
16.11	Flow Science	**The proposed "natural sources exclusion approach" is flawed** Under the natural sources exclusion approach of the Draft TMDL, an "allowable exceedance frequency" was determined using SCCWRP monitoring data for indicator bacteria in an undeveloped watershed (Tiefenthaler *et al.* 2008); the Draft TMDL then allows the Los Angeles River watershed to exceed standards at the same frequency as the natural watershed (at p. 38-40 of the draft staff report). The estimated exceedance probabilities (Table 6-2 at p. 40 of the draft staff report)	Under the *reference system* approach of the Draft TMDL, an "allowable exceedance frequency" was determined. The allowable exceedance days was based on a large scale study performed by SCCWRP over two years in reference watersheds across southern California (over 400 samples). At this time, this is the most

No.	Author	Comment	Response
		were, however, calculated after data from "three" natural background sites were excluded. As stated in the Staff Report for the Draft TMDL, "[o]f the sites sampled in the Reference Stream Study [Tiefenthaler *et al.* 2008], three sites were deemed minimally impacted [i.e., including some minor level of impact from human activity]. As such, data from these three sites were excluded. The resulting data was [sic] compiled and used as the basis for determining the reference watershed exceedance probability." (at p. 39 of the draft staff report). However, the methods used to arrive at the exceedance frequency are very unclear. The cited SCCWRP study (Tiefenthaler *et al.* 2008) states that four sites (instead of three sites) were excluded from the calculation of exceedance probabilities; "four sites originally considered, but later rejected from the study...[because these sites were] subject to agricultural or transportation related runoff...in one instance, a portion of the contributing watershed was affected by a recent fire" (p. 9 of Tiefenthaler *et al.* 2008). It is impossible to find out which sites were excluded in the cited SCCWRP study, which provides neither explanation nor a complete dataset. The complete dataset should be available to the public for review because reference exceedance probabilities could change significantly if the excluded three (or four) sites are instead included in the reference dataset. In fact, a memorandum prepared as part of the CREST study process(CREST 2008a) indicated that exceedance probabilities for *E. coli* were between 7% (for single samples) and 16% (for geometric means) for all dry weather based on all data (no exclusion of sites) from the same SCCWRP study. "When [the dataset] does not include the three [sic] `minimally impacted' sites," exceedance probabilities fell to 1.6% (at p. 6 of CREST 2008a). Perhaps most importantly, the SCCWRP study (Tiefenthaler *et al.* 2008) used bacteroidales analysis to demonstrate that exceedances at the reference sites were due to non-human sources. It is inappropriate and scientifically unsound to exclude sites where exceedances were due to non-human sources and to estimate exceedance probabilities based on the rest of the sites. Thus, the method used to calculate an "allowable exceedance frequency" for the Draft TMDL was flawed. While use of the complete dataset (including `minimally impacted' sites) from the SCCWRP study would provide a more appropriate and relevant measure of the exceedance frequency due to non-human sources, the use of a "natural reference approach" is itself inherently flawed. This can be seen by examining the exceedance frequency for reaches of LAR (e.g., the section between 6th St. and Slauson Ave., shown above) where non-human sources were responsible for increases in E. colt concentrations for 100% (6 of 6) dry weather sampling events (CREST 2008b).	reliable dataset for determination of naturally occurring exceedance rates. The use of the data including the exclusion of the "minimally impacted" sites was discussed at several CREST stakeholder meetings including how the exceedance rates change with the inclusion or exclusion of those sites. The CREST-developed targets section has been available since October of 2009 with a discussion of the issue. The sites were removed from analysis because of the potential of anthropogenic sources of bacteria such that they were not considered true reference sites. The methods used to arrive at the exceedance frequency were developed for the Santa Monica Bay bacteria TMDLs in 2002 and have been used for all the bacteria TMDLs in this Region. The water quality standards which apply are for *E. coli* because *E. coli* is the most reliable and meaningful indicator of human health risk in freshwater. The natural sources exclusion approach (not used in this TMDL but which could be developed for use as the anthropogenic sources of indicator bacteria are brought under control) could be developed for use in the Los Angeles River including in the section between 6th and Slauson if appropriate. In fact, this TMDL is structured such that the anthropogenic sources, coming from storm drains, will be

No.	Author	Comment	Response
		As suggested in a letter to the Regional Board on April 19, 2010 (included as Attachment C to this letter), and in a presentation to the Regional Board on April 1, 2010 (included as Attachment D to this letter), a more scientifically appropriate approach would be to amend the objectives for indicator bacteria such that they require compliance with *E. coli* concentrations "as a result of controllable water quality factors." Under this concept, if it were demonstrated, using appropriate scientific techniques, that bacteria in excess of criteria were from "uncontrollable" factors (such as wildlife) the presence of those bacteria would not be considered a violation of water quality objectives. It is likely that this alternative would have a far less significant environmental and economic impact than the proposed implementation plan contained in the Draft TMDL. Most importantly, the CEQA alternative proposed for consideration here would allow the presence of wildlife and associated habitat without considering those wildlife and habitat to cause or contribute to an exceedance of water quality standards. Further, we believe that this proposed amendment of the water quality objective for E. colt would be protective of water quality and human health and would meet the objectives of the proposed CEQA project.	fully or largely controlled at the interim compliance point which would make that an excellent time to consider a natural sources exclusion approach.
16.12	Flow Science	**Compliance with dry weather TMDL requirements may be impossible** We begin the discussion of compliance with a clear statement: control and/or elimination of chronic human sources of indicator bacteria (and associated pathogens) is reasonable and should be pursued in waters with routine swimming and other contact activities. Human sources of indicator bacteria pose a well-substantiated, clear risk to human health, and are a direct result of human activity within the watershed. However, as detailed above, non-human sources such as birds, wildlife, and bacteria growth within the environment are also important and in some reaches, dominant-sources of indicator bacteria. These sources are far more difficult to control and are much less likely to pose a human health risk. These sources are present in both dry and wet weather conditions, and the "natural source exclusion" approach of the TMDL (implemented in terms of an allowable exceedance frequency) fails to fully address these sources. The Implementation Plan detailed in the Draft TMDL for dry weather conditions contemplates use of an MS4 Load Reduction Strategy (LRS) that would involve structural methods at specific outfalls (per p. 53 of the Staff Report, including dry weather diversions of storm drains to POTWs or localized infiltration); source control, including runoff management and minimization measures; and/or downstream treatment. Dischargers that implement an LRS strategy are afforded a longer	The TMDL uses a reference system approach. A natural sources exclusion approach could be developed in the future, as discussed above, to address natural sources such as birds and other wildlife after the anthropogenic sources have been controlled such that they do not cause or contribute to exceedances. The commenter well details many of the challenges of various implementation methods. No single implementation method will be sufficient nor can be used for each and every outfall. The

No.	Author	Comment	Response
		implementation timeframe (Draft TMDL Staff Report at p. 53). However, as detailed in the Draft TMDL Staff Report (at p. 54), downstream methods are likely infeasible. While source control methods are promising and should be pursued, they are unlikely to eliminate all dry weather flows within the storm drain system, particularly when one acknowledges that other NPDES permits allow discharges to the system during dry weather. Thus, the most feasible implementation measures involved either diversion and/or infiltration. Dry weather diversions are often discouraged, as publicly owned treatment works (POTWs) have limited capacity for conveyance, storage, and treatment. The times of year, and times of day, during which diversions are allowed are often stringently regulated and restricted. For example, the Sanitation Districts of Los Angeles County (Maguin 2007) require dry weather diversion programs to be regulated via an Industrial Wastewater Discharge Permit. Dry weather diversions including flows from industrial facilities discharged under an NPDES permit are discouraged, and dry weather runoff discharge permits generally limit diversions to May 1-September 30 (Maguin 2007). The Districts do have discretion to allow year-round discharge provide the sewerage system is not adversely impacted and for an identified environmental benefit. Permits for dry weather diversions are issued for duration of 5 years or less, off-peak discharge is generally required (necessitating storage at the diversion location), the discharge must be pumped, and trash and sediment must be removed (Maguin 2007). Discharge during wet weather conditions is not allowed, and discharge is currently only allowed to the Districts' Joint Water Pollution. Control Plant in Carson (Maguin 2007). To be feasible, the proposed dry weather diversion must be located near a sewerage conveyance system with adequate capacity to handle increased flows. Thus, dry weather diversions will likely not be feasible at all outfall locations. Like diversions, infiltration of dry weather flows is likely not feasible in all locations. For example, the soft-bottom sections of the Los Angeles River are typically areas of rising groundwater (see Draft TMDL Staff Report at p. 6), and infiltration will be infeasible in areas of rising groundwater. Likewise, infiltration will be infeasible in areas of "tight" soils comprised predominantly of clay or silt. For MS4 permittees, the Draft TMDL includes interim waste load allocations (WLAs) in the form of allowable *E. coli* loadings to a given river segment or tributary. However, final WLAs are expressed in terms of an allowable number of exceedance days, based upon a reference watershed approach. The Draft TMDL Staff Report	implementation schedule allows 2.5 years for planning and 5 years for implementation in each segment to allow for responsible parties to develop the combination of methods. In this case, if it remains true that in-stream loadings are still high even though the high levels of bacteria are no longer being discharged to the River, then a natural

No.	Author	Comment	Response
		states (at p. 53) that "in the first phase of implementation, a segment must meet the interim WLA expressed as *E. coli* loading and the **LRS must be designed to meet the final WLA expressed as exceedance days** of the numeric targets in the river segment or tributary, but due to the highly variable nature of bacterial sources, a full second phase of implementation is scheduled to ensure achievement of final WLAs." (emphasis added) Outfall monitoring is required by the Draft TMDL (at p. 60) to "evaluate whether the LRS resulted in attainment of the WLAs." This poses particular difficulty for dischargers to Reach 2, where CREST (2008b) established that tributaries and storm drains contribute only about 10-50% of the bacteria loading; thus, an LRS strategy that eliminated all inputs to that reach (at far greater cost than is contemplated in the Draft TMDL Staff Report) could at best eliminate 10-50% of the bacteria loading to the reach, far too little to result in attainment of the final WLA (expressed as in-stream allowable exceedance days). In this reach, it should be fully expected that a "full second phase of implementation" would be required, and that even a second phase of implementation would be insufficient to achieve the final WLAs. For other reaches of the river (e.g., Reach 1), no data are available to indicate the relative contribution of storm drains v. in-stream bacteria sources, but the situation is likely to be similar, based on the similar physical characteristics of the channel in Reaches 1 and 2 and on the likely similar nature of bacteria sources in flows to these reaches. Thus, dischargers to these reaches are in a difficult position: they are allowed to pursue an LRS approach with a 25-year implementation timeframe only if they are able to demonstrate that the LRS approach will result in attainment of the fmal WLA, measured in terms of allowable exceedance days. Yet the best available data, as detailed above, indicate that even elimination of all inflows to these reaches will not result in in-stream attainment of final WLAs. Thus, dischargers to these reaches can design and implement LRS programs to meet interim WLAs (expressed as *E. coli* loadings) but cannot meet the Draft TMDL requirement to provide assurance that these same actions will achieve the final WLAs. The Draft TMDL does appear to provide some allowance for this situation in Table 9-5 (at pp. 68-72), which includes the following language in the schedule for compliance: "Achieve final WLAs in Segment B or demonstrate that non-compliance is only due to upstream contributions." However, this provides no. relief for in-stream sources within the reach to which they discharge (e.g., in-stream, non-human sources within Reach 2 between 6th St. and Slauson Ave.), and similar language is not	sources exclusion approach could be used as discussed, above. The interim and WLA is for MS4 only and is separated in time from attainment of the final exceedance day WLA in the river. The particular issue with Reach 2 can be further assessed in the sampling required after the execution of the LRS or other strategy and the number of allowable exceedance days can be modified under a natural sources exclusion approach, if appropriate. If the dischargers to these reaches can design and implement LRS programs to meet interim WLAs (expressed as *E. coli* loadings), then they will have fully or largely controlled the anthropogenic sources to the river and a natural sources exclusion approach may, in fact, be feasible. The potential for “relief” for in-stream sources is the natural sources exclusion approach. The natural sources exclusion approach

No.	Author	Comment	Response
		included in the text of the Draft TMDL Staff Report. Thus, we respectfully suggest that the water quality objectives for indicator bacteria be amended to require compliance "due to controllable water quality factors."	addresses the issues outlined by the commenter without getting into the difficulties inherent in developing an objective definition of "controllable"
16.13	Flow Science	The monitoring requirements for permittees conducting LRS implementation are significant and onerous. The Draft TMDL Staff Report specifies (at p. 73) that outfall monitoring (a minimum of 9 samples per outfall) for each LRS shall take place at all outfalls discharging to the segment or tributary. The Draft TMDL Staff Report (at p. 74) states that 51 outfalls were observed to be flowing within Reach B overall all BSI study monitoring events; thus, within Reach B, a minimum of 459 samples would be required to be collected from the outfalls, in addition to the required in-stream monitoring. The Draft TMDL Staff Report also specifies (at p. 24) that the City of Los Angeles has estimated that there are 1,980 storm drain outfalls within the City that discharge to segments and tributaries of the Los Angeles River, and as many as 1,735 such outfalls outside the City; the Draft TMDL Staff Report also notes that many of these outfalls flow only in wet weather (when individual outfall monitoring would not be required) divert the full flow to a POTW, as dry weather diversion rules typically preclude acceptance of NPDES-permitted discharges (see Maguin 2007).	The monitoring requirements for permittees conducting LRS implementation are significant and important especially if dischargers contemplate pursuing a natural sources exclusion approach at some time. Due to the high variability of bacteria levels in storm drain outfalls (as evidenced by the CREST BSI study) and to ensure that, in fact, the outfalls or subwatersheds most problematic are targeted, multiple samples per storm drain will be necessary. The outfall monitoring of the LRS will only be required during the "planning" and "compliance" part of the segment's 10-year first phase schedule which will contain costs. If responsible parties find that they can achieve final compliance without an LRS plan (and without the interim WLAs), they can complete an alternate compliance plan and avoid outfall monitoring.
16.14	Flow Science	Of significant concern is how implementation would proceed, and how compliance with the TMDL will be determined. Frequently, both dry and wet weather flows from multiple jurisdictions drain to a single storm drain to the River, and water frequently flows serially through drains in multiple cities before entering the County Flood Control system and finally the Los Angeles River. MS4 permittees in these jurisdictions may choose to implement different measures to control bacteria, and thus may be subject to different compliance schedules. It is unclear how compliance would be determined for these jurisdictions. Complicating matters is the fact that bacteria often behave erratically, and high concentrations of bacteria may be observed only once in a given location, yet the potential exists with the current TMDL that these	See response to comment 11.4 and changes to BPA for more clarification on compliance.

No.	Author	Comment	Response
		"outlier" or "anomaly" occurrences of high bacteria concentrations may lead to exceedances of objectives, and consequently to permit violations or TMDL non-attainment. Finally, permitted discharges to the storm drain system may augment dry weather flows, and have the potential to result in exceedances where the storm drain enters the River, even if those flows were "clean" (i.e., had bacteria concentrations below objectives) when the left the permitted facility. This is likely, as regrowth in storm drains is well-documented (see above). In this situation, it may not be possible to	
16.15	Flow Science	**Need to protect beach water quality** The cities that drain into Reaches 1 and 2 recognize the need to protect water quality at beaches within the City of Long Beach, where high levels of recreation occur. The City of Long Beach has conducted a breakwater study to identify water quality issues exacerbated by reduced circulation (reduced flushing) in the Long Beach area. The Army Corps of Engineers is currently conducting at $8 million study to evaluate modifications to or removal of sections of the breakwater, or construction of new breakwaters to reroute Los Angeles River flows away from beach areas. The Cities in Reaches 1 and 2 support these approaches and plan to work with the City of Long Beach to improve beach water quality through these and other measures. The Cities wish to make recreation safe at the beaches, where swimming is legal and encouraged, rather than to spend resources to attempt to meet the REC-1 water quality standards in the lower reaches of the river, where swimming is dangerous and illegal.	The US Army Corps of Engineers ACOE) was scheduled to make a determination by June 2010 on the Reconnaissance Study of the Long Beach Breakwater as to whether or not there is viability to the project and Federal interest to proceed to the next study level, the Feasibility Study. If there is a Federal interest in the project, the ACOE will begin the Feasibility Study to evaluate possible structural or non-structural alternatives for the project. The Feasibility Study is expected to take at least four years to determine what, if any, actions should be taken. The possibility exists that in four years the ACOE will determine that no action should be taken. While access to the Los Angles River is restricted at many locations, there is human use occurring along the whole mainstem river and the REC-1 use is existing along the river. REC-1 use protects human health for water contact including swimming, bathing and also wading and fishing.
16.16	Flow Science	**The Draft TMDL would have significant environmental impacts** The way the Draft TMDL is currently crafted, significant treatment processes,	There is thin evidence that bacteria levels rebound after treated water is discharged to natural channels. See response to comment

No.	Author	Comment	Response
		including ultraviolet (UV) sterilization or other disinfection treatment methods, could be required in order to meet the TMDL targets in-stream. As noted above, it is unlikely that eliminating, minimizing, or treating flows entering a reach will result in compliance, likely necessitating treatment of flows within a reach. Treatment processes have the potential to greatly increase energy use within the watershed, to introduce chemicals for treatment, to require construction of significant volumes of on-site storage, and/or to alter flow patterns of runoff within the River. These measures could yield potentially significant environmental impacts whose harm could outweigh any purported benefit, especially given the available evidence that indicator bacteria concentrations likely would rebound after treated water is discharged to natural channels.	16.2. Eliminating, minimizing, or treating flows entering a reach will result in compliance with the interim WLA and may result in compliance with the final WLA. Sufficient flexibility is afforded by this TMDL in time and other approaches are available. In some subwatersheds, localized treatment may be a valuable implementation measure to include in a Load Reduction Strategy or other implementation plan.
16.17	Flow Science	**Summary of Concerns with the Draft TMDL for Dry Weather Flows** As detailed above, concerns with the Draft TMDL for dry weather flows include: • Available data indicate that storm drains and tributaries contribute only a fraction of the bacteria load within the River itself. For example, within Reach 2, the CREST BSI study (CREST 2008b) found that storm drains and tributaries contributed only about 10-50% of bacteria within the receiving water, and that the rest may have resulted from birds, regrowth and persistence in sediments, and/or regrowth or resuscitation in the water column (Draft TMDL Staff Report at p. 29-30). • It is unclear how, or if, compliance with the Draft TMDL as currently written could be achieved. While Load Reduction Strategies (LRS) can be implemented to reduce loads of bacteria from storm drains to the river and its tributaries, it is unlikely that LRS will achieve the final WLAs (expressed in terms of allowable exceedance days) due to non-human, natural sources of bacteria to the system. • The natural source exclusion approach as implemented in this TMDL is flawed. First, the exceedance frequency is calculated following an improper exclusion of data from the SCCWRP study. Second, use of a natural source exclusion approach based on reference watersheds consisting of open space is flawed, as water enters receiving waters via different means, and from different sources, in the urban storm drain and flood control system. Available data for the Los Angeles River indicate that bacteria from natural sources may result in exceedances up to 100% of the time in some reaches.	See responses to comment 16.1 through 16.16.

No.	Author	Comment	Response
		• It is undesirable to control all sources of bacteria. Control of natural sources of bacteria is infeasible, undesirable, and in direct opposition to restoration plans for the river. However, it appears that the Draft TMDL will require this if the final WLAs (expressed in terms of exceedance days) are to be met. • It is unclear how compliance could be achieved. Frequently, land within multiple jurisdictions drains to the River via a single storm drain outlet, and many storm drains receive NPDES-permitted flows. The presence of even one "bad actor" failing to implement control measures could lead to an exceedance at that storm drain. A single "hit" of high bacteria in a storm drain not targeted for diversion could also result in non-compliance with interim WLAs. Thus, it appears that the TMDL, as currently crafted, would put MS4 dischargers in significant jeopardy with respect to permit and TMDL compliance.	
16.18	Flow Science	**A Wet Weather TMDL is not feasible at this time** Many of the scientific issues concerning the Dry Weather TMDL also affect the Wet Weather TMDL. For example, bacteria in wet weather flows arise from a wide variety of sources, including both "controllable" and "uncontrollable" sources, as discussed above. Regrowth and erosion of sediment containing indicator bacteria are a concern during both wet and dry weather conditions. What sets compliance during wet weather apart is the sheer volume of water that could potentially require treatment. In addition, conditions within the River are unsafe during wet weather flows, a fact that is acknowledged in part by the application of the high flow suspension to engineered channels within the Region. However, the volumes of water that would potentially require treatment are large, and it is unknown how compliance with these flows could be achieved. To gauge the volumes of flow that could potentially require treatment, consider water year 2004-2005, the most recent wet year for which flow and rainfall data have been published by the Los Angeles County Department of Public Works. The Draft TMDL uses a high flow suspension approach, so that bacteria objectives would not apply during days with more than 0.5 inches of rain, and an exceedance days approach, which would allow 19% of wet weather flows to exceed objectives. Using the 2004-2005 record of daily flows in the Los Angeles River at Wardlow (Los Angeles County Department of Public Works 2006), we evaluated diversion and/or	The bacteria TMDLs which have been established in Ballona Creek and Malibu Creek and for the Santa Monica Bay beaches have longer implementation periods for wet weather compliance than dry weather due to the increased difficulty and number of actions that will be required. In this case, because the final segment of the River after the second phase of implementation will not be required to reach dry weather compliance for 25 years, the wet weather compliance for all segments of the River will be required at 25 years. While diversion and treatment can contribute to achieving the wet-weather WLAs, especially with some retention of wet weather flows, source reduction, SUSMP controls on new and re-development, and greater water re-use and infiltration can significantly contribute to achievement of the wet weather WLAs, also.

No.	Author	Comment	Response
		treatment requirements. The high flow suspension would apply here, so that objectives would not apply for approximately 26 days (see Draft TMDL Staff Report at p. 42) and an additional 10 allowable exceedance days. Thus, we eliminated the 36 highest flow days from consideration. The 37th-highest daily flow in the Los Angeles River at Wardlow was 1430 cfs, equivalent to 924 million gallons of water per day. This volume is enough water in a single day to fill the Rose Bowll 11 times, and more than twice the design flow rate of the City of Los Angeles Hyperion Treatment Plant. In the Arroyo Seco, where the high flow suspension does not apply, 15 exceedance days would be allowed. The sixteenth-largest daily flow rate during the 2004-2005 water year in the Arroyo Seco was 888 cfs, equivalent to 570 million gallons per day (570,000,000 gallons per day), enough to fill the Rose Bowl 7 times in a single day. If the sixteenth-largest daily flow rate in the Los Angeles River at Wardlow required diversion and/or treatment, for the 2004-2005 water year, 7,740 cfs, equivalent to 5 billion gallons of water per day. This volume is about 10 times the design flow rate of the City of Los Angeles Hyperion Treatment Plant, or enough water in a single day to fill the Rose Bowl 59 times. These conclusions are consistent with the findings of an economic evaluation performed by USC in 2002. USC scientists and engineers evaluated the long-term record of rain data, and found that "on average, the Los Angeles area experiences about 32 days of rainfall per annum" (Gordon *et al.* 2002). The study found that 10 days, on average, experienced rainfall events of 0.5 inches or greater (Gordon *et al.*, 2002). Gordon *et al.* (2002) also concluded that rain-driven storm water treatment facilities would be idle for approximately 333 of 365 days (91%) of the average year, further indicating the difficulty and complexity of treating storm flows. Of course, wetter years would experience a far larger number of rainfall events of 0.5 inches or larger. The Draft TMDL Staff Report requires that MS4 Permittees achieve wet weather wasteload allocations (expressed in terms of exceedance days measured in the River itself) "by employing any viable and legal implementation strategy" (Draft TMDL at p. 64). We are unaware of any viable strategy that could be used to treat storm flow volumes on the order of one billion gallons per day.	The implementation strategy in the Staff Report does not assume that by implementing BMPs sufficient to meet dry weather WLAs that compliance with wet weather WLA will also be met. However, dry weather measures including infiltration, source reduction, SUSMP controls on new and re-development, and any actions taken to ensure wastewater sewer lines are not cross connected or leaking to storm drains will help meet wet weather goals. Also see response to comment 3.12.
16.19	Flow Science	Further, the costs of compliance with the wet weather TMDL would be extraordinary. The Regional Board staff report's estimate of $5.4 billion is at best a guess, and does not examine feasible methods of compliance.	The Regional Board Staff Report included a reasonable range of costs. The range of costs presented included the CREST-

No.	Author	Comment	Response
		In any case, facilities to store and treat volumes of water this large would undoubtedly have a tremendous environmental impact. Treatment facilities for wet weather volumes of flow would have a very large footprint, requiring land acquisition and likely requiring condemnation of existing facilities. The facilities themselves would have very significant energy usage requirements and create new waste streams that do not exist today and that would require disposal. Flows from storage and/or treatment facilities would alter the natural flow patterns in the river.	developed costs for dry weather and cost estimates for different specific types of implementation methods (e.g. institutional methods, cisterns, filters, treatment plants, etc) and costs derived from the City of Los Angeles and County of Los Angeles-developed cost estimates for the implementation of the Ballona Creek Watershed. The City of Los Angeles and County of Los Angeles-developed costs represented the County and City's most complete estimate of their implementation costs. The $5.4 billion figure is the upper end of the range and was specifically included in an abundance of caution to be sure to include a "highest possible" cost estimate. The Regional Board staff report included a reasonable range of costs but did not, and is not required to, detail all actual costs for every possible implementation possibility. Responsible parties have sufficient flexibility to develop a plan to include diversion and source reduction or treatment that considers costs and avoids the less cost-effective projects.
16.20	Flow Science	**Recommendations** **1. Make standards changes prior to TMDL adoption** Amend objectives to require control of bacteria "as **a result of controllable water quality factors**. Because of concerns with the proposed "natural background exceedance frequency" approach of the draft TMDL, we request that the Board consider, prior to TMDL adoption, amending the objectives for indicator bacteria such that they require compliance with E. colt concentrations "as a result of controllable water quality factors."	See response to 16.2 and 16.11 regarding application of natural sources exclusion.

No.	Author	Comment	Response
		Under this concept, if it were demonstrated, using appropriate scientific techniques such as Bacteroidales analysis (see CREST 2008b), that bacteria in excess of criteria were from "uncontrollable" factors, the presence of those bacteria would not be considered a violation of water quality objectives. Drains that would be targeted for management actions would include those that have high loadings of *E. coli* and a persistent, elevated level of bacteria demonstrably from human sources. Uncontrollable bacteria sources could be defined to refer to contributions of bacteria within the watershed from nonpoint sources that are not readily managed and that may result in exceedances of objectives for indicator bacteria. Uncontrollable sources may include wildlife activity and waste; bacteria regrowth within sediment; resuspension of bacteria from disturbed sediment; vegetation present in or near the channel; concentrations of water fowl; and/or shedding during swimming. By contrast, controllable bacteria sources would include those sources for which reasonable actions can be taken, to the maximum extent practicable, through BMPs or other mechanisms to reduce or eliminate the contribution of these sources within the watershed. Controllable sources would be predominantly anthropogenic in nature. Controllable sources that may be present in the Los Angeles River watershed may include sources already controlled by existing regulations, such as cross-connections between the sanitary and storm sewer systems; leaky sanitary sewer conveyances; discharges from POTWs; improper management of CAFO waste and washwater. Other controllable sources may include improper handling of pet waste; runoff from yards containing fertilizers, pet waste, and/or lawn trimmings; improper use of fertilizers; improper handling and disposal of food waste; and homeless encampments. It is likely that this alternative would have a less significant environmental impact than the proposed TMDL alone, and that implementation costs would be a fraction of the estimated implementation costs of the current TMDL. (Although we do not know exactly how such a plan would be implemented, we estimate that costs would be roughly 10% or less of those estimated for the current TMDL.) Most importantly, the proposed amendment to objectives would allow the presence of wildlife and associated habitat without considering those wildlife and habitat to cause or contribute to an exceedance of water quality standards. Further, and based on the scientific evidence detailed in this letter, we believe that this proposed alternative would be protective of water quality and human health.	
16.21	Flow Science	**Re-evaluate REC-1 and REC-2 uses.** Reaches 1 and 2 of the Los Angeles River are highly modified, such that recreational use is infrequent, dangerous, and illegal. The	See response to comment 3.2 and 3.5.

No.	Author	Comment	Response
		channel along Reaches 1 and 2 and tributaries are fenced and public access is restricted. It is unsafe during dry weather to be in the low flow channel due to high water velocities, the hardened nature of the channel, and slippery conditions caused by the growth of algae. The entire channel is unsafe during rain events (see, e.g., Regional Board Resolution No. 2003-010 (the High Flow Suspension Basin Plan Amendment), which notes that channel modifications "create life-threatening 'swiftwater' conditions during and immediately following significant storm events"). The River has been extensively modified for flood control purposes; as recently as 2002, the Army Corps of Engineers and Los Angeles County Flood Control District completed $212 million in improvements to Reaches 1 and 2 of the River to eliminate flood insurance mandates imposed by FEMA. These improvements to the River will make it impractical and expensive to attain the REC-1 use. Although the Los Angeles River Master Plan envisions some restoration of the areas adjacent to the river, the plan is limited to the River areas in the City of Los Angeles, will cost over $2 billion to implement, and is currently unfunded. There is no adopted Master Plan for the River south of the City of Vernon. Because of the extensive hardening and channelization of the river, the designated beneficial uses of the river should be re-evaluated. This is necessary prior to TMDL adoption to ensure that resources are spent where the risk to human health is greatest - i.e., at the beaches and other designated swimming areas that have significant levels of legal water contact recreation.	
16.22	Flow Science	**2. Consider alternative implementation measures for the Dry Weather TMDL** In light of the concerns above, alternative implementation measures should be considered for Reaches 1 and 2 for the Dry Weather TMDL. The implementation alternative suggested here would involve the following key components: 1. Use adaptive management and a phased schedule, and consider continuing the CREST working group process to conduct special studies, address outstanding scientific issues, and recommend changes to water quality standards and/or the Los Angeles River Bacteria TMDL, as support by available information. This approach has been taken before in other regions; for example, the Newport Bay Organochlorine TMDL included convening a working group, convening an independent expert panel to review the TMDL and its targets, and a process to conduct additional scientific study and amend the TMDL targets, allocations, and implementation measures and schedule. See	Both this TMDL and the Newport Bay Organochlorine TMDL have targets, allocations, a phased implementation approach and sufficient time in the implementation schedule to allow adaptive management and required dates for final compliance. The processes in the two TMDLs are very similar. The CREST working group and the consultant scientists employed by CREST have been sponsored by the City of Los Angeles. Regional Board staff will continue to participate in CREST and other working groups, as appropriate.

No.	Author	Comment	Response
		http://www.swrcb.ca.gov/santaana/board decisions/adopted orders/or ders/2007/07 024.pdf for additional detail. 2. Use available scientific methods (e.g., Bacteroidales analysis) to identify drains that have both a high *E. coli* loading rate and a persistent, reproducible human source of bacteria. Where feasible, implement diversions to eliminate these flows. Otherwise, implement source reduction and source control measures to minimize flow and bacteria loadings in these watersheds. Implement water conservation measures throughout the areas draining to Reaches 1 and 2. 3. Continue implementation of BMPs to address bacteria in dry weather runoff. 4. Evaluate the feasibility, environmental impacts, and permitting concerns related to implementation of two water runoff collection and diversion facilities along the Rio Hondo before this tributary flows into the Los Angeles River. These plants would be used to divert and reuse dry weather flows. 5. Conduct additional data collection and scientific studies to evaluate bacteria in the river (e.g., to evaluate the importance of regrowth and natural sources such as birds and wildlife) and to evaluate potential new BMPs as pilot studies in defined sub-watersheds (e.g., catch basin bacteria sponges, aggressive water conservation efforts, street sweeping, etc.). 6. Assist the City of Long Beach with the federal study of the Long Beach Breakwater, and with implementation of measures to improve beach water quality.	While no special studies have been identified at this time that are specifically linked to TMDL allocations, Some additional discussion of special studies has been added to the Staff Report. In addition, science of bacterial indicators and human health risk continues to develop and over the course of the implementation of this TMDL, revisions to standards may be made, application of the natural sources exclusion approach may be found to be appropriate in some reaches, technical advances may be made, all of which may lead to the need to revisit the TMDL. The methods and BMPs listed 2 through 7 are all available to responsible parties under the current implementation schedule.
16.23	Flow Science	**3. Convene a working group process to develop a Wet Weather TMDL and associated program of implementation** As detailed herein, a Wet Weather TMDL is not feasible at this time, largely because the volumes of water during wet weather conditions, even after the High Flow Suspension and Exceedance Days approaches are applied, are enormous, and because the Los Angeles River and its tributaries have been modified to perform an essential flood control function that makes capture and treatment difficult if not impossible. Thus, we recommend that the following approach be used to develop a TMDL for Wet Weather: 1. Consider continuing the CREST working group process to conduct special studies, address outstanding scientific issues, and recommend changes to water quality standards as support by available information. Conduct analyses of standards and potential implementation measures as required by the	See response to comment 3.12 and 16.18 for wet weather. See response to comment 11.11 on working groups. See response to comment 20.2 and 20.4 regarding conducting analyses of standards and potential implementation measures.

No.	Author	Comment	Response
		California Water Code Sections 13000, 13241, and 13242, for wet weather conditions. 2. Continue application of current SUSMP and BMP-based implementation measures for wet weather conditions. 3. Conduct feasibility studies to determine how and/or if wet weather flows could be treated. For example, studies could be conducted to evaluate the size of wet weather event that could be treated with traditional treatment measures (e.g., filtration and disinfection) and/or to evaluate the effectiveness of various BMPs and/or source control measures for wet weather flows. The Regional Board should then evaluate a range of measures for wet weather bacteria control for CEQA purposes.	
17	**Heal the Bay: June 04, 2010**		
17.1	Heal the Bay	On behalf of Heal the Bay, we submit the following comments on the Proposed Amendment to the Water Quality Control Plan for the Los Angeles Region to incorporate a Total Maximum Daily Load for Bacteria in the Los Angeles River ("Draft TMDL"). We appreciate the opportunity to provide these comments.	Comment noted.
17.2	Heal the Bay	**I. Compliance Deadlines** ***A. Dry and Wet Weather Compliance Dates Should not Exceed 10 years and 18 years, respectively.*** The Draft TMDL's proposed Implementation Schedule states "Twenty-five years after the effective date of the TMDL, final WLA's and LA's shall be achieved at all segments and tributaries for dry and wet weather". Twenty-five years is far too long for compliance, especially in the dry weather. Under the TMDL, Long Beach would have to wait nearly 20 years for their chronically polluted beaches to get cleaned up. As discussed in more detail below, dry and wet weather compliance dates should be separated since wet-weather compliance will likely take significantly longer. We suggest final dry-weather compliance targets, for all reaches and tributaries, take no longer than 10 years. We also believe that the wet weather compliance date should be no more than 18 years. A tightened compliance schedule for dry and wet weather is consistent with previous TMDLs. The staff report states that "final compliance dates for this TMDL are based on foreseeable implementation and are reasonably consistent with the Ballona Creek Bacteria TMDL" (page 64). However Ballona Creek's dry and wet weather Implementation Plans for final TMDL compliance are 6 and 14 years, respectively; nowhere near 25 years. Furthermore, it is stated on page 45 of the staff report that "the	This TMDL establishes a schedule to achieve water quality standards which moves with deliberate speed and allows sufficient time for flexibility in compliance methods, to deal with uncertainties and to allow for prioritization of actions in the River. Under this TMDL, Long Beach will not have to wait 20 years before the water from the Los Angeles River which impacts the beaches meets standards. Long Beach beaches are influenced by the downstream reaches of the Los Angeles River, segments A and B in this TMDL. The first phase of implementation and the interim WLAs (note that the interim WLAs are very close to the final WLAs) for Segments A and B will be completed within 10 years of the effective date of the TMDL. Therefore, significantly improved water quality is expected at Long Beach beaches well

No.	Author	Comment	Response
		implementation of the TMDL should be coordinated with activities and BMP's that are implemented through other TMDL's...notably the Los Angeles River Metals TMDL." The Los Angeles River Metals TMDL requires 14 years for final dry weather compliance and 18 years for wet weather compliance. Why are final compliance deadlines 11 and 7 years longer for dry and wet weather, respectively, for bacteria TMDL compliance? This does not make sense, since effective metals and bacteria reduction BMP's are often similar or identical. Using a watershed approach, the LA River should be in full compliance with the wet weather bacteria and metals TMDL's by 2028 at the latest. Heal the Bay will support a wet-weather implementation plan the same length as the LA River Metals TMDL: 18 years. Of note, the 2001 Los Angeles County Municipal Storm Water permit includes requirements for Receiving Water Limitation exceedances, as well as a Regional Board investigation of Permittees and other responsible agencies in order to determine the source of the exceedance. The requirements state that, "permittees are to assure that storm water discharges from the MS4's shall neither cause nor contribute to the exceedance of water quality standards and objectives...and the discharge of non-storm water to the MS4 has been effectively prohibited." Again, this process has failed due to lack of enforcement from the Regional Board. The 1996 (first permit with strong non-storm water discharge prohibitions) and 2001 (first permit with requirement that storm water cannot cause or contribute to water quality standard exceedances) MS4 permits demonstrate how dischargers have failed to take responsibility for approximately 14 years of dry-weather discharges and 9 years of frequent receiving water exceedances. This has been more than enough time. Why should the Regional Board grant dischargers an additional 25 years to meet water quality standards? Water quality and public health should not have to wait any longer than 10 years for dry weather and 18 years for wet weather. One should not forget the intended purpose of a TMDL, which is to restore impaired beneficial uses that could not be protected through permit requirements.	before the complete implementation of the TMDL. Because of the potential influence of the River on the beaches, these segments were identified as the highest priority in this TMDL. The final compliance dates for this TMDL are based on foreseeable implementation strategies and is, in fact, reasonably consistent with the Ballona Creek bacteria TMDL considering watershed size. The number of stream miles and the size of the watershed to be brought into compliance is much smaller for Ballona Creek. The urbanized portion of the Ballona Creek watershed is 130 square miles and the Los Angeles River urbanized watershed is 599 square miles, about 4.5 times larger. The compliance deadlines are longer for the bacteria TMDL versus the metals TMDL because the degree of the bacteria impairment is more extreme and it is anticipated that more actions may have to be taken for the river to be in full compliance with the bacteria targets. Effective BMPs to achieve metals and bacteria reductions are often similar or identical, but because more actions may need to be taken, more time is allowed.
17.3	Heal the Bay	***B. Dry and Wet Weather should have separate Implementation Schedules and Compliance Deadlines.*** The Implementation Plan for Ballona Creek's Bacteria TMDL is separated into dry and wet weather TMDL compliance deadlines, unlike the LA River Implementation Plan, which merges final compliance dates for both wet and dry weather. It is noted on **page 46 of the staff report,** that due to much higher water volume during wet weather,	Separate implementation schedules and compliance deadlines have been proposed for dry weather and wet weather. The dry weather Load Reduction Strategies or alternative implementation plans are due 2.5 years after the segment phase begins and wet weather implementation plans for

No.	Author	Comment	Response
		exceedances of bacterial targets will be much more difficult to reduce than during dry weather. Like all of the other bacteria TMDLs in the region, it is prudent to separate dry and wet weather implementation plans, because wet weather compliance will be more difficult to achieve. Again as discussed above, we recommend a maximum of 10 years for dry weather compliance and 18 years for wet weather compliance.	all segments are due in 10 years. For dry-weather, all the segments or groups of tributaries are required to complete the bulk of the dry-weather implementation between 7.5 and 15 years prior to the end of the wet weather implementation and complete implementation (and final dry-weather WLA) between 9.5 and 2.5 years prior to the end of the wet weather implementation except segments D and C and associated tributaries.
17.4	Heal the Bay	***C. Implementation Schedule Requirements should be streamlined to ensure timely water quality standards attainment.*** Additionally, a source abatement program with proof of implementation should be required for each river segment within 1 to 2 years after the effective date of TMDL. Load Reduction Strategies (LRS) should be completed simultaneously for all segments, in order to reduce compliance time frames. According to the Implementation Schedule **(starting on page 68 of the staff report)**, some tributaries have up to 11 years after the effective TMDL to submit a load reduction strategy that only includes the first phase of the Implementation Plan. It is unacceptable for the development of any load reduction strategy to exceed two years. While priority reaches have been established, it is critical for all reaches to achieve final compliance within a timely manner. A structured LRS timeline for priority and outlier outfalls, giving specific dates for milestone targets, should be established by the Regional Board for consistency between reaches. This is further supported by the Los Angeles County Municipal Storm Water Permit Requirements from 1996 (Order NO. 96-054), which states "NPDES permits for storm water discharges from MS4s to waters of the United States shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers." This Order has required the elimination of dry weather non-storm water discharges for 14 years, so these load reduction strategies are already required. If they are not in place, then the responsible municipality is violating the municipal storm water permit. This critical, provision in the MS4 has been a complete failure due to the lack enforcement of a very clear requirement. Also the two-phase, staggered implementation process for each segment adds	The implementation plan should have sufficient flexibility to meet allocations by the manner the responsible parties find are most effective. A source abatement program can be included in a Load Reduction Strategy or an alternative compliance plan as outlined in the Staff Report. The time allowed for the development of a Load Reduction Strategy is 2.5 years based on the input of stakeholders at the October 2009 implementation workshop. The segments have been staggered which does mean that some segments will not have bacteria reduction actions taken specifically in those segments in early years however, due to the requirements of the metals TMDL, as the commenter has pointed out, all segments will see improvements to a degree. The value of staggering the implementation among segments includes: 1. Usefulness of focusing efforts in one or two segments at a time. Larger

No.	Author	Comment	Response
		significant time to reach final compliance. The iterative process, already ineffective in the MS4 permits, should be deleted from the TMDL. Further, a staggered implementation plan is not the most effective way to achieve timely final compliance. Each reach should begin implementation simultaneously, to achieve compliance targets throughout all reaches much more quickly. By implementing phase 1 simultaneously for all reaches, the implementation of phase 2 (if needed) would also start simultaneously, thus drastically shortening the implementation schedule by over 5 years. Early implementation for only priority segments, may improve water quality in receiving waters by diluting the overall bacteria density, but also may be used as an excuse not to maximize water recycling in the watershed (See below section II). Additionally, a total of 52 responsible entities are responsible for bacteria WLAs along the Los Angeles River **(Table 9-1),** and through collective collaboration, they can also greatly reduce the proposed 25 year implementation schedule. In doing so, beaches suffering from extremely poor water quality, such as Long Beach, won't have to wait decades for improved water quality.	municipalities such as the City of Los Angeles and County of Los Angeles can focus their implementation actions in just a couple of segments at a time which will assist with better project management and which will be of value to the other municipalities in those segments. 2. Availability of funding. While monies are available from state and federal sources for TMDL implementation projects, only so much money is available in any given year. A staggered implementation schedule means responsible parties will be able to better take advantage of those sources. In addition, there are specific technical advantages to this particular iterative process. Phases: uncertainty exists about the degree of the bacterial contribution of in-stream sources. The CREST BSI study demonstrated that in-stream sources are in Reach 2 and speculated the actual source may be re-growth or sloughing of sediment bacteria. While it is possible that the in-stream sources will decrease when the bacterial populations are not fed by the MS4 system, uncertainty exists. A first phase which focuses on specific, large, reductions in the MS4 bacterial loadings leaves time for this to be evaluated and time for a natural sources exclusion to be developed, if appropriate. Also, there is some uncertainty about the flow in the river. The interim allocations for the MS4 were calculated using current flow rates in the river which depend on the discharge of the WWTP providing dilution and assimilative capacity. Yet it is likely that

No.	Author	Comment	Response
			the WWTP will be able to reduce their contribution to the river in furtherance of water conservation/reuse goals. Uncertainty exists because it is difficult to predict how much the WWTPs will be able to reduce and how this will affect flows in river. The second phase will give MS4 dischargers an opportunity to recalculate required reductions and adjust if necessary.
17.5	Heal the Bay	***D. Incentives for Dischargers*** We recommend that temporal compliance incentives be added to the TMDL as they were in the Santa Monica Bay Beach Bacteria TMDL. One incentive would be to augment conventional BMP5 such as diversion and disinfection, with the addition of a' comprehensive LID approach that includes: 1) a strong ordinance for new and redevelopment (capture and reuse or infiltrate 100% of the % inch design storm on-site); 2) a green streets, alleys and parking lot retrofit program; and 3) a residential downspout redirection, rain-barrels, and rain garden program. If all of these above-mentioned programs are developed and approved, and implementation begins within 3 years of TMDL adoption, we would support the extension of interim and final dry and wet weather compliance deadlines. Specifically, dry weather interim and final deadlines could be given 3 additional years to comply (13 years for final compliance). In wet weather, discharges implementing all three programs could receive 5 additional years (23 years for final compliance). Providing incentives for a true, comprehensive, integrated approach is critical for watershed based approach to meet TMDL requirements for multiple pollutants.	The CREST process assumed, and the staff recommendation assumes, and allots time for, an integrated approach to be used by the dischargers. An integrated approach was developed by responsible parties and approved by the Executive Officer in the Santa Monica Bay Beaches TMDL. The recently submitted implementation plans for the Los Angeles River metals TMDL detail an integrated approach. The integrated approach no longer needs to be incentivized because has been embraced by responsible parties.
17.6	Heal the Bay	**II. Water Recycling in Los Angeles** **The Proposed Implementation Plan should consider Los Angeles' Future Water Recycling Plan** The implementation of Los Angeles' water recycling plan (to be completed in 2011) was not taken into consideration in the Draft TMDL. Water reclamation plants including Tillman and Glendale, which already meet Title 22 water quality standards for effluent, currently discharge over 50 MGD into the LA River. As the state water crisis continues to worsen and there is greater focus to implement the state's water recycling policy and meet stated targets, this vast amount of recycled water must not be depended upon to dilute bacteria densities in the LA River. Without larger volumes	The likely changes in the discharge from the water reclamation plants were taken into consideration in the allowance of the second phase of implementation. Staff do not recommend a TMDL which will require more implementation actions than necessary to meet the standard beyond a reasonable margin of safety (as provided for in the TMDL) to allow best use of limited resources by the dischargers. The assimilative capacity of the Los Angeles River will decrease as WWTPs discharge

No.	Author	Comment	Response
		of Title 22 effluent from these two facilities, the bacteria densities will increase in the river. As written, the TMDL inadequately provides an incentive to maximize water recycling and to maximize river discharges. The TMDL fails to take into account that Title 22 recycled water volumes in the river will be drastically reduced within the next decade. Please remove the disincentive to increased water recycling.	less of the low-density bacteria water and will make it more challenging to meet bacteria targets in the River. The commenter does not explain how the TMDL could be modified to "remove the disincentive." But staff will note that TMDLs are required to consider assimilative capacity.
17.7	Heal the Bay	**III. Interim Waste Load Allocations** **Interim Bacteria Reduction should be based on Concentration and not Microbial Loading.** The Draft Permit provides interim WLAs in terms of microbial loading per day. The interim phase should better reflect final compliance conditions, by allotting dischargers additional exceedance days or higher bacteria targets (in density), in order to identify implementation problems and acclimate dischargers to final compliance conditions. For example, a 50% reduction in exceedance days and/or geometric mean bacterial density makes more sense as an interim target. This approach is consistent with the Regional Board's past TMDL approach and it doesn't rely on calculating inaccurate, enormous loading estimates that are irrelevant for public health protection. As stated under Allocations on **page 34 of the staff report**, "Final WLA's and LA's are expressed as allowable exceedance days because the bacteria density and frequency of single sample exceedances are the most relevant to public health. protection." The same reasoning should hold true during the interim period. Further bacteria reduction should not be based on microbial loading, as estimating billions of bacteria per day is too broad and unquantifiable and will not help dischargers achieve final WLA's. It is inappropriate to extrapolate findings from BSI studies in order to calculate *E. coli* loads expressed as billions per year. There is no accurate way to quantify *E. coli* loading in MPN/day, as this method shows only a snap shot of water quality from a particular storm drain at a particular day and time. Setting interim WLA's as number of bacteria loading per day makes it much easier for dischargers to game the system. In other words, samples collected by dischargers may not give an accurate representation of water quality, due to un-captured intermittent discharges. The only way to justify this approach would be through continuous monitoring of flow and E. coif density, which is not feasible with current technology. Even if extensive research was conducted within all reaches, Bacterial Source	While the commenter has pointed out some sources of uncertainty in calculating allowable loading there are significant advantages to requiring an interim WLA in bacterial storm drain loading, including 1. More certainty for the MS4 dischargers (the principal source of bacteria to the River) in achieving compliance with a direct loading number 2. Finding out if a natural sources exclusion would be appropriate especially in Reach 2 (or other reaches) The approaches used in this TMDL are consistent with previous bacteria TMDLs in this Region because exceedance days are the final WLA, but this TMDL was able to take advantage of the CREST work to develop specific MS4 load-based interim WLA with the advantages described above. Also, responsible parties will be monitoring exceedance days and will, in fact, have all of the advantages commenter suggests such as identifying implementation problems and acclimating to final compliance conditions. In addition, while assumptions are used to calculate the interim (based on the best

No.	Author	Comment	Response
		Identification (BSI) studies do not account for intermittent discharges, or high variability rates of bacteria. Additionally, this is not a reliable approach, due to the inability to predict future problem reaches and/or storm drains **(Page 32 of the staff report).**	knowledge and assumptions now available) the interim WLA specified in the TMDL will provide a much greater reduction in exceedance days than a 50% reduction in exceedance day interim target that the commenter suggests.
17.8	Heal the Bay	**IV. Compliance Monitoring** **Compliance Monitoring Should be Strengthened** According to page 8 **(Attachment A of the proposed Amendment**) only one monitoring station per river segment is required for compliance monitoring. This number needs to increase to at least 3 stations per segment (upstream, downstream, and middle) to better improve prediction of problem areas. More importantly, outfall monitoring needs to be a critical part of the program in order to provide needed compliance assurance. A recent court ruling regarding MS4 dischargers' storm drains (Natural Resources Defense Council (NRDC), Inc., et a!. versus the County of Los Angeles et a!.) deemed that "standards-exceeding pollutants must have passed through a County or District outflow in order to constitute a discharge under the Clean Water Act and the Permit." This ruling supports the need for monitoring outfalls in addition to receiving waters, in order to determine compliance. Cities within the LA River watershed must monitor their outfall discharges to receiving waters in order to provide useful compliance information.	While the responsible parties will submit a monitoring plan for approval, a minimum of one monitoring station per each river segment, reach and tributary is required for compliance monitoring.
17.9	Heal the Bay	**V. Miscellaneous Comments** • In-Channel Sources-Two studies conducted by CREST (Tier 2 & BSI studies) both focus only on Reaches 2 & 4-how can one assume the other reaches are similar? (**Page 28 of the staff report**).' It is our understanding form staff that BSI studies with be conducted during the LRS process. For clarity, the Regional Board needs to add language to the Basin Plan Amendment specifying that extensive BSI studies shall be conducted in all reaches.	The Source Assessment in the TMDL discussed the Tier 2 and BSI study in detail because it is the best information on storm drain loading to the Los Angeles River, available to date. The monitoring section of the TMDL Staff Report includes the requirement of substantial outfall monitoring, like a BSI study, for those segments using the LRS approach. The Basin Plan Amendment. will be clarified.
17.10	Heal the Bay	• **Table 6-2 on page 40 of the staff report** shows the single sample *E. coli* Exceedance Probability for both dry and wet weather based on a Southern California Coastal Water Research Program (SCCWRP) study. Data was not available in the staff report or in the published SCCWRP study. The proposed	Data was discussed more thoroughly in the appendices to the CREST-developed source assessment available on the CREST website

No.	Author	Comment	Response
		exceedance frequencies, the backbone of the TMDL, can't be evaluated without any available data, including monitoring location information. We request that the Regional Board provide more information on the study and analysis.	
17.11	Heal the Bay	• According to the staff report under dry-weather implementation, downstream-based approaches including in-stream projects, treating and discharging/reusing, and diversion and infiltration, would be created immediately upstream from compliance points. It fails to mention that bacteria TMDL targets need to be met throughout the river, and installing structural controls directly upstream of a compliance monitoring point, would be a misrepresentation of overall water quality results within that reach (unless a full UAA for that in-stream treatment segment is performed and approved by the Regional Board). Please clarify this within the staff report and Draft TMDL.	The Staff Report states in Section 9.4.5 (page 54) that "A downstream method will necessarily require a Use Attainability Analysis (UAA) to be a viable implementation approach." And "The downstream-based approach poses significant challenges, and may in fact not be feasible for any of the Los Angeles River segments or tributaries due to regulatory and/or engineering constraints."
17.12	Heal the Bay	**VI. Conclusion** In summary, Heal the Bay urges the Regional Board to consider the comments above in order to ensure that water quality standards are met and public health is not compromised for years to come. Specifically, it is critical that compliance should not take longer than 10 years for dry weather and 18 years for wet weather; Long Beach cannot afford to wait 20 years for improved water quality. Additional time should only be allowed if a comprehensive LID approach is taken. In order to achieve compliance more quickly, implementation should occur simultaneously for all reaches and LRS should be developed in the first few years after TMDL adoption. Also it is critical that interim limits be concentration or exceedance-based, as microbial loadings won't lead to water quality standards attainment and are not protective of public health. Lastly in order to ensure compliance, the monitoring program must be strengthened to include more locations in each reach and outfall monitoring to provide greater compliance assurance.	Comments noted. Responses to specific comments above.
17.13	Heal the Bay	Thank you for the opportunity to comment. Please contact us if you have any questions at 310-451-1500.	Comment noted.
18	**Santa Monica Bay Keeper: June 04, 2010**		
18.1	Santa Monica Bay Keeper	Thank you for the opportunity to comment on the proposed incorporation of the Los Angeles River Bacteria Total Maximum Daily Load ("LA River Bacteria TMDL") into the Water Quality Control Plan for the Los Angeles Region ("Basin Plan").	Comment noted.

No.	Author	Comment	Response
		Federal law requires each state to identify waters within its boundaries that do not meet water quality standards and to establish the Total Maximum Daily Load ("TMDL") of each pollutant impairing the water quality standards in each impaired waterway. In addition, pursuant to the Consent Decree between the U.S. EPA, Heal the Bay, and Santa Monica Baykeeper, approved on March 22, 1999, TMDLs such as the LA River Bacteria TMDL must be approved or established by U.S. EPA by March 2012. Santa Monica Baykeeper ("Baykeeper") thus supports the Los Angeles Region Water Quality Control Board ("Regional Board") Staff in proposing this amendment to the Basin Plan. The Regional Board proposes the LA River Bacteria TMDL amendment to the Basin Plan to protect water contract recreation and non-contact recreation beneficial uses. Baykeeper supports this action to protect the public health of southern California residents and visitors. This Basin Plan amendment follows several other important TMDLs including the Santa Monica Bay Beaches Bacteria TMDL ("SMBBB TMDL") and the Marina Del Rey Bacteria TMDL. Because bacterial contamination has proven a serious threat to water quality at our beaches and in our rivers, these are all extremely critical actions taken by the Regional Board.	
18.2	Santa Monica Bay Keeper	However, Baykeeper is concerned that the LA River Bacteria TMDL as proposed, is not consistent with previously adopted bacteria TMDLs. Specifically, Baykeeper is concerned with the extended implementation schedule included in the LA River Bacteria TMDL. While the SMBBB TMDL for dry weather discharges required compliance within three years at over forty beaches, the LA River Bacteria TMDL does not require dischargers to fully comply for 16.5 to 25 years, depending on the segment of the LA River. Thus, the LA River, its tributaries, and the beaches downstream will continue to receive high levels of bacteria for many years. Contamination will continue for up to 25 years despite the knowledge that bacteria discharges have impaired portions of the LA River and its tributaries since at least1998. This is a serious public health issue. Baykeeper urges the Regional Board to reconsider this abnormally long implementation schedule.	See response to comment 18.2 and 18.4.
18.3	Santa Monica Bay Keeper	Further, the extended implementation schedule is not supported by the Regional Board's technical report. For example, the LA River Bacteria TMDL prioritizes Segment B of the LA River partially because "there is a large data set on the bacteria and virus loading from the storm drain outfalls" collected by the CREST study. LA River Bacteria TMDL Technical Report at 62 (April 20, 2010). Nonetheless, the proposed amendment allows 2.5 years to submit a load reduction strategy ("LRS") to the Regional Board and 7 years to implement the LRS. This is a long time considering the large amount of data that already exists. Additionally, final compliance in Segment	Staff disagrees. The Los Angeles River Watershed is one of the largest watersheds in the region covering over 837 squares miles and with 51 responsible parties listed in the TMDL. Prior to the implementation LRS, planning and design within each segment will necessitate the need for intensive initial outfall monitoring, though

No.	Author	Comment	Response
		B is not required for 16.5 years. This is way too long considering the existing data available and the high level of recreational use on this segment and at the beaches downstream. Similarly, Segment A is prioritized due to its proximity to beaches with high numbers of recreational users but does not require full compliance for 19.5 years. Segment A is the closest reach of the LA River to the San Pedro Bay and Long Beach beaches, frequently used by the public. The Regional Board does not provide adequate reasoning for allowing this continuing bacterial contamination, risking public health for 16.5 to 25 years, depending on where one recreates.	not necessary in segment B and D, as well as cooperation between responsible parties within the segment to develop agreements and an LRS. Stakeholders have indicated to the Regional Board in various meetings and in the Implementation Workshop, that due to the number of responsible parties and the amount of time necessary to secure funding**,** the number of years allocated for planning and implementation are reasonable. The interim allocations proposed were the mass based numbers developed to meet final concentration based instream targets. Due to the high variability of bacteria, and certain degrees of uncertainty, a second phase was included when developing an LRS.
18.4	Santa Monica Bay Keeper	The extended implementation schedule also undermines the Clean Water Act's emphasis on improving and restoring water quality on an expedited basis. In addition, this schedule contradicts the spirit of the Consent Decree between the U.S. EPA, Heal the Bay, and Baykeeper, which was to establish TMDLs on a set schedule to address serious water quality issues in the region.	Staff disagrees. See response to comment 18.3. The consent decree stipulates when TMDLs must be completed not the length of implementation.
18.5	Santa Monica Bay Keeper	However, once implemented, the health of thousands of people visiting the LA River and San Pedro and Long Beach beaches will be better protected as a result of the LA River Bacteria TMDL. Baykeeper commends the Regional Board Staff for proposing this Basin Plan amendment to address the problem with bacterial pollution in the region. Santa Monica Baykeeper thanks the Regional Board Staff for its hard work in preparation of this amendment and urges that the comments and concerns included above are considered and incorporated into the final amendment. This is an important step in improving the water quality of Santa Monica Bay.	Comment noted.
19	**United States Environmental Protection Agency (USEPA): June 04, 2010**		
19.1	USEPA	The U.S. Environmental Protection Agency (EPA) appreciates the opportunity to comment on the proposed Bacteria TMDLs for Los Angeles River Watershed. We strongly urge the Regional Board to adopt the TMDLs to meet California's TMDL	Comment noted.

No.	Author	Comment	Response
		commitments and to enable EPA to meet its requirements under the consent decree (Heal the Bay V. Browner, C. 98-48 25 SBA, March 22, 1999).	
34.2	USEPA	EPA reviewed the proposed draft basin plan amendment (BPA) and technical report and finds some remaining issues warranting clarification. Unlike other bacteria TMDLs in the Los Angeles region, this TMDL defines two phases of TMDLs to be achieved over the course of a 25 year implementation period. The draft BPA and Implementation Plan should define more clearly the difference between Phase I and II milestones, and the consequences of not meeting "Interim" WLAs. The draft BPA describes wasteload allocations (WLA) in the form of meeting a set of allowable exceedence days and a maximum E. Coll mass load. We understand the interim WLAs are allocated to MS4 `dischargers during dry weather, but this is not currently indicated in the draft EPA; thus, the revised draft should clarify that the "Interim" mass load is assigned during dry weather only. Please explain how "Interim" and "Final" WLA in this TMDL differ since both must be achieved ten years following approval of the TMDL. In the implementation plan, please clarify if both Interim WLAs and the Load Reduction Strategy must be achieved to show compliance. Since this draft TMDL includes milestones to achieve a mass load and meet an exceedence frequency, more detailed description of the monitoring requirements and steps to attain compliance would be useful.	The staff report and Basin Plan Amendment will be revised to address this comment.
19.4	USEPA	The draft TMDL technical report includes language describing the applicable numeric standards, E. Colt and fecal coliform. It further described the Regional Board's plan to update the bacteria objectives for freshwaters by removing fecal coliform objectives and maintaining only E. coif for REC-1 in freshwaters as the applicable standard. Please include comparable language in the BPA, stating that all existing standards are applicable in this TMDL until final approval to remove fecal coliform standards is in effect.	The staff report and Basin Plan Amendment will be revised to address this comment.
19.5	USEPA	The fact that EPA intends to publish in the Federal Register new or revised recommended criteria to protect public health by October 2012 should not preclude the development of TMDLs to address consistent and excessive long-term exceedences of existing bacterial standards. EPA does not support the delay of the TMDL adoption due to future changes in criteria. The bacterial TMDLs for the Los Angeles River Watershed must be State adopted and EPA approved by March 2012. It is important to note the distinction between EPA's criteria recommendations and water quality criteria that are elements of state water quality standards. "Section 304(a) criteria" is defined at 40 CFR 131.4 as "developed by EPA under authority of Section 304(a)(9) of the Act based on the latest scientific information on the relationship that the effect of a constituent concentration has on particular aquatic species and/or human health." In contrast, the phrase "water quality criteria" is defined at CFR 131.3 as "elements .of	Comment noted.

No.	Author	Comment	Response
		State water quality standards, expressed as constituent concentrations, levels, or a narrative statement, representing a quality of water that supports a particular use," and "when criteria are met, water quality will generally protect the designated use." In short, once adopted into water quality standards, "water quality criteria" express the desired ambient condition of the water to protect a designated use. States are expected to incorporate the EPA criteria into their state standards during the triennial reviews, but should not postpone regulatory actions due to future changes. It would be inappropriate and unwise to further delay development of TMDLs and actions to address a history of bacterial impairments in the watershed.	
19.6	USEPA	Overall, EPA finds the proposed TMDLs provide reasonable scientific analysis for addressing bacteria impairment's included on California's Section 303(d) List. We find the mass-based WLA established for stormwater permittees and defined for Phase I of the TMDL consistent with EPA guidance and CFR Section 130.7; we believe setting WLAs for stormwater municipalities is an appropriate approach to define the responsibility of the permittees since the Basin Plan includes quantitative bacterial indicator criteria. These TMDLs appropriately reviewed all sources of pollutant loading and separated the large watershed into reasonably sized segments and subpopulations, where compliance will need to be met. These TMDLs also clearly, assigned allocations to the all sources and appropriately defined TMDLs for existing permits, where applicable, and in the receiving water, during Phase II, where protection of the beneficial uses is ultimately determined.	Comment noted.
19.7	USEPA	Finally, we appreciate the inclusion of specific actions and milestones in the associated implementation plan to provide greater clarity of implementation expectations for all concerned stakeholders. However, in keeping with Element Five in the State's Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program, we do recommend that the potential consequences of failing to achieve the load allocations be specified more clearly.	Comment noted.
19.8	USEPA	We commend your hard work on these TMDLs and strongly recommend adoption by the Regional Board. If you have any questions please contact me at (213) 244-1803.	Comment noted.
20	**Rutan & Tucker, LLP (1) and (2) for Cities of Arcadia *et al.*: June 4, 2010 and June 18, 2010**		
20.1	Rutan & Tucker	III. THE BASIN PLAN MUST BE REVIEWED AND REVISED BEFORE THE BACTERIA TMDL CAN LAWFULLY BE ADOPTED A. It would be arbitrary and capricious to adopt the bacteria TMDL without first reviewing and revising the designated beneficial uses for the river to be consistent with the "actual uses attained in the waterbody," and to adjust the water quality objectives accordingly	The TMDL program, at the national and state level, is critical to achieving the ultimate goal of the federal Clean Water Act set forth in section 101(a). With approximately 189 waterbodies and 822 individual listings of water quality impairment on the section 303(d) list for the Los Angeles Region alone, TMDLs are

No.	Author	Comment	Response
		[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]	essential to set forth a plan and schedule for remedying impairments and restoring full support for the beneficial uses of these waterbodies. TMDLs are required by the CWA section 303(d). Furthermore, TMDL development in the Los Angeles Region is ordered under a court-established Consent Decree. Because the TMDL is a planning tool, it can be revisited when and if the designated beneficial uses for the LA River are "adjusted."
20.2	Rutan & Tucker	B. The Proposed Bacteria TMDL Should Not Be Adopted Until Such Time As The Review And Revision Process Of The Standards, As Required By The Superior Court In The Arcadia Case, Has Been Completed **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	The *Arcadia II* case addresses the issue of whether the entire Basin Plan must be reconsidered to consider the section 13241 factors, as they apply to storm water dischargers, and the appropriateness of the uses in the Basin Plan that are designated as "potential" (versus "past present and probable future" uses), even in the absence of any evidence that any particular water quality objective is not currently set at an appropriate level of protection, or that any designated beneficial use is not properly being protected. The absence of such evidence caused the trial court to acknowledge that compliance with its writ may appropriately result in no actual changes to the water quality standards. The matter is currently on appeal, and therefore there is presently no final judgment. Moreover, the writ is stayed during the appeal. As such, the Regional Board's obligations under the case are not yet finally determined, and the writ does not impose obligations currently. When the matter is resolved, the Regional Board will determine what actions to take.

No.	Author	Comment	Response
20.3	Rutan & Tucker	C. A 2008 Report By The National Academies Of Science Further Shows The Importance Of Evaluating The Propriety Of The Proposed TMDL Before Its Adoption **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	Comments regarding the 2008 report are noted. One of the recent Triennial Review priorities is to review REC designations for certain portions of the Los Angeles River, but that is not the purpose of this proceeding.
20.4	Rutan & Tucker	IV. THE REGIONAL BOARD HAS FAILED TO COMPLY WITH THE REQUIREMENTS OF CWC §§13000, 13240 AND 13241 IN DEVELOPING A BACTERIA TMDL FOR THE LOS ANGELES RIVER **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	The Regional Board is not required to consider California Water Code section 13241 in developing this bacterial TMDL. Section 13241 applies to the establishment of water quality objectives. The TMDL does not propose to establish water quality objectives. Rather, under California law, TMDLs are programs to implement existing standards (including objectives), and are thus established pursuant to Cal. Water Code section 13242. It is not only reasonable (considering all factors), but necessary to carry out the express requirements of Congress to establish TMDLs at a level that implement existing water quality standards. To the extent there is any objective reasonableness requirement in Water Code section 13000, the TMDL is reasonable. However, it is important to note that this finding appears among other findings such as "the state must be prepared to exercise its full power and jurisdiction to protect the quality of waters in the state from degradation originating inside or outside the boundaries…"
20.5	Rutan & Tucker	V. THE PROPOSED BACTERIA TMDL IS DEFICIENT AS IT FAILS TO "REFLECT" THE FACT THAT IT MAY BE COMPLIED WITH THROUGH THE USE OF A BEST MANAGEMENT PRACTICES APPROACH, RATHER THAN THROUGH NUMERIC EFFLUENT LIMITS	The proposed TMDL does not address whether an NPDES permit implementing the TMDL uses best management practices or numeric effluent limits. The method of implementation will be determined when

No.	Author	Comment	Response
		[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]	NPDES permits are revised to reflect an adopted TMDL. Federal regulation requires that NPDES permits must contain requirements necessary to achieve water quality standards (40 CFR § 122.44(d)(1)). Additionally, federal regulations require that water quality based effluent limits are set consistent with the assumptions and requirements of any available WLA for the discharge (40 CFR § 122.44(d)(1)(vii)(B)). While federal regulations allow the permitting authority to specify - as conditions of a NPDES permit - the use of BMPs to control or abate the discharge of pollutants in stormwater pursuant to Clean Water Act section 402(p) (40 CFR § 122.44(k)(2)), this is only supportable under specified circumstances where the permit's administrative record supports that the BMPs are expected to be sufficient to implement the WLA in the TMDL (US EPA 2002). Furthermore, this does not substitute for the permitting authority's obligation to include other requirements such as numeric effluent limits that may be necessary to achieve water quality standards. US EPA recently stated in a comment letter dated May 29, 2008 on the tentative Ventura County MS4 Permit, "EPA supports the approach used for incorporating TMDL WLAs in the August 28, 2007 second draft of this permit, in which the WLAs were incorporated as numeric water quality-based effluent limits (WQBELs)…Under this approach, clear

No.	Author	Comment	Response
			compliance determinations may be made, and the effectiveness of stormwater controls on water quality may be assessed. As a general matter, MS4 permits, many of which represent the fourth generation of permits to control municipal stormwater, should enable permitting authorities to more effectively determine compliance and evaluate impacts on water quality." The State Board also recently addressed the issue of translating TMDL wasteload allocations into effluent limits in MS4 Permits and concluded that, "whether a future municipal storm water permit requirement appropriately implements a storm water wasteload allocation will need to be decided based on the regional water quality control board's findings supporting either the numeric or non-numeric effluent limitations contained in the permit" (Order WQ 2009-0008). Furthermore, federal regulations do not suggest that the iterative/adaptive process is an inherent component of BMP-based permit requirements. That notwithstanding, the Regional Board has provided permittees under the LA County MS4 NPDES Permit 19 years, since the first MS4 Permit was adopted in 1990, to iteratively apply BMPs to achieve water quality standards. TMDLs are the backstop for the Clean Water Act in cases where effluent limitations, or BMPs in the case of MS4 permits, have been inadequate to achieve water quality standards. Indefinitely continuing such an iterative/adaptive approach without greater

No.	Author	Comment	Response
			specificity in terms of implementation schedules and numeric limitations is not necessarily in the best interest of water quality.
20.6	Rutan & Tucker	VI. THE DEVELOPMENT OF THE BACTERIA TMDL TO PROTECT MERE "POTENTIAL" BENEFICIAL USES, REGARDLESS OF WHETHER THE USES ARE FORMERLY DESIGNATED AS "POTENTIAL," IS DIRECTLY CONTRARY TO LAW, AND ALL DESIGNATED "USES" OF THE LA RIVER MUST BE REVIEWED AND REVISED **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	These comments take exception to the beneficial use designations. This is not the appropriate proceeding to review all of the designated beneficial uses.
20.7	Rutan & Tucker	VII. THE BACTERIA TMDL IS NOT SUITABLE FOR CALCULATION, AND FAILS TO PROVIDE [sic] INCLUDE "TOTAL MAXIMUM DAILY LOADS" **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	Staff disagrees. Bacterial pollution is suitable for calculation. The Staff Report details how the interim WLA were calculated in MPN/day and details how the allowable exceedance days for the final WLA and LA were calculated. The interim WLA are directly daily numbers (MPN/day) and the final WLA are in exceedance days. The TMDL describes how the exceedance days could be translated into a daily load and which is, therefore, sufficiently equal to a daily load. The Staff Report and BPA also make clear how the final WLA could be translated into a loading of MPN/day for the NPDES permit The applicable federal regulation states that "[TMDLs] can be expressed in terms of either mass per time, toxicity, or other appropriate measure. (40 CFR § 130.2(i).) The commenter cites to *Friends of the Earth, Inc. v. Environmental Protection Agency (D.C. Circuit 2006)* 446 F.3d 140, which stated that "daily means daily,

No.	Author	Comment	Response
			nothing else." However, the Second Circuit found that same interpretation "absurd" and stated that for some pollutants "effective regulations may best occur by some other periodic measure than a diurnal one." *(Natural Resources Defense Council v. Muszynski* (2d Cir. 2001) 268 F.3d 91, 98-99.) In this case, the staff report in Section 3 and other documents in the record adequately explain the justification for using the targets and daily loads to implement the water quality objectives and is consistent with the federal regulations. The TMDL documents describe in detail, the technical basis for using the targets and load to implement the water quality objectives. The commenter's statement that the TMDL is not "suitable for calculation" is incorrect. The TMDL describes the analytical methods, the modeling techniques, and the data used to develop the TMDL. USEPA has approved other similar bacterial TMDLs the Los Angeles Region. The approach used by the Regional Board is consistent with the Trash TMDL, which has been upheld. See *City of Arcadia v. State Water Resources Control Board*, (2006) 135 Cal.App.4th 1392, 1434 [Arcadia I].
20.8	Rutan & Tucker	VIII. THE BACTERIA TMDL IS CONTRARY TO LAW BECAUSE NO IMPLEMENTATION PLAN OR OTHER MEANS OF REDUCING NON-POINT SOURCES OF BACTERIA HAVE BEEN DEVELOPED FOR THE "LOAD ALLOCATIONS" ASSIGNED TO NON-POINT SOURCES, AND BECAUSE NOT ALL NON-POINT SOURCES OF BACTERIA HAVE EVEN BEEN IDENTIFIED **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of**	The TMDL includes an overall implementation strategy and schedule. The MS4 WLA responsible parties will provide more detailed implementation plans during the schedule. There is no implementation schedule for non-point sources because the LA responsible parties will be held to the load allocations when the TMDL becomes

No.	Author	Comment	Response
		the comment]	effective. The State's 2004 Nonpoint Source Pollution Control Program will be the basis for LA implementation. It is not necessary to have all sources of bacteria identified and staff has conducted a sufficient source assessment to assign appropriate LA and WLA. There always is some level of uncertainty in environmental science but the TMDL must go forward to reduce bacteria exceedances of water quality objectives. See City of *Arcadia v. State Water Resources Control Board (Arcadia I)*(2006) 135 Cal.App.4th 1392, 1430 (Clean Water Act does not require states to regulate non-point source pollution).
20.9	Rutan & Tucker	IX. THE PROPOSED BACTERIA TMDL WAS NOT DEVELOPED IN CONSULTATION WITH LOCAL AGENCIES AS REQUIRED BY LAW. **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	The commenter asserts that the impacted municipalities are not aware of any means of actually achieving the wet weather portion of the TMDL, or that the in-stream bacteria objective is achievable. The commenter mischaracterizes the process used to develop the proposed bacteria TMDL. The Regional Board staff has been working to develop this TMDL for four years. Numerous municipal stakeholders participated in the process leading to the development of this TMDL, including the stakeholder-led effort noted by the commenter – "Cleaner Rivers Through Effective Stakeholder-Led TMDLs" (CREST). CREST conducted a groundbreaking study of the dry weather storm drain system and established dry and wet weather reference conditions. The Cities represented by the commenter was

No.	Author	Comment	Response
			provided opportunities to participate in the CREST efforts and did, in fact, participate in CREST technical and Steering Committee meetings. In addition, the CREST stakeholder process developed several aspects of the wet-weather TMDL including wet-weather exceedance rates and wet-weather exceedance day modifications due to the High Flow Suspension. Local and state agencies have been consulted at numerous steps. The Regional Board is not bound by Water Code section 13144, but it takes its outreach efforts to local agencies seriously. These efforts have satisfied the requirements of section 13240 of the Water Code. These consultations have resulted in lengthy compliance schedules for municipal dischargers, and significant adjustments to the TMDL. Contrary to the comment, the TMDL staff report evaluates the achievability of the TMDL, including attaining the objective in both dry and wet weather conditions. Water Code section 13360 prohibits the Regional Board from specifying the manner of compliance with its orders used to implement the TMDL. The TMDL, consistent with CEQA (Public Resources Code section 21159), describes reasonably foreseeable methods of compliance. The staff report presents potential implementation strategies. In addition, affected responsible agencies worked together to compile potential implementation scenarios and cost estimates. The Bacteria Source Identification (BSI) Study evaluated

No.	Author	Comment	Response
			feasible and effective methods to implement the TMDL. The staff report explains that achieving the objectives during wet weather requires completion of dry weather implementation. See Section 9.5 and a very lengthy schedule and a phased approach are proposed to assure achievability. The time schedule is primarily based on CREST-developed schedule. In addition, many of the responsible entities for the bacteria TMDL are currently implementing a previously adopted metals TMDL for the Los Angeles River. Implementation of the metals TMDL will address much of the bacterial impairment. The schedule for wet weather is based on stakeholder and Regional Board experience with implementing other bacterial TMDLs. The TMDL includes dry weather interim allocations in bacteria loading targets and the possibility, of development and use of wet weather bacteria loading targets for MS4 permittees that would be sufficient to achieve exceedance day targets, but more straightforward for permittees to plan for and achieve. The TMDL does evaluate the effectiveness of the methods of compliance. However, federal law does not require practicality to be a consideration in developing a TMDL. See *Arcadia I at p.* 1428.
20.10	Rutan & Tucker	X. THE MONITORING PROVISIONS IN THE BACTERIA TMDL ARE CONTRARY TO LAW BECAUSE NO COST BENEFIT ANALYSIS HAS BEEN CONDUCTED, AS REQUIRED BY CWC §§ 13165, 13225(C) AND 13267	The commenter accurately quotes the statutes that "the burden, including costs, of such reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained there from" with

No.	Author	Comment	Response
		[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]	respect to monitoring and technical reporting. However, the statutes do not require a "cost benefit analysis." Staff has set forth the problem and evidence supporting the necessity for the TMDL and thus has shown a reasonable relationship between the burden and the benefits to be obtained from the monitoring, i.e. compliance with the TMDL and thus reduction of bacteria indicator densities. Further, section 13267 is inapplicable at this stage because the TMDL does not impose any orders under section 13267. See *Arcadia I at p.* 1414.
20.11	Rutan & Tucker	XI. THE PROPOSED BACTERIA TMDL, IF ADOPTED, WOULD BE A VIOLATION OF THE REQUIREMENTS OF THE ADMINISTRATIVE PROCEDURES ACT **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	The TMDL is "necessary" to ensure that impaired water bodies attain bacteriological water quality standards in a reasonable period of time. The TMDL is a program of implementation for an existing water quality objective and is necessary under Water Code section 13242. Moreover, the TMDL is necessary to comply with section 303(d)(1)(C) of the Clean Water Act. The need and reference for it to be a Basin Plan amendment is provided not only by Water Code section 13242, but also by 40 CFR 130.6(c)(1) (requiring incorporation into the state's water quality management plan, of which the Basin Plan is the only portion within the responsibility of the Los Angeles Regional Board). With respect to the comments about "clarity," staff concurs that some changes would improve clarity. Thus, the revisions will include deleting the final last two boxes on page 18 of Attachment A which

No.	Author	Comment	Response
			reference deadlines of "25 years after effective date of the TMDL" and adding "dry weather" to each segment's description.
20.12	Rutan & Tucker	XII. THE PROPOSED BACTERIA TMDL, ONCE EFFECTIVE AND ENFORCEABLE, WOULD RESULT IN AN UNFUNDED STATE MANDATE, IN VIOLATION OF THE CALIFORNIA CONSTITUTION **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	The Regional Board staff does not agree that the TMDL provisions contain unfunded state mandates, as that term is used in the California Constitution. Nevertheless, at the appropriate time, should the commenters believe they have a claim for subvention, the appropriate venue to determine that claim is with the Commission on State Mandates.
20.13	Rutan & Tucker	XIII. THE SUBSTITUTE ENVIRONMENTAL DOCUMENTS VIOLATE THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA). **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]** A. THE SED's ALTERNATIVES ANALYSIS IS FATALLY DEFECTIVE **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]** 1. THE SED Fails to Establish Project Objectives and Unlawfully Confuses the Concept of "Alternatives to the Project" with the Concept of "Alternative Methods of Compliance with the TMDL." **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]** 2. The SED also Fails to Analyze a Reasonable Range of Legitimate Project Alternatives. **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	The CEQA Guidelines require the Regional Board to consider a "range of reasonable alternatives" which would "feasibly attain most of the objectives of the project" using a "rule of reason." See Tit. 14 Cal. Code Regs. §15126.6(a). In this case, as described in the staff report, the Regional Board is obligated to prepare the TMDL to address impairment due to bacterial pollution. The feasible alternatives are those that would meet this objective. The Regional Board reasonably chose the proposed TMDL and a TMDL prepared by USEPA because those are the only legal alternatives. The Regional Board also evaluated various alternatives to implementing the water quality objectives that it could use in the TMDL. The TMDL also has a very detailed description of the purpose of the project and the Regional Board's legal responsibility to prepare the TMDL, including the consequences if it does not. The CEQA Guidelines also require consideration of a "no project" alternative. For projects that are a revision

No.	Author	Comment	Response
			of an existing policy, the project would be the continuation of the existing policy. Tit. 14 Cal.Code Regs. §15126.6(c). Consistent with this regulation, the TMDL discussed the existing conditions and what would be expected to happen if the TMDL was not implemented. In a case implementing the National Environmental Policy Act (NEPA), the Ninth Circuit Court of Appeals noted that the "NEPA alternatives requirement must be interpreted less stringently when the proposed agency action had a primary and central purpose to conserve and protect the natural environment, rather than to harm it." *Kootenai Tribe of Idaho v. Veneman* (9th Cir. 2002) 313 F.3d 1094, 1120. A narrow range of alternatives was also supported by the California Supreme Court in *Mountain Lion Foundation v. Fish & Game Commission* (1997) 16 Cal. 4th 105, 135-136, where the agency is legally constrained. In addition, it is acceptable to have less detail for plan-level CEQA documents. See e.g., *Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners* (1993) 18 Cal.App.4th 729. The TMDL's range of alternatives is consistent with the CEQA Guidelines and case law. The TMDL did not confuse the concept of project alternatives and alternative methods of compliance. The TMDL clearly sets forth alternatives to the project and provides detailed evaluation of reasonably foreseeable methods of compliance. The SED, page 5, explains that CEQA requires the Board to perform a program-level of

No.	Author	Comment	Response
			analysis, not a project- level analysis. The Regional Board is not required to evaluate the alternatives proposed by the commenter. The standards implemented by the TMDL are existing standards that are protective of designated beneficial uses. If those uses or objectives are revised, the TMDL would be revised accordingly to implement any new standards. The Regional Board is required to implement TMDLs even in the face of uncertainty. The Arcadia II case (303d case) is under appeal, therefore, no review of standards applied to stormwater discharges is required at this time. The Lower Los Angeles River Water Conservation Plan is not an appropriate alternative, but may be the source of appropriate means of compliance with the TMDL. The TMDL does not arbitrarily select a zero geometric mean target; the SED clearly articulates the basis for the zero target and the consideration of other alternatives to zero. The TMDL does focus primarily on addressing dry weather issues, but bacterial pollution is also caused during wet weather, so wet weather cannot be ignored as proposed by the commenter.
20.14	Rutan & Tucker	B. THE SED FAILS TO EVALUATE AND MITIGATE FLOODING, HOUSING, AND GOVERNMENTAL SERVICES IMPACTS FROM THE TMDL PROJECT **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	As noted above, the Regional Board may not specify the manner of compliance. In addition, it is not required to conduct a project-level CEQA analysis. (Pub. Res. C. § 21159.2) Local agencies that will be implementing the TMDL will be required to conduct environmental review, including taking into account flooding, and mitigate for potential flooding issues. The SED discusses the potential for flooding,

No.	Author	Comment	Response
			including actions that could be taken to mitigate flooding.
20.15	Rutan & Tucker	C. THE SED FAILS TO EVALUATE THE PROJECT'S IMPACTS ON GREENHOUSE GASES **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]** Update on CEQA Comments on Proposed Amendment to the Water Quality Control Plan to Incorporate TMDLs for Bacteria in the Los Angeles River **[See Rutan & Tucker, LLP Comment Letter #2 in the Board Package for the rest of the comment]**	The SED does evaluate the project's potential impacts on greenhouse gases. See SED, page 59, section on air impacts. The Resources Agency recently revised the CEQA Guidelines to address greenhouse gases. The revised guidelines state that the agency should make a good faith effort to estimate the amount of greenhouse gases from the project, assess the environmental significance of greenhouse gases, and identify mitigation measures. The SED is consistent with these new regulations. It includes an estimate of greenhouse gases, discusses the significance, and identifies potential mitigation with respect to reasonably foreseeable methods of compliance.
20.16	Rutan & Tucker	D. THE MITIGATION MEASURES' DISCUSSION IN THE SED IS DEFICIENT **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	The commenter mischaracterizes the Regional Board's obligation under the certified regulatory program. Under Public Resources Code section 21159, the Regional Board must conduct an analysis of the reasonably foreseeable environmental impacts of the means of compliance, the reasonably foreseeable mitigation measures to lessen the environmental impacts, and the reasonably foreseeable alternative means of compliance. The SED and other documents contain detailed analysis of these three requirements, including mitigation measures. The Regional Board need not ensure that mitigation measures are implemented. In fact, under Water Code section 13360, it may not specify the manner of compliance.

No.	Author	Comment	Response
			The responsible parties will choose the legal methods of compliance and conduct any required project-level CEQA analysis, including appropriate mitigation. As required by Public Resources Code section 21159, the Regional Board has analyzed the reasonably foreseeable means of compliance and mitigation measures. Because the Regional Board does not prescribe the method of achieving compliance with the TMDL, staff cannot identify all project-level impacts (and associated mitigation measures) that might occur from the myriad of structural and non-structural implementation strategies that could be used to achieve the TMDL.
20.17	Rutan & Tucker	E. THE SED FAILS TO IDENTIFY AND EVALUATE CUMULATIVE IMPACTS OF THE PROJECT **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	The method by which a discharger decides to achieve compliance is a project-level decision that will require an independent environmental review (Pub. Res. C. § 21159.2) which is beyond the scope of analysis that the Regional Board is required to take (Pub. Res. C. § 21159(d).) However, staff has indicated reasonably foreseeable environmental impacts of the TMDL as an overall program, and reasonably foreseeable environmental impacts of feasible methods of implementing the TMDL. The environmental checklist draws on analysis contained in and conclusions reached in the staff report. Because the Regional Board does not prescribe the method of achieving compliance with the TMDL, staff cannot identify all project-level impacts (and associated mitigation measures) that might occur from the myriad of structural and non-structural

No.	Author	Comment	Response
			implementation strategies that could be used to achieve the TMDL. However, staff considered substantial evidence when conducting CEQA review and identified feasible mitigation measures that would reduce impacts.
20.18	Rutan & Tucker	F. THE SED FAILS TO ANALYZE SPECIFIC SITES **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	The SED does evaluate specific sites, including a detailed analysis of reference sites to evaluate means of compliance and implementation alternatives.
20.19	Rutan & Tucker	G. THE SED DOES NOT INCLUDE REQUIRED INFORMATION **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	The Regional Board's basin planning process is a certified regulatory program. The Regional Board is not required to prepare an environmental impact report under the CEQA Guidelines, Article 9 (which includes Section 15120), but rather it prepares a substitute environmental document. The SED includes a summary and detailed analysis of impacts of the means of compliance and mitigation. The SED includes discussion of energy issues.
20.20	Rutan & Tucker	H. THE SED UNLAWFULLY SEGMENTS THE PROJECT IN VIOLATION OF CEQA **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment**	The SED complies with CEQA and does not unlawfully segment the project. The SED is a program-level analysis. The Regional Board is not required to conduct a project-level analysis. Failure to conduct project-level analysis of the reasonably foreseeable means of compliance does not result in segmenting the project. The Regional Board analyzed the entire project – a TMDL for bacteria in the LA River and tributaries. The Regional Board is not required to conduct one TMDL for multiple constituents. This TMDL evaluates the overlap between other TMDLs for the LA River, including ways that each will compliment the other and avoid duplicative efforts.

Response to Comments July 2010
Los Angeles River Watershed Bacteria TMDL

No.	Author	Comment	Response
20.21	Rutan & Tucker	I. THE FINDINGS AND EVIDENCE ARE DEFICIENT **[See Rutan & Tucker, LLP Comment Letter in the Board Package for the rest of the comment]**	The commenter is incorrect. The SED includes a checklist and detailed evaluation of the potential impacts and appropriate mitigation measures that could be implemented. The statement of overriding considerations clearly explains the benefits of the project as required by CEQA Guidelines section 15093. The statement also explains that other public agencies are responsible for implementing specific projects and any appropriate mitigation. The statement explains that alternatives and mitigation are generally available to reduce any impacts of the means of compliance to less than significant. Since, however, the Regional Board is not responsible for the implementation projects, it cannot assure that the adoption of the TMDL will not result in significant impacts. Thus, the SED includes a statement of overriding considerations as required by the CEQA Guidelines section 15093(b).
20.22	Rutan & Tucker	The commenter submitted the administrative record in the *Arcadia II* case with comments on this bacterial TMDL.	The administrative record for a quasi-legislative action includes the documents relied upon in the environmental documents prepared for the project, including relevant comments and written materials. The *Arcadia II* matter is currently on appeal, and therefore there is presently no final judgment. Moreover, the writ is stayed during the appeal. As such, the Regional Board's obligations under the case are not yet finally determined, and the writ does not impose obligations currently. When the matter is resolved, the Regional Board will determine what actions to take. Therefore, the Regional Board does not consider the Arcadia II record to be relevant to this

No.	Author	Comment	Response
			matter and does not intend to include it in the record, since it is not relying on that record.