Attachment A to Resolution No. R10-XXX

Amendment to the Water Quality Control Plan - Los Angeles Region to incorporate the Los Angeles River Watershed Bacteria TMDL

Proposed for adoption by the California Regional Water Quality Control Board, Los Angeles Region on July, ~~XX~~9, 2010.

REVISED TENTATIVE

Amendments:

Table of Contents
Add:

Chapter 7. Total Maximum Daily Loads (TMDLs) Summaries
7-28 Los Angeles River Watershed Bacteria TMDL

List of Figures, Tables and Inserts
Add:

Chapter 7. Total Maximum Daily Loads (TMDLs)
Tables
7-39 Los Angeles River Watershed Bacteria TMDL
7-39.1. Los Angeles River Watershed Bacteria TMDL: Elements
7-39.2. Los Angeles River Watershed Bacteria TMDL: Responsible Parties for Waste Load Allocations Assigned in the Los Angeles River Watershed Bacteria TMDL
7-39.3. Los Angeles River Watershed Bacteria TMDL: Implementation Schedule

Chapter 7. Total Maximum Daily Loads (TMDLs) Summaries
Add:
7-39 Los Angeles River Watershed Bacteria TMDL

This TMDL was adopted by:
The Regional Water Quality Control Board on [Insert Date].

This TMDL was approved by:

The State Water Resources Control Board on [Insert Date].
The Office of Administrative Law on [Insert Date].
The U.S. Environmental Protection Agency on [Insert Date].

The following table includes the elements of this TMDL.

Table 7-39.1. Los Angeles River Watershed Bacteria TMDL: Elements

Element	Findings and Regulatory Provisions
Problem Statement	Elevated bacteria indicator densities are causing impairment of the water contact recreation (REC-1) beneficial use at the 303(d) listed waterbodies within the Los Angeles River Watershed. Recreating in waters with elevated bacteria indicator densities has been associated with adverse health effects. Specifically, local and national epidemiological studies demonstrate a causal relationship between adverse health effects and recreational water quality, as measured by bacteria indicator densities.
Numeric Target (Interpretation of the numeric water quality objective, used to calculate allocations)	The TMDL has a multi-part numeric target based on the bacteriological water quality objectives for fresh water to protect the water contact recreation use set forth in Chapter 3. These targets are the most appropriate indicators of public health risk in recreational waters. The numeric targets for this TMDL are: 1. Geometric Mean Target a. *E. coli* density shall not exceed 126/100 mL. 2. Single Sample Target b. *E. coli* density shall not exceed 235/100 mL. The Basin Plan includes objectives for both *E. coli* and fecal coliform. Fecal coliform objectives were retained in Chapter 3 after adoption of the *E. coli* objective. However, it has been demonstrated that *E. coli* comprise the majority of fecal coliform and the numeric targets for this TMDL are only the Basin Plan objectives for *E. coli*. The Basin Plan objectives and these targets are based on an acceptable health risk for fresh recreational waters of eight illnesses per 1,000 exposed individuals as recommended by the US EPA (USEPA, 1986). This TMDL uses a "reference system/anti-degradation approach" to implement the water quality objectives per the implementation provisions in Chapter 3. On the basis of the historical exceedance frequency at Southern California reference reaches, a certain number of daily exceedances of the single sample bacteria objectives are permitted. The allowable number of exceedance days is set such that (1) bacteriological water quality at any site is at least as good as at the reference site(s) and (2) there is no degradation of existing bacteriological water quality. This approach 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

REVISED TENTATIVE

Element	Findings and Regulatory Provisions
	Regional Board to require treatment or diversion of natural coastal creeks or to require treatment of natural sources of bacteria from undeveloped areas. For the single sample target, each river segment and tributary is assigned an allowable number of exceedance days for dry weather and wet weather (defined as days with 0.1 inch of rain or greater and the three days following the rain event.) The geometric mean target may not be exceeded at any time.
Source Analysis	Bacteria sources in the Los Angeles River Watershed include anthropogenic and non-anthropogenic sources and point and non-point sources. Each of these sources contributes to the elevated levels of bacteria indicator densities in the Los Angeles River Watershed during dry and wet weather. There are currently five major National Pollutant Discharge Elimination System (NPDES) permits or Waste Discharge Requirements (WDRs) for discharges to the Los Angeles River Watershed. Of these, three are Water Reclamation Plants (WRPs), including the Donald C. Tillman WRP, Los Angeles-Glendale WRP, and Burbank WRP. There are three Municipal Separate Storm Sewer System (MS4) NPDES permits in the watershed, including the County of Los Angeles and the Incorporated Cities Therein, except the City of Long Beach; the City of Long Beach; and the California Department of Transportation (Caltrans) (referenced hereafter as the MS4 Permittees), which regulate municipal stormwater and urban runoff discharges. Discharges from storm drains and tributaries contribute roughly 13% of the flow in the Los Angeles River, while the three WRPs contribute roughly 72% of the flow in the river during dry weather. However, discharges from storm drains contribute almost 90% of the *E. coli* loading from point sources to the river during dry weather. During wet weather, WRP discharges may account for as little as 1% of the total flow in the river. While there are many sources of indicator bacteria to the MS4, discharges from the MS4 are the principal source of bacteria to the Los Angeles River and its tributaries in both dry weather and wet weather. 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.

REVISED TENTATIVE

<table>
<tr><th>Element</th><th>Findings and Regulatory Provisions</th></tr>
<tr><td></td><td>Non-point sources include wildlife, direct human discharges, septic systems, equestrian activities, and birds. Though sanitary sewer overflows are frequent within the watershed they are estimated to account for only 2% of the total dry-weather load and a small portion of the wet-weather load. Non-point sources may also include in-channel sources such as re-growth or re-suspension from sediments; the relative contribution of such sources is unknown.</td></tr>
<tr><td>Waste Load Allocations (for point sources)</td><td>Waste load allocations (WLAs) are expressed as allowable exceedance days.

The allowable number of exceedance days for dry weather and wet weather is based on the more stringent of two criteria (1) exceedance days in the designated reference system and (2) exceedance days based on historical bacteriological data in the subject reach. This ensures that bacteriological water quality is at least as good as that of a largely undeveloped system and that there is no degradation of existing water quality.

For this TMDL, the mainstem of the Los Angeles River was broken down into segments for allocations due to the availability of flow data.

• Segment A includes Reaches 1 and a portion of Reach 2
• Segment B includes a portion of Reach 2
• Segment C includes Reach 3 and a portion of Reach 4
• Segment D includes a portion of Reach 4 and Reach 5
• Segment E includes Reach 6

For each segment and tributary, allowable exceedance days are set on an annual basis as well as for dry weather and wet weather days.

Certain reaches and tributaries of the Los Angeles River are subject to a High Flow Suspension (HFS) of the recreational beneficial uses as identified in Chapter 2. The HFS applies during specified conditions as defined in Chapter 2. During these conditions, the REC-1 and REC-2 beneficial uses are suspended for the affected reaches and tributaries.

For MS4 dischargers, the final dry-weather WLAs and wet-weather WLAs for the single sample targets are listed below.

<table>
<tr><th>Allowable Number of Exceedance Days</th><th>Daily Sampling</th><th>Weekly Sampling</th></tr>
<tr><td>Dry Weather</td><td>5</td><td>1</td></tr>
</table>
</td></tr>
</table>

Element	Findings and Regulatory Provisions

Non-HFS[1] Waterbodies Wet Weather	15	2
HFS Waterbodies Wet Weather	10 (not including HSF days)	2 (not including HSF days)

The final WLAs for the geometric mean target during any time at any river segment and tributary in the Los Angeles River Watershed is zero (0) days of allowable exceedances.

In addition, MS4 dischargers are assigned interim WLAs for dry weather. Interim dry weather WLAs are assigned for specific river segments and tributaries and are listed in the table, below.

River Segment or Tributary	*E. coli* Load (10^9 MPN[2]/Day)
Los Angeles River Segment[3] A	301~~274~~
Los Angeles River Segment B	518~~471~~
Los Angeles River Segment C	463~~421~~
Los Angeles River Segment D	454~~413~~
Los Angeles River Segment E	32~~29~~
Aliso Canyon Wash	23~~21~~
Arroyo Seco	24~~22~~
Bell Creek	14~~13~~
Bull Creek	9~~8~~
Burbank Western Channel	86~~78~~
Compton Creek	7~~6~~
Dry Canyon	7~~6~~
McCoy Canyon	7~~6~~
Rio Hondo	2~~2~~
Tujunga Wash	10~~9~~
Verdugo Wash	51~~46~~

Unexpectedly high-loading outfalls may be excluded from interim compliance calculations under the following circumstances: If an outfall which was 1) loading *E. coli* at a rate less than the 25th percentile of outfalls during the monitoring events used to develop the LRS, but, at the time of compliance monitoring, is 2) loading *E. coli* at a rate greater than the 90th percentile of outfalls, and 3) actions are taken prior to the end of the first phase (i.e. 10 years after the beginning of the segment or

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[1] HFS stands for high flow suspension as defined in Chapter 2.
[2] MPN stands for most probable number.
[3] The segments are defined in the ~~waste load allocation and load allocation sections~~Staff Report.

Element	Findings and Regulatory Provisions
	tributary specific phase) such that the outfall is returned to a loading less than the 50th percentile of the outfalls at compliance monitoring, then the 90th percentile data from the outfall can be excluded from the compliance loading calculations. Likewise, if an outfall which was 1) the subject of a dry weather diversion is found, at the time of compliance monitoring, to be 2) contributing greater than the 90th percentile loading rate, and 3) actions are taken such that the outfall is returned to a loading less than the 50th percentile of the outfalls at compliance monitoring, and a maintenance schedule for the diversion is submitted with the compliance report, then the 90th percentile data from the outfall can be excluded from the compliance loading calculations. MS4 dischargers can demonstrate compliance with the final dry weather WLAs by demonstrating that final WLA are met ~~in-stream~~instream or by demonstrating one of the following conditions at outfalls to the receiving waters: 1. 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; 2. Zero discharge during dry weather; 3. Demonstration of compliance as specified in the MS4 NPDES permit which may include the use of BMPs where the permit's administrative record supports that the BMPs are expected to be sufficient to implement the WLA in the TMDL, the use of calculated loading rates such that loading of *E. coli* to the segment or tributary during dry weather is less than or equal to a calculated loading rates that would not cause or contribute to exceedances based on a loading capacity representative of conditions in the River at the time of compliance or other appropriate method. In addition, individual or subgroups of MS4 dischargers can differentiate their dry weather discharges from other dischargers or upstream contributions by demonstrating one of the following conditions at outfalls to the receiving waters or at segment, tributary or jurisdictional boundaries: 1. Flow-weighted concentration of *E. coli* in individual or subgroup MS4 discharge during dry weather is less than or equal to 235 MPN/100mL, based on a weighted-average using flow rates from all measured outfalls; 2. Zero discharge from individual or subgroup MS4 dischargers during dry weather; 3. Demonstration that the MS4 loading of *E. coli* to the segment or tributary during dry weather is less than or equal to a calculated loading rates that would not cause or contribute to exceedances based on the loading capacity representative of conditions in the

<table>
<tr><th>Element</th><th>Findings and Regulatory Provisions</th></tr>
<tr><td></td><td>River at the time of compliance.

The interim and final WLAs are group-based, shared among all MS4s that drain to a segment or tributary. However, WLA may be distributed based on proportional drainage area, upon approval of the Executive Officer.

General NPDES permits, individual NPDES permits, the Statewide Industrial Storm Water General Permit, the Statewide Construction Activity Storm Water General Permit, and WDR permittees in the Los Angeles River Watershed are assigned WLAs of 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. Compliance with an effluent limit based on the water quality objective can be used to demonstrate compliance with the WLA. In addition, permits which include stormwater effluent limitations for sites, which are measured in receiving waters, are assigned WLA for those sites in accordance with the table for MS4 dischargers listed above, where the subwatershed drained is open natural land and a demonstration has been made to the Regional Board that any exceedances are due to natural sources.

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 or a daily max of 2.2 MPN/100mL 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.</td></tr>
<tr><td>Load Allocations
(for non-point sources)</td><td>Load allocations (LAs) are expressed as the number of daily or weekly sample days that may exceed the single sample target identified under “Numeric Target.”

Lands not covered by a MS4 permit, such as the US Forest Service lands, California Department of Parks and Recreation lands, or National Park Service lands are assigned LAs. The dry-weather LAs and wet-weather LAs for the single sample target are listed in the table, below.
<table>
<tr><th>Allowable Number of Exceedance Days</th><th>Daily Sampling</th><th>Weekly Sampling</th></tr>
<tr><td>Dry Weather</td><td>5</td><td>1</td></tr>
<tr><td>Non-HFS[4] Waterbodies Wet Weather</td><td>15</td><td>2</td></tr>
<tr><td>HFS Waterbodies Wet Weather</td><td>10 (not including HSF days)</td><td>2 (not including HSF days)</td></tr>
</table>
</td></tr>
</table>

Element	Findings and Regulatory Provisions
	Onsite Wastewater-Treatment Systems are assigned LAs of zero (0) days of allowable exceedances for both dry and wet weather for the single sample target and geometric mean target. In addition, sewer collection systems are assigned LAs of zero (0) days of allowable exceedances for both dry and wet weather for the single sample target and the geometric mean target. The LAs for the geometric mean target for any responsible party during any time at any river segment and tributary in the Los Angeles River Watershed is zero (0) days of allowable exceedances.
Implementation	The regulatory mechanisms used to implement the TMDL will include general NPDES permits, individual NPDES permits, MS4 Permits covering jurisdictions within the Los Angeles River Watershed, the Statewide Industrial Storm Water General Permit, the Statewide Construction Activity Storm Water General Permit, the Statewide Stormwater Permit for Caltrans Activities, and the authority contained in Sections 13263 and 13267 of the Cal. Water Code. For each discharger assigned a WLA, the appropriate Regional Board Order shall be reopened or amended when the order is reissued, in accordance with applicable laws, to incorporate the applicable WLA as a permit requirement. ~~LAs will be implemented through California's 2004 Nonpoint Source Pollution Control Program.~~ LAs for onsite wastewater treatment systems will be implemented through WDRs or waivers of WDRs. LAs for other nonpoint sources such as horses/livestock, aquaculture, irrigated agriculture,-and golf courses, will be implemented through the Nonpoint Source Implementation and Enforcement Policy. This TMDL will be implemented through the mechanisms above in accordance with the implementation schedule. The implementation schedule is detailed in Table 7-39.3. MS4 Permittees may achieve the WLAs by employing any viable and legal implementation strategy. A recommended implementation approach is called the "MS4 Load Reduction Strategy" (LRS) and requires coordinated effort by all MS4 Permittees within a segment or tributary. Each LRS must quantitatively demonstrate that the actions contained within the LRS are sufficient to result in attainment of the *final* WLAs. The *interim* WLAs represent a minimum threshold that must be attained after those actions are taken, per the implementation schedule. An LRS shall be approved by the Regional Board Executive

Element	Findings and Regulatory Provisions
	Officer prior to implementation. Individual MS4 Permittees or subgroups of MS4 Permittees may choose to develop and implement alternative implementation strategies for dry weather implementation, then the group-based WLAs may be distributed based on proportional drainage area, upon approval of the Executive Officer. The implementation approaches herein, including the use of an MS4 Load Reduction Strategy,- can still be followed based on the proportional WLAs. For MS4 Permittees 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. ~~Responsible~~ For the wet weather WLA, responsible parties must provide an Implementation Plan to the Regional Board outlining how each intends to cooperatively achieve compliance with the wet-weather WLAs. The report shall include implementation methods, an implementation schedule, and proposed milestones. The plan shall include a technically defensible quantitative linkage to the final wet-weather WLAs. The linkage should include target reductions in stormwater runoff and/or *E. coli*. The plan shall include quantitative estimates of the water quality benefits provided by the proposed structural and non-structural BMPs. Responsible parties may propose wet-weather load-based compliance at MS4 outfalls, which shall include an estimate of existing load and the allowable load from MS4 outfalls to attain the allowable number of exceedance days in-stream. Twenty-five years after the effective date of the TMDL, final WLAs and LAs shall be achieved at all segments and tributaries for dry and wet weather. Regional Board staff shall convene and oversee a workgroup, or shall participate in a stakeholder-led workgroup, to address technical and regulatory issues associated with the Los Angeles River Bacterial TMDL, which may include, where appropriate a re-evaluation of recreational uses in the Los Angeles River, re-evaluation of the high flow suspension on a site specific basis, prioritization of bacteria risk, re-evaluation of bacteria objectives for fresh water, re-evaluation of implementation provisions and compliance metrics. These re-evaluations support both this TMDL and also support many of the current triennial review priorities identified by the Board. The workgroup shall provide technical input for stakeholder-led technical studies and may serve to provide technical input during the

Element	Findings and Regulatory Provisions
	scoping and development of related Basin Plan Amendments that will be considered by the Regional Board. Over the course of TMDL implementation, the TMDL shall be re-considered to incorporate new information from these stakeholder-led technical studies, or other scientific studies, or to address revisions to water quality standards, such as adoption of revised water quality objectives based on recommendations of USEPA a revised implementation schedule, revised. The schedule in Table 7.39.4 includes several specific re-consideration opportunities.
Margin of Safety	An explicit margin of safety is included in the allocations. Cumulatively, the dry-weather and wet-weather WLAs and LAs allow exceedances of the single sample target no more than 5% of the time on an annual basis. The *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* concludes that there are water quality impairments using a binomial distribution method, which lists waterbodies as impaired when the exceedances are between approximately 8 and 10 percent. An implicit margin of safety is incorporated in the interim allocations through the use of a conservative assumption of no (0) bacterial decay in discharges from storm drains to the receiving water when determining the assimilative capacity of the river segments and tributaries.
Seasonal Variations and Critical Conditions	Seasonal variations are addressed by developing separate allocations for dry weather and wet weather based on observed natural background levels of exceedance of bacteria indicators. Historic monitoring data for the Los Angeles River Watershed indicate that the critical condition for bacteria loading is during wet weather due to greater exceedance probabilities of the single sample bacteria objective than during dry weather. The 90th percentile 'storm year'[5] in terms of wet days[6] is used as the reference year. Selecting the 90th percentile year is a conservative approach that will accommodate a 'worst-case' scenario resulting in fewer exceedance days than the maximum allowed in drier years. Conversely, in the 10% of wetter years, there may be more than the allowable number of exceedance days.
Compliance Monitoring	~~Monitoring shall be conducted by the responsible~~ For MS4 Permittees~~.~~ ~~M~~, monitoring shall entail~~s~~ compliance monitoring to assess attainment of WLAs~~-~~ and monitoring in support of Load Reduction Strategies or alternative compliance strategy and wet-weather implementation plans.

Element	Findings and Regulatory Provisions
	An ambient water quality monitoring program shall be conducted by responsible parties as set forth in a Bacteria Coordinated Monitoring Plan (CMP), which shall be submitted for ~~EO~~ Executive Officer approval per the TMDL implementation schedule. The CMP shall detail: the number and location of sites, including at least one monitoring station per each river segment, reach and tributary addressed under this TMDL; measurements and sample collection methods; and monitoring frequencies. Responsible parties may also include in the CMP, for Executive Officer consideration, other meteorological stations which may be more representative of the existing hydrology and climate. ~~Segments~~Each segment, reach~~,es~~ and ~~tributaries~~ tributary addressed under this TMDL shall be monitored at least monthly 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. ~~Segments~~Each segment, reach~~es~~ and tributary~~ies~~ addressed under this TMDL shall be monitored at least weekly to determine compliance with the ~~in-stream~~instream targets after the first implementation phase. For parties pursuing an LRS, intensive outfall monitoring will be conducted before and after implementation of the LRS. Pre-LRS monitoring will be used to estimate the *E. coli* loading from MS4 outfalls to the segment or tributary, and identify the outfalls and types of implementation actions that are expected to be necessary to attain the WLAs. Post-LRS monitoring will be used to evaluate compliance with the interim WLA and to plan for additional implementation actions to meet the final WLAs, in a second implementation phase, if necessary. When applicable, outfall monitoring shall including *E. coli* by USEPA-approved methods and flow rate at *all* MS4 outfalls ("snapshots") that are discharging to a segment or tributary or across jurisdictional boundaries during a given monitoring event. For each Load Reduction Strategy, at least six (6) snapshots shall be conducted for pre-LRS monitoring, and at least three (3) snapshots shall be conducted for post-LRS monitoring. For MS4s that choose to follow a~~n~~ non-LRS implementation approach, but choose to demonstrate compliance with Equivalent Conditions, at least six (6) snapshots shall be conducted. Responsible parties pursuing an alternative compliance strategies shall propose monitoring to support the plan. The Wet Weather Implementation Plans shall propose monitoring to support the Wet Weather Implementation Plans.

Element	Findings and Regulatory Provisions
	Monitoring for dischargers other than MS4 permittees to determine compliance with WLAs and LAs shall be established through monitoring and reporting programs conducted as part of the discharger's permit/waste discharge/waiver requirements and through implementation of the Nonpoint Source Implementation and Enforcement Policy, for nonpoint sources.

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7-39.5. Los Angeles River Bacteria TMDL: Responsible Parties for Waste Load or Load Allocations

Responsible Entity	Los Angeles River Segment					Los Angeles River Tributary										
	A	B	C	D	E	Aliso Canyon Wash	Arroyo Seco	Bell Creek	Bull Creek	Burbank Western Channel	Compton Creek	Dry Canyon Creek	McCoy Canyon Creek	Rio Hondo	Tujunga Wash	Verdugo Wash
Alhambra		√												√		
Arcadia														√		
Bell		√														
Bell		√												√		
Bradbury														√		
Burbank		√	√							√						
Bureau of Land Management					√											
Calabasas					√							√	√			
CA Dept. of Parks and Recreation				√	√											
Caltrans	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Carson	~~√~~										√					
Commerce		√												√		
Compton	√	√									√					
Cudahy		√														
Downey		√												√		
Duarte														√		
El Monte														√		
Glendale		√	√				√			√					√	√
Hidden Hills								√					√			
Huntington Park		√									√					

REVISED TENTATIVE

Attachment A to Resolution No. R10-XXX

Responsible Entity	Los Angeles River Segment					Los Angeles River Tributary										
	A	B	C	D	E	Aliso Canyon Wash	Arroyo Seco	Bell Creek	Bull Creek	Burbank Western Channel	Compton Creek	Dry Canyon Creek	McCoy Canyon Creek	Rio Hondo	Tujunga Wash	Verdugo Wash
~~Inglewood~~											~~√~~					
Irwindale														√		
La Cañada Flintridge			√				√									√
Lakewood	√															
Long Beach	√										√					
Los Angeles		√	√	√	√	√	√	√	√	√	√	√	√		√	√
Los Angeles County	√	√	√		√	√	√	√	√		√	√	√	√	√	√
LA County Flood Control	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Lynwood	√	√									√					
Maywood		√														
Monrovia														√		
Montebello		√												√		
Monterey Park		√												√		
National Park Service				√	√											
Paramount	√	√														
Pasadena		√	√				√							√		√
Pico Rivera														√		
Rosemead														√		
San Fernando															√	

REVISED TENTATIVE

Attachment A to Resolution No. R10-XXX

Responsible Entity	Los Angeles River Segment					Los Angeles River Tributary										
	A	B	C	D	E	Aliso Canyon Wash	Arroyo Seco	Bell Creek	Bull Creek	Burbank Western Channel	Compton Creek	Dry Canyon Creek	McCoy Canyon Creek	Rio Hondo	Tujunga Wash	Verdugo Wash
San Gabriel														√		
San Marino														√		
Santa Clarita									√							
Sierra Madre														√		
Signal Hill	√															
South El Monte														√		
South Gate		√									√			√		
South Pasadena		√					√							√		
State Land Commission					√											
Temple City														√		
U.S. Forest Service							√		√					√	√	√
Vernon		√									√					

REVISED TENTATIVE

7-39.4. Los Angeles River Bacteria TMDL: Implementation Schedule

~~I~~*Italics in this Table refer to Permittees using an alternative compliance plan instead of an LRS.*

Implementation Action	Responsible Parties	Deadline
Segment by Segment Schedule Dry Weather (Schedule for all river and wet weather is at the end of the Table)		
SEGMENT B (upper and middle Reach 2 – Figueroa Street to Rosecrans Avenue) Dry Weather		
First phase – Segment B		
Submit a Load Reduction Strategy (LRS) for Segment B *(or submit an alternative compliance plan)*	MS4 and Caltrans NPDES Permittees discharging to Segment B	2.5 years after effective date of the TMDL
Approve LRS (or alternative compliance plan)	Regional Board, Executive Officer	6 months after submittal of LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment B, if using LRS	7 years after effective date of the TMDL
Achieve interim (or final) WLA and ~~demonstrate compliance with LRS~~ submit report to Regional Board	MS4 and Caltrans NPDES Permittees discharging to Segment B, if using LRS	10 years after effective date of the TMDL
Achieve final WLA or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	*MS4 and Caltrans NPDES Permittees discharging to Segment B, if using alternative compliance plan*	*10 years after effective date of the TMDL*
Second phase, if necessary – Segment B (LRS only)		
Submit a new LRS	MS4 and Caltrans NPDES Permittees discharging to Segment B	11 years after effective date of the TMDL
Approve LRS	Regional Board, Executive Officer	6 months after submittal of a second LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment B, if using LRS	14.5 years after effective date of the TMDL
~~Demonstrate compliance with LRS~~	~~MS4 and Caltrans NPDES Permittees discharging to Segment B, if using LRS~~	~~16.5 years after effective date of the TMDL~~
Achieve final WLAs in Segment B or demonstrate that non-compliance is only due to upstream contributions and submit report to Regional Board	MS4 and Caltrans NPDES Permittees discharging to Segment B, if using LRS	16.5 years after effective date of the TMDL
SEGMENT B TRIBUTARIES (Rio Hondo and Arroyo Seco) Dry Weather		
First phase – Segment B Tributaries (Rio Hondo and Arroyo Seco)		
Submit a Load Reduction Strategy (LRS) for Segment B tributaries *(or submit an alternative compliance plan)*	MS4 and Caltrans NPDES Permittees discharging to Segment B tributaries	4 years after effective date of the TMDL
Approve LRS (or alternative compliance plan)	Regional Board, Executive Officer	6 months after submittal of LRS

REVISED TENTATIVE

Attachment A to Resolution No. R10-XXX

Implementation Action	Responsible Parties	Deadline
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment B tributaries, if using LRS	8.5 years after effective date of the TMDL
Achieve interim (or final) WLA and submit report to Regional Board~~and demonstrate compliance with LRS~~	MS4 and Caltrans NPDES Permittees discharging to Segment B tributaries, if using LRS	11.5 years after effective date of the TMDL
Achieve final WLA or demonstrate that non-compliance is only due to upstream contributions and submit report to Regional Board	*MS4 and Caltrans NPDES Permittees discharging to Segment B tributaries, if using alternative compliance plan*	*11.5 years after effective date of the TMDL*
Second phase, if necessary – SEGMENT B TRIBUTARIES (Rio Hondo and Arroyo Seco) (LRS only)		
Submit a new LRS	MS4 and Caltrans NPDES Permittees discharging to Segment B tributaries	12.5 years after effective date of the TMDL
Approve LRS	Regional Board, Executive Officer	6 months after submittal of a second LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment B tributaries, if using LRS	16 years after effective date of the TMDL
~~Demonstrate compliance with LRS~~	~~MS4 and Caltrans NPDES Permittees discharging to Segment B tributaries, if using LRS~~	~~18 years after effective date of the TMDL~~
Achieve final WLAs Segment B tributaries or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	MS4 and Caltrans NPDES Permittees discharging to Segment B tributaries, if using LRS	18 years after effective date of the TMDL
SEGMENT A (lower Reach 2 and Reach 1 – Rosecrans Avenue to Willow Street) Dry Weather-		
First phase – Segment A		
Submit a Load Reduction Strategy (LRS) for Segment A (or submit an alternative compliance plan)	MS4 and Caltrans NPDES Permittees discharging to Segment A	4.5 years after effective date of the TMDL
Approve LRS (or alternative compliance plan)	Regional Board, Executive Officer	6 months after submittal of LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment A, if using LRS	9 years after effective date of the TMDL
Achieve interim (or final) WLA and submit report to Regional Board~~and demonstrate compliance with LRS~~	MS4 and Caltrans NPDES Permittees discharging to Segment A, if using LRS	12 years after effective date of the TMDL
Achieve final WLA or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	*MS4 and Caltrans NPDES Permittees discharging to Segment A, if using alternative compliance plan*	*12 years after effective date of the TMDL*

REVISED TENTATIVE

Attachment A to Resolution No. R10-XXX

Implementation Action	Responsible Parties	Deadline
Second phase, if necessary – Segment A (LRS only)		
Submit a new LRS	MS4 and Caltrans NPDES Permittees discharging to Segment A	13 years after effective date of the TMDL
Approve LRS	Regional Board, Executive Officer	6 months after submittal of a second LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment A, if using LRS	17.5 years after effective date of the TMDL
~~Demonstrate compliance with LRS~~	~~MS4 and Caltrans NPDES Permittees discharging to Segment A, if using LRS~~	~~19.5 years after effective date of the TMDL~~
Achieve final WLAs in Segment A or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	MS4 and Caltrans NPDES Permittees discharging to Segment A, if using LRS	19.5 years after effective date of the TMDL
SEGMENT A TRIBUTARY (Compton Creek) Dry Weather		
First phase – Segment A Tributary		
Submit a Load Reduction Strategy (LRS) for Segment A tributary (or submit an alternative compliance plan)	MS4 and Caltrans NPDES Permittees discharging to Segment A tributary	6 years after effective date of the TMDL
Approve LRS (or alternative compliance plan)	Regional Board, Executive Officer	6 months after submittal of LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment A tributary if using LRS	10.5 years after effective date of the TMDL
Achieve interim (or final) WLA and submit report to Regional Board~~and demonstrate compliance with LRS~~	MS4 and Caltrans NPDES Permittees discharging to Segment A tributary if using LRS	13.5 years after effective date of the TMDL
Achieve final WLA or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	*MS4 and Caltrans NPDES Permittees discharging to Segment A tributary, if using alternative compliance plan*	*13.5 years after effective date of the TMDL*
Second phase, if necessary – Segment A tributary (LRS only)		
Submit a new LRS	MS4 and Caltrans NPDES Permittees discharging to Segment A tributary	14.5 years after effective date of the TMDL
Approve LRS	Regional Board, Executive Officer	6 months after submittal of a second LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment A tributary, if using LRS	18 years after effective date of the TMDL

REVISED TENTATIVE

Implementation Action	Responsible Parties	Deadline
~~Demonstrate compliance with LRS~~	~~MS4 and Caltrans NPDES Permittees discharging to Segment A tributary, if using LRS~~	~~20 years after effective date of the TMDL~~
Achieve final WLAs in Segment A tributary or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	MS4 and Caltrans NPDES Permittees discharging to Segment A tributary, if using LRS	20 years after effective date of the TMDL
SEGMENT E (Reach 6 – LA River headwaters [confluence with Bell Creek and Calabasas Creek] to Balboa Boulevard) Dry Weather~~-~~		
First phase – Segment E		
Submit a Load Reduction Strategy (LRS) for Segment E *(or submit an alternative compliance plan)*	MS4 and Caltrans NPDES Permittees discharging to Segment E	5.5 years after effective date of the TMDL
Approve LRS (or alternative compliance plan)	Regional Board, Executive Officer	6 months after submittal of LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment E, if using LRS	10 years after effective date of the TMDL
Achieve interim (or final) WLA and submit report to Regional Board~~and demonstrate compliance with LRS~~	MS4 and Caltrans NPDES Permittees discharging to Segment E, if using LRS	13 years after effective date of the TMDL
Achieve final WLA or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	*MS4 and Caltrans NPDES Permittees discharging to Segment E, if using alternative compliance plan*	*13 years after effective date of the TMDL*
Second phase, if necessary –Segment E, (LRS only)		
Submit a new LRS	MS4 and Caltrans NPDES Permittees discharging to Segment E	14 years after effective date of the TMDL
Approve LRS	Regional Board, Executive Officer	6 months after submittal of a second LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment E, if using LRS	17.5 years after effective date of the TMDL
~~Demonstrate compliance with LRS~~	~~MS4 and Caltrans NPDES Permittees discharging to Segment E, if using LRS~~	~~19.5 years after effective date of the TMDL~~
Achieve final WLAs in Segment E or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	MS4 and Caltrans NPDES Permittees discharging to Segment E, if using LRS	19.5 years after effective date of the TMDL
SEGMENT E TRIBUTARIES (Dry Canyon Creek, McCoy Creek, Bell Creek, and Aliso Canyon Wash) Dry Weather		
First phase – Segment E Tributaries		

REVISED TENTATIVE

Implementation Action	Responsible Parties	Deadline
Submit a Load Reduction Strategy (LRS) for Segment E tributaries (or submit an alternative compliance plan)	MS4 and Caltrans NPDES Permittees discharging to Segment E tributaries	9.5 years after effective date of the TMDL
Approve LRS (or alternative compliance plan)	Regional Board, Executive Officer	6 months after submittal of LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment E tributaries if using LRS	14 years after effective date of the TMDL
Achieve interim (or final) WLA and submit report to Regional Board~~and demonstrate compliance with LRS~~	MS4 and Caltrans NPDES Permittees discharging to Segment E tributaries, if using LRS	17 years after effective date of the TMDL
Achieve final WLA or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	*MS4 and Caltrans NPDES Permittees discharging to Segment E tributaries, if using alternative compliance plan*	*17 years after effective date of the TMDL*
Second phase, if necessary – Segment E tributaries (LRS only)		
Submit a new LRS	MS4 and Caltrans NPDES Permittees discharging to Segment E tributaries	18 years after effective date of the TMDL
Approve LRS	Regional Board, Executive Officer	6 months after submittal of a second LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment E tributaries, if using LRS	21.5 years after effective date of the TMDL
~~Demonstrate compliance with LRS~~	~~MS4 and Caltrans NPDES Permittees discharging to Segment E tributaries, if using LRS~~	~~23.5 years after effective date of the TMDL~~
Achieve final WLAs in Segment E tributaries or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	MS4 and Caltrans NPDES Permittees discharging to Segment E tributaries, if using LRS	23.5 years after effective date of the TMDL
Segment C (lower Reach 4 and Reach 3 – Tujunga Avenue to Figueroa Street) Dry Weather **Segment C Tributaries (Tujunga Wash, Burbank Western Channel, and Verdugo Wash) Dry Weather** **Segment D (Reach 5 and upper Reach 4 – Balboa Boulevard to Tujunga Avenue) Dry Weather** **Segment D Tributaries (Bull Creek) Dry Weather**		
First phase – Segment C, Segment C Tributaries, Segment D, Segment D tributaries		
Submit a Load Reduction Strategies (LRS) for Segment C, Segment C tributaries, Segment D, Segment D tributaries *(or submit an alternative compliance plan)*	MS4 and Caltrans NPDES Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries	11 years after effective date of the TMDL
Approve LRS (or alternative compliance plan)	Regional Board, Executive Officer	6 months after submittal of LRS

REVISED TENTATIVE

Attachment A to Resolution No. R10-XXX

Implementation Action	Responsible Parties	Deadline
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries, if using LRS	15.5 years after effective date of the TMDL
Achieve interim (or final) WLA and submit report to Regional Board~~and demonstrate compliance with LRS~~	MS4 and Caltrans NPDES Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries, if using LRS	18.5 years after effective date of the TMDL
Achieve final WLA or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	*MS4 and Caltrans NPDES Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries, if using alternative compliance plan*	*18.5 years after effective date of the TMDL*
Second phase, if necessary - Segment C, Segment C Tributaries, Segment D, Segment D Tributaries (LRS only)		
Submit a new LRS	MS4 and Caltrans NPDES Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries	19.5 years after effective date of the TMDL
Approve LRS	Regional Board, Executive Officer	6 months after submittal of a second LRS
Complete implementation of LRS	MS4 and Caltrans NPDES Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries if using LRS	23 years after effective date of the TMDL
~~Demonstrate compliance with LRS~~	~~MS4 and Caltrans NPDES Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries, if using LRS~~	~~25 years after effective date of the TMDL~~
Achieve final WLAs in Segment C, Segment C tributaries, Segment D, Segment D tributaries or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	MS4 and Caltrans NPDES Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries if using LRS	25 years after effective date of the TMDL
All Los Angeles River Segments and Tributaries		
Submit a Bacteria Coordinated Monitoring Plan (CMP)	All responsible parties	1 year after the effective date of the TMDL
Conduct ambient water quality monitoring set forth in the CMP	All responsible parties	6 months after approval of the CMP

REVISED TENTATIVE

Implementation Action	Responsible Parties	Deadline
Reconsider TMDL based upon technical studies or policy changes, including but not be limited to: (1) Alterations to recreational beneficial use designations (2) Revision of US EPA recommended bacteria criteria, Regional Board or State Board bacteria standards (3) Expansion of the High Flow Suspension provisions of Chapter 2 (i.e. extension in duration or spatial extent).	Regional Board	4 years after the effective date of the TMDL
Reconsider TMDL based upon technical studies or policy changes, including but not be limited to: (1) Alterations to recreational beneficial use designations (2) Revision of US EPA recommended bacteria criteria, Regional Board or State Board bacteria standards (3) Expansion of the High Flow Suspension provisions of Chapter 2 (i.e. extension in duration or spatial extent). (4) Technical evaluations of natural and anthropogenic sources of bacteria, including viable alternatives to defining natural or anthropogenic sources of bacteria (5) Wet weather compliance options	Regional Board	10 years after the effective date of the TMDL
Reconsider TMDL based upon technical studies or policy changes, including but not be limited to: (1) Natural sources exclusion	Regional Board	Within one year of a demonstration that interim limits are met in a segment
Submit implementation plan for wet weather with interim milestones	All responsible parties	Within 10 years of the effective date of the TMDL
~~Achieve final dry weather WLAs and LAs~~	~~All responsible parties~~	~~25 years after effective date of the TMDL~~
Achieve final wet-weather WLAs and LAs and submit report to Regional Board demonstrating wet weather and dry weather compliance.	All responsible parties	25 years after effective date of the TMDL

REVISED TENTATIVE