

Revised Total Maximum Daily Loads for Indicator Bacteria, Project I – Twenty Beaches and Creeks (including Tecolote Creek)

ERRATA SHEET

This document presents the errata to tentative Resolution No. R9-2010-0001, Attachment A to the tentative Resolution, and the draft Technical Report for the *Revised Total Maximum Daily Loads for Indicator Bacteria, Project I – Twenty Beaches and Creeks (including Tecolote Creek)* (Revised Bacteria TMDLs Project I) released on November 25, 2009. The errata represent revisions to the documents made in the response to the written comments received on or before January 25, 2010.

1. Errata – Tentative Resolution No. R9-2010-0001

Page 2

Finding 3. Revise as follows:

- 3. Definition of Total Maximum Daily Load (TMDL):** A TMDL is defined as the sum of the individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background. TMDLs must be established at levels necessary to attain and maintain the applicable narrative and numerical water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge between effluent limitations and water quality. TMDLs must be established for waterbodies identified on the 303(d) List. ~~For the specific purpose of developing information, states are also required to develop TMDLs for all other waters that are not identified on the 303(d) List.~~ For the purpose of developing information for all waters not identified on the 303(d) List, states are also required to estimate the TMDLs with seasonal variations and margin of safety.

Page 2

Finding 4. Revise as follows:

- 4. Water Quality Standards Interpreted in TMDLs with Numeric Targets:** One or more numeric targets are typically required to calculate TMDLs at levels necessary to attain and maintain applicable narrative and numerical water quality standards. Numeric targets interpret the existing water quality standards (i.e., beneficial uses and the WQOs established at levels sufficient to support those uses). In California, numeric targets are often based on the WQOs in the Basin Plan. The Basin Plan contains numeric and narrative WQOs. If applicable WQOs are numeric, the numeric WQOs can be used as numeric targets. If applicable WQOs are narrative, one or more quantifiable target values or measurable indicators must be selected to measure progress and evaluate final attainment and maintenance of the narrative WQOs. In impaired waters requiring TMDLs, when numeric targets are met in the waterbody, the water quality standards should be attained and restored. While numeric targets and

TMDLs interpret water quality standards, *numeric targets and TMDLs are not water quality standards*. The water quality standards, TMDLs, WLAs, LAs, receiving water limits, numeric targets, and/or WQBELs developed in this project become enforceable requirements after they have been incorporated into the regulatory orders issued by the San Diego Water Board and/or State Water Board (e.g., waste discharge requirements, conditional waivers, etc.).

Page 3

Finding 7. Add the following citations as a footnote for the phrase that ends "...directly correlated with the density of indicator bacteria in water used for recreation and shellfish harvesting,...":

¹² BEACH Act Rule (USEPA 2004); Health effects criteria for fresh recreational waters (USEPA 1984)

Page 4

Finding 10. Revise as follows:

10. Adoption of Bacteria TMDLs Project I Basin Plan Amendment Contingent Upon Adoption of Reference System Approach Basin Plan Amendment:

The bacteria TMDLs adopted under Resolution No. R9-2007-0044 included "interim" and "final" wet weather TMDLs. The "interim" wet weather TMDLs were calculated to include an allowance for exceedances of REC-1 WQOs due to bacteria loads from natural sources based on the exceedances in a reference system. The "final" wet weather TMDLs that were calculated did not allow for exceedances of REC-1 WQOs due to bacteria loads from natural sources. At the time Resolution No. R9-2007-0044 was adopted, allowing exceedances of the REC-1 WQOs during either wet or dry weather was not authorized by the Basin Plan. The San Diego Water Board, however, recognized that exceedances of the REC-1 WQOs during wet weather was likely, and may be partially due to bacteria loads contributed from natural sources. Therefore, the San Diego Water Board agreed to develop a Reference System Approach Basin Plan Amendment, which would authorize an allowance for ~~wet weather~~ exceedances of the REC-1 WQOs based on the ~~wet weather~~ exceedance frequencies observed in a reference system.

For this reason, adoption of the Bacteria TMDLs Project I Basin Plan amendment was made contingent upon the future consideration of a separate Reference System Approach Basin Plan amendment by the San Diego Water Board. It was assumed that upon the subsequent adoption of the Reference System Approach Basin Plan amendment, Bacteria TMDLs Project I would be appropriately revised and brought back to the San Diego Water Board for re-adoption. The key revision would include incorporation of the reference system approach into the final wet weather TMDLs. Specifically, the previously established "interim" wet weather TMDLs, which were calculated based on the reference system

approach, would become the only wet weather TMDLs. The previously established “final” TMDLs, which did not use the reference system approach, would be removed.

Page 4

Finding 11. Revise as follows:

11. Adoption and Approval of Reference System Approach Basin Plan

Amendment (Resolution No. R9-2008-0028): On May 14, 2008, the San Diego Water Board adopted Resolution No. R9-2008-0028, *Implementation Provisions for Indicator Bacteria Water Quality Objectives to Account for Loading from Natural Uncontrollable Sources Within the Context of a TMDL*. This Basin Plan Amendment contains “implementation provisions” which provide the San Diego Water Board with flexibility in implementing its bacteria WQOs in the context of certain TMDLs. Specifically, it authorizes the San Diego Water Board to develop bacteria TMDLs that allows exceedances of the ~~single sample maximum bacteria~~ WQOs ~~during wet weather~~ for the purpose of accounting for natural, uncontrollable sources of bacteria (e.g., birds, wildlife, soil, etc.). Such sources, by themselves and in the absence of human activities, have been found to cause exceedances of the ~~single sample maximum~~ WQOs ~~during wet weather~~. The Administrative Record for Resolution No. R9-2008-0028 was transmitted to the State Water Board on July 25, 2008. Resolution No. R9-2008-0028 was approved by the State Water Board on March 17, 2009, approved by OAL on June 25, 2009, and approved by USEPA on September 16, 2009. Approval of Resolution No. R9-2008-0028 allows the San Diego Water Board to revise the Bacteria TMDLs Project I Basin Plan amendment adopted under Resolution No. R9-2007-0044.

Page 11

Finding 26. Revise as follows:

26. Implementation of TMDLs: Because the ~~Municipal Phase I~~ MS4s are located at the base of the watersheds and have been identified as ~~a the most~~ significant controllable source of bacteria discharging to the receiving waters, these TMDLs will be implemented primarily through the revision of the National Pollutant Discharge Elimination System (NPDES) discharge requirements regulating discharges from the ~~Municipal Phase I~~ MS4s ~~and Caltrans~~. ~~The Caltrans NPDES requirements will also be revised~~. 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. WQBELs may be expressed as numeric effluent limitations, when feasible, and/or as a best management practice (BMP) program of expanded or better-tailored BMPs. The WQBELs will likely need to include a BMP program to achieve the load reductions required to attain the TMDLs in the receiving waters. The ~~Municipal Phase I~~ MS4s ~~and Caltrans~~ will be required to submit Bacteria or Comprehensive Load Reduction Plans outlining a proposed

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BMP program that will be capable of achieving the necessary load reductions required to attain the TMDLs in the receiving water. The Municipal Phase I MS4s and Caltrans will be responsible for reducing their bacteria loads and/or demonstrating that their discharges are not causing exceedances of the numeric WQOs and allowable exceedance frequencies in the receiving waters. Other dischargers identified as significant sources of bacteria will also be responsible for reducing their bacteria loads and/or demonstrating that their discharges are not causing exceedances of the numeric WQOs and allowable exceedance frequencies in the receiving waters.

2. Errata – Draft Basin Plan Amendment (Attachment A to Tentative Resolution)

Page A1

Revise the last paragraph on the page as follows:

~~Beginning with the 2008 303(d) List, specific beach segments of the Pacific Ocean shoreline are listed individually.~~ The TMDLs that have been developed for the Pacific Ocean shorelines are ~~assumed to be~~ applicable to all the beaches located on the shorelines of the hydrologic subareas (HSAs), hydrologic areas (HAs), and hydrologic units (HUs) listed above. Beginning with the 2008 303(d) List, specific beach segments of the Pacific Ocean shoreline are listed individually. Specific beach segments from some of the Pacific Ocean shorelines listed in the above table have been delisted from the 2008 303(d) list that was approved by the San Diego Board on December 16, 2009.

Page A5

Revise the fourth paragraph on the page as follows:

Waters identified under section 303(d) (a.k.a. the 303(d) List) are designated as Water Quality Limited Segments (WQLSs). In accordance with the priority ranking, TMDLs must be established for pollutants suitable for such calculations. ~~For the specific purpose of developing information, the State must also identify waters that are not WQLSs and develop TMDLs for those waters as well.~~ For the purpose of developing information for all waters not identified as WQLSs, states are also required to estimate the TMDLs with seasonal variations and margin of safety.

Page A11

Revise number 4 as follows:

4. Total Maximum Daily Loads (TMDLs) for Total Nitrogen and Total Phosphorus in the Rainbow Creek Watershed

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Page A13

Revise the fifth paragraph on the page as follows:

Different REC-1 WQOs were used as the basis for wet weather and dry weather allowable load (i.e., TMDL) calculations because the bacteria transport mechanisms to receiving waters are different under wet and dry weather conditions. Because wet weather conditions, or storm flow, are episodic and short in duration, and characterized by rapid wash-off and transport of high bacteria loads, with short residence times, from all land use types to receiving waters, the single sample maximum WQOs were appropriate for use as wet weather numeric targets. For dry weather conditions, because dry weather runoff is not generated from storm flows, is not uniformly linked to every land use, and is more uniform than stormflow, with lower flows, lower loads, and slower transport, making die-off and/or amplification processes more important, the geometric mean WQOs were appropriate for use as dry weather numeric targets. Wet weather TMDL calculations were based on the REC-1 single sample maximum WQOs while dry weather TMDL calculations were based on REC-1 geometric mean WQOs.

Page A15

Revise the second sentence of the first paragraph on the page as follows:

The “designated beach” usage frequency has the ~~most conservative and protective~~ lowest and most stringent enterococci REC-1 WQOs in the Basin Plan.

Page A17

Insert the following paragraph before first paragraph on the page:

Nonpoint sources were separated into controllable and uncontrollable categories. Controllable nonpoint sources are identified by land use types and coverages. Controllable nonpoint sources include land uses associated with agriculture, dairy/intensive livestock, and horse ranches (collectively referred to as agriculture land uses). These were considered controllable because the land uses are anthropogenic in nature, and load reductions can be reasonably expected with the implementation of suitable management measures. Uncontrollable nonpoint sources include loads from open recreation, open space, and water land uses (collectively referred to as open space land uses). Loads from these areas are considered uncontrollable because they come from mostly natural sources (e.g. bird and wildlife feces).

Page A24

Insert the following paragraphs between first and second full paragraphs on the page:

Because bacteria in wet weather runoff and streamflows have a quick travel time, and therefore, a short residence time in the waterbodies, the REC-1 single-sample maximum WQOs were determined to be most appropriate for calculating the wet weather TMDLs. The numeric targets used for the wet weather mass-load based

and concentration based TMDLs are assumed to be conservative by utilizing the most stringent REC-1 single sample maximum WQOs contained in the Ocean Plan and/or Basin Plan.

Because dry weather conditions have flows and bacteria loads much smaller in magnitude than wet weather conditions, do not occur from all land use types, and are more uniform than stormflow, the REC-1 30-day geometric mean WQOs were determined to be most appropriate for the dry weather TMDLs. The numeric targets used for the dry weather mass-load based and concentration based TMDLs are assumed to be conservative by utilizing the most stringent REC-1 30 day geometric mean WQOs contained in the Ocean Plan and/or Basin Plan.

Page A27

Table, fifth column from the left. Replace “Billion MPN/Year” with “Billion MPN/mth”.

Page A28

Table, fifth column from the left. Replace “Billion MPN/Year” with “Billion MPN/mth”.

Page A37

Revise the fourth bullet item on the page as follows:

- The TMDL calculations are based on either the single sample maximum WQO (for wet weather) or 30-day geometric mean WQOs (for dry weather), but both the single sample maximum and the 30-day geometric mean numeric WQOs and allowable exceedance frequencies must be met in the receiving waters.

Page A38

Revise the sixth bullet item from the top of the page as follows:

- The dry weather existing mass loads and allowable mass loads (i.e.e, dry weather mass-load based TMDLs) are calculated assuming surface runoff is generated only by anthropogenic activities and discharged from specific land use categories to receiving waters. The possible contribution of subsurface or groundwater flows to bacteria loads in receiving waters during dry weather was not accounted for in any land use category.

Page A42

Revise the first full paragraph on the page as follows:

If the receiving water limitations (based on the numeric targets) are met in the receiving waters, the assumption will be that the MS4s have met their WLAs. If, however, the receiving water limitations are not being met in the receiving waters, the Phase I MS4s will be responsible for reducing their bacteria loads and/or demonstrating that controllable anthropogenic discharges from the Phase I MS4s are not causing the exceedances, as outlined below in the Monitoring for TMDL Compliance section below.

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Page A43

Revise the second paragraph on the page as follows:

If the receiving water limitations (based on the numeric targets) are met in the receiving waters, the assumption will be that the Phase II MS4s have met their WLAs. If, however, the receiving water limitations are not being met in the receiving waters and one or more Phase II MS4 dischargers are identified as sources of bacteria causing exceedances, the specific Phase II MS4s will be responsible for reducing their bacteria loads and/or demonstrating that controllable anthropogenic discharges from those specific Phase II MS4s are not causing the exceedances, as outlined below in the Monitoring for TMDL Compliance section below.

Page A44

Revise the second paragraph on the page as follows:

If the receiving water limitations (based on the numeric targets) are met in the receiving waters, the assumption will be that Caltrans has met its WLAs. If, however, the receiving water limitations are not being met in the receiving waters, and Caltrans MS4s are identified as a source of bacteria causing exceedances, Caltrans will be responsible for reducing its bacteria loads and/or demonstrating that controllable anthropogenic discharges from the Caltrans MS4s are not causing the exceedances, as outlined below in the Monitoring for TMDL Compliance section below.

Page A44

Revise the fourth paragraph on the page as follows:

Because POTWs and wastewater collection systems have been assigned WLAs of zero, no discharges of bacteria are expected or allowed under the wet weather TMDLs or dry weather TMDLs. If discharges of bacteria from POTWs and/or wastewater collection systems do occur as a result of sanitary sewer overflows and result in WQO exceedances, these exceedances will not apply to the compliance status of other dischargers.

Page A48

Revise the last paragraph on the page as follows:

The San Diego Water Board may issue subsequent investigative orders to confirm items in the BLRPs or CLRPs. The BLRPs or CLRPs must be capable of achieving the WLAs for the bacteria TMDLs; The CLRPs must also be capable of restoring the beneficial uses in receiving waters for other impairing pollutants in the watershed, and achieving the goals and objectives of any other water quality improvement projects included in the ~~BLRPs or~~ CLRPs within the time frame of the compliance schedule.

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Page A50

Revise the second full paragraph on the page as follows:

Monitoring for compliance will initially be conducted by the Phase I MS4s and Caltrans. The minimum components for any monitoring program that will be used to evaluate progress toward attainment of the TMDLs should include the following:

Page A50

Revise the first and second bullet items on the page as follows:

- For beaches addressed by these TMDLs, monitoring locations should consist of, at a minimum, the same locations used to collect data required under MS4 NPDES monitoring requirements and beach monitoring for Health and Safety Code section 115880. If exceedances of the receiving water limitations are observed in the monitoring data, additional monitoring locations and/or other source identification methods must be added implemented to identify the sources causing the exceedances. ~~An adequate number of additional monitoring locations and frequency of monitoring must be added to identify the sources causing the exceedances in the receiving waters.~~ The additional monitoring locations and/or other source identification methods must also be used to demonstrate that the bacteria loads from the identified sources have been addressed and are no longer causing exceedances in the receiving waters.
- For creeks addressed by these TMDLs, monitoring locations should consist of, at a minimum, a location at or near the mouth of the creek (e.g., Mass Loading Station or Mass Emission Station) and one or more locations upstream of the mouth (e.g., Watershed Assessment Stations). If exceedances of the receiving water limitations are observed in the monitoring data, additional monitoring locations and/or other source identification methods must be added implemented to identify the sources causing the exceedances. ~~An adequate number of additional monitoring locations and frequency of monitoring must be added to identify the sources causing the exceedances in the receiving waters.~~ The additional monitoring locations and/or other source identification methods must also be used to demonstrate that the bacteria loads from the identified sources have been addressed and are no longer causing exceedances in the receiving waters.

Page A52

Revise the table and table notes on the page as follows:

[Insert table number]. Receiving Water Limitations for Creeks

Indicator Bacteria	Wet Weather Days ^a		Dry Weather Days ^b	
	Wet Weather Numeric Objective ^c (MPN/100mL)	Wet Weather Allowable Exceedance Frequency ^d	Dry Weather Numeric Objective ^e (MPN/100mL)	Dry Weather Allowable Exceedance Frequency
Fecal Coliform	400	22%	200	0%
Total Coliform ^f	10,000	22%	1,000	0%
Enterococcus	61 (104) ^g	22%	33	0%

- a. Wet weather days defined as days with rainfall events of 0.2 inches or greater and the following 72 hours.
- b. Dry weather days defined as days with less than 0.2 inch of rainfall observed on each of the previous 3 days.
- c. Wet weather numeric objectives based on the single sample maximum (or equivalent) water quality objectives in the Water Quality Control Plan for the San Diego Basin (1994). Compliance with the wet weather TMDLs in the receiving water is based on the frequency that the wet weather days in any given year exceed the wet weather numeric objective, but 30-day geometric mean must also be met.
- d. The wet weather allowable exceedance frequency is set at 22%. In the calculation of the wet weather TMDLs, the San Diego Regional Board chose to apply the 22 percent allowable exceedance frequency as determined for Leo Carillo Beach in Los Angeles County. At the time the wet weather watershed model was developed, the 22 percent exceedance frequency from Los Angeles County was the only reference beach exceedance frequency available. The 22 percent allowable exceedance frequency used to calculate the wet weather TMDLs is justified because the San Diego Region watersheds' exceedance frequencies will likely be close to the value calculated for Leo Carillo Beach, and is consistent with the exceedance frequency that was applied by the Los Angeles Regional Board.
- e. Dry weather numeric objectives based on the 30-day geometric mean (or equivalent) water quality objectives in Water Quality Control Plan for the San Diego Basin (1994). Compliance with the dry weather TMDLs in the receiving water is based on the frequency that the dry weather days in any given year exceed the dry weather numeric objective.
- f. ~~Wet and dry weather numeric objectives for total coliform apply at the point in a creek that discharges to a beach, bay, or estuary.~~
- g. A wet weather numeric objective for Enterococcus of 104 MPN/100mL may be applied as a receiving water limitation for creeks, instead of 61 MPN/100mL, if one or more of the creeks addressed by these TMDLs (San Juan Creek, Aliso Creek, Tecolote Creek, Forrester Creek, San Diego River, and/or Chollas Creek) is designated with a "moderately to lightly used area" or less frequent usage frequency in the Basin Plan. Otherwise, the wet weather numeric objective of 61 MPN/100mL for Enterococcus will be used to assess compliance with the wet weather allowable exceedance frequency.

Page A52

Revise the last paragraph on the page as follows:

Because the dry weather TMDLs are assigned entirely to the Municipal MS4s as WLAs, the Municipal MS4s are assumed to be the only source of bacteria during dry weather (i.e., dry weather TMDL = MS4 WLA). Discharges from other controllable sources (i.e.e.g., Caltrans, Agriculture, and Open Spaces) during dry weather are not expected and/or not allowed (i.e., WLA = 0 or LA = 0). If at the end of the dry weather TMDL compliance schedule the receiving waters exceed the 30-day geometric mean REC-1 WQOs more than 0 percent of the time, the municipal Phase I MS4s are responsible for demonstrating their discharges into the receiving waters are not causing the exceedances, or they will be considered out of compliance. If controllable sources other than the Phase I MS4s are identified as causing the exceedances, and the Phase I MS4s have demonstrated they are not causing or contributing to the exceedances, the Phase I MS4s will not be considered out of compliance.

Page A53

Revise the last paragraph on the page as follows:

As described in the minimum monitoring components above, ~~at least one sample wet weather samples~~ should be collected within 24 hours of the end of a storm event that occurs during the rainy season (i.e., October 1 through April 30). ~~At least one wet weather sample per storm is expected to be collected for each waterbody in each watershed (i.e., Pacific Ocean shoreline, creek mouth, and/or creek). Because of the many issues related to collecting wet weather samples from multiple sites within a short time frame, dischargers are expected to develop a wet weather monitoring and sampling approach in their BLRPs or CLRPs.~~ If only one sample is collected for a storm event, the bacteria density for every wet weather day associated with that storm event shall be equal to the results from that one sample. If more than one sample is collected for a storm event, but not on a daily basis, the bacteria density for all the wet weather days not sampled shall be equal to the highest bacteria density result reported from samples collected. The exceedance frequency shall be calculated by dividing the number of wet weather days that exceed the single sample maximum REC-1 WQOs by the total number of wet weather days during the rainy season. If at the end of the wet weather TMDL Compliance Schedule the receiving waters exceed the single sample maximum REC-1 WQOs more than the allowable exceedance frequency, all controllable sources are responsible for demonstrating their discharges into the receiving waters are not causing the exceedances, or they will be considered out of compliance.

Page A54

Revise the second full paragraph on the page as follows:

Because the Phase I MS4s are located at the base of the watersheds and have been identified as the most significant controllable source of bacteria, the municipal Phase I MS4s will have the primary responsibility for monitoring the receiving waters. ~~Caltrans will also have monitoring responsibilities. Phase II MS4s, agricultural dischargers, and other sources that are identified as significant sources (i.e., causing or contributing to exceedances in the receiving waters) will also be responsible for monitoring the receiving waters.~~ The municipal Phase I MS4s ~~and other dischargers~~ are responsible for reducing their bacteria loads and/or demonstrating their discharges into the receiving waters are not causing the exceedances.

Page A54

Revise the last paragraph on the page as follows:

1. *Measuring Progress Toward Attaining Dry Weather TMDLs:* For the dry weather TMDLs, available historical monitoring data from the years ~~1996-2002 to the effective date of these TMDLs~~ should be used to calculate the “existing” dry weather exceedance frequency of the 30-day geometric mean REC-1 WQOs for each watershed.

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Page A56

Revise the last paragraph on the page as follows::

The specific receiving waters (i.e., specific beaches and creek segments) identified on the 2002 303(d) List are shown in the TMDL Compliance Schedule in the following section. Because the REC-1 WQOs and allowable exceedance frequencies must be met throughout the 20 waterbodies addressed by these bacteria TMDLs, monitoring data from these locations and any other beach segments and/or creek monitoring points in the watersheds addressed by these TMDLs may be used to determine compliance.

Page A57

Revise the first paragraph on the page as follows::

Because the municipal MS4s are the most significant controllable sources of bacteria and the Phase I MS4s often discharge directly to the receiving waters addressed by these TMDLs, the municipal Phase I MS4s will be primarily responsible for conducting the monitoring. Caltrans will also have monitoring responsibilities. Phase II MS4s, agricultural dischargers, and other sources that are identified as significant sources (i.e., causing or contributing to exceedances in the receiving waters) will also be responsible for monitoring the receiving waters. Additional monitoring locations and frequency may be required to identify sources that need additional controls to reduce bacteria loads. While this TMDL Implementation Plan recommends monitoring at one or two locations for each waterbody, monitoring only one or two locations in the receiving waters may not provide the data to differentiate between and locate sources of bacteria in the watershed. Therefore, the municipal Phase I MS4s and other dischargers may wish to establish additional monitoring locations at key jurisdictional boundaries as part of their monitoring programs, especially in watersheds where Caltrans and Agriculture have been identified as sources contributing bacteria loads to the receiving waters.

Page A61

First row of table on the page. Remove City of Oceanside, City of Solana Beach, and City of Vista from Responsible Municipalities for Pacific Ocean Shoreline under the San Marcos HA Watershed.

Page A62

Second row of table on the page. Remove City of La Mesa from Responsible Municipalities for Forrester Creek for under the Mission San Diego/Santee HSAs Watershed.

Page A66

Revise the first paragraph on the page as follows:

Full implementation of the TMDLs for indicator bacteria shall be completed as soon as possible, but no later than 10 years from the effective date for both the dry

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weather and wet weather TMDLs, unless an alternative compliance schedule is approved as part of a Comprehensive Load Reduction Plan, as described in the following section. The effective date of these TMDLs is insert date on which OAL approves this Basin Plan amendment.

Page A66

Insert the following paragraph between the second and third full paragraphs on the page:

For watersheds in Table 11-5 where there are no longer any impairments listed on the 2008 303(d) List, the Phase I MS4s and Caltrans are not required to submit a BLRP or CLRP within 18 months of the effective date of these TMDLs. If, however, any segment of a waterbody for the watershed (Pacific Ocean shoreline, creek, or mouth as shown in Table 11-5) is re-listed on a future 303(d) List for any type of indicator bacteria, the Phase I MS4s and Caltrans will be required to submit a BLRP or CLRP within 6 months of the adoption of the 303(d) List by the San Diego Regional Board.

Pages A69-A70

Insert the footnote for “Municipal Dischargers” in Items 6-13 and 21 in Table:

d. Because there are no Phase II MS4s enrolled under the State General Permit for Small MS4s, discharges from Phase II MS4s are not permitted (i.e., WLA = 0) and Municipal Dischargers are only the Phase I MS4s in this Implementation Milestone item. When a Phase II MS4 is enrolled under the State General Permit for Small MS4s or issued an individual NPDES permit, the Municipal Dischargers will be both the Phase I MS4s and Phase II MS4s in this Implementation Milestone item.

Page A70

Insert the Phase II MS4s under Responsible Parties for Item 16 in Table.

3. Errata – Revised Draft Final Technical Report

Page 4

Revise the second paragraph on the page as follows:

A TMDL is equal to the sum of the wasteload allocations (WLAs), load allocations (LAs), and a margin of safety (MOS). Because of the conservative assumptions that were included in the development of the TMDLs, there was no explicit margin of safety included. Instead, the TMDLs include an implicit margin of safety (i.e., MOS = 0) by including conservative assumptions throughout the TMDL analysis. The TMDL is divided up and assigned among the known point sources as wasteload allocations (WLAs) and nonpoint sources as load allocations (LAs). Portions of the TMDLs

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were assigned as WLAs to Municipal MS4s and Caltrans, and as LAs to Agriculture and Open Space land uses. Discharges from Municipal MS4s, Caltrans, and Agriculture land uses are considered controllable. Discharges from Open Space land uses are considered uncontrollable.

Page 6

Revise the third bullet item from the top of the page as follows:

- The TMDL calculations are based on either the single sample maximum WQO (for wet weather) or 30-day geometric mean WQOs (for dry weather), but both the single sample maximum and the 30-day geometric mean numeric WQOs and allowable exceedance frequencies must be met in the receiving waters.

Page 6

Revise the last bullet item on the page as follows:

- The dry weather existing mass loads and allowable mass loads (i.e.e, dry weather mass-load based TMDLs) are calculated assuming surface runoff is generated only by anthropogenic activities and discharged from specific land use categories to receiving waters. The possible contribution of subsurface or groundwater flows to bacteria loads in receiving waters during dry weather was not accounted for in any land use category.

Page 29

Revise the first paragraph on the page as follows:

The reference system approach may be used to account for exceedances of bacteria WQOs during the initial development and calculation of bacteria TMDLs. The natural sources exclusion approach can only be used to account for exceedances of bacteria WQOs after the responsible dischargers demonstrate they have implemented all appropriate BMPs to control all anthropogenic sources of indicator bacteria to the target water body such that they do not cause or contribute to exceedances of the indicator bacteria WQOs that all controllable anthropogenic sources have been eliminated, typically after a bacteria TMDL has already been adopted and implemented.

Page 33

Revise the second sentence of the second paragraph on the page as follows:

The “designated beach” usage frequency has the most conservative and protective lowest and most stringent enterococci REC-1 WQOs in the Basin Plan.

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Page 34

Insert the following paragraph between the second and third paragraphs after the table on the page:

The Southern Coastal California Water Research Project's (SCCWRP) Study published and titled, *Fecal Indicator Bacteria (FIB) levels during dry weather from southern California reference streams* (Tiefenthaler, et al., 2008) shows that exceedances of REC-1 WQOs in nautral streams typically occur at levels below State water quality standards during dry weather conditions. Results of the study also indicated that exceedances of the single sample maximum WQOs during dry weather conditions do occur. Additional studies may indicate that an allowable exceedance frequency for dry weather may be appropriate.

Page 63

Replace all occurrences of "MNP" with "MPN".

Page 68

Replace all occurrences of "MNP" with "MPN".

Page 83

Table 9-3, fifth column from the left. Replace "Billion MPN/Year" with "Billion MPN/mth".

Page 84

Table 9-3, fifth column from the left. Replace "Billion MPN/Year" with "Billion MPN/mth".

Page 101

Revise the first bullet item at the top of the page as follows:

- The TMDL calculations are based on either the single sample maximum WQO (for wet weather) or 30-day geometric mean WQOs (for dry weather), but both the single sample maximum and the 30-day geometric mean numeric WQOs and allowable exceedance frequencies must be met in the receiving waters.

Page 101

Revise the ninth bullet from the top of the page as follows:

- The dry weather existing mass loads and allowable mass loads (i.e.e, dry weather mass-load based TMDLs) are calculated assuming surface runoff is generated only by anthropogenic activities and discharged from specific land use categories to receiving waters. The possible contribution of subsurface or groundwater flows to bacteria loads in receiving waters during dry weather was not accounted for in any land use category.

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Page 105

Revise the first full paragraph on the page as follows:

If the receiving water limitations (based on the numeric targets) are met in the receiving waters, the assumption will be that the Phase I MS4s have met their WLAs. If, however, the receiving water limitations are not being met in the receiving waters, the Phase I MS4s will be responsible for reducing their bacteria loads and/or demonstrating that controllable anthropogenic discharges from the Phase I MS4s are not causing the exceedances.

Page 106

Revise the fourth full paragraph on the page as follows:

If the receiving water limitations (based on the numeric targets) are met in the receiving waters, the assumption will be that the Phase II MS4s have met their WLAs. If, however, the receiving water limitations are not being met in the receiving waters and one or more Phase II MS4 dischargers are identified as sources of bacteria causing exceedances, the specific Phase II MS4s will be responsible for reducing their bacteria loads and/or demonstrating that controllable anthropogenic discharges from those specific Phase II MS4s are not causing the exceedances.

Page 107

Revise the last paragraph on the page as follows:

If the receiving water limitations (based on the numeric targets) are met in the receiving waters, the assumption will be that Caltrans has met its WLAs. If, however, the receiving water limitations are not being met in the receiving waters, and Caltrans MS4s are identified as a source of bacteria causing exceedances, Caltrans will be responsible for reducing its bacteria loads and/or demonstrating that controllable anthropogenic discharges from the Caltrans MS4s are not causing the exceedances.

Page 115

Revise the third full paragraph on the page as follows:

Monitoring for compliance will initially be conducted by the Phase I MS4s and Caltrans. The minimum components for any monitoring program that will be used to evaluate progress toward attainment of the TMDLs should include the following:

Page 115

Revise the first and second bullet items on the page as follows:

- For beaches addressed by these TMDLs, monitoring locations should consist of, at a minimum, the same locations used to collect data required under MS4 NPDES monitoring requirements and beach monitoring for Health and Safety Code section 115880. If exceedances of the receiving water limitations are

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observed in the monitoring data, additional monitoring locations and/or other source identification methods must be added implemented to identify the sources causing the exceedances. ~~An adequate number of additional monitoring locations and frequency of monitoring must be added to identify the sources causing the exceedances in the receiving waters.~~ The additional monitoring locations and/or other source identification methods must also be used to demonstrate that the bacteria loads from the identified sources have been addressed and are no longer causing exceedances in the receiving waters.

- For creeks addressed by these TMDLs, monitoring locations should consist of, at a minimum, a location at or near the mouth of the creek (e.g., Mass Loading Station or Mass Emission Station) and one or more locations upstream of the mouth (e.g., Watershed Assessment Stations). If exceedances of the receiving water limitations are observed in the monitoring data, additional monitoring locations and/or other source identification methods must be added implemented to identify the sources causing the exceedances. ~~An adequate number of additional monitoring locations and frequency of monitoring must be added to identify the sources causing the exceedances in the receiving waters.~~ The additional monitoring locations and/or other source identification methods must also be used to demonstrate that the bacteria loads from the identified sources have been addressed and are no longer causing exceedances in the receiving waters.

Page 117

Table 11-2. Revise the table and table notes on the page as follows:

Table 11-2. Receiving Water Limitations for Creeks

Indicator Bacteria	Wet Weather Days ^a		Dry Weather Days ^b	
	Wet Weather Numeric Objective ^c (MPN/100mL)	Wet Weather Allowable Exceedance Frequency ^d	Dry Weather Numeric Objective ^e (MPN/100mL)	Dry Weather Allowable Exceedance Frequency
Fecal Coliform	400	22%	200	0%
Total Coliform^f	10,000	22%	1,000	0%
Enterococcus	61 (104) ^{g-}	22%	33	0%

- a. Wet weather days defined as days with rainfall events of 0.2 inches or greater and the following 72 hours.
- b. Dry weather days defined as days with less than 0.2 inch of rainfall observed on each of the previous 3 days.
- c. Wet weather numeric objectives based on the single sample maximum (or equivalent) water quality objectives in the Water Quality Control Plan for the San Diego Basin (1994). Compliance with the wet weather TMDLs in the receiving water is based on the frequency that the wet weather days in any given year exceed the wet weather numeric objective, but 30-day geometric mean must also be met.
- d. The wet weather allowable exceedance frequency is set at 22%. In the calculation of the wet weather TMDLs, the San Diego Regional Board chose to apply the 22 percent allowable exceedance frequency as determined for Leo Carillo Beach in Los Angeles County. At the time the wet weather watershed model was developed, the 22 percent exceedance frequency from Los Angeles County was the only reference beach exceedance frequency available. The 22 percent allowable exceedance frequency used to calculate the wet weather TMDLs is justified because the San Diego Region watersheds' exceedance frequencies will likely be close to the value calculated for Leo Carillo Beach, and is consistent with the exceedance frequency that was applied by the Los Angeles Regional Board.
- e. Dry weather numeric objectives based on the 30-day geometric mean (or equivalent) water quality objectives in Water Quality Control Plan for the San Diego Basin (1994). Compliance with the dry weather TMDLs in the receiving water is based on the frequency that the dry weather days in any given year exceed the dry weather numeric objective.
- ~~f. Wet and dry weather numeric objectives for total coliform apply at the point in a creek that discharges to a beach, bay, or estuary.~~
- ~~g. A wet weather numeric objective for Enterococcus of 104 MPN/100mL may be applied as a receiving water limitation for creeks, instead of 61 MPN/100mL, if one or more of the creeks addressed by these TMDLs (San Juan Creek, Aliso Creek, Tecolote Creek, Forrester Creek, San Diego River, and/or Chollas Creek) is designated with a "moderately to lightly used area" or less frequent usage frequency in the Basin Plan. Otherwise, the wet weather numeric objective of 61 MPN/100mL for Enterococcus will be used to assess compliance with the wet weather allowable exceedance frequency.~~

Page 118

Revise the fourth paragraph on the page as follows:

Because the dry weather TMDLs are assigned entirely to the Municipal MS4s as WLAs, the Municipal MS4s are assumed to be the only source of bacteria during dry weather (i.e., dry weather TMDL = MS4 WLA). Discharges from other controllable sources (~~i.e.e.g., Caltrans, Agriculture, and Open Spaces~~) during dry weather are not expected and/or not allowed (i.e., WLA = 0 or LA = 0). If at the end of the dry weather TMDL compliance schedule the receiving waters exceed the 30-day geometric mean REC-1 WQOs more than 0 percent of the time, the municipal Phase I MS4s are responsible for demonstrating their discharges into the receiving waters are not causing the exceedances, or they will be considered out of compliance. If controllable sources other than the Phase I MS4s are identified as causing the exceedances, and the Phase I MS4s have demonstrated they are not causing or contributing to the exceedances, the Phase I MS4s will not be considered out of compliance.

Page 119

Revised the second paragraph on the page as follows:

As described in the minimum monitoring components above, ~~at least one sample wet weather samples~~ should be collected within 24 hours of the end of a storm event that occurs during the rainy season (i.e., October 1 through April 30). At least one wet weather sample per storm is expected to be collected for each waterbody in each watershed (i.e., Pacific Ocean shoreline, creek mouth, and/or creek). Because of the many issues related to collecting wet weather samples from multiple sites within a short time frame, dischargers are expected to develop a wet weather monitoring and sampling approach in their BLRPs or CLRPs. If only one sample is collected for a storm event, the bacteria density for every wet weather day associated with that storm event shall be equal to the results from that one sample. If more than one sample is collected for a storm event, but not on a daily basis, the bacteria density for all the wet weather days not sampled shall be equal to the highest bacteria density result reported from samples collected. The exceedance frequency shall be calculated by dividing the number of wet weather days that exceed the single sample maximum REC-1 WQOs by the total number of wet weather days during the rainy season. If at the end of the wet weather TMDL Compliance Schedule the receiving waters exceed the single sample maximum REC-1 WQOs more than the allowable exceedance frequency, all controllable sources are responsible for demonstrating their discharges into the receiving waters are not causing the exceedances, or they will be considered out of compliance.

Page 119

Revised the fourth paragraph on the page as follows:

Because the Phase I MS4s are located at the base of the watersheds and have been identified as the most significant controllable source of bacteria, the municipal Phase I MS4s will have the primary responsibility for monitoring the receiving waters. Phase II MS4s, Caltrans and agricultural dischargers that are identified as significant sources causing or contributing to exceedances in the receiving waters will also be responsible for monitoring the receiving waters. The municipal Phase I MS4s and other dischargers are responsible for reducing their bacteria loads and/or demonstrating their discharges into the receiving waters are not causing the exceedances.

Page 120

Revise the second full paragraph on the page as follows:

1. *Measuring Progress Toward Attaining Dry Weather TMDLs:* For the dry weather TMDLs, available historical monitoring data from the years 1996-2002 to the effective date of these TMDLs should be used to calculate the “existing” dry weather exceedance frequency of the 30-day geometric mean REC-1 WQOs for each watershed.

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Page 121

Table 11-3. Revise the Table heading as follows:

Table 11-3. Modeled Estimate of Critical Year “Existing” Wet Weather Exceedance Frequencies by Watershed

Page 121

Revise the second paragraph following the table on the page as follows:

The specific receiving waters (i.e., specific beaches and creek segments) identified on the 2002 303(d) List are shown in the TMDL Compliance Schedule in section 11.5. Because the REC-1 WQOs and allowable exceedance frequencies must be met throughout the 20 waterbodies addressed by these bacteria TMDLs, monitoring data from these locations and any other beach segments and/or creek monitoring points in the watersheds addressed by these TMDLs may be used to determine compliance.

Page 121

Revise the third paragraph following the table on the page as follows::

Because the municipal MS4s are the most significant controllable sources of bacteria and the Phase I MS4s often discharge directly to the receiving waters addressed by these TMDLs, the municipal Phase I MS4s will be primarily responsible for conducting the monitoring. Caltrans will also have monitoring responsibilities. Phase II MS4s, agricultural dischargers, and other sources that are identified as significant sources (i.e., causing or contributing to exceedances in the receiving waters) will also be responsible for monitoring the receiving waters. Additional monitoring locations and frequency may be required to identify sources that need additional controls to reduce bacteria loads. While this TMDL Implementation Plan recommends monitoring at one or two locations for each waterbody, monitoring only one or two locations in the receiving waters may not provide the data to differentiate between and locate sources of bacteria in the watershed. Therefore, the municipal Phase I MS4s and other dischargers may wish to establish additional monitoring locations at key jurisdictional boundaries as part of their monitoring programs, especially in watersheds where Caltrans and Agriculture have been identified as sources contributing bacteria loads to the receiving waters.

Page 130

First row of table on the page. Remove City of Oceanside, City of Solana Beach, and City of Vista from Responsible Municipalities for Pacific Ocean Shoreline under the San Marcos HA Watershed.

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Page 131

Second row of table on the page. Remove City of La Mesa from Responsible Municipalities for Forrester Creek for under the Mission San Diego/Santee HSAs Watershed.

Page 135

Revise the first paragraph on the page as follows:

Full implementation of the TMDLs for indicator bacteria shall be completed as soon as possible, but no later than 10 years from the effective date for both the dry weather and wet weather TMDLs, unless an alternative compliance schedule is approved as part of a Comprehensive Load Reduction Plan (CLRP), as described in the following section.

Page 135

Insert the following paragraph between the second and third paragraphs on the page:

For watersheds in Table 11-5 where there are no longer any impairments listed on the 2008 303(d) List, the Phase I MS4s and Caltrans are not required to submit a BLRP or CLRP within 18 months of the effective date of these TMDLs. If, however, any segment of a waterbody for the watershed (Pacific Ocean shoreline, creek, or mouth as shown in Table 11-5) is re-listed on a future 303(d) List for any type of indicator bacteria, the Phase I MS4s and Caltrans will be required to submit a BLRP or CLRP within 6 months of the adoption of the 303(d) List by the San Diego Regional Board.

Pages 138-139

Insert the footnote for "Municipal Dischargers" in Items 6-13 and 21 in Table:

d. Because there are no Phase II MS4s enrolled under the State General Permit for Small MS4s, discharges from Phase II MS4s are not permitted (i.e., WLA = 0) and Municipal Dischargers are only the Phase I MS4s in this Implementation Milestone item. When a Phase II MS4 is enrolled under the State General Permit for Small MS4s or issued an individual NPDES permit, the Municipal Dischargers will be both the Phase I MS4s and Phase II MS4s in this Implementation Milestone item.

Page 139

Insert the Phase II MS4s under Responsible Parties for Item 16 in Table.

Page 152

Insert the reference to the list of references in section 15:

LL Tiefenthaler, L., E. Stein, G. Lyon. 2008. *Fecal Indicator Bacteria (FIB) levels during dry weather from southern California reference streams.* Southern Coastal

California Water Research Project Project Technical Report 542. Southern Coastal California Water Research Project, Westminster, CA.

Page U-1, Appendix U to the Technical Report

Add the City of San Diego to the List of Persons Submitting Comments.