

**Response to Comments on May 11, 2015 Tentative Order
Provision C.14. – City of Pacifica and San Mateo County Fecal Indicator Bacteria Controls**

Commenter and comment No.	Provision No.	Key Word(s)	Comment	Response	Proposed MRP Revision
ACCWP Legal #1 SCVURPPP Legal #5	C.14	Clarify Requirements	Provision C.1 requires compliance with discharge prohibitions and receiving water limitations. This Provision provides that if exceedances of water quality standards persist in receiving waters, implementation of additional procedures is required. However, the additional procedures are not required for exceedances for water quality standards for pesticides, trash, mercury, PCBs, and bacteria that are managed pursuant to Provisions C.9 – C.14.	Please see the response to comments on Provision C.1	none
San Mateo Co. #1	C.14	Consistency with TMDL	The County requests consistency between the permit, the San Pedro Creek and Pacifica State Beach Bacteria TMDL Best Management Practices Implementation Plan and Monitoring Plan, and the Basin Plan Amendment.	Proposed Permit provision C.14 is consistent with the Basin Plan amendment, which has the following implementation plan requirements and schedule (Basin Plan Table 7.4.1-4): Requirements: Submit a plan to the Water Board, acceptable to the Executive Officer, which describes BMPs being implemented and additional BMPs that will be implemented to prevent or reduce discharges of bacteria to storm drain systems to attain wasteload allocations. The plan shall include implementation methods, an implementation schedule, and proposed milestones.” Additionally, Table 7.4.1-4 includes requirements to submit a bacteria water quality monitoring plan, acceptable to the Executive Officer, to “(1) better characterize...bacteria contributions; and (2) assess compliance with the wasteload allocations.” The Permittees, including the Commenter,	none

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				submitted a plan entitled “ <i>San Pedro Creek and Pacifica State Beach Bacteria TMDL Best Management Practices Implementation Plan and Monitoring Plan</i> ,” The Plan was not acceptable to the Water Board Executive Officer because it did not include sufficient, and sufficiently-detailed, measures to address the identified impairment consistent with Basin Plan requirements. At this time, there is no mechanism in place which will implement these portions of the TMDL. For these reasons, Water Board staff is proposing appropriate alternative permit language, instead.	
San Mateo Co. #14	C.14	Delete table of limits	<p>Table 14.1 should be deleted because Section 7.4.1.6 (pg. 7) of the Basin Plan Amendment (BPA) states that the Water Board will not include numeric limits, based on the wasteload allocations in the NDPEs permit, if the discharger demonstrates that it has fully implemented technically feasible, effective, and cost-efficient BMPs to control all controllable anthropogenic sources. However, the County and City of Pacifica have not yet been given the chance to demonstrate how effective their BMPs are.</p> <p>Furthermore, Section 7-4.1.5 of the BPA states that "dischargers are collectively responsible" for meeting the allowable exceedance-based wasteload allocations in Table 14.1. Several sources in addition to municipal stormwater runoff and dry-weather flows contribute bacteria to</p>	<p>Water Board staff disagrees. Table 14.1 contains load and wasteload allocations, not numeric effluent limits, as misstated by commenter. The Table is directly from the San Pedro Creek and Pacifica State Beach Bacteria TMDL Basin Plan amendment (BPA), which, as the commenter notes, states:</p> <p>The Water Board may establish permit requirements to implement wasteload allocations based on implementation of BMPs in lieu of numeric limits. The wasteload allocations are not designed to be implemented directly as numeric effluent limitations applicable to a discharger, Pacifica, or San Mateo County. The Water Board will not include numeric limits, based on the</p>	none

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			<p>receiving waters. These include wildlife, sanitary sewer systems, and horse facilities, over which the County has little to no control.</p>	<p>wasteload allocations, in NPDES permits if the discharger demonstrates that it has fully implemented technically feasible, effective, and cost efficient BMPs to control all controllable sources to and discharges from their storm drain systems.</p> <p>Pacifica and the County still have the opportunity to implement technically feasible, effective and cost-efficient BMPs to achieve the WLAs prior to the Board imposing numeric effluent limits.</p> <p>To the extent the Commenter disagrees with the TMDL’s statement that dischargers are collectively responsible for meeting the wasteload allocations, such challenge is not timely. In any case, the wildlife discharges are accounted for by utilizing a “reference systems and antidegradation approach,” which allows for a certain number of bacteria water quality objective exceedances based on the exceedance levels observed at a reference site with wildlife inputs.</p> <p>Finally, the County has both the responsibility and capability to control pathogens from horse facilities and the sanitary sewer located within its jurisdiction from discharging into the municipal storm sewers.</p>	

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San Mateo Co. #15	C.14.a.ii	Illicit discharges	Provision C.14.a.ii (1) should be removed because it is inappropriate to include controls for the sanitary sewer system in an NPDES MS4 permit. Section 7-4.1.6 (pg. 6) of the BPA states that the Responsible Parties and Jurisdictions for the wasteload allocation for sanitary sewer systems will be implemented through the requirements and provisions of the Statewide General Waste Discharge Requirements Order for sanitary sewer systems and the CDO. The BPA does not mention the MRP as one of those jurisdictions. Thus, this MRP provision conflicts with the BPA.	Sanitary sewer discharges within the County jurisdiction were inadvertently not included in the BPA; however, these discharges may nonetheless be regulated under the “Illicit Discharges” Provision of MRP to the extent they may result in discharges to the MS4, as proposed in Section C.14.a.ii (1). Under Clean Water Act § 402(p)(3)(B)(ii), MS4 permits must include requirements to effectively prohibit non-stormwater discharges, such as sewage, into the storm sewer. Thus, the permit retains the requirement that the County effectively prohibit such illicit discharges into storm sewer system. We have, however, deleted specific requirements pertaining to cleaning, inspection, repair and replacement of the sanitary sewer. We encourage the County to undertake proper operation and maintenance of its sanitary sewer system. In addition to enforcing the Permit for illicit discharges, the Water Board may also use its other regulatory authorities to compel the County to properly operate and maintain its sanitary sewer system where it fails to do so.	Retain C.14.a.ii.1, but not C.14.a.ii.1(a)-(c).
San Mateo Co. #16	C.14.a.ii	Flexibility for sewer line repairs	If Provision C.14.a.ii (1) is kept in the Permit, the County recommends extending the timeframe to repair or replace failing sewer lines or changing Permit language to provide Permittees with flexibility in meeting time frame. For example, permit could be changed to	See response to San Mateo Co. #15 above.	none

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			require repair/replacement within six months of discovery "at extent possible" or require repairs/replacement "to be initiated within six months of discovery."		
San Mateo Co. #16	C.14.b.iii	Provision conflicts with TMDL requirement	<p>C.14.b.iii.(1)(e) should be deleted because it contradicts the BPA directive for an adaptive management plan and accelerates the wasteload allocation timeline.</p> <p>The BPA states that Adaptive Implementation should be used to adapt the TMDL and implementation plan to incorporate new and relevant science. The BMP and Implementation Plan for the TMDL watershed was developed with an adaptive and iterative approach. Requiring a new plan in Year 4 contradicts the BPA requirements for Adaptive Implementation.</p> <p>The requirement modifies and accelerates the wasteload allocation timeline in the BPA. The wasteload allocation timeline sets deadlines to meet wasteload allocations within 8 years of effective TMDL date for Pacifica State Beach and within 15 years for San Pedro Creek Watershed.</p>	<p>Staff disagrees. Provision C.14.b.iii.(1)(e) is consistent with the clearly stated BPA requirements.</p> <p>The Provision states: <i>“A detailed and comprehensive assessment of wasteload allocation attainment by the end of year 4 of the Permit term shall be completed. If wasteload allocations are not achieved by the end of the Permit term, no later than 180 days prior to Permit expiration, the City [of Pacifica] and [San Mateo] County shall submit a plan in their Report Of Waste Discharge, acceptable to the Executive Officer, that describes additional control measures or increased levels of existing control measures that will be implemented to prevent or reduce discharges of bacteria to storm drain systems to attain wasteload allocations. The plan shall include implementation methods, an implementation schedule, and proposed milestones.”</i></p> <p>Table 7.4.1-4 of the BPA states: <i>“If wasteload allocations are not achieved by the end of a permit term, [City of Pacifica and San Mateo County], no later than six months prior to permit expiration, shall submit a plan acceptable to the Executive</i></p>	none

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				<p><i>Officer, which describes additional BMPs or increased levels of existing BMPs that will be implemented to prevent or reduce discharges of bacteria to storm drain systems to attain wasteload allocations. The plan shall include implementation methods, an implementation schedule, and proposed milestones.”</i></p> <p>Provision C.14.b.iii.(1)(e) is thus consistent with the BPA.</p>	
San Mateo Co. #16	C.14.b.iii	Delete requirement for assessment	C.14.b.iii.(1)(e) requires Permittees to submit an assessment by the end of Year 4 of the Permit term if wasteload allocations are not achieved. Permit is unclear on specific provisions of this assessment and how it would provide additional benefit to the annual TMDL Status and Monitoring report.	<p>Staff disagrees. As noted immediately above, Permittees are required by the BPA, towards the end of each permit cycle (e.g., every 4-5 years), to assess whether wasteload allocations have been met (Basin Plan Table 7.4.1-4).</p> <p>Specific elements of the Year 4 assessment will undoubtedly take into account the information in the Annual TMDL Status and Monitoring, in Provisions C.14.b.iii.(1)(a)-(d). In addition, Water Board staff expects that the assessment (Provision C.14.b.iii.(1)(e)) will be a thoughtful, detailed, and robust consideration of available data sufficient to inform the additional measures or changed level of effort of existing measures that will result in achievement of the wasteload allocations.</p>	none
San Mateo Co. #16	C.14.b.iii	Delete requirement	This requirement should be deleted and, in its place, additional reporting requirements	The comment does not clearly identify what the Commenter wishes to delete. It	

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		for assessment	or data analysis for this assessment be outlined as a provision of the TMDL report in Year 4 under Section C.14.b.iii.	<p>is our interpretation that the Commenter is suggesting deletion of the annual report requirement and adding any additional requirements or data analysis into the requirement for a Year 4 assessment.</p> <p>The comprehensive Year 4 assessment should include the findings from the “Annual TMDL Status and Monitoring” conducted during the preceding 4-5 years, but it is not the same as the annual assessments, in that it evaluates temporal and cumulative changes in water quality over an approximately 5-year period as well as success of the implementation of various control and enforcement measures.</p>	
San Mateo Co. #19 Pacifica #1	C.14.c	Reference the BMP Plan	There already exists a San Pedro Creek and Pacifica State Beach Bacteria TMDL Best Management Practices Implementation Plan and Monitoring Plan (TMDL BMP and Monitoring Plan). This Plan contains the control measures and monitoring elements required by Provision C.14. Provision C.14 in its entirety and C.14.c in particular should be revised to reference this Plan, rather than detail the specific requirements of the Plan.	Staff disagrees. The “TMDL BMP and Monitoring Plan” drafted and mentioned by the Commenters is an incomplete draft document that is not acceptable to the Water Board’s Executive Officer in its current form. As such, it would be inappropriate to refer important permit details to that Plan.	none
San Mateo Co. #20	C.14.c	Use of characterization results	The County would like assurance that the results of the County's and City of Pacifica's characterization monitoring will be taken into account for any future evaluations of the TMDL watershed. Past characterization study results indicating that exceedances	Water Board staff’s approach is to identify and appropriately consider all relevant monitoring data and related information in considering impairments and efforts to address them. That approach is reflected in the TMDL and its associated Staff	none

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			are likely a result of uncontrollable, non-anthropogenic sources were discounted by Water Board staff when discussing TMDL BMP and Monitoring Plan.	Report, and the proposed Permit language reflects our intent to continue this practice. The “past characterization study results” mentioned by the Commenter were from a single study with limited amount of monitoring, both in scope and time. As such, they were not conclusive, and point to the need for additional, longer-term, and more-comprehensive monitoring.	
San Mateo Co. #21	C.14.c	Allow flexibility in monitoring	The requirement to monitor at twelve stations every year of monitoring does not allow the County and City flexibility to intensify sampling at select stations or expand the geographic scope of the program based on monitoring results. Revise provision to require characterization monitoring at twelve sampling stations in WY 2016 and then in subsequent years require Permittees to "collect a minimum of one hundred (100) pathogen indicator bacteria samples per water year."	Staff concurs. Provision C.14.c.ii has been revised to allow more flexibility in monitoring activities in subsequent years.	<u>In monitoring years subsequent to the WY2016 monitoring year, based on the results of the WY2016 monitoring, the sample locations, sample quantity, and sampling frequency may be modified. However, in each subsequent monitoring year, a minimum of one hundred</u>

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					<u>ten (110) fecal indicator bacteria samples shall be collected.</u>
San Mateo Co. #22	C.14.c	Wet weather definition	Provision C.14.c.ii(2) defines wet weather as "any day with 0.1 inch or more and following three days". Other agencies have a higher rainfall threshold for defining wet weather event. For example, in a Streambed Alteration Agreement, the CA Department of Fish and Wildlife, defines wet weather as "when there has been 1/4 inch of rain within a 24-hour period"	Comment noted. The specified wet weather definitions are consistent with the definitions adopted in the TMDL to calculate load and wasteload allocations (e.g., allowable number of exceedances of the bacteria water quality objectives) during wet weather periods. To assess whether these allocations are being attained or not, the same wet weather definition (i.e., 0.1" of rain within a 24-hour period) must be used to distinguish between wet and dry periods.	none
San Mateo Co. #23 Pacifica #3	C.14.c	Delete requirement for human, horse, and dog genetic markers	<p>The Permit is not clear whether these constituents should be analyzed beyond Water Year (WY) 2016.</p> <p>Results from prior studies conducted in the San Pedro Creek watershed using these methodologies were discounted by Water Board staff when discussing TMDL BMP and Monitoring Plan.</p> <p>These analyses are expensive and the value of repeating them beyond WY2016 is uncertain both in terms of scientific knowledge gained and Water Board acceptance of any findings from the sampling.</p>	<p>Source-specific genetic markers for human, dog, and horse should be measured beyond WY2016. Provision C.14.c.ii.(3) has been revised to better clarify this requirement.</p> <p>Our understanding is the "prior studies" identified by the commenters are a single study with limited amount of monitoring, both in scope and time. As such, the data were not conclusive, and there is a need for additional, longer-term, and more-comprehensive monitoring.</p> <p>Given the episodic nature of potential bacteria discharges from human, horse,</p>	Revise C.14.c to say: ... <u>during each monitoring year (i.e., WY2016, and every other water year thereafter)</u> ...

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				<p>and dog sources, as well as the short “shelf life” of their associated genetic markers in the environment, and inherent interannual variabilities, broader and longer-term monitoring for these constituents is required than measuring them at only four stations and during only four events in a single year, as proposed by the commenters. That proposal would not provide the amount of information needed to conclusively determine whether or not any of these sources are contributing to exceedances of bacteria water quality objectives in the San Pedro Creek watershed. Longer-term sampling is also necessary to verify the efficacy of other measures intended to reduce these sources of bacteria.</p> <p>During discussions with the commenters regarding necessary TMDL-related monitoring, Water Board staff did not propose to require monitoring for host-specific genetic markers, partly due to their relatively high cost. However, the commenters proposed conducting the monitoring, and Water Board staff agreed to include it.</p>	
San Mateo Co. #24 Pacifica #4	C.14.c	Do not require Water Board to accept	Characterization monitoring is intended to be iterative in nature and allow for flexibility of design and details in years subsequent to WY2016. Executive Officer review and acceptance of changes to the plan may be lengthy and/or result in unnecessary	Staff disagrees. Due to the open-endedness of the iterative monitoring approach, it is appropriate for the Executive Officer to review/approve changes to the plan.	none

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		characterize -ation plan changes	additional investigation with unknown cost and schedule implications		
San Mateo Co. #25 Pacifica #5	Fact Sheet for C.14	Acknowledge ecological differences	The Fact Sheet finding for Provision C.14 should include an acknowledgement that the reference composite watersheds used to set the bacteriological water quality objectives in the BPA differs ecologically from the Pacifica State Beach/San Pedro Creek watershed. The Regional Water Board has not considered the ecological differences between the reference site and the San Pedro Creek watershed adequately to accommodate for additional bacteria loading from wildlife sources due to differences in the ecological communities.	Staff disagrees. This issue was considered during completion of the TMDL. The reference composite watersheds used in the TMDL were comprised of 38 separate sites, whose exceedance rates of bacteria water quality objectives were measured, combined, and averaged over a three-year span, thereby evening out effects on water quality due to variables including watershed size, land use distribution, topography, and ecology. The Commenters have not provided any evidence to support their claim that “ <i>the reference composite watersheds used to set the bacteriological water quality objectives in the BPA differ ecologically from the Pacifica State Beach/San Pedro Creek watershed.</i> ” Staff is not aware of any significant ecological differences between the San Pedro Creek watershed and the reference composite watersheds used to determine bacteria loading from wildlife sources.	none
Pacifica #2	C.14.a	Reduce frequency of requirements	Provision C.14.a.ii.(5) requires that the City inspect and clean-up the ten (10) high priority dog waste locations (required under Prov. C.14.a.ii.(4)) on a monthly basis from November 1 through March 31 and prior to	Staff have revised Provision C.14.a.ii.(5) to increase the rainfall depth trigger for conducting inspection and clean-up events from 0.1 inches of rain to 0.2 inches of rain within a 24-hour period (as	Revise as follows: From November 1 through March 31, inspections

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			<p>forecast rain events with a rainfall of 0.1inches or more. Recognizing limited City resources, the frequency of inspections and clean-ups should be reduced to a quarterly basis throughout the year. Given the unpredictable nature of rainfall, it is difficult for the City to ensure that staff will be available for this task prior to storm events. If the Water Board does not modify this requirement, the City requests that the Water Board specify which forecast station to monitor and what time period applies (e.g., daily, hourly). In addition, the rainfall depth should be increased from 0.1 to 0.5 inches. In Pacifica's coastal location, rainfall events of 0.1inches are very common. For example, between 1998 and 2014, 0.1inches of daily rainfall was recorded at Pacifica rain gauges an average of 40 times per year. If inspections and cleanups were required prior to each of these rainfall events, it would represent a very costly undertaking.</p>	<p>measured at Half Moon Bay Airport (KHAF) Meteorological Station), which is the closest station to the San Pedro Creek watershed identified by staff that has forecast data available at the NOAA forecast website.</p> <p>Staff previously requested the City to submit an analysis of rainfall event distribution in or near the San Pedro Creek watershed, but did not receive it. That analysis could better inform this requirement.</p>	<p>and clean-ups shall be conducted prior to forecast rain events with a rainfall <u>depth</u> of 0.1<u>0.2</u> inches or more <u>(as measured at Half Moon Bay Airport (KHAF) meteorological Station)</u>, and at a frequency of no less than once a month.</p>