

## Comment Summary and Responses

### Proposed Approval of an Amendment to the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) to Establish a Total Maximum Daily Load for Bacteria in the Petaluma River Watershed

Comments Received:

We received three comment letters during the public comment period, which closed on April 13, 2020. The list of comment letters and our responses are presented below.

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(1) San Francisco Baykeeper (Baykeeper)  Overview		<p>The majority of Baykeeper’s comments (Comment letter dated March 30, 2020) to the State Water Board is exactly the same as the comments it previously submitted to the San Francisco Bay Regional Water Board. Specifically, Baykeeper submitted a cover letter and reattached its September 3, 2019, comment letter to the Regional Water Board. The Regional Water Board staff (staff) already responded to Baykeeper’s previous comments in detail in the November 2019 Response to Comments document.<sup>1</sup> In its submission, Baykeeper did not explain why staff’s previous response to these concerns was inadequate or incorrect, as required by the State Water Board regulations.<sup>2</sup> The Regional Water Board staff reiterates many of its responses to the previously submitted comments.</p>

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<sup>1</sup> Available here and incorporated herein:

[https://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/TMDLs/petalumabacterianutrients/AppendixD\\_RTC.pdf](https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/petalumabacterianutrients/AppendixD_RTC.pdf)

<sup>2</sup> 23 Cal. Code Regs., § 3779, subd. (f); see also

[https://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/TMDLs/petalumabacterianutrients/notice\\_petalumariver.pdf](https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/petalumabacterianutrients/notice_petalumariver.pdf)

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(1) San Francisco Baykeeper (Baykeeper)  1.1	The Petaluma River Watershed pathogens total maximum daily load (TMDL) is not a TMDL because it: <ul style="list-style-type: none"> <li>• “Does not establish Petaluma River’s bacterial loading capacity;</li> <li>• Does not provide wasteload allocations (WLAs) or load allocations (LAs);</li> <li>• Does not provide a source assessment;</li> <li>• Does not consider seasonal variations or provide a margin of safety;</li> <li>• Is not “daily;”</li> </ul>	This comment is from Baykeeper’s cover letter and is a summary of its previous objections to the proposed Basin Plan Amendment (BPA) to adopt a bacteria TMDL for the Petaluma River watershed. As explained in the previous and these responses to comments, the proposed TMDL contains all the required elements of a TMDL and an adequate program of implementation for achieving the TMDL. Baykeeper also suggests for the first time that the TMDL is defective for failing to include a daily maximum load, citing <i>Anacostia Riverkeeper, Inc. v. Wheeler</i> (D.D.C. 2019) 404 F. Supp. 3d 160. <sup>3</sup> The

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<sup>3</sup> In this case, a district court in the District of Columbia held that a TMDL was unlawful because it did not contain a maximum daily load, but rather variable modeled loads predicted to meet the 30-day geometric mean water quality standard for bacteria. The court found the TMDL to be problematic because the daily loads did not represent maximums, or ceilings that should not be exceeded. The court followed the precedent in the D.C. Circuit of Appeals that the “daily” in “total maximum daily load” means every day and then extended the same literal interpretation to the word “maximum” in the same term. *Anacostia Riverkeeper, supra*, 404 F. Supp. 3d at p. 171, citing *Friends of the Earth v. EPA* (D.C. Cir. 2006) 446 F.3d 140. In contrast, the Second Circuit Court of Appeals does not require TMDLs to be expressed as a daily limit, stating that the term “total maximum daily load” is susceptible to a broader range of meanings and “effective regulation requires agencies to determine how the pollutant enters, interacts with, and, at a certain level or under certain conditions, adversely impacts an affected waterbody.” *Natural Resources Defense Council, Inc. v. Muszynski* (2001) 268 F.3d 91, 98. Neither the district court case nor the D.C. Circuit Court of Appeals case cited by Baykeeper is controlling precedent in California.

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	<ul style="list-style-type: none"> <li>• Underestimates compliance scope and cost;</li> <li>• Fails to ensure wasteload allocation achievement; and</li> <li>• Fails to require monitoring for effectiveness of load reduction actions.”</li> </ul> <p>“Courts are clear that the words total, maximum, daily and load are unambiguous and are to have operative meaning. In 2006, the D.C. Circuit struck down EPA’s approval of a set of TMDLs because the District had expressed those TMDLs in annual or seasonal, rather than daily, terms, which contravened the plain text of the law. In 2019 the D.C. District struck down EPA’s approval of a set of TMDLs because they did not set a true maximum. The phrase "Total Maximum Daily Load" is unambiguous. It represents the greatest amount of a pollutant that can be discharged into a water body on any given day without causing a violation of the water quality standards.” The TMDL before the State Water Board may be good policy, but it is not a TMDL.</p>	<p>TMDL, however, does include one. Section 7.8.5.5 of the BPA states the daily load expression of the TMDL is equivalent to the statistical threshold value (STV) for <i>Enterococcus</i> and/or <i>E. coli</i>, as applicable based on water body type. Section 7.8.5.6 reiterates that the daily load and wasteload allocations are the STV or zero where bacteria discharges are prohibited. The STV is set forth in Tables 7.8.5-1 and 7.8.5-2 of the BPA. Thus, for example, the daily maximum limit for the estuarine portion of the Petaluma River watershed is equivalent to the STV for <i>Enterococcus</i>, which is 110 colony forming units of <i>Enterococcus</i> per 100 mL of the receiving water (expressed as 110 cfu/100 mL), and the daily maximum limit for the fresh water portion of the Petaluma River and tributaries is equivalent to the STV for <i>E. Coli</i>, which is 320 colony forming units of <i>E. Coli</i> per 100 mL of the receiving water (expressed as 320 cfu/100 mL). As explained in the Regional Water Board’s previous responses to comments, the daily allowable maximum load is the same as an instantaneous concentration. This is appropriate for a daily time scale, as it represents short term (e.g., daily) water quality conditions, compared to six-week time scales for other parameters used in the TMDL.</p>

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		<p>Much of Baykeeper’s concerns appears to stem from the fact that the TMDL and associated WLA, LAs, and TMDL targets are all concentration-based as opposed to being expressed in a flow-based format. Concentration-based TMDLs are permissible, as the federal regulations allow TMDLs to “be expressed in terms of mass per time, toxicity, or other appropriate measure.” (40 CFR § 130.2(i).) Contaminant concentration is an appropriate measure for Bacteria TMDLs, such as this one for the Petaluma River Watershed, where the main sources are diffuse throughout the watershed and discharged intermittently in stormwater runoff, and the contaminant decays over time and space and is not persistent and does not bioaccumulate in receiving waters. A TMDL expressed as mass per time (e.g., flow-based) where the sources are diffuse and associated with stormwater runoff can be problematic to implement, where consequential high concentration, low flow discharges could comply with the TMDL, whereas inconsequential low concentration, high flow discharges would not comply.</p> <p>Many TMDLs in California express the TMDL, WLAs, and LAs in pollutant concentrations (number or mass of pollutants in the water column at a point in time)</p>

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		<p>rather than a flow-based load (number or mass of pollutant in water at a point in time multiplied by flow rate) as allowed by the Clean Water Act (CWA) and EPA guidance. These TMDLs were approved by regional water boards, the State Water Board, Office of Administrative Law, and EPA. In the San Francisco Bay region, these TMDLs are being successfully implemented through permits and grant programs, and monitoring data collected to date indicates that the impaired water bodies are progressing towards attainment of their respective targets.</p>
1.2	<p>Proposed TMDL Does Not Establish the Loading Capacity of the Petaluma River for Bacteria.</p> <p>The Proposed TMDL fails to establish the loading capacity of the Petaluma River, resulting in an over-simplified approach to TMDL development based on the assumption that LAs and WLAs may mirror water quality standard. Baykeeper recommends referencing EPA guidance for strategies to estimate loading capacity for fecal indicator bacteria (FIB)-based TMDLs.</p>	<p>This comment is identical to comment 1.4 received during the Regional Water Board adoption process. Staff disagrees that this TMDL runs contrary to TMDL guidance and demonstrates below that we followed the EPA TMDL guidance to adequately develop the loading capacity as well as associated WLAs and LAs.</p> <p>TMDL loading capacity, otherwise known as assimilative capacity, is defined as the maximum amount of pollutant loading (e.g., fecal indicator bacteria) a waterbody can assimilate and still attain water quality standards (<i>Protocol for Developing</i></p>

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		<p><i>Pathogen TMDLs, First Edition, 2001</i>)<sup>4</sup>. When using a flow-based TMDL approach, individual permitted pollutant loadings (WLAs or LAs) can be calculated by multiplying the pollutant (e.g., sediment) unit concentration by the volume of water discharged from a given source during a certain time period. Measuring or estimating water flows from the abundant, diffused, commingled nonpoint source discharges in the Petaluma River watershed, such as 200 cattle ranches, 250 individual onsite wastewater treatment systems (OWTS), and more than 30 horse facilities with various drainage networks, to any reasonably reliable degree would be infeasible.</p> <p>As nonpoint sources of pollution constitute the majority of bacteria sources in this watershed, monitoring of diffused and spatially-comingled discharges from those sources would not only be infeasible, it will not yield useful information for the purposes of source attribution and compliance</p>

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<sup>4</sup> <https://nepis.epa.gov/Exe/ZyPDF.cgi/20004QSZ.PDF?Dockey=20004QSZ.PDF>

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		<p>determination. It would instead be an error-prone task.</p> <p>When pollution (e.g., bacteria) sources are diffused, it means that their discharges may be running off in many different directions from a ranch or property, through many different drainages. Therefore, accessing and measuring flows or bacteria levels from those surface discharges over land or in various small drainage channels would simply not be feasible. In addition, the variability of bacteria level under such circumstances can be very high leading to erroneous conclusions. Importantly, when bacteria sources are comingled, meaning more than one bacteria source contributes to a discharge, even if it is possible to monitor that discharge, it is impossible to determine which bacteria source is contributing what amount of bacteria to that discharge. For example, in a likely scenario, waste discharges from a dairy facility may also include waste discharges from a local or neighboring on-site waste treatment system (OWTS) and discharges from an upstream or neighboring horse facility or grazing ranch.</p> <p>Calculating a flow-based water body pollutant load and then correlating that to individual WLAs and LAs for individual parcels, as well as predicting water quality responses to such loads, would be extremely</p>

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		<p>inaccurate leading to wildly over- or under-protective load allocations. Although it is mathematically possible to estimate flow-based loading capacity for bacteria, in a complex system like the Petaluma River and its tributaries, such an estimate would have a lot of uncertainty, due to difficulties in accurately measuring flow volumes, representative bacteria concentrations, and the like. These uncertainties would necessitate incorporation of a large margin of safety (margin of safety accounts for the uncertainty about the relationship between pollutant loads and the quality of the receiving waterbody), which would minimize any benefit, if any, of a flow-based TMDL.</p> <p>Therefore, we developed a concentration-based TMDL, following EPA guidance (<i>Protocol for Developing Pathogen TMDLs, First Edition, 2001</i>) in which EPA allows states to determine the most appropriate method to express a TMDL. We used a concentration-based approach here, so the loading capacity is identical to the water quality objective to protect water contact recreation beneficial use (REC-1). This concentration-based loading capacity is more accurate than a flow-based loading capacity and is effectively more stringent because it requires meeting the water quality standards during all time</p>

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		<p>periods and flow conditions (it does not make any allowance for dilution or seasonality).</p>
<p>1.3</p>	<p>Proposed TMDL Does Not Provide Wasteload Allocations or Load Allocations.</p> <p>The Proposed TMDL does not reflect essential TMDL features required to derive numeric LAs and WLAs, including a numeric source assessment, the linkage between water quality targets and numeric targets, or numeric load allocation according to long-standing guidance.</p> <p>The Staff Report accurately recognizes that “[t]he concentration of FIB in a discharge and/or the receiving waters is a technically relevant criteria for assessing the impact of discharges, water quality, and public health risk.”</p> <p>The Staff Report, however, over-simplifies U.S. EPA guidance, which accepts that concentration-based TMDLs for FIB are acceptable alternatives to mass-based approaches. All available EPA guidance and EPA-suggested examples of FIB-based TMDLs that use concentration-based</p>	<p>This comment is identical to comment 1.5 received during the Regional Board adoption process.</p> <p>Staff disagrees. The TMDL does include LAs and WLAs that were developed in compliance with EPA Guidance and CWA. Please see Section 8.3 of the Staff Report and our response below.</p> <p>For many pollutants, TMDLs are expressed on a mass loading basis (e.g., pounds of a given pollutant allowed to be discharged into a water body per day). For FIB, however, TMDLs can be expressed in terms of organism counts (or resulting concentration), in accordance with the Code of Federal Regulations 40 CFR 130.2(i): “TMDLs can be expressed in terms of mass per time, toxicity, or other appropriate measure.” Load is defined in the federal regulations as an “amount of matter or thermal energy that is introduced into a receiving water . . . .” (40 C.F.R. § 130.1, subd. (e).) The proposed TMDL limits the amount of matter—FIB—that can be discharged into the Petaluma River watershed, consistent with federal regulations.</p>

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	<p>allocations incorporate a flow component, to link discharge concentrations and estimated flows to resulting concentrations in the receiving water.</p> <p>The Proposed TMDL also fails to recognize that specific source categories, particularly stormwater sources, will almost certainly never meet the established numeric target, based on the prescriptions established in the Proposed TMDL Implementation Plan.</p> <p>To illustrate the gulf between what the TMDL requests and what is currently being discharged, consider recent fecal indicator bacteria results, based on samples collected by Baykeeper in 2019, from the intake and discharge points of a pump station along a tidal portion of the Petaluma River, which drains agricultural lands and confined animal facilities (“CAFs”). These samples represent stormwater taken on a day with a recorded 24-hour precipitation depth of 1.83 inches.</p>	<p>As discussed in Section 8.3 of the Staff Report, for FIB, it is the number of organisms in a given volume of water, or concentration, and not their total number (or mass) that is significant with respect to public health risk and protection of beneficial use. The concentration of FIB in a discharge and/or in the receiving waters is the technically relevant criteria for assessing the impact of discharges, water quality, and public-health risk, not the total load of FIB. The applicable FIB concentration used in this TMDL is the value expressed by EPA for protecting recreational water quality in its 2012 nationally recommended water quality criteria (<i>2012 Recreational Water Quality Criteria, 2012</i>)<sup>5</sup>.</p> <p>EPA guidance (<i>Protocol for Developing Pathogen TMDLs First Edition, 2001</i>) recommends establishing concentration-based TMDLs for pollutants that are not readily controllable on a mass basis (page 7-1). Therefore, the TMDL, and associated WLAs and LAs as well as the TMDL targets in this project are all expressed in terms of FIB concentrations.</p>

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<sup>5</sup> <https://www.epa.gov/sites/production/files/2015-10/documents/rwqc2012.pdf>

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<p>Pathogen concentrations from pump-station stormwater discharges to Petaluma River, from grazing lands and CAFs</p>	<p>Establishment of a concentration-based, rather than a flow-based TMDL for FIB, carries the advantage of eliminating the need to conduct a complex and highly error-prone analysis. A flow-based FIB TMDL would require calculation of acceptable loads based on acceptable bacterial concentrations and anticipated discharge volumes, and then back-calculation of expected concentrations under various load reduction scenarios. Since discharge volumes in the Petaluma River Watershed are highly variable and difficult to measure, such an analysis would inevitably involve a great deal of uncertainty and be unreliable for purposes of setting loads.</p>																									
<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Sample Location</th> <th><i>E. Coli</i> concentration (MPN/100ml)</th> <th><i>Enterococcus</i> concentration (MPN/100ml)</th> </tr> </thead> <tbody> <tr> <td>1/16/19</td> <td>14:30</td> <td>Intake</td> <td>24,196</td> <td>6,900</td> </tr> <tr> <td>1/16/19</td> <td>14:30</td> <td>Discharge-a</td> <td>12,033</td> <td>6,100</td> </tr> <tr> <td>1/16/19</td> <td>14:30</td> <td>Discharge-b</td> <td>4,106</td> <td>6,500</td> </tr> <tr> <td>1/16/19</td> <td>14:30</td> <td>Field Blank</td> <td>non-detect</td> <td>non-detect</td> </tr> </tbody> </table>	Date	Time	Sample Location	<i>E. Coli</i> concentration (MPN/100ml)	<i>Enterococcus</i> concentration (MPN/100ml)	1/16/19	14:30	Intake	24,196	6,900	1/16/19	14:30	Discharge-a	12,033	6,100	1/16/19	14:30	Discharge-b	4,106	6,500	1/16/19	14:30	Field Blank	non-detect	non-detect	<p>Discharge volumes from FIB sources or source areas in the Petaluma River Watershed are highly variable both spatially and temporally (e.g., most tributaries are seasonal), and thus difficult to measure because of the complexity of the system, size of the watershed, and number of nonpoint sources of pollution constituting the significant majority of bacteria sources. Nonpoint sources of pollution, by definition, are diffused (their discharges may be running off in many different directions from a ranch or property, through many different drainages), comingled (meaning more than one source contributes pollution (e.g., bacteria) to a discharge), and difficult to accurately measure. In addition, collecting dry weather runoff and stormwater runoff flow combined with FIB</p>
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<p>Compared with the load allocations reflected in Table 7.8.5-2 of the Proposed TMDL [BPA], <i>Enterococcus</i> concentrations must be reduced by over 100x, which seems highly unlikely given the limited scope and consequences of non-compliance with the proposed TMDL Implementation Plan. Moreover, urban runoff contains comparable or higher FIB concentrations, which generally requires a flow-reduction strategy, based on the assimilative capacity of the receiving water, as documented in other California-based TMDLs.</p>																										

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	<p>The Proposed TMDL fails to perform the necessary analysis to establish numeric LAs and WLAs of fecal indicator bacteria for Petaluma River’s various sources. By setting LAs and WLAs equal to water quality standards, the Proposed TMDL arbitrarily assumes flows from all sources are equivalent and ignores long-standing guidance and TMDL examples of where load reduction via flow retention and detention is an appropriate strategy for meeting TMDL load allocations for FIB.</p> <p>The Proposed TMDL establishes unrealistic LAs and WLAs based on concentration-based TMDLs, which lack transparent compliance criteria. To what degree must loads be reduced? Are concentration-based allocations to be monitored at the end-of-pipe and edge-of-field? Will the Water Board be judging compliance in the receiving water? If so, how will individual allocations be monitored and judged for compliance with the TMDL?</p> <p>Baykeeper recommends referencing EPA guidance for strategies to estimate loading capacity and resulting LAs and WLAs.</p>	<p>concentrations, in order to calculate FIB loads, at 17 dairies, 32 horse facilities, up to 200 grazing parcels or up to 250 OWTS parcels is not feasible.</p> <p>Grazing lands and OWTS have no point source discharge to receiving waters. In general, confined animal facilities (dairies or horse facilities) do not have a single or even just a few points of discharge that can be monitored in order to identify the flow-based load and measure attainment of the reduced load after the implementation measures have been applied. Consider a 200-acre cattle ranch with dozens of small headwaters that only flow during storm events or seasonally. These channels will rarely concentrate into a single perennial stream leading from a single property that could be used as a point of compliance for that individual ranch. Also, there may be a neighboring ranch across the creek whose actions affect the water quality at such a point of compliance. Measuring compliance with the TMDL allocations by evaluating BMPs that generally limit cattle interactions with these seasonal and perennial channels is more effective.</p> <p>Horse CAFs also lack one or even a few places of discharge that could be monitored for permit and TMDL compliance because they generally do not have discharge points, and generally do not store</p>

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		<p>liquid waste which could be accidentally discharged (liquid waste is prohibited from direct discharge into water bodies in the CAF Order). Stormwater runoff from CAFs corrals and areas with possible manure are normally not concentrated thus there is not a simple point of discharge that can be used to monitor FIB levels. Therefore, the Board’s CAF program requires BMPs to prevent stormwater from accessing corrals and solid waste storage areas via berms and roofing or by cleaning up all waste prior to rain events. It is more effective to review a ranch plan and know they put a permanent roof over their waste pile storage areas than it is for the Water Board to obtain access to private property during a rain event, which normally occurs at night, and monitor FIB levels from runoff possibly intersecting a waste pile. A single horse ranch may store manure waste in a several locations and have a number of corralled areas. So, stormwater compliance monitoring at five to 10 locations per horse CAF is not as effective as doing a single site inspection prior to the rainy season and evaluating if the structural ranch BMPs were implemented and reviewing the non-structural BMPs with the rancher to make sure the process is in place for cleaning of the corrals prior to the winter rains.</p>

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		<p>Further, EPA guidance, especially draft guidance in the case of the referenced 1999 TMDL guidance, are not prescriptive. By definition, they are meant to provide general guidance to states developing TMDLs based on the thinking of EPA at that time. Moreover, EPA has already approved bacteria TMDLs in this region that use the same approach as the proposed TMDL for the Petaluma River Watershed. In addition, EPA guidelines are primarily focused on addressing point-source discharges of pollution, which as mentioned before, are rare in this watershed. A flow-based approach for a TMDL can work well when majority of discharges are from point sources already regulated by NPDES permits with flow-based effluent limits where flows can be reliably measured. Compared to nonpoint sources, point sources are substantially easier to separate, monitor, assess, and track.</p> <p>Therefore, staff has long used a much more practical and efficient approach of using a concentration-based TMDLs for bacteria in this region. This TMDL uses the same proven and effective approach as can be seen in the reductions in bacteria levels observed</p>

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		<p>in Tomales Bay Tributaries<sup>6</sup> and Richardson Bay<sup>7</sup> TMDLs.</p> <p>Staff disagrees that specific source categories, particularly stormwater sources, will almost certainly never meet the established numeric target. The numeric targets in this TMDL are meant to be measured in the receiving waters, where the beneficial uses exist and need to be protected, not in the storm drain outlets, where there is a high variability rate in the concentrations of pollutants of concern. Based on past experiences in some other TMDLs (e.g., Richardson Bay TMDL, Tomales Bay Watershed TMDL) these TMDL targets are achievable.</p> <p>Further, the average <i>Enterococcus</i> single sample concentrations in the receiving water, in the vicinity of the example grazing land and CAF discharge presented by the commenter, meet the TMDL target.</p>

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[https://www.waterboards.ca.gov/about\\_us/performance\\_report\\_1718/plan\\_assess/tmdl\\_outcomes/r2\\_tomales\\_bay\\_pathogens.pdf](https://www.waterboards.ca.gov/about_us/performance_report_1718/plan_assess/tmdl_outcomes/r2_tomales_bay_pathogens.pdf)

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[https://www.waterboards.ca.gov/about\\_us/performance\\_report\\_1718/plan\\_assess/docs/fy1718/2018\\_richardson\\_bay\\_tmdl.pdf](https://www.waterboards.ca.gov/about_us/performance_report_1718/plan_assess/docs/fy1718/2018_richardson_bay_tmdl.pdf)

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		<p>As this location is tidal and estuarine, the <i>E. Coli</i> targets do not apply to this section of the Petaluma River.</p> <p>In regard to the comment that urban runoff FIB load reductions require a flow-reduction strategy, we disagree that such methods should be required in this largely undeveloped watershed. We do agree that general stormwater practices “sinking” stormwater containing FIB will reduce this source’s bacteria contribution to receiving waters and result in environmental improvements. However, stormwater low impact development (LID) BMPs focused on slowing and spreading stormwater, which is usually effective at reducing concentrations of sediment-bound pollutants, are generally both expensive and not that effective at reducing FIB bacteria concentrations. Therefore, this TMDL does not require specific LID-based or flow-based reductions for stormwater runoff. Instead, it utilizes a phased approach, starting with addressing common sources such as human waste from homeless encampments and sanitary sewer systems, and pet waste from domestic animals.</p> <p>The proposed TMDL does not assume flows from all sources are equivalent. One of the biggest advantages of using a concentration-based TMDL is</p>

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		<p>that it does not require or rely on flow measurements which are highly variable especially during storm events. Instead, it relies on a target FIB concentration of bacteria in the receiving waters, which can be reliably measured and tracked over time. As long as the target FIB concentration is achieved in receiving waters, there will be no need to measure flows and associated FIB levels from 200-300 individual properties, which would be infeasible for property owners or the Water Board to measure, would be extremely expensive to sample at multiple locations and over multiple sized rain events, and, in many cases, infeasible, as explained above.</p> <p>To answer the question, “to what degree must loads be reduced?”, the current bacteria concentrations in the Petaluma River and its tributaries must be reduced to the degree necessary for the TMDL numeric targets to be met. The numeric targets are measured in the receiving waters, where the beneficial uses exist. In order to meet the proposed numeric targets in the river, on average from all stations monitored, the <i>E. Coli</i> concentrations need to decrease by 85% and the <i>Enterococcus</i> concentrations need to decrease by 55%.</p> <p>In regard to questions about compliance monitoring, this information is described in Section 10.7 of the</p>

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		<p>Staff Report. In short, end of pipe monitoring will be used for the Ellis Creek wastewater treatment plant, but receiving water monitoring in conjunction with best management practices (BMPs) implementation will be used to determine compliance with the allocations as opposed to end of pipe or end of field monitoring since those are not appropriate methods to monitor grazing sources, OWTS, horse CAF sources, or hundreds of stormwater sources.</p> <p>The allocations for all human sources of bacteria with a WLA or LA of zero will be verified by ensuring all required implementation measures are completed. These could include ensuring the sanitary sewer collection agencies have assessed and repaired or replaced their faulty sewer lines, the OWTS owners have inspected, and repaired or replaced their faulty systems, and the vessel marinas have assessed and ensured the adequacy and proper performance of their sewage collection systems.</p> <p>For the nonpoint sources of bacteria, which have received a concentration-based allocation that is identical to the numeric targets or water quality objectives, the compliance with the allocations would primarily be achieved through tracking of the required implementation actions and the bacteria</p>

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		<p>concentrations in the receiving water in the vicinity of their discharges, as highlighted in the load allocation discussion in Section 8.3 of the Staff Report.</p> <p>As explained above, due to the very high number and diffused and comingled nature of the bacteria discharges from various sources, it is not feasible, useful, or practical to track and monitor source discharges individually.</p>
1.4	<p>Proposed TMDL Does Not Provide a Source Assessment.</p> <p>The Proposed TMDL and Staff Report provide a narrative description of known sources and compile available data, yet this information is not used to inform numeric LAs or WLAs.</p> <p>Baykeeper recommends referencing EPA guidance for strategies to perform source analyses that incorporate numeric analyses of the amount, timing, and point of origin of FIB loading.</p>	<p>This comment is identical to comment 1.6 received during the Regional Board adoption process..</p> <p>Staff disagrees that the TMDL does not include a source assessment. Please see Section 7 of the Staff Report, which evaluates the sources of fecal indicator bacteria.</p> <p>As recommended by the EPA guidance, the proposed TMDL has identified the bacteria sources in the watershed, characterized them, and grouped them into logical categories. Numerically calculating the amount, timing, and points of origin of FIB loadings in a large and complex watershed such as Petaluma River is not feasible or beneficial as it requires information and data that are not available, unreliable, or highly speculative (see response to comments 1.2 and 1.3 for further explanation). Instead, the TMDL focuses on ensuring FIB</p>

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		<p>discharges from all sources are adequately, depending on the source, reduced or eliminated, by requiring appropriate control measures, such that the conservatively-set TMDL LAs and WLAs are met. The source assessment was used to inform the LAs and WLAs. For example, it identified discharges from sources that should be completely eliminated because they release untreated human waste (e.g., OWTS, sanitary sewer collection systems, and vessel marinas) and other point and nonpoint sources that could be effectively controlled through WLAs and LAs and implemented via permit requirements.</p>
1.5	<p>Proposed TMDL Does Not Consider Seasonal Variations or Provide a Margin of Safety.</p> <p>The Proposed TMDL includes statements regarding margin of safety and seasonal variation but undertakes no formal analysis needed to fulfill the regulatory intent.</p> <p>The Proposed TMDL concludes that “[n]o additional or explicit margin of safety is needed for this TMDL” since concentration-based load allocations mirror the U.S. EPA criteria and State Water Board water quality objectives for bacteria.</p>	<p>This comment is identical to comment 1.7 received during the Regional Board adoption process.</p> <p>Staff disagrees that the proposed TMDL does not consider seasonal variations or provide a margin of safety. The margin of safety (MOS) is a required component of a TMDL and accounts for the uncertainty about the relationship between pollutant loads and the quality of the receiving waterbody (CWA section 303(d)(1)(c)). The MOS is traditionally either implicitly accounted for by choosing conservative assumptions about loading and/or water quality response or is explicitly accounted for during the allocation of loads (<i>Protocol for</i></p>

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	<p>As above, repetition of the applicable numeric criteria does not constitute a load allocation exercise. Similarly, a one-sentence statement stating that the requirement to undertake a margin of safety analysis has been performed, since allocations were set to unrealistically low concentrations that fail to consider the assimilative capacity of the Petaluma River, does not address uncertainty, and uncertainty is what motivates the need to calculate a margin of safety.</p> <p>The Proposed TMDL takes a similarly abrupt approach to satisfy the need to account for seasonal variation. Without context, the Proposed TMDL explains that “[w]hile FIB concentrations can be greater during the winter wet season due to factors such as stormwater runoff, they can be high at any time of year.” This statement provides the rationale for ignoring seasonal variations to the TMDL and associated allocations. Bacteria concentrations are nearly always higher during the wet season – due virtually entirely to stormwater runoff as a transport pathway for bacteria from non-point sources. This is why the EPA and TMDL writers around the nation</p>	<p><i>Developing Pathogen TMDLs, First Edition, 2001</i>). In this TMDL, we included an implicit MOS as described below.</p> <p>As discussed in Section 8.4 of the Staff Report, the TMDL is based on the more protective of EPA’s 2012 nationally recommended criteria for recreational water quality and identical to the statewide bacteria objectives for water contact recreation (REC-1) beneficial use protection such that an MOS is implicitly included by the selection of this TMDL target and associated LAs and WLAs. The statewide bacteria objectives for REC-1 protection incorporated an implicit MOS by establishing limitations based on the lower of EPA’s two acceptable illness rates (i.e., 32 gastrointestinal illnesses per 1,000 recreational users, versus 36).</p> <p>This TMDL considered the need for seasonal variation as required such that water quality standards will be met for the allocated pollutant during all seasons of the year. This consideration was discussed in Section 8.5 of the Staff Report. There was no need to include seasonal variation of the TMDL because the TMDL was set at the maximum allowable concentrations of <i>E. coli</i> and <i>Enterococcus</i> necessary to protect public health during all times of the year. In other words, because</p>

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	<p>have undertaken the difficult work of expressing seasonally-variable allocations, for various flow regimes, to represent times of peak loading and variable in-stream conditions. Recommended approaches for establishing seasonally-variable daily load expressions include, among other strategies, the load duration approach, with daily loads expressed as flow variable rates.</p> <p>The Proposed TMDL thus fails to adequately recognize a margin of safety or seasonal variation to inform the development of numeric LAs and WLAs of fecal indicator bacteria for the Petaluma River. Baykeeper recommends referencing EPA guidance for strategies to estimate loading capacity and resulting LAs and WLAs.</p>	<p>the TMDL uses concentration-based limits as the WLAs and LAs, it intrinsically accounts for seasonality in both wet and dry seasons. Put another way, we are not proposing a higher (less protective) TMDL for wet seasons; the same protective TMDL must be attained during all seasons.</p>
1.6	<p>The Proposed Allocation for The Petaluma River Is Not Daily.</p> <p>The CWA and its federal implementing regulations require these TMDLs to establish “daily” load limits. But the proposed language describing a “rolling 30-day E. Coli geometric mean” does not meet this requirement. Further, the Regional Board does not even attempt to explain how, in its view, a six-week</p>	<p>This comment is identical to comment 1.8 received during the Regional Board adoption process.</p> <p>Two federal circuit courts of appeal have interpreted the term “total maximum daily load” differently, one holding that loads must be expressed as “daily” loads and the other holding that the term TMDL is susceptible to a broader range of meanings than loads calculated on a daily basis. (<i>Friends of Earth, Inc. v. EPA</i> (D.C. Cir. 2006) 446 F.3d 140 and</p>

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	<p>interval E. Coli geometric mean, calculated weekly, can function as a “daily” load. Thus, the Regional Board has not provided a daily wasteload allocation as required by law.</p>	<p><i>NRDC v. Muszynski</i> (2<sup>nd</sup> Cir. 2001) 268 F.3d 91.) These decisions are controlling precedent for cases brought in those circuits (i.e., the District of Columbia, New York, Connecticut, and Vermont). EPA does not require “daily” load limits outside the D.C. Circuit and recognizes that loads should be the appropriate time step to meet water quality standards (See, e.g., <i>EPA Memo on Establishing TMDL “Daily Loads,” 2006</i>)<sup>8</sup>. It is true that initially the proposed allocations were not daily because the TMDL targets and some WLAs and LAs are expressed in a manner equivalent to the nationally-recommended recreational water quality criteria set by EPA.</p> <p>EPA guidance asks states to provide a daily load calculation in TMDLs if the load was not already expressed in a daily format. In this case, as explained in the Regional Water Board’s previous responses to comments, with a concentration-based TMDL, the daily allowable concentration metric is the same as an instantaneous concentration (i.e., the statistical threshold value (STV) stated in the TMDL numeric targets) and is the FIB concentration per</p>

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<sup>8</sup> [https://www.epa.gov/sites/production/files/2015-10/documents/2006\\_11\\_21\\_tmdl\\_anacostia\\_memo111506.pdf](https://www.epa.gov/sites/production/files/2015-10/documents/2006_11_21_tmdl_anacostia_memo111506.pdf)

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		<p>100 mL. We omitted this daily expression of the TMDL, WLAs, and LAs in the draft TMDL, so prior to Regional Water Board adoption of the BPA, staff revised the discussion in Sections 8.2 and 8.3 of the Staff Report and Sections 7.8.5.5 and 7.8.5.6, of the BPA to include this information as follows:</p> <p><i>The “daily” load expression of this TMDL is equivalent to the STV value for Enterococcus and/or E. coli as applicable based on water body type.</i></p> <p><i>The “daily” load expression of the WLAs and LAs are equivalent to the appropriate STV, unless the discharge of bacteria is prohibited and the allocation is zero.</i></p>
1.7	<p>Staff Report Underestimated the Scope and Cost of Compliance with The Proposed TMDL. The scale and associated cost of achieving water quality standards for bacteria are significantly under-represented.</p> <p>For example, the implementation actions for municipal stormwater in Table 7.8.5-9, which prioritizes homelessness and pet waste, does not closely resemble the implementation actions prioritized to address bacteria impairment in other areas.</p>	<p>This comment is identical to comment 1.9 received during the Regional Board adoption process</p> <p>Commenter does not provide actual or detailed information as to how we have underestimated cost of implementation measures. We would revise our estimates if actual and verifiable cost numbers are provided for the appropriate BMPs or requirements.</p> <p>For example, during the Regional Water Board public review period we received some additional cost information for the OWTS source category. After we were able to verify the recommendations, we revised our cost estimates accordingly.</p>

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	<p>Flow reduction, ‘first-flush’ capture for treatment at wastewater plants, stormwater treatment, and large-scale adoption of green infrastructure is required in other regions and would be effective, here.</p> <p>Similarly, Table 7.8.5-7 requires CAFs to obtain coverage and comply with the Water Board’s General Waste Discharge Requirements Order No.R2-2016-0031 for CAFs.</p> <p>Ignoring the fact that such facilities are already required to obtain coverage under this permit, federal standards define CAFOs as point sources and require WLAs, rather than LA’s as indicated in Table 7.8.5-2 of the Proposed TMDL. WLAs apply to sources defined as “point sources” under NPDES regulations.</p> <p>Additionally, the Regional Board’s CAF permit follows statewide standards applicable to any waste discharge requirements for CAFs, which establish the minimum standards for discharges of animal waste, serving as General Waste Discharge Requirements (“WDRs”) for discharges of waste from CAFs to waters of the State. The Statewide standards require containment of manure,</p>	<p>40 CFR § 122.23 designates only certain concentrated animal feeding operations (CAFOs) as point sources subject to NPDES permitting requirements. (40 CFR § 122.23(b) and (c).) NPDES permits are only required for CAFOs that discharge pollutants into waters of the United States. (40 CFR § 122.23(d).) There are no CAFOs in the Petaluma watershed that have coverage under an NPDES permit. The Water Board has been regulating dairies in this watershed with Waste Discharge Requirements (WDRs) Orders. That is because complying with the Water Board’s General WDRs Order No. 2016-0031 (CAF Order) makes obtaining NPDES permits unnecessary. Specifically, under that order, confined animal facilities (defined as any place where cattle, calves, sheep, swine, horses, mules, goats, fowl, or other domestic animals are corralled, penned, tethered, or otherwise enclosed or held and where feeding is by means other than grazing under Cal. Code Regs., tit. 27, § 20164) are prohibited from discharging waste, including stormwater contacting waste, from the animal production or housing area to any surface area, as well as applying manure or process water to land in a manner that discharges into surface waters. The dairy-based CAFs in the Petaluma watershed are</p>

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	<p>wash water, and stormwater runoff from animal confinement areas. CAFs must be designed and constructed to retain all facility wastewater generated, together with all precipitation on, and drainage through, manured areas during a 25-year, 24-hour storm.</p> <p>The Petaluma River Watershed hosts CAF facilities subject to these requirements, and the Proposed TMDL Implementation Plan must reflect compliance criteria.</p> <p>Baykeeper encourages a re-examination of the Implementation Plan to ensure the scope and associated costs are appropriate to achieve compliance with the TMDLs.</p>	<p>currently enrolled in the CAF Order and all horse-based CAFs will be regulated by this order as well. As such, there will be no need for the Water Board to issue an NPDES permit to regulate such facilities. Thus, to our knowledge, there are no NPDES CAFO sources in the Petaluma watershed such that a WLA for these sources is necessary.</p> <p>In terms of cost estimates, all the dairies are already permitted by the Water Board’s CAF Order and are required to comply with its requirements, including the statewide minimum standards of Title 27 for CAFs. Therefore, no additional implementation costs would be associated with complying with the proposed TMDL for this source category. That is why we did not include those costs in the economic analysis.</p> <p>The requirements of the 25-year 24-hour storm are included in our CAF Order and will continue to be required.</p> <p>The commercial horse facilities in the Petaluma River Watershed are not currently enrolled in the CAF order. So, there will be new costs associated with their enrollment in and compliance with the CAF Order as required by the proposed TMDL. These costs are identified and discussed in Section 11.4.5 of the Staff Report.</p>

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1.8	<p>Implementation Plan Elements Insufficient to Ensure Achievement of Wasteload Allocations.</p> <p>Accordingly, a TMDL must include an implementation plan "that explains the techniques that will be used to meet the load reductions identified."</p> <p>Specifically, the implementation plan must include a "description of the implementation actions and/or management measures required to implement the allocations contained in the TMDL, along with a description of the effectiveness of these actions and/or measures in achieving the required pollutant load or reductions." The proposed TMDL does not satisfy the stated purpose or the minimum requirements of TMDL implementation plans.</p> <p>Here, the Regional Board attempts to delegate its duty to describe specific measures that will be taken to reduce pollutant loads to the sources themselves. It provides that the source of bacteria discharges, such as municipal stormwater entities and cities with responsibility for homeless encampments, will develop plans to describe BMPs and other measures for implementation. The duty to</p>	<p>This comment is identical to comment 1.10 received during the Regional Board adoption process.</p> <p>Staff disagrees that the implementation plan pursuant to state law (Wat. Code, § 13242) is insufficient to achieve the wasteload allocations or the load allocations. The TMDL Implementation Plan (Section 10 of the Staff Report) does describe the general actions each entity must take to comply with the TMDL (e.g., reduce bacteria levels in municipal stormwater runoff), and lists a range of appropriate means of accomplishing these actions (e.g., implementing structural or nonstructural BMPs). In addition, it establishes specific elements and parameters required by the implementing parties to further develop source-specific action plans.</p> <p>Overly prescribing site- or property-specific actions would be inappropriate and premature at this point. Required actions such as the assessment of sewer collection systems leakage or OWTS functionality and performance will drive subsequent follow-up actions that are unknown at this time.</p> <p>The Clean Water Act does not require TMDLs to have implementation plans, but requires the Regional Water Board to incorporate TMDLs into its Basin Plan. (See <i>generally</i> 33 U.S.C. § 1313; 40 C.F.R. § 130.7; see also <i>Pronsolino v. Nastri</i> (2002))</p>

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	<p>develop these plans for inclusion in TMDLs, however, rests on the Regional Board.</p> <p>We respectfully request for staff to conduct the requisite analysis necessary to present the minimum elements necessary for any TMDL submitted to EPA, as established by EPA guidance.</p>	<p>291 F.3d 1123, 1128 [“the Clean Water Act leaves to the states the responsibility of developing plans to achieve water quality standards if the statutorily-mandated point source controls will not alone suffice, while providing federal funding to aid the implementation of state plans. . . . TMDLs are primarily informational tools that allow states to proceed from the identification of waters requiring additional planning to the required plans.”]) As a matter of state law, however, the Regional Water Board is required to include an implementation plan for TMDLs and the Regional Water Board is committed to implementing TMDLs. State law requires that basin plans have a program of implementation to achieve water quality objectives. (Wat. Code, § 13050(j).) The implementation program must include a description of actions that are necessary to achieve the objectives, including recommendations for appropriate action by any private or public entity; a time schedule for these actions; and a description of surveillance to determine compliance with the objective. (Wat. Code, § 13242.) The proposed program of implementation complies with these requirements—it describes the actions necessary to achieve the TMDL, a time schedule for action, and monitoring</p>

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		<p>requirements. A program of implementation is by definition programmatic and need not set forth, for example, all of the details of a permit requirement that may be imposed when implementing the TMDL. Moreover, as stated in <i>City of Arcadia v. U.S. Environmental Protection Agency</i> (N.D. Cal. 2003) 265 F. Supp.2d 1142, 1144-1146, a TMDL does not by itself prohibit any conduct or require any actions; rather, it forms the basis for further administrative action that may require or prohibit conduct regarding particularized pollutant discharges and waterbodies. Consistent with these principles, the proposed program of implementation establishes the framework of actions that the Regional Water Board will require of regulated entities to achieve the TMDL, including the requirement to submit plans to control bacteria discharges. It is neither required nor feasible for the Water Board to develop site-specific plans for inclusion in the TMDL.</p> <p>Nonpoint sources of pollution are problematic in the Petaluma River watershed and the Regional Water Board is committed to controlling nonpoint source pollution even though the Clean Water Act “provides no direct mechanism to control nonpoint source pollution.” (<i>Pronsolino v. Nastri, supra</i>, 291 F.3d at p. 1126.) The program of implementation is based on</p>

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		<p>the Regional Water Board’s extensive experience regulating nonpoint sources with state authorities and is consistent with how it has successfully tackled nonpoint sources of pollution, such as grazing lands, CAFs in the Tomales Bay, Napa, and Sonoma Bacteria TMDLs, and vessel marinas in the Richardson Bay Bacteria TMDL.</p>
1.9	<p>Bacteria TMDL Fails to Require Monitoring for Effectiveness of Load Reduction Actions. Pursuant to Section 7.8.5.8, “[t]he implementing parties are responsible for developing and implementing a comprehensive monitoring plan.” This is in conflict with EPA guidance, which requires all TMDL submittals to include a monitoring or modeling plan “designed to determine the effectiveness of the implementation actions and to help determine whether allocations are met.”</p> <p>The Bacteria TMDL specifically excludes monitoring requirements for CAFs, in conflict with the Regional Board’s own WDRs. Monitoring requirements for receiving waters and for specific categories of dischargers is not provided, in conflict with bacteria TMDLs and stormwater NPDES permits throughout the Los</p>	<p>This comment is identical to comment 1.11 received during the Regional Board adoption process. Staff disagrees that the TMDL fails to require monitoring for effectiveness of load reduction actions, monitoring for receiving waters, and for specific categories of dischargers. As described in Section 10.7 of the Staff Report and Section 7.8.5.8 of the BPA, the required water quality monitoring plan achieves all these. As stated,</p> <p style="padding-left: 40px;">The implementing parties are responsible for developing and implementing a comprehensive monitoring plan to accomplish the following goals: 1) <u>better characterize FIB contributions from their respective sources/jurisdictions</u>, 2) <u>assess BMP effectiveness</u>, and 3) <u>assess progress towards attainment of their respective LAs and WLAs</u>. Relying on Water Code section 13267, the Regional Water Board will require</p>

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	<p>Angeles, Santa Ana and San Diego regions. Nor does the Bacteria TMDL request refinement of bacteria source identification through, for example, methods described in <i>The California Microbial Source Identification Manual: A Tiered Approach to Identifying Fecal Pollution Sources to Beaches</i>.</p> <p>Baykeeper requests that the Regional Board develop a monitoring plan sufficient to meet the dual objectives of assessing the adequacy of control actions to implement the TMDL, and to provide a basis for reviewing and revising TMDL elements or control actions in the future, in accordance with federal guidance.</p>	<p>the implementing parties to submit a monitoring plan for achieving these goals within one year of the TMDL effective date... <u>Sampling stations should be identified at a number of major tributaries and along the river's main stem</u> [e.g., receiving waters] <u>at locations associated with particular sources</u> and locations, where previous water quality data were collected, to identify water quality trends. In addition, <u>monitoring of FIB discharges direct from a source</u> (e.g., stormwater outfalls) within the watershed is an accurate method to characterize and identify their contributions and reductions resulting from BMPs... The Regional Water Board will collect water quality data to evaluate whether TMDL targets are attained throughout the Petaluma River watershed... Specifically, it will collect data every five years, starting after the effective date of the TMDL. <u>Sampling stations will be identified at a number of major tributaries</u> [e.g., receiving waters] and along the river's main stem at locations associated with particular sources and locations where previous water quality data were collected to identify water quality trends.</p>

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		<p>Prior to the Regional Water Board’s adoption of the BPA, staff revised Table 10.9 of the Staff Report and Table 7.8.5-11 of the Basin Plan, to more clearly state that the implementing parties are required to not only develop their water quality monitoring plan, as specified, but also to implement it.</p> <p>Further, the proposed TMDL monitoring plan is not in conflict with the Water Board’s WDRs Order for CAFs. Nothing in the proposed TMDL prevents or voids any of the requirements of that Order. The permitted CAF facilities are still required to comply with the monitoring program laid out in the CAF Order. To clarify this point, we revised the relevant discussions in Section 10.7 of the Staff Report and Section 7.8.5.8 of the BPA as follows (prior to Regional Water Board adoption of the BPA):</p> <p><i>“The CAF permittees are still required to comply with the monitoring requirements of the Water Board’s CAF Order. However, in lieu of the TMDL water quality monitoring,…”</i></p> <p>As stated above, the proposed water quality monitoring plan does require further identification and characterization of the source areas or land uses with greatest bacteria contributions (see Section 10.7 of the Staff Report). In addition, even though we have discussed the <i>California Microbial</i></p>

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		<p><i>Source Identification Manual</i> with the implementing parties and most of them are aware of it, we have revised Section 10.7 of the Staff Report and Section 7.8.5.8 of the BPA to specifically reference this manual, as follows:</p> <p><i>“Implementing parties should use the methods described in The California Microbial Source Identification Manual: A Tiered Approach to Identifying Fecal Pollution Sources to Beaches (Griffith, et al. 2013).”</i></p>
1.10	<p>Bacteria pollution is often overlooked in the San Francisco Bay region, due in part to the perception REC1 exposure is limited to so-called fringe activities like kiteboarding or open water swimming. In fact, San Francisco Bay is a world-class destination for such activities and all forms of board sports, sailing, swimming, and other recreational activities throughout the year.</p> <p>The Petaluma River is a high-quality resource for board sport enthusiasts, kayakers, and anglers. The Regional Board should use this Proposed TMDL as a means to enhance water-oriented recreation, in general. Technical guidance and numerous bacteria TMDLs exist from which to glean useful</p>	<p>This comment is identical to comment 1.12 received during the Regional Board adoption process.</p> <p>Staff disagrees that bacteria pollution is overlooked in the San Francisco Bay Region. The Water Board has completed six bacteria TMDLs, is proposing this one, and two more are in the early stages of development. Protecting the San Francisco Bay, Pacific Ocean, and Bay Area creeks and rivers is a very high priority for our Water Board as demonstrated by these past actions and current efforts.</p> <p>Staff agrees that Petaluma River is a high-quality resource for various water-oriented recreational uses. In developing this TMDL, we strived to strike a balance between requiring enough environmental</p>

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	<p>examples for implementation and monitoring strategies aimed at urban beach settings. We hope that staff and members of the Board amend the draft Bacteria TMDL to introduce enforceable implementation and monitoring guidelines that will ensure attainment of water quality standards within a defined period.</p>	<p>actions to improve water quality and support beneficial uses of the river while considering issues of feasibility, efficiency, and redundancy (e.g., not requiring unnecessary actions). The TMDL has explicit check-in points for many implementing parties and Water Board to evaluate actions taken and look at the expected associated improvement in water quality. If improvements are not observed, then implementing parties are required to propose additional actions. Such an adaptive approach is necessary when developing broad TMDLs that apply to entire watersheds.</p>
(2) City of Petaluma	<p>The due date for some of the required implementation actions related to sanitary sewer collection systems, municipal separate storm sewer system (MS4), and water quality monitoring activities should be extended to allow ample time to prepare an accurate and effective sewer system management plan, an initial report on existing control measures for MS4 discharges, and to allow the City of Petaluma and other implementing parties to collaborate on a single water quality monitoring plan.</p>	<p>Staff disagree with this request for multiple time extensions. These comments do not comply with the State Water Board’s regulations for commenting. The City of Petaluma did not raise these points or provide comments during the Regional Water Board public comment period or the adoption hearing. Nor did it explain why it was unable to raise these specific comments before the San Francisco Bay Regional Water Board.</p> <p>Further, given that the BPA was adopted by the San Francisco Bay Regional Water Board in November 2019, and will likely not go into effect before November 2020, the current implementation schedule provides ample time for the implementing</p>

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	<p>Specifically, the City of Petaluma is requesting that the due date for the following tasks be extended as follows:</p> <ul style="list-style-type: none"> <li>• submittal of an initial report on the existing control measures for MS4 discharges: extend due date from within three months of the effective date of the TMDL to within six months of the effective date of the TMDL;</li> <li>• submittal of an updated sewer system management plan: extend due date from within one year of the effective date of the TMDL to within 18 months of the effective date of the TMDL;</li> <li>• submittal of a water quality monitoring plan: extend due date from within one year of the effective date of the TMDL to within 18 months of the effective date of the TMDL.</li> </ul>	<p>parties, such as the City of Petaluma, to prepare and submit the required reports or plans as specified.</p> <p>In addition, the commenter did not provide any valid justification or compelling reasoning as to why they will not be able to meet the specified due dates.</p> <p>For these reasons, we did not extend the due dates for TMDL implementation as requested.</p>

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(3) Marin County Stormwater Pollution Prevention Program	Marin County Stormwater Pollution Prevention Program requests a change to the schedule column of Table 7.8.5-9 of the BPA to ensure that the stepwise implementation of the Category I and Category II stormwater implementation actions is clearly stated.	<p>Staff agrees. Pursuant to the Regional Water Board’s resolution approving the TMDL, the Executive Officer made a minor, non-substantive change to clarify the due date for implementation of the Category II municipal stormwater runoff implementation actions, listed in table 7.8.5-9 of the BPA and Table 10.7 of the Staff Report, as follows:</p> <p><i>“<del>Within five</del> Five years of <u>after</u> the effective date of the TMDL”</i></p> <p>This change corrects a typographical error in the Schedule Column of Table 7.8.5-9 of the Basin Plan amendment to ensure that the stepwise implementation of the Category I and Category II municipal stormwater runoff implementation actions is correctly stated. Since the Category I actions need to take place within five years of the TMDL effective date, the implementation of the Category II actions would need to start five years after the effective date of the TMDL, not within five years of the TMDL effective date.</p>