Appendix D

Response to Comments

On the Proposed Basin Plan Amendment

To Establish a Total Maximum Daily Load and Implementation Plan for Bacteria at the Beaches in Pillar Point Harbor and Venice Beach and to Update the Bacteria Objectives for Protecting Water Contact Recreation in the Basin Plan

Response to Comments on the Proposed Basin Plan Amendment to Establish a Total Maximum Daily Load and Implementation Plan for Bacteria at the Beaches in Pillar Point Harbor and Venice Beach and to Update the Bacteria Objectives for Protecting Water Contact Recreation in the Basin Plan

This document comprises:

PART I: STAFF RESPONSE TO WRITTEN COMMENTS ON THE STAFF REPORT AND PROPOSED BASIN PLAN AMENDMENT

We received six comment letters during the public comment period, which closed December 1, 2020.

Comment letters received:

1. San Mateo County Office of Sustainability
2. San Mateo Countywide Water Pollution Prevention Program
3. City of Half Moon Bay
4. California Department of Transportation
5. San Mateo County Harbor District
6. San Mateo Resource Conservation District

PART II: STAFF INITIATED CHANGES TO THE STAFF REPORT AND PROPOSED BASIN PLAN AMENDMENT

PART I: STAFF RESPONSE TO WRITTEN COMMENTS ON THE STAFF REPORT AND PROPOSED BASIN PLAN AMENDMENT

Changes we propose show as underline for additions, and ~~strikeout~~ for deletions to the October 13, 2020 Staff Report circulated for public review. Such changes to the Basin Plan amendment are shown in double underline/~~double strikeout~~ in Appendix B. The Table below lists comments and staff responses. Comments cited verbatim are italicized.

(1) San Mateo County Office of Sustainability (County) Comments

County Comment 1.1 *The Staff Report makes numerous references to the potentially significant contributions of bacteria from wildlife sources but states that it is difficult to assess the exact contribution to bacteria levels. Section 4.2 specifically states that "no accurate information as to the magnitude and geographic distribution of this waste source is available." This point continues to be a significant concern to the County as no bacteria TMDLs in the region have been able to meet wasteload allocations to date. Without fully understanding and accounting for the scale and distribution of wildlife sources, wasteload allocations for this TMDL may be impossible to meet*.

The County requests that the Water Board include a number of allowable exceedances similar to the TMDL for San Pedro Creek and Pacifica State Beach in order to accommodate for the potentially significant background sources of indicator bacteria.

Response to County Comment 1.1. As noted by the Commenter, the Staff Report acknowledges various animal sources, including wildlife, contributing to the pollution. However, given the existing evidence of controllable bacteria sources to the beaches, we disagree that the naturally occurring bacteria should be quantified before adopting the Basin Plan amendment or beginning the efforts to control anthropogenic bacteria sources and restore recreational uses of the beaches.

Implementation actions are focused on the most common human (and domestic animal) sources of fecal bacteria, that have long been known to contaminate waters along the coast. These implementation actions, for instance, fixing leaking pipes and eliminating illicit connections to storm drains, are not complex or technologically infeasible. Thus, it is reasonable to begin controlling human and domestic animal sources now, before or while identifying or accounting for all natural or non-controllable sources. The proposed implementation plan allows for supplemental monitoring, which could include identification of non-controllable bacteria sources. Implementing parties are encouraged to work collaboratively to collect data to support revision of the wasteload allocations to reflect bacteria contributions from non-controllable sources.

An allowable exceedance rate of 10 percent is already included in the TMDL. The TMDL targets are equivalent to the water quality objectives and meeting those targets will be assessed using the binomial approach in the State's Water Quality Control Policy for developing Clean Water Act Section 303(d) List (Listing Policy). Also see Response to Comment 2.2.

County Comment 1.2 *In the Load Ranking section of 4.2 Uncontrollable Sources – Wildlife, the proposed approach to re-evaluate wildlife sources after 5 years of implementing control measures seems to be backwards in that quantification of bacteria contribution from wildlife should be completed before investing significant resources on BMPs* (Best Management Practices)*.*

Response to County Comment 1.2. Please see our response to Comment 1.1. Note that the proposed implementation plan allows for supplemental monitoring, which could include identification of non-controllable and natural/wildlife bacteria sources. The supplemental monitoring could begin at any time, and not just after the first five years of implementation.

County Comment 1.3 *Section 2.5.3 seems to indicate that deer waste is separate from other wildlife sources.*

Response to County Comment 1.3. Section 2.5.3 summarizes the results of the previous microbial identification studies, which described possible contributions of bacteria from different sources, including wildlife. We do not attempt to distinguish deer waste from other wildlife sources.

County Comment 1.4 *Pet waste is identified as a controllable source in Section 4.1.9 but implementation actions focus exclusively on dogs and ignore domestic felines. While domestic feline waste may be more difficult to address, resulting bacteria loads may be on par with dog waste.*

Response to County Comment 1.4. While domestic cat waste contains bacteria, this source is generally less controllable than dog waste because cats are usually not accompanied when they are outdoors. The impact of cat waste is also potentially smaller since cats do not accompany their owners to the beaches.

By contrast, dog waste has been recognized as a leading source of bacteria pollution in streams and waterways. According to the Fact Sheet prepared by the Clear Choice Clean Water (undated), 47 percent of households in the US own at least one dog, and the Food and Drug Administration estimates that dogs excrete 0.75 pounds of waste per day, which could equate to over 274 pounds of waste per year. One gram of dog waste may contain almost twice as much fecal coliform bacteria as human waste. According to U.S. EPA estimates, two days' worth of dog waste from about 100 dogs would contribute enough pollution to close a beach and all watershed areas within 20 miles of it.

Actions recommended in the implementation plan focus on public outreach campaigns, changing people's behavior and enhancing dog waste disposal amenities.

Although domestic feline waste cannot be addressed using these measures, given that few cat owners walk their cats, BMPs to prevent contaminated runoff from entering the beaches should also reduce contamination from other pets, including cats.

County Comment 1.5 *The TMDL source analysis identifies Municipal Stormwater and the MS4 as a controllable source of bacteria. It is much more likely that stormwater and the infrastructure to manage runoff are not sources on their own and are instead a method of conveyance for indicator bacteria. The success of any actions required by MS4 operators will depend on the actions implemented to control actual bacteria sources upstream.*

Response to County Comment 1.5. We disagree with the statement that the MS4 is only a method of conveyance and not a controllable source of bacteria. Outfalls from municipal separate stormwater sewer systems (MS4s) are point sources under the Clean Water Act (40 CFR 122.26(b)(9)). Accordingly, the Clean Water Act requires municipalities to adopt and enforce ordinances and policies to effectively prohibit non-stormwater discharges into the storm drain system. Per CWA § 402(p)(3)(B)(ii) and (iii), municipal stormwater permits shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers and shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques, and system design and engineering methods. Stormwater permittees can control bacteria in stormwater discharges through numerous means, including through elimination of illicit connections, installation of green infrastructure, inspections, and enforcement of trash controls. This TMDL's implementation focuses on controlling bacteria sources to the maximum extent practicable in the near term, and more fully quantifying bacteria sources that are beyond the municipalities' control in the second phase of implementation.

County Comment 1.6 *In general, the County agrees that most implementation actions required by the Water Board in the current draft are feasible and will have a positive impact on the health of the watershed. The County appreciates Water Board staff's careful consideration of implementation actions but would like clarification on or amendment to the following implementation actions:*

Structural BMPs are generally the most financially burdensome methods of reducing bacteria loads transported through the MS4. In addition to the cost, effectiveness of these BMPs can vary widely depending on BMP type and site characteristics. The Urban Water Resources Research Council study sited on page 7-9 finds that conventional stormwater structural controls using passive treatment are unlikely to reduce Fecal Indicator Bacteria (FIB) concentrations in runoff to contact recreation standards and in the case of grass strips and swales, can increase effluent concentrations of FIB. The structural BMPs described on pages 7-9 and 7-10 should be re-evaluated to determine whether they will actually help achieve wasteload allocations.

Response to County Comment 1.6. Comment noted.

The Staff Report is not intended to be prescriptive in recommending selection and deployment of any particular BMP. In fact, BMPs specifically called out for implementation in the Staff Report are nonstructural, for the very reason the Commenter suggests. That is, structural BMPs cost to build and maintain, and thus should be placed where analysis indicates a BMP would be cost-effective.

The BMPs described in the report are examples of actions that have been successfully used by stormwater practitioners to control pollutants in stormwater, including bacteria. In addition to the BMPs briefly described in the report, in Section 7.2.5 we reference 1) the U.S. EPA website, which lists a menu of BMPs for stormwater to help MS4s meet permitting requirements, 2) the international stormwater database, and 3) the Urban Water Resources Research Council Report (2014). These resources describe treatment processes associated with structural stormwater controls, provide an overview of structural BMP performance in reducing bacteria, and list case studies. In addition, the California Stormwater Quality Association BMP Handbook contains information on BMPs that are effective in reducing bacteria loads (CASQA 2003)[1].

County Comment 1.7 *Homeless Encampments: Table 7-6 requires that the County "implement an effective approach to prevent bacteria in runoff from areas inhabited by homeless people as needed." The County recognizes that the issue of homelessness can have a significant impact on water quality but is a much larger systemic problem that requires significant resources and collaboration that extends far beyond the scope of stormwater compliance programs.*

The County acknowledges that some efforts to reduce bacteria runoff from homeless encampments may be achievable but would like clarification on what would be considered "an effective approach." The implementation action should be rephrased to "explore effective approaches to reduce bacteria in runoff from areas inhabited by homeless people."

Response to County Comment 1.7. We agree that homelessness is a difficult and systemic problem which requires a multi-agency approach. We also agree that reducing water quality impacts from homeless encampments is not simple. However, Caltrans and the municipalities in our region are developing strategies to control waste, including fecal matter, from homeless encampments that are effective at reducing bacteria inputs to stormwater and surface water. We expect implementing parties to develop an approach to prevent bacteria in runoff from areas inhabited by homeless people as needed, based on the size and the duration of homeless encampments, and to implement this approach within their respective jurisdictions.

We disagree that the implementation action to address homelessness should be rephrased. Water Board staff are already working with municipalities across the region, including San Mateo County and the City of Half Moon Bay, to develop a common approach to minimizing water quality impacts of homeless encampments. This approach may be incorporated into the Municipal Regional Stormwater Permit, which is expected to be reissued in late 2021.

County Comment 1.8 *Illicit sanitary sewer connections: Inspecting the stormwater system for illicit sanitary sewer connections as required in Table 7-6 can be a significant effort depending on the level of inspection the Water Board envisions.*

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[1] CASQA (California Stormwater Quality Association) 2003. Stormwater Best Management Practice. Handbook. New Development and Redevelopment. Section 3.2.

The County requests additional clarification on how the stormwater system should be inspected (CCTV, dye tests, etc.) and would like the Water Board to consider the possibility of prioritizing inspections in areas that are considered high risk for illicit connections rather than the entire system over 5 years. The County believes illicit connections in residential areas, for example, are highly unlikely.

Response to County Comment 1.8. Sewer inspections should look for leaking points, which are points of exfiltration. The County should use the most effective tools and adequate frequency to conduct inspections so they can detect leaks and prevent sewage from entering the stormwater system. In Marin County, for example, yearly inspections are conducted in all priority areas. The TMDL Implementation Plan does not require development of a separate inspection program if a systematic illicit sanitary sewer connection detection and elimination program is already in place.

We disagree that illicit connections in residential areas are unlikely. As an example, one MRP Permittee found grey water from an apartment building laundry room had been plumbed to the storm system. Where possible, the County could conduct dry-weather inspections of manholes or other feature that could detect significant flow indicating an illicit connection.

We agree with the Commenter that inspections in high-risk areas for illicit connections, and the areas close to the beach, should be made a priority.

The text in Table 7-6 of the Staff Report and Table 7.4.3-9 of the Basin Plan amendment was revised as follows:

> *Illicit sanitary sewer connections*. Ensure at least 20 percent of the stormwater system is evaluated and addressed for illicit connections each year, starting with the areas determined as high-risk or in close proximity to the beach. If this work has already been performed, submit the results of that evaluation and corresponding repairs in the Initial Report.

County Comment 1.9 *Timeline: The County appreciates the Water Board's phased approach to implementation, but voices concerns about implementation deadlines because of the expected fiscal impact and needed level of coordination.*

The first deliverable identified in Table 7-6 requires an implementation plan to be submitted within three months of the effective date of the TMDL. This is a very short timeline that may not be feasible. The County requests that this date is extended to within one year of TMDL approval.

Response to County Comment 1.9. While we recognize fiscal and other constraints in the planning process, we disagree that the time for submittal of the implementation plan should be extended from three months to a year of the TMDL effective date. The Municipal Stormwater Permit already requires the actions in the TMDL implementation plan, thus the County need only outline how it will enhance or focus those actions to reduce bacteria sources to the beaches. We informed the County of the likely implementation actions during the development of this TMDL and provided examples of similar bacteria TMDLs in San Mateo County. Given this

advance notice, County staff may have conceptualized a framework of enhanced or focused actions already.

The Bacteria TMDL is scheduled for a public hearing on February 10, 2021, and the approval process may take up to a year after adoption by the Water Board. Therefore, the implementing parties currently have more than a year already to start the planning process in anticipation of the TMDL taking effect by the end of 2021.

County Comment 1.10 *Phase 1 Implementation Actions are required to be completed within five years. Many of the non-structural BMPs proposed are behavior change efforts that will take time to ramp up and for the results of such programs to be realized. Requiring that these actions "effectively prohibit and prevent illicit discharges" within five years of the effective date is infeasible.*

The Phase 1 timeline should be extended to within eight years of the effective date in order to give adequate time to achieve results of behavior-based efforts.

Response to County Comment 1.10. We disagree with the request to extend the Phase 1 timeline to eight years. Although cleaning up after pets is a behavior change, other TMDL implementation actions are not. Five years is adequate time to evaluate the effectiveness of implementation and to detect trends towards improving water quality. If, after five years, there is evidence that an extension is warranted, the TMDL allows for adaptive management and response to changes in the schedule.

County Comment 1.11 *Phase 2 Implementation Actions includes submittal of an enhanced implementation plan within five years of the effective date of the TMDL if wasteload allocations are not met within five years.*

At a minimum, the deadline for submittal of the enhanced implementation should be extended to within six years of the effective date in order to give implementing parties time to incorporate all water quality and BMP data collected within the first five years. Following the request above for an extended Phase 1 timeline, the Phase 2 enhanced plan should be required within nine years of the effective date of the TMDL.

Response to County Comment 1.11. The implementing parties are required to submit annual reports documenting actions taken towards achieving the TMDL targets. These progress reports will serve as documentation that source reduction measures are being implemented and will evaluate improvements in water quality on annual basis. As such, we do not agree that an additional year is needed to evaluate findings and data from Phase 1 to prepare an enhanced implementation plan for Phase 2 actions if any are required. An extension of the 10-year schedule before the implementation even begins will only further delay achieving the TMDL allocations.

County Comment 1.12 *The economic considerations outlined in Section 9.3 are mostly described in unit costs which can vary widely and offer no scale for the actual costs of the required implementation actions.*

Costs described in Section 9.3 should be refined beyond the unit costs provided in the Staff Report in order to allow for proper budget planning.

Response to County Comment 1.12. The economic considerations in Section 9.3 are meant to be indicative and cannot serve as a basis for detailed budgeting. The detailed assessment of costs associated with implementation of specific BMPs, and accounting for site-specific conditions, is beyond the scope of the Staff Report.

County Comment 1.13 *In Section 9.3.4, potential costs for key implementation actions are missing. Implementation actions that are included in Table 7-6 but aren't evaluated for potential costs include the annual evaluation of 20% of the storm drain system, sewer diversion projects, and a program to manage bacteria loads from homeless encampments.*

The County would like the Water Board to include the potential costs of the above-mentioned implementation actions in Section 9.3.4.

Response to County Comment 1.13. As stated in the Staff Report (p. 9-26) under the terms of Municipal Regional Permit, permittees are required to develop and implement a Stormwater Management Plan and Monitoring Program, which includes ongoing costs for operations and maintenance, inspections, enforcement, staff training, public education and outreach, illicit connections, response and abatement, and monitoring. These costs will occur with or without a TMDL. We estimated the additional cost of bacteria-specific control measures to be approximately 2 to 15 percent, though in some cases, current efforts can be redirected without incurring cost increases. We focused our cost analysis on the most common BMPs that treat stormwater, though we acknowledge that implementation costs may vary depending on site-specific conditions. Also, see Section 9.3.1 in Staff Report for additional details.

County Comment 1.14 *Section 9.3.6 states that a Pet Waste Management program already exists under MRP requirements and should only incur incremental costs related to installation of new trash receptacles and pet waste bag dispensers. In order to craft an effective and targeted pet waste management program, additional study of pet waste hot spots will be required. Additional staff time will also be needed to service additional pet waste stations and conduct targeted, watershed-based outreach.*

The County would like the Water Board to clarify in Section 9.3.6 that incremental costs may vary for a Pet Waste Management program depending on the level of implementation.

Response to County Comment 1.14. While we agree that it may be cost-effective to focus pet waste management actions on pet waste hot spots, we do not think that a special study is necessary to start addressing pet waste in stormwater. The San Mateo RCD has been involved in public outreach and cleanup campaigns to address pet waste in the TMDL area for many years. We encourage the County to reach out to the RCD and work collaboratively to prioritize parks, beaches and places where dog owners congregate to initiate on-the-ground actions rather than plan for a study.

The costs associated with implementation of any measures discussed in Chapter 9.3 of the Staff Report are approximate and will vary depending on the source magnitude, the level of implementation, priorities given for the specific actions, and site-specific factors.

County Comment 1.15 *Additional Comments:*

1.15a The characterization of upper Denniston Creek Watershed in Section 2.2.2 should state "Lower in the watershed, residential and commercial areas are drained by a combination of storm drains and ditches." References to an engineered channel should be removed.

1.15b Section 7.3.2 should include the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) as a community outreach partner.

1.15c Section 7.5 states that auxiliary water quality data will be used in monitoring. The County requests that auxiliary water quality monitoring data be evaluated for appropriate QC and use of a State-accredited laboratory before being incorporated into the Water Board's understanding of bacteria densities at the beaches and creeks.

Response to County Comment 1.15. In response to this comment, we revised the text in the Staff Report:

Section 2.2.2, page 2-3

> The upper Denniston Creek watershed is mostly open space used as a municipal water supply for the Coastside Water District. A few agricultural fields are scattered throughout the watershed. Lower in the watershed, residential areas of El Granada are drained by a combination of storm drains and ditches. ~~an engineered channel to the creek.~~ Commercial businesses, which are also drained by storm drain ditches ~~and an engineered channel~~, are located near the creek mouth. Dry season flow has been observed within the ditches ~~channel~~ suggesting infiltration of groundwater and/or irrigation return flows. Denniston Creek drains into the harbor at the west edge of Capistrano Beach.

Section 7.3.2, page 7-18

> The County, San Mateo Countywide Water Pollution Prevention Program, San Mateo RCD, Harbor District and Surfrider actively use social media and community events such as Snapshot Day, Dream Machines, and Half Moon Bay Pumpkin Festival to distribute educational materials about stormwater, pollution, conservation and sewer management. Brochures and flyers provide information to residents and visitors.

Section 7.5 – for the assessment of compliance with the TMDL targets the Water Board will only use water quality data that has a Quality Assurance Project Plan and are analyzed by the accredited laboratory. However, we could also use other available information to provide context or help explain monitoring results.

(2) San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) Comments

SMCWPPP Comment 2.1 *As the Pillar Point Harbor and Venice Beach and other bacteria TMDLs are developed and implemented, please consider the major challenges and associated information needs identified by the California Stormwater Quality Association (CASQA) in a recent report for the Statewide Bacteria Project*.

Response to SMCWPPP Comment 2.1. Comment noted. Responses to related, but more specific, comments are given below.

SMCWPPP Comment 2.2 *Please modify the TMDL using the reference system / antidegradation approach to allow for some exceedances of the Water Quality Objective (WQO) based allocations due to natural sources. The draft Staff Report recognizes that natural uncontrollable sources of bacteria (i.e., wildlife) are present in the watersheds draining to Pillar Point Harbor and Venice Beach and at the beaches themselves. Other natural sources are also present, including bacteria growth in wrack deposited on the beach, and biofilms in sediments and conveyance systems.*

Even in undeveloped areas, natural sources of bacteria can result in exceedances of WQOs. Not accounting for natural sources of bacteria in the TMDL could result in load and waste load allocations that are unnecessarily challenging or unattainable.

The Commenter also states that conducting studies to determine if, after human sources are controlled, wildlife is a major contributor of bacteria would not be cost effective. The Commenter explains that the overall low level of human and dog markers present in recent microbial source tracking (MST) samples indicates *a low probability of generating data that could be used to establish natural source exclusion*.

Response to SMCWPPP Comment 2.2. As stated in Response to Comment 1.1, the TMDL allows for exceedances of water quality objectives approximately 10 percent of the time. The TMDL targets are equivalent to the water quality objectives and meeting those targets will be assessed using the binomial approach in the State's Water Quality Control Policy for developing Clean Water Act Section 303(d) List (Listing Policy).

Like the San Francisco Bay Beaches TMDL (2016) or the Malibu Creek and Lagoon Bacteria TMDL (2002), this TMDL concludes that a natural source exclusion is premature when not all anthropogenic sources of bacteria have been controlled. This approach is consistent with the implementation provisions in the Water Quality Control Plan for the Inland Surface Waters, Enclosed Bays, and Estuaries of California which states that "a natural source exclusion approach may be utilized after all anthropogenic sources of bacteria are identified, quantified, and controlled."

The neighboring beaches with similar conditions and wildlife use (Dunes, Francis, Roosevelt, and Surfers Beach) have good bacteriological water quality and are not impaired (Staff Report, Table 2.3). Hence, at this time, there is no basis for assuming that the natural source exclusion or reference system approach would allow for a greater exceedance rate.

This is related to Comment 1.1 (above), in that the implementation plan calls for studies to determine if natural sources (e.g., wildlife) are the remaining source of bacteria once human-

caused sources have been fully addressed. We appreciate the Commenter's concern about the costs of such studies, and that is why phased implementation of the TMDL is proposed, which prioritizes control of anthropogenic bacteria sources first. The advancement in the MST methods observed over the last decade also suggests that they may become more affordable and efficient in distinguishing between human and other sources.

SMCWPPP Comment 2.3 *Please modify the draft Staff Report to acknowledge that the effectiveness of structural BMPs in treating stormwater runoff for bacteria is not well established. Thus, the TMDL should recognize that the best approach would be to opportunistically implement structural BMPs with multiple benefits, as appropriate and when funding is available. … Thus, the best overall approach would be to seek opportunities to implement structural controls with multiple benefits, including potentially reducing bacteria, trash, and other pollutants, and potentially other benefits associated with green stormwater infrastructure, as appropriate and when funding is available.*

Response to SMCWPPP Comment 2.3 We maintain that data adequately demonstrate the removal effectiveness of structural BMPs in reducing bacteria loads. Also, we support the selection and implementation of the most practical and effective BMPs to improve water quality at the beaches in Pillar Point Harbor and Venice Beach. Those BMPs that have been proven effective in reducing bacteria, as well as other pollutants, are preferred as they offer most benefits while reducing construction costs.

In response to this comment, the text in Section 7.2.5, page 7-9 was modified as follows:

> Numerous structural and nonstructural BMPs exist to address bacteria discharges in urban runoff <u>with varying degrees of effectiveness. Therefore, implementing parties should seek opportunities to implement structural controls with multiple benefits, as appropriate and when funding is available. In addition to reducing bacteria loads, these benefits could include trash and other pollutant reduction and possibly other benefits associated with green stormwater infrastructure.</u> Below are examples of BMPs that can reduce bacteria loads. Some useful resources for BMP selection include: U.S. EPA website, which lists a menu of BMPs for stormwater representative of the types of practices that help MS4s meet permitting requirements[2], international stormwater database[3] and the UWRRC Report (2014).[4]

SMCWPPP Comment 2.4 *Please adjust the schedules of some of the Phase 1 and Phase 2 Implementation Actions to a more realistic timeline that accounts for the relative risk of the various bacteria sources.* The Commenter requests that the date to submit the initial Phase 1 report be extended from within three months to within one year of the effective date of the TMDL, and the schedule to submit an Enhanced Plan should be changed from within five years

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[2] https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

[3] http://bmpdatabase.org/bmpstat.html

[4] http://www.asce-pgh.org/Resources/EWRI/Pathogens%20Paper%20August%202014.pdf

to within 10 years of the effective date of the TMDL, and the timeline for meeting all TMDL allocations to be extended to 20 years.

Response to SMCWPPP Comment 2.4. Please see the response to Comments 1.10 and 1.11.

We decline to extend the timeline for the Phase 1 and Phase 2 implementation to allow 20 years to take necessary actions to improve water quality. The TMDL allows a delay in Phase 2 implementation following implementation of Phase 1 actions if the implementing parties deem it necessary to conduct enhanced bacteria source identification studies, and requires load and wasteload allocations to be achieved within 15 years after the TMDL effective date (see the proposed Basin Plan amendment section 7.4.3.5).

SMCWPPP Comment 2.5 *Please remove the requirement in Table 7-6 to "Implement an effective approach to prevent bacteria in runoff from areas inhabited by homeless people as needed, based on the size and duration of homeless encampments." This source of human fecal contamination is extremely challenging to control. … Municipal representatives and Regional Water Board staff are discussing water quality issues associated with homelessness through the MRP reissuance process. The TMDL should defer to that process.*

Response to SMCWPPP Comment 2.5. We disagree that this implementation action should be removed from the TMDL. However, we do anticipate that the reissued MRP will provide guidance on best practices in reducing discharges from homeless encampments, as the Commenter requests. Also see our response to Comment 1.7.

(3) City of Half Moon Bay (City)

City Comment 3.1 *The City is concerned about the ongoing costs associated with risk assessments, monitoring, and implementation actions without a clear "off ramp" if recommended BMPs, outreach and other actions are implemented and wasteload allocations (WLA) still are not met.*

This concern is further elaborated in Comment 3.5.

Response to City Comment 3.1. Although we appreciate the City's concern that implementation actions may not achieve wasteload allocations, bacteria in runoff can in many cases be controlled largely by non-structural treatment methods, particularly at Venice Beach which experiences only moderate levels of exceedance. For example, controlling pet waste at and near the beach could reduce bacteria sources without costly treatment. Such initial actions may reduce the rate of water quality objective exceedance without the need to deploy more costly measures or to require the Phase 2 actions. Until these control measures have been implemented, it is speculative to predict that the City will not be able to achieve waste load allocations.

Moreover, there is an "off-ramp": after Phase 1 implementation, we will use five years of data to determine whether the TMDL targets are met. Specifically, we will use the Listing Policy procedures to determine if Venice Beach and other impaired beaches meet de-listing requirements. These data should also help implementing parties determine what human-caused sources of bacteria to focus on in Phase 2, and if studies of natural sources should be

conducted, should the TMDL not be achieved. Similar evaluation will be repeated after Phase 2 implementation is completed. If full implementation does not achieve wasteload allocations, we anticipate moving into an evaluation of natural sources and development of a natural source exclusion.

City Comment 3.2 *We believe that human health is already protected at Venice Beach to a level that complies with the intention of the California Ocean Plan and State Bacteria Objectives. …We ask that the allowed wasteload allocation during the wet season be adjusted to account for a seasonal variation of higher bacteria levels in the wet season when there are less people contacting the water.*

Response to City Comment 3.2. We disagree with the Commenter's conclusion. The bacteriological data collected by the San Mateo County Health Department do not support this conclusion. Water quality at Venice Beach does not meet the objective for protecting water contact recreation, and, therefore, is not protective of human health. The overall exceedance rate was 24.5 percent (See Section 2.5.2 in the Staff Report). Although water quality at Venice Beach is significantly better than at the beaches in Pillar Point Harbor, the beach is clearly impaired.

We have no basis for differentiating wasteload allocations for dry and wet season because the REC-1 beneficial use applies at the beach year-round and people are observed to recreate at the beach year-round. The implementation options in the Water Quality Control Plan for the Inland Surface Waters, Enclosed Bays, and Estuaries of California allow for suspension of REC-1 beneficial use due to high water flow velocity or when conditions such as low water flows, low water temperatures, or freezing water make REC-1 beneficial use unsafe. These conditions do not apply to Venice Beach.

City Comment 3.3 *The timeline for the Phase I and II Sanitary Sewer System and the MS4 Plans is unreasonable, especially considering a potential Source Identification Study at the end of Phase I.*

… It is requested that the Initial MS4 Report be due after one year of the effective date, and the Enhanced Plan be due after six years if there is no Source Identification Study.

If the City performs or participates in a Source Identification Study as described in Section 7.5, then the Enhanced Plan should be due at the end of the ninth year so that results of the Study can be integrated.

The City requests the same timelines for the enhanced Sewer System Management Plan.

Response to City Comment 3.3. As stated in the response to Comment 2.4, we decline to extend the timeline for the Phase 1 and Phase 2 implementation to allow 20 years to take necessary actions to improve water quality. The TMDL allows a delay in Phase 2 implementation following implementation of Phase 1 actions if the implementing parties deem it necessary to conduct enhanced bacteria source identification studies, and requires load and wasteload allocations to be achieved within 15 years after the TMDL effective date (see the proposed Basin Plan amendment section 7.4.3.5).

Where additional time is needed to develop funds for large repairs, this should be proposed in the schedule submitted to the Water Board and acceptable to the Executive Officer.

City Comment 3.4 *Section 7.5 states that Phase II may be delayed by up to four years if a Bacteria Source Identification Study is conducted. Please specify that Phase II actions would begin after the conclusion of the study (year 9), and that Phase II would then conclude 14 years after the effective date of the TMDL.*

Response to City Comment 3.4. This is correct. The TMDL requires load and wasteload allocations to be achieved within 15 years after the TMDL effective date (see the proposed Basin Plan amendment section 7.4.3.5).

City Comment 3.5 *The sampling timeframe to meet the wasteload allocation is not clear, nor is it clear what happens if the wasteload allocation is met for a year but not the following year. … We ask that the TMDL be clearer on what it takes to meet the wasteload allocation, and have some flexibility in the Enhanced Plan submission dates if the wasteload allocation is only met temporarily*.

Response to City Comment 3.5. See response to Comment 3.1, particularly the second paragraph, in which we describe how we will determine when the TMDL is achieved.

City Comment 3.6 The estimated annual increase to the City's stormwater budget of $2000 to $12000 in Section 9.3 is unreasonably low*.*

In Table 9-4, rather than use estimated costs of BMPs based on an Orange County study (Gray et al, 2013), it would be reasonable and more accurate to use the recent cost estimates in SMCWPPP's PCBs Reasonable Assurance Analysis, submitted with the FY 19-20 annual report. The methodology estimates cost based an $/acre, the common unit used in the Bay Area, and a more intuitive unit of measure than $/square foot used in the TMDL.

Response to City Comment 3.6. As stated in response to Comment 1.13, the City has existing requirements to address pollution in stormwater under the MRP, and these requirements must be implemented regardless of the TMDL. The cost estimates in the Staff Report reflect bacteria-specific controls, which we consider more appropriate then the PCBs control measures contained in the SMCWPPP report. Further, we expect that many of the TMDL implementation actions will be enhanced or refocused actions that the City already takes to fulfill existing MRP requirements. Similarly, to the extent the City implements structural controls, as identified in its PCBs Reasonable Assurance Analysis, these controls would be expected to provide multiple benefits and fulfill multiple permit requirements. Thus, it is not reasonable to attribute the entire cost of structural controls to TMDL implementation.

City Comment 3.7 *The data used to calculate Geometric Means for Venice Beach appears to use the Method Detection Limit (MDL) of 10 cfu/100mL for all samples that are less than the MDL. The City requests that the method of calculating Geometric Means uses one half the MDL for these sampling results as is common when analyzing environmental data.*

The Commenter also requests that all Enterococci samples collected at Venice Beach use a more accurate lab method to reduce the MDL to 2 cfu/100mL.

Response to City Comment 3.7. We acknowledge the lack of consistency in the way bacteria concentrations below the detection limit (MDL) are treated in calculation of geometric means at various data portals, including the www.mywaterquality.ca.gov . We agree that half of the detection limit should be used in calculation of geometric means for concentrations of *Enterococcus* below the MDL, which is a recommended approach when assessing data for the Integrated Report and 303(d) listing decisions. In response to this comment, we re-evaluated the *Enterococcus* concentration data for all monitored beaches and included in the evaluation the new data collected from the end of 2018 through December 2019. We revised Table 2-3 to include a new summary of the data and assessment of water quality exceedances. New figures were also prepared to replace Figure 2-4, 2-5 and 2-6. The text in Section 2.5.2 was revised to reflect the new calculations and the rate of exceedance for the available data from 2007 through 2019. The resulting geometric mean exceedance rate for Venice Beach is 24.5 percent.

We support the City's recommendation for using the analytical methods with the lower detection limit and recommend that the City work with the San Mateo County Health Department to implement this recommendation. For samples collected by Water Board staff, the analytical laboratory is using the MDL of 1 cfu for *Enterococcus*.

City Comment 3.8 *Figure 2-4 in the Draft TMDL is inconsistent with Figure 2-6. Figure 2-4 states that the average exceedance for Venice Beach is 31%. The dry and the wet season exceedances should therefore average to 31%. In figure 2-6 the wet season appears to be around 22% and the dry season around 6%. This would average to 14%.*

Response to City Comment 3.8. Figure 2-6 in the Staff Report dated October 13, 2020 is correct, but the description in the text referring to "average exceedance" is ambiguous. The bars in Figure 2-6 represent percent exceedance for the dry and wet season which together add to 31 percent. To avoid confusion, we replaced Figure 2-6 with a different graphical presentation of the data.

City Comment 3.9 *In Section 4-2 raccoons are identified as rodents which they are not. Raccoons should be identified with the rest of the animals in the sentence.*

Response to City Comment 3.9. In response to this comment, we revised the text in Section 4-2, page 4.18:

> Additionally, stormwater drains and creeks provide conveyances for bacteria generated by nuisance wildlife to the beaches. The wildlife may include rodents (e.g., rats, ~~raccoons~~, squirrels), raccoons, deer, coyotes and feral cats that are attracted to available food sources and other favorable conditions.

(4) California Department of Transportation (Caltrans) Comments

Caltrans Comment 4.1 *Caltrans supports the Regional Water Board's efforts to improve water quality in Pillar Point Harbor and Venice Beach.*

The Commenter emphasizes the Staff Report assessment that Caltrans' footprint and impact are negligible compared to the overall bacterial loads in the watershed and lists its wasteload allocation and implementation requirements. In addition, the Commenter points to an

erroneous reference to Highway 101 in the staff report and clarifies which other Caltrans' properties are within the TMDL project area.

Response to Caltrans Comment 4.1. We corrected the typographical error in the report referring to Highway 101 and revised the text in section 4.1.8 on page 4-14 of the Staff Report as follows:

> The discharges from Caltrans facilities, including Highway 1, park and ride facilities, and maintenance yards will combine with other runoff discharging to Pillar Point Harbor and Venice Beach, and could potentially add to the bacteria load to the beaches. Overall, only a short length of Highway ~~101~~ 1 is in the project area, and the road is well maintained. Other Caltrans' properties within the project area include short lengths of SR-1, SR-35 and SR-92, and one maintenance yard.

Caltrans Comment 4.2 *Homelessness is a multi-agency responsibility.*

The presence of an encampment may not necessarily result in increased waste discharges (City of El Cajon and Forester Creek). Impacts from encampments may vary on an individual basis.

Addressing homeless issue requires a longer-term solution—beyond repeated cleaning of streams and encampments and significant resources and a coordinated multi-agency approach with governmental and non-governmental agencies.

Response to Caltrans Comment 4.2. We agree that impacts from homeless encampments may vary on a site-by-site basis. However, appropriate measures must be planned for and put in place to address such impacts, when and where they arise.

We recognize that homelessness is a multi-agency responsibility. As such, the TMDL Implementation Plan tasks the City of Half Moon Bay, San Mateo County and Caltrans to work collaboratively to prevent bacteria in runoff from areas in their respective jurisdictions inhabited by homeless people as needed, based on the size and duration of homeless encampments.

The effective long-term solutions to reduce homeless populations will require interagency coordination. Thus, we look forward to working with Caltrans, the City of Half Moon Bay, the County, and other interested parties with the aim of reducing pollution from homeless populations within the TMDL. This collaboration is occurring through the MRP permitting process.

(5) San Mateo County Harbor District (Harbor District) Comments

Harbor District Comment 5.1 *The inclusion of Pillar Point Harbor in the title of the Proposed Basin Plan Amendment and associated Staff Report may be overbroad and prejudicial to all Harbor interests. As further discussed below, the plan addresses contamination at the beaches in Pillar Point Harbor and not the entire Harbor.*

… The Harbor District believes and requests the beaches of concern within the harbor be listed individually in the title of the Proposed Basin Plan and associated Staff Report, or in the alternative "Pillar Point Harbor" be replaced with "Pillar Point Beaches" as stated in the State 303(d) listing or the "Beaches in Pillar Point Harbor."

Response to Harbor District Comment 5.1. As suggested by the Commenter we clarified the title of the Staff Report as follows:

Total Maximum Daily Load for Indicator Bacteria at the Beaches in Pillar Point Harbor and Venice Beach.

This change is also reflected in the Basin Plan amendment title, title of Section 7.4.3 and elsewhere in the Basin Plan amendment when the text refers to Pillar Point Harbor. The changes are shown in double underline/~~strikeout~~ (see Appendix B).

Harbor District Comment 5.2 *The main sources of the indicator bacteria at the Harbor beaches have been proven to be from outside of the Harbor District's jurisdiction and control. However, the Harbor District is being tasked with several activities to address the bacterial load, unrelated to the actual identified sources*.

Throughout the Comment Letter, the Harbor District refers to multiple studies, which are outlined in the Staff Report, showing that the primary sources of indicator bacteria are not from the Harbor or its operations, but rather from upland sources and thus beyond the jurisdiction and control of the Harbor District. The directed actions towards the Harbor District are unsupported and unrelated to the identified sources of indicator bacteria. The directed actions will require the District to expend very limited funding on low probability assumptions.

Response to Harbor District Comment 5.2. The Clean Water Act requires us to identify control measures for all sources, not just the primary sources. We disagree with the assertion that the sources of bacteria adversely affecting the beaches in Pillar Point Harbor are discharged primarily from outside of the Harbor property. The data collected at the beaches and in upper reaches of the watersheds draining to the harbor do not negate the need for further actions. The studies have shown that bacteria concentrations in upper reaches of the watersheds draining to the Harbor are much lower than those found in the Harbor and the limited MST data show increased frequency of human and anthropogenic markers of bacteria in areas close to the beaches.

The potential sources of bacterial contamination that need to be controlled at the Harbor include dog waste, unlawful discharges from boats, especially those in the outer harbor, which do not undergo inspection and sewage valve lockout or dye testing; aging stormwater and sewer infrastructure which is over 50 years old, and stormwater runoff from the Harbor's commercial and parking areas. Also, waste from the fish cleaning stations and squid boats is dumped directly into the Harbor. This could attract birds and, together with runoff from the piers, likely serves as a breeding medium for pathogens. The Harbor District is only tasked with addressing bacterial contamination within its jurisdiction. We acknowledge that addressing these sources will take time, so we encourage the District to prioritize cost-effective, multi-benefit implementation actions.

We consider discharges from the fish cleaning station and squid boats as contributing to bacterial contamination at the beaches and in the Harbor. One additional task was added in the Phase 1 Implementation (Table 7-4):

> 6) Prevent fish waste from fish cleaning areas and squid boats from being discharged to the Harbor

Harbor District Comment 5.3 *All beaches in Pillar Point Harbor are treated as one. However, each of the listed beaches is significantly impacted by separate watershed/storm drainage systems. Each watershed/storm system is different, each may call for different approaches, and all are outside the jurisdiction and control of the Harbor District.*

Response to Harbor District Comment 5.3. The Staff Report (Section 2.2.2) identifies the impaired beaches in Pillar Point Harbor and describes watersheds draining to the Harbor and those beaches. While we agree that a different level of implementation might be required depending on the land use and other environmental factors, the overall TMDL approach will not change whether these beaches are listed together or separately.

In editorial comment #17 (see Editorial Comments in the Harbor District's letter in Appendix E), the Harbor District requests that Table 2-3 should be modified to show exceedance rates for individual beaches. This information is already provided in Figure 2-4. The exceedance rate for Capistrano, Pillar Point Salt Marsh, Mavericks and Beach House Beach are 72.9, 56.9, 24.3 and 70.6 percent, respectively. The next editorial comment #18 requests that Figure 2-5 and 2-6 show individual beaches. Since available data for all the monitored beaches clearly show impairment of water quality, we do not see the need to modify Figures 2-5 and 2-6.

Harbor District Comment 5.4 *The Staff Report does give credit to the Harbor District for several initiatives and projects with respect to addressing potential source control at the Harbor, but, the tasks assigned to the Harbor District fail to reflect said projects and initiatives*.

Response to Harbor District Comment 5.4. We appreciate the acknowledgement that the Staff Report recognizes the Harbor District's efforts and studies to evaluate and improve water quality conditions. However, the beaches in the Harbor remain impaired. The TMDL is a long-term project, which is likely to require recurring maintenance, inspections, cleaning, and outreach activities beyond the actions that have been already performed. The TMDL assigns the implementation requirements to the Harbor District in the same manner as to the other implementing parties and requires implementing these actions within the Harbor District property.

Harbor District Comment 5.5 *Eight separate entities are being tasked to coordinate a regional response to the fecal bacterial load at the beaches in Pillar Point Harbor and Venice Beach. Each entity has exclusive and/or joint jurisdiction over the land or systems, each impacting the other. Designating multiple agencies with separate tasks to develop and implement a plan without a clear lead agency would be problematic.*

Response to Harbor District Comment 5.5. We disagree with this assessment. The TMDL assigns actions to parties to implement within their jurisdictions. Each party may take action and report to the Water Board individually. However, we encourage parties to save resources by collaborating on data evaluation and monitoring studies and to share their findings. While the Water Board has no authority to designate a lead agency, discussions and meetings with the implementing parties give us confidence that cooperation between all the parties already exists. Based on our experience, collaboration among implementing parties usually results in better use of resources and achievement of environmental outcomes.

Harbor District Comment 5.6 *Data do not show these to be sources of bacteria to the beaches:*

Proposed Harbor District Implementation Action 1:

"Evaluate effectiveness and proper performance of sewage collection systems (sewage dump stations, sewage pump-out stations, sewer lines, etc.) for the harbor marina and harbor amenities"

Proposed Harbor District Implementation Action 4; "Establish and implement a protocol to enhance efforts to identify and correct illicit sewage dumping from boats in inner and outer harbor".

Response to Harbor District Comment 5.6. The Harbor District questions the need to ensure the effectiveness and proper performance of sewage collection system. While the dye tests conducted in 2018 did not identify sewer system issues, and the sampling by UC Davis in 2011-2012 detected human markers in only a few samples near the live-aboard boats; the Basin Plan prohibits any discharge of raw sewage or human waste to waters in our Region. Thus, discharges from boats or sewer system are a priority regardless of the volume or frequency, and the U.C. Davis data indicate that such discharges are, in fact, occurring. Any potential discharge from boats in the Harbor are thus ranked as “High” priority, especially given the proximity to the beaches.

Harbor District Comment 5.7 *Proposed Harbor District Implementation Action 2: "Inspect sewer and stormwater laterals and all other components connecting facilities at PPH to the sanitary sewer system.*

Action 2 calls for redundant evaluations and studies. The St. Augustine line was cleaned of all fats, oils, and grease in September 2020.

Response to Harbor District Comment 5.7. In addition to the response above (Comment 5.6), we clarify that the tasks under Implementation Action 2 call for evaluation of sewer and stormwater infrastructure at the Harbor property and for establishing a suitable inspection frequency to prevent sewer overflows and unauthorized discharges of bacteria to the beaches. It does not require conducting any studies. The Commenter’s example of the CCTV inspection conducted in 2018 led to discovering the illegal connection and vast deposits of fat, oil and grease in the St. Augustine outfall. Hence, it is only prudent to ask for the schedule and maintenance activities that the Harbor District will perform to avoid these problems in the future. The TMDL Implementation Plan is not prescriptive, and it does not require implementation of actions already carried out. The Plan encourages the Harbor District to prioritize control actions and to use the most cost-effective measures to prevent bacteria discharges from the Harbor and its amenities.

Harbor District Comment 5.8 *Proposed Harbor District Implementation Action 3: "Prioritize sewer system repairs and public restrooms repairs in the harbor. The restroom at the boat ramp needs replacement, but the replacement is related to cosmetics and functionality of use. The replacement is not required to address any sewage leakage from fixtures or otherwise*.

Response to Harbor District Comment 5.8. We disagree with the Harbor District's characterization of the restroom repairs as merely cosmetic. The restroom conditions were described in the Marina Facility Condition Survey (2014) as showing worn conditions. "*The floors of both restrooms are worn out and have severe staining in some areas. Walls are stained from* ***leaking plumbing fixtures*** [emphasis added]*. The metal base trim around the walls is separating and showing signs of severe corrosion in some areas."* Accordingly, no changes were made to the Harbor District's implementation actions.

Harbor District Comment 5.9 *As a separate concern, the jurisdictional boundaries of each agency and how they overlap in responsibility with respect to water quality is unclear. Figure 1-1, "Location of Pillar Point Harbor and Venice Beach" on page 1-2 of the Staff Report shows the boundaries of the "Bacteria TMDL"/combined catchments draining to Pillar Point Harbor and Venice Beach but does not show the separate jurisdictions among the implementing parties. As currently presented the Staff Report lacks clarity in terms of the jurisdiction of implementing parties.*

Response to Harbor District Comment 5.9. The TMDL names implementing parties and clearly states that each party is responsible for implementing actions within their jurisdiction. The TMDL would not require individual co-permittees to be responsible for the operations of other co-permittees. Showing overlapping jurisdictional boundaries at the scale of the map in Figure 1-1 is neither practical nor necessary.

Harbor District Comment 5.10 The Harbor District asks for editorial clarifications and in particular requests that all references to Pillar Point Harbor are amended to say beaches in Pillar Point Harbor.

Response to Harbor District Comment 5.10. In response, we clarified the title of the Staff Report and Basin Plan amendment (see Response to Comment 5.1), and revised the first paragraph in Section 1 of the Staff Report:

> This ~~draft~~ Staff Report summarizes the data, information, and technical analyses that support a proposed Total Maximum Daily Load (TMDL) to reduce bacteria impairment <u>at the beaches</u> in Pillar Point Harbor and Venice Beach near the City of Half Moon Bay. High levels of bacteria at those beaches impair recreational beneficial uses through risk to public health and beach closings.
>
> The footer in the Report was also modified to say: <u>Bacteria TMDL for Beaches in Pillar Point Harbor and Venice Beach</u> instead of ~~Pillar Point Harbor and Venice Beach Bacteria TMDL~~.

The remaining text in the Report was not modified to refer to the "beaches" in Pillar Point Harbor every time, although we refer to the beaches on numerous occasions.

Harbor District Comment 5.11 Other editorial comments refer to correcting the common names, typographical errors, catchment size or similar clarifying suggestions.

Response to Harbor District Comment 5.11. We made the following edits:

Section 2.2.2 page 2-2 and Figure 2-1: Maverick<u>s</u> Beach

Section 2.2.2 page 2-3:

Pillar Point Harbor drains approximately 3,920 acres and includes inflows from the Denniston, St. Augustine and Deer Creek watersheds, which ~~and is~~ comprise~~d 3,920 acres of~~ open space, an airport, and agricultural, commercial and residential areas.

Section 4.1.1, page 4-3: Pillar Point Air Force ~~Radar~~ Station

Table 4-4, page 4-8: Onshore restroom ~~No~~ Yes

Section 7.2.1: page 7-1: "established"

Harbor District Comment 5.12 Other editorial comments request to include additional information in the Staff Report describing the actions taken by the District to reduce bacteria discharges in the past, amenities provided to the boaters in the Harbor, or discussion of load ranking.

Response to Harbor District Comments 5.12. We did not modify the Staff Report as requested, because these efforts are acknowledged in the Report in Section 2.5.3 where we discuss special studies, Section 4.1.3 where we describe mapping and cleaning of stormwater lines on the Harbor District property, and Section 7.3 which discusses existing efforts.

(6) San Mateo Resource Conservation District (RCD) Comments

RCD Comment 6.1 *Chronic vs. Intermittent and Potential Sources of Bacteria*

[T]he Staff Report does not make adequate distinction between chronic and intermittent sources of bacteria. Prioritization of potential sources of bacteria should consider the episodic or chronic nature of the source contamination. Ignoring the distinction between intermittent and chronic sources may at times run the risk of directing funds and efforts to reduce potential and intermittent sources of bacteria rather than addressing data-supported chronic sources that have been demonstrated to be most harmful to water quality. We are not advocating that the Regional Board ignore potential sources that may cause intermittent increases in bacterial concentrations but instead suggesting that priorities be made based on chronic bacterial sources and factor in previous findings.

The RCD considers boats in the inner harbor, the outer harbor, dogs on beaches, homeless encampments, RV dumping, and sanitary sewer overflows as non-chronic sources.

Response to RCD Comment 6.1. While we acknowledge and appreciate the RCD's efforts to characterize sources of the bacterial contamination at the beaches in Pillar Point Harbor and to share information during the development of this project, we do not agree that the TMDL must categorize bacteria sources as chronic or intermittent. Rather than using an upfront categorization of sources where the information might be lacking or the scientific understanding evolving, the TMDL provides adequate flexibility for the implementing parties to determine appropriate actions depending on environmental factors, current data, and available resources.

We also propose phased implementation, which supports prioritization of control measures to deal with the immediate and most serious problems; this approach factors in the source type and previous findings.

RCD Comment 6.2 *Mismatches between source analysis and prioritization in Pillar Point Harbor.*

Further to Comment 6.1, the RCD states that source analysis for Pillar Point Harbor does not support prioritization of boats in the harbor as a chronic source. *Although multiple prioritization criteria (identified on page 4-2) are taken into consideration, fundamentally the regulations in the TMDL should be based on science. As noted in the Staff Report, boats in the inner-harbor have been shown not to be a source of chronic bacterial pollution at the beaches in Pillar Point Harbor yet live-aboard boats are prioritized as "High" in terms of Relative Load Ranking".*

Response to RCD Comment 6.2. We disagree with the RCD's conclusion that because discharges from boats, homeless encampments, RV dumping and sanitary sewer overflows are intermittent, they are a somewhat lesser priority. These sources involve discharge of raw sewage or human waste, which is prohibited in our Region. This makes these discharges a high priority regardless of the volume or frequency of detection. The infrequent water quality sampling and microbial source identification conducted in the Harbor does not serve as definitive evidence that these sources are fully controlled given the level of impairment observed at the beaches.

RCD Comment 6.3 *Jurisdictional Boundaries of Implementing Entities. This report would benefit from an additional map showing jurisdictional boundaries of each entity that discharge indicator bacteria or have jurisdiction over such discharges. As currently presented the staff report lacks clarity in terms of the jurisdiction of implementing parties.*

Response to RCD Comment 6.3. The TMDL names implementing parties and clearly states that each party is responsible for implementing actions within their jurisdiction. Showing overlapping jurisdictional boundaries at the scale of the map in Figure 1-1 is neither practical nor necessary. In addition, such a map could not account for cases where a sewer collection system's jurisdiction (underground) overlaps a municipality's stormwater jurisdiction (above ground).

RCD Comment 6.4 *Consideration of Previous Efforts. Staff report states that "work completed in the past five years and ongoing efforts to implement actions to reduce bacteria loads into beaches will be considered as progress toward attaining the TMDL". Please specify the date upon which this will be honored. As currently stated, it is unclear when this five-year timeline will begin.*

Response to RCD Comment 6.4. The five-year period is meant to indicate a timeframe during which an action may not need repeating, and the actual timeframe will depend on the type of action implemented. For example, actions to prevent direct discharges from boats must continue indefinitely to protect water quality in the Harbor. The Phase 1 Plan can provide justification for delaying or adjusting implementation actions based on source type and the ongoing implementation efforts.

RCD Comment 6.5 *Redundant and misplaced emphasis of implementation actions for PPH.*

This comment reiterates previous concerns that:

- primary sources of bacterial contamination are from outside of the harbor;

- data and tests conducted by the RCD have not shown sewer system to be a problem, yet implementation actions target human sources;
- the implementation actions call for redundant studies; and
- the implementation actions should only focus on chronic sources.

Response to RCD Comment 6.5. We disagree that implementation actions are redundant, or that the TMDL unreasonably centers on the Harbor. All loads and sources must be accounted for, and the TMDL assigns implementation requirements to the Harbor District in the same manner as to the other implementing parties and requires implementing these actions within the Harbor District property.

Also, see our response to Comment 5.2 which lists the sources within the Harbor that must be addressed; and responses to Comments 5.6, 5.7 and 6.4, which discuss the importance of addressing human waste, and why the TMDL cannot focus on chronic sources only or rely exclusively on past efforts to address bacteria levels at the beaches.

PART II: STAFF INITIATED CHANGES TO THE STAFF REPORT AND PROPOSED BASIN PLAN AMENDMENT

Water Board staff made insignificant editorial changes to the Staff Report, intended to clarify or correct the October 13, 2020, draft. These include correcting typographic errors and other minor changes to add clarity.

Other staff-initiated changes are described below:

Staff Report Section 5.2, footnotes *c* and *d* to Table 5-2: Load and Wasteload Allocations for Pillar Point Harbor and Venice Beach were revised

c. The *Enterococcus* density shall not be greater than 110 cfu/100 mL, <u>which defines the maximum daily load.</u>
d. Facilities discharging to freshwater creeks draining to Pillar Point Harbor and Venice Beach will use <u>the freshwater objective for</u> *E. coli* ~~concentrations~~ to demonstrate ~~they~~ <u>their compliance with</u> ~~meet~~ the allocations. The density of *E. coli* shall not be greater than 320 cfu/100 mL.

A corresponding clarification was made to footnotes in the Basin Plan amendment Table 7.4.3-2. These changes are shown in <u>double</u> <u>underline</u>/~~strikeout~~ in the revised Basin Plan amendment (Appendix B).