Appendix D
Response to Comments

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

RESPONSE TO WRITTEN COMMENTS

On a Tentative Resolution to Support a Water Quality Improvement Plan to Achieve Water Quality Objectives for Sediment and Population and Community Ecology in San Gregorio Creek

Introduction

The tentative resolution and draft Staff Report containing the Water Quality Improvement Plan to Achieve Water Quality Objectives for Sediment and Population and Community Ecology in San Gregorio Creek (Staff Report) were circulated for public comment August 6 through 31, 2021. We received comments from the following three parties:

1. Peninsula Open Space Trust (POST, Daniel Olstein)
2. National Marine Fisheries Service (NMFS, Bill Stevens)
3. County of San Mateo (County, Carolyn Bloede)

In response to comments, we propose changes to the Draft Staff Report. These changes are shown on pages 35 and 59 of the Draft Staff Report as underline for additions and ~~strikeout~~ for deletions and are discussed in our response to Comment Letter No. 2.

Appendix C contains copies of all comments received. Comments are summarized and presented with our responses below. Comments cited verbatim are italicized.

Comment Letter No. 1
Commenter: Daniel Olstein
Affiliation: Peninsula Open Space Trust (POST)

Comment 1A: Mr. Olstein submitted a letter stating POST's commitment to protect water quality and outlined several voluntary management activities POST has undertaken to minimize sediment delivery from agricultural lands to streams and to protect instream aquatic habitat. An excerpt from his letter is as follows:

We have been voluntarily managing sediment as well as summer and fall base flows through expansion of riparian vegetation buffers on protected farms, installation of instream habitat features, and development of additional offstream storage on protected farms.

POST also actively manages the road networks on our properties to minimize chronic and acute sediment delivery to local streams and works with partner landowners and tenants to ensure sustainable stewardship practices through conservation easement terms and agricultural lease conditions.

Response: We appreciate POST's efforts to protect water quality in the San Gregorio Creek watershed. Development of this Water Quality Improvement Plan (WQIP) would not have been

possible without POST's long-term commitment to water quality protection in open space and working lands in coastal San Mateo County.

Comment 1B: Mr. Olstein expressed appreciation for the stakeholder outreach conducted during development of the WQIP and its use of knowledge gained from the recent implementation of the Pescadero-Butano Sediment TMDL, stating:

We appreciate the Regional Board's efforts to protect our local waterways and fish populations, and the robust process of gathering input that has been taken in the development of the San Gregorio Creek WQIP. The flexibility afforded landowners in developing their own plans for sediment reductions as well as the application of the assessment and planning protocol from the Pescadero-Butano watershed TMDL are positive adaptations in this plan.

Response: During WQIP development, Water Board staff was committed to working closely with stakeholders to identify workable solutions to achieve water quality objectives for San Gregorio Creek. We appreciate POST's acknowledgement of our efforts.

Comment 1C: Mr. Olstein expressed a concern and recommendation in his letter as follows:

Still, our greatest concern is the fiscal impact these measures will have on farm and ranch operators who face increasing monitoring and reporting requirements with little associated funding to cover these costs. We recommend identifying new funding sources to help landowners with management plan development to comply with the implementation stage of the WQIP.

Response: We agree that funding is important for farm and ranch operators. We developed the WQIP to minimize the economic impact on farmers and ranchers by providing long timeframes for implementation, focusing on large land owners, and tying into existing sediment reduction programs (which have multiple objectives) being conducted in the watershed. A possible funding source is the National Resource Conservation Service (NRCS) Environmental Quality Incentive Program. This program is currently funding similar implementation actions outlined in the Pescadero-Butano Sediment TMDL and, based on conversations with the San Mateo Resource Conservation District and the National Resource Conservation Service, could fund work in the San Gregorio Creek watershed as well.

Comment Letter No. 2
Commenter: Bill Stevens
Affiliation: National Marine Fisheries Service

Comment 2: Mr. Stevens submitted an email which noted many similarities between the WQIP's implementation actions and those identified by NMFS in their recovery plans for steelhead and coho, namely the "Final Coastal Multispecies Recovery Plan for California Coastal Chinook Salmon, Northern California Steelhead and Central California Steelhead", and the "Recovery Plan for the Evolutionarily Significant Unit of Central California Coast Coho Salmon". Mr. Stevens requested that these recovery plans be cited in the WQIP as follows:

According to the Draft Staff Report, the WQIP's main goal is to help facilitate the recovery of listed populations of coho salmon and steelhead in the San Gregorio Creek watershed. NMFS certainly supports that goal. In fact, many of the actions noted in the Draft Staff Report are really similar to our recovery actions identified in our recovery plans. I think it would be useful to land

managers, grant applicants, the public, and other regulatory agencies if the Staff Report cited our Recovery Plans...

Response: The Staff Report cites the "Final Coastal Multispecies Recovery Plan for California Coastal Chinook Salmon, Northern California Steelhead and Central California Steelhead" in the introductory section of Chapter 8.0 (page 35). In response to this comment, we added a reference to the "Recovery Plan for the Evolutionarily Significant Unit of Central California Coast Coho Salmon" at the same location and added text describing the similarities between the Water Board's proposed implementation actions for habitat restoration and those identified by NMFS in their recovery plans.

Comment Letter No. 3
Commenter: Carolyn Bloede
Affiliation: County of San Mateo

Comment 3A: The County expressed support for the overall goals and objectives of the WQIP as follows:

The County supports the overall goals and objectives of the WQIP to improve sediment and habitat conditions in the San Gregorio Creek Watershed and believes that these goals and objectives of the WQIP are aligned with ongoing County activities, including the County's recently approved Routine Maintenance Program.

Response: We appreciate the County's support for the WQIP goals and objectives.

Comment 3B: The County is concerned with the use of the Pescadero-Butano Sediment Total Maximum Daily Load (TMDL) as a reference when describing watershed erosion and sediment history in San Gregorio Creek. The County questioned whether the Pescadero-Butano Sediment TMDL was an appropriate proxy for numeric targets and implementation actions in the San Gregorio Creek watershed. Their reasons include the following:

3B-1. The San Gregorio Creek watershed is inherently prone to erosion, and non-anthropogenic sediment sources are more important here than in the Pescadero-Butano watershed.
3B-2. Most of the negative erosional effects of historical land use activities have already occurred and are no longer a major contributor to the sediment impairment in San Gregorio Creek. Consequently, anthropogenic erosion sources are not as significant, relative to all erosion sources, as they are in the Pescadero-Butano Creek watershed.
3B-3. Sediment is efficiently transported through lower San Gregorio Creek, through the marsh and lagoon, and into the Pacific Ocean with no apparent areas of significant sediment accumulation. The County interprets this to mean that channel incision in the San Gregorio Creek watershed is more natural than that observed in the Pescadero-Butano Creek watershed where long-term sediment accumulation is observed in the marshlands and the lagoon.

Response: We disagree with the comment about the applicability of the Pescadero-Butano Sediment Total Maximum Daily Load (TMDL) as a reference when describing watershed erosion and sediment history in San Gregorio Creek. The peer-reviewed technical basis for the TMDL can be applied to the San Gregorio watershed for reasons that include the physical proximity and similarity in land uses in the two watersheds. The Pescadero Creek and Butano Creek watersheds (Pescadero-Butano Watershed) lie just south of the San Gregorio Creek

watershed and share several land uses found to contribute excess fine sediment supply to streams, namely roads, agricultural lands, and a history of channel disturbance from logging and grazing practices. In addition, several of the implementing parties are the same for both watersheds. Consequently, the WQIP Implementation Plan is modeled after those elements of the Pescadero-Butano Sediment TMDL Implementation Plan that apply to San Gregorio Creek, namely the implementation actions for roads, agricultural lands and habitat enhancement.

In addition to using the Pescadero-Butano TMDL as a point of comparison, Water Board staff conducted a literature review, stakeholder outreach, and field investigations specific to the San Gregorio Creek watershed. The results of this watershed-specific analysis are documented throughout the Staff Report. For example, the effects of land use history on San Gregorio Creek floodplain sedimentation are discussed in Section 5.4, the unique role of landslides in San Gregorio Creek's sediment budget is considered in Sections 2.2 and 6.2.1. Similarly, some implementation actions in the WQIP are tailored to the San Gregorio watershed, based on discussions of local stakeholder needs and experience in applying the Pescadero-Butano Sediment TMDL Implementation Plan.

Implementation actions reflect the conclusions of both research done to develop the Pescadero-Butano sediment TMDL and site-specific investigations. For instance, the Pescadero-Butano Sediment TMDL identifies County roads as an important sediment source that requires implementation actions for sediment reduction and erosion control. The County is correct that we rely, in part, on the conclusions of the Pescadero-Butano Sediment TMDL as a suitable proxy for requiring the same implementation actions for County roads in San Gregorio Creek. We also rely on our literature review, site investigations, and stakeholder outreach in the San Gregorio Creek watershed, which concluded that roads are constructed, repaired, and maintained in the same manner in both watersheds. Because these watersheds are contiguous and share physical characteristics and land uses, we conclude that implementation actions developed to address road-related erosion from County roads in the Pescadero-Butano watershed are suitable and will be successful at addressing road-related erosion in the San Gregorio Creek watershed.

We agree with the County's comments (3B-1 and 3B-2) that the majority of sediment production in the San Gregorio Creek watershed derives from natural sources, which we conclude in the second bullet of Section 6.2.3 of the draft Staff Report. We agree that anthropogenic sediment sources in the San Gregorio Creek watershed likely form a smaller share of total sediment yield than in the Pescadero-Butano Watershed. For reasons discussed above, we disagree with the County's implication that anthropogenic sediment sources identified as contributing to the sediment impairment require different implementation actions than in the Pescadero-Butano Watershed on the basis that they likely form a smaller share of total sediment yield. This is discussed further in response to Comment 3C below.

We disagree with comment 3B-3 that efficient sediment transport and the lack of long-term sediment accumulation in the San Gregorio marsh and lagoon mean that channel incision in the San Gregorio Creek watershed is more natural than that observed in the Pescadero-Butano Creek watershed. As stated in the Staff Report (Section 5.4), research by Thornburg (1998) and Sojourner (2000) concludes that channel incision is the result of anthropogenic land uses, mainly historic logging and grazing in the mid- to late-1800s, and large flood events. We found their evidence compelling and agree with their conclusions that channel incision in the San Gregorio Creek watershed is largely anthropogenic in nature.

Comment 3C: The County expressed the following concern:
The County recognizes the importance of sediment reduction but would like to comment on some of the characterizations included in the WQIP staff report. Listed below are specific statements from the WQIP staff report where the County sees contradicting conclusions in the Watershed Management Plan (Stillwater, 2010) and Rapid Sediment Budget (Florsheim, 2015). These studies generally find that sediment sources are not anthropogenic but reflect the natural physical conditions in the San Gregorio Creek watershed. While historic land uses may have exacerbated these processes between the late 1800s and early 1900s, these sources in and of themselves are not anthropogenic.

Response: Water Board staff's response to each specific County concern about contradictions between the Watershed Management Plan and Rapid Sediment Budget are provided below.

> **Comment 3C-1:** *Bullet point 2 of Section 3.2 states that "accelerated erosion and sediment is evident in San Gregorio Creek and its tributaries" and "accelerated sediment erosion from historical and existing land uses is a significant source of fine sediment in San Gregorio Creek…" In general, data show that the watershed is relatively stable as evidenced by radionuclide results showing that denudation/erosion balanced by uplift and historical records describing incision as early as 1854, prior to significant changes in land use (Figure 5. of Sediment Budget)*

Response: Based on Florsheim's analysis of evidence of valley alluviation on lower San Gregorio Creek sometime between 1854 to 1906, we agree that most effects of historical land use activities on watershed sediment budget may have already occurred and that rates of basin sediment yield appear similar to pre-disturbance erosion rates.

However, we do not agree with the County's interpretation that this contradicts our assertion that anthropogenic sources have accelerated sediment erosion. Sediment erosion from anthropogenic sources is reported throughout the literature and documented in Chapters 5 and 6 of the Staff Report. For instance, accelerated sediment erosion from roads and other land uses in the San Gregorio Creek watershed is documented in Section 6.2.1.

> **Comment 3C-2:** *Bullet point 3 of Section 3.2 states that "the problem of sediment is expressed by high concentrations of fine sediment deposited in the streambed at potential spawning and rearing sites for steelhead." Contrary to the above statement, the 2010 Watershed Management Plan finds that embeddedness is mostly a function of in-situ breakdown of mudstone clasts rather than hydraulic deposition of fine sediment.*

Response: We believe the County is referring to page 39, paragraph 3 of the 2010 Watershed Management Plan (located in Attachment 1 of the Staff Report) which states:

Pearce et al. (2007) and Brady et al. (2004) (as cited in Pearce et al. 2007) report high levels of spawning substrate embeddedness in portions of La Honda Creek that may limit spawning success, but attribute most of the embeddedness to in-situ breakdown of mudstone clasts rather than hydraulic deposition of fine sediment.

Brady et al. (2004) conducted their study on the lower 3.1 miles of La Honda Creek, immediately downstream of a large area of marine mudstone, identified as the San Lorenzo Formation on geologic maps (California Geological Survey 1991). Consequently, it is not surprising that the embeddedness of gravel and cobble stream bed material results largely from the breakdown of mudstone clasts. However, the observations of Brady et al. may not be

extrapolated to other parts of the watershed, because basin geology varies depending on watershed location and mudstone clasts are not a ubiquitous in the San Gregorio Creek watershed.

We wish to emphasize that Brady et al. (2004) is referring to the degree of embeddedness they observed on the channel bed and not to the concentration of fine-grained sediment deposited on the stream bed by flowing water. These are two separate physical properties of the stream bed. Brady et al. (2004) define embeddedness as follows:

Embeddedness is the degree to which a clast is surrounded by finer sediments.

Although not explicitly measured, gravel embeddedness was observed in many phases of data collection in La Honda Creek. For example, embeddedness was noted during a reconnaissance of the study area, and again during surface and subsurface sediment grainsize analyses. Larger clasts of gravel and cobble were commonly surrounded by sand and silt, making them very difficult to remove from the bed. These clasts had to be pried from the bed with a rock hammer.

Bullet point 3 of Section 3.2 of the Staff Report refers not to embeddedness but rather to the presence of fine sediment deposits on the stream bed, which we quantify using numeric targets for residual pool volume and substrate composition, described in Chapter 7. The measurement of residual pool volume identifies the depth of fine sediment in pools and requires that the fine sediment be loose and unconsolidated so that its thickness can be measured across several pool depths with a measuring rod. Consequently, the numeric target is based on fine sediments deposited on top of any embedded material that may be present, and not on the degree of embeddedness of the stream bed. Similarly, the numeric target for substrate composition measures the percentage of fine-grained sediment in a bulk sample of bed material, regardless of whether or not embeddedness is present.

> **Comment 3C-3:** *Section 4.0 states that the numeric water quality objectives for sediment and settleable material are not met in the San Gregorio Creek watershed because fine sediment in the streambed substantially exceeds natural background levels. Similar to the comment above, fine sediment occurs naturally at high background levels due to in-situ breakdown of mudstone clasts.*

Response: Please see our responses to Comments 3C-2 and 3C-4.

> **Comment 3C-4:** *Bullet point 2 of Section 6.2.3 states that while current erosion rates in the watershed are similar to long-term erosion rates, it is estimated that "current San Gregorio Creek watershed sediment yields are between one and two-times background (pre-historic) levels."*
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> *We did not find any documentation for the claim that current San Gregorio Creek watershed sediment yields are one to two times higher than background rates. Section 2.5.2 of the Watershed Management Plan actually describes 80% of sediment delivery in El Corte de Madera Creek as originating from "natural" sources of sediment such as landslides, bank failures, and debris flows; and the main source of sediment in La Honda as being from landslides.*

Response: Our estimate of current watershed sediment yields as between one and two-times background (pre-historic) levels is based on our evaluation of the available literature on

sediment erosion and yield in the San Gregorio Creek watershed, discussions with local stakeholders, and field investigations.

The 2006 Balance Hydrologics study cited in the Watershed Management Plan did not affirmatively conclude that 80 percent of sediment delivery in the El Corte de Madera Creek watershed was found to be from natural sources. To the contrary, the study noted that "*approximately 20 percent of sediment delivery to El Corte de Madera Creek may come directly from actively-used roads and trails, whereas the remaining 80 percent or so likely originates from more "natural" sources of sediment such as landslides, bank failures, and debris flows (Figure 7)."* The study authors put "natural" in quotes because they suspected that anthropogenic causes were contributing to the landslides, bank failures, and debris flows:

We documented sediment sources contributing sediment directly to the stream system including: landslides, debris flows, bank failures, and gullies. Although it is likely that some of these types of sediment sources originated from, or were accelerated by, historic land-use activities (e.g., timber harvest and road construction), it was beyond the scope of this project to identify in detail the cause of each sediment producing feature.

The results from Balance Hydrologics (2006) study are consistent with our estimate that current San Gregorio Creek watershed sediment yield is between one and two-times background levels, where background refers to pre-disturbance, natural sediment yields. The Balance Hydrologics (2006) study shows that sediment yield in El Corte de Madera Creek, a tributary to San Gregorio Creek, is elevated at least 25 percent above background levels, due to the additional sediment contributed from actively used roads and trails, and therefore between one and two-times the pre-disturbance or background level.

> **Comment 3C-5:** *Bullet point 3 of Section 6.2.3 states that "important delivery mechanisms of anthropogenic sediment sources to San Gregorio Creek are landslides, debris flows, gullies, stream bed and bank erosion and to a smaller extent land surface erosion, especially on hillsides." This point seems to mischaracterize natural sediment sources such as landslides and debris flows as anthropogenic in nature.*

Response: We disagree with the County's assertion that landslides and debris flows are natural features that cannot be the result of anthropogenic sediment sources or erosion processes. For example, landslides can be initiated by roads. The Water Board would identify such a landslide as anthropogenic in nature and therefore not a 'natural sediment source'. Examples of landslides caused by roads include toe failure of oversteepened slopes on the upslope side of a road constructed along a partial or full bench cut, or a landslide initiated by soil saturation resulting from concentrated road runoff from a culvert or cross drain. Examples of road-related landslides are documented in the San Gregorio Creek watershed by the Balance Hydrologics (2006) study mentioned in Comment 3C-4 above and in several road erosion surveys conducted by the Mid-Peninsula Regional Open Space District and documented in Section 6.2 of the Staff Report.

Comment 3D: The County expressed the following concern:

The relatively stable condition of the San Gregorio Creek watershed and natural sources of sediment raises concerns of achieving numeric targets.

The County provides four reasons supporting its concern, which we address individually below.

Comment 3D-1: *Section 7.1 describing numeric targets for residual pool volume (as a reflection of fine sediment yield) proposes that the numeric target should show a decrease in time. However, because most of the fine sediment in the San Gregorio Creek watershed reflects natural non-anthropogenic sources, establishing a decreasing trend as a target may not be feasible to achieve. In addition, outcomes related to specific implementation actions may be indistinguishable from natural sources which can be episodic.*

Response: We disagree with the County's comment that establishing a decreasing trend in residual pool volume may not be feasible. The Mid-Peninsula Regional Open Space District has demonstrated such a trend is feasible in the San Gregorio Creek watershed, which we describe in Section 7.1 of the Staff Report:

Balance Hydrologics (2020) established V monitoring locations in 2004 and repeated V* sampling at each site in 2005, 2006, 2018 and 2019. Results showed that average V* values declined about 15 percent from the 2004 – 2006 period to the 2018 – 2019 period, due in part to the implementation of best management practices (BMPs) for roads and trails designed to reduce fine sediment delivery to streams.*

Comment 3D-2: *Section 7.2 describes current substrate composition. Based on recent Water Board measurements, 11 sites along San Gregorio Creek and its tributaries currently meet the target numeric criteria. This suggests that in terms of current bed composition the creeks in the watershed are in good baseline condition.*

Response: We agree with the County's assessment that the current stream bed material composition at the 11 sites sampled currently meet the target numeric criteria. However, the residual pool volumes are elevated at most sample sites, and compare closely with residual pool volumes measured in the Pescadero-Butano Watershed. Consequently, we conclude that fine sediment loading in San Gregorio Creek remains elevated due to anthropogenic sediment sources.

Comment 3D-3: *Section 8 Implementation Plan is focused on reducing fine sediment loading from anthropogenic sources and restoring salmonid habitat. These goals assume that the watershed is currently negatively impacted by anthropogenic sediment sources. The supporting documents cited above suggest that the majority of sediment sources in the San Gregorio Creek watershed are from naturally occurring processes and that the erosional legacy of negatively impacting historic land uses (primarily logging) have largely recovered based on the similarity between the current sediment yield and the long-term pre-disturbance sediment yield.*

Response: We disagree with the County's statement that the San Gregorio Creek Implementation Plan is based on an assumption that the watershed is currently negatively impacted by anthropogenic sediment sources. Our Implementation Plan is based on a review of reliable studies of sediment loading in the San Gregorio Creek watershed and in adjacent watersheds. We have documented these studies in the Staff Report, discussed the issues with local stakeholders, and conducted field investigations to develop a sound, actionable Implementation Plan for the watershed. Consequently, we believe the Implementation Plan developed for San Gregorio Creek will be successful in achieving water quality objectives for sediment and aquatic habitat.

Comment 3D-4: *Additional actions specified in Section 8 to restore salmonid populations, specifically in regard to the first two bullets of 8.4, are likely unattainable given other limiting factors such as on-going drought, climate-related impacts, streamflow magnitude, and ocean conditions. Section 8 also requires that stakeholders in the watershed must work to "…attain and maintain suitable gravel substrate quality and adequate pool depth…" which is also likely unattainable given the evidence presented in the Watershed Management Plan regarding high background levels of sediment.*

Response: The first two bullets of Section 8.4 state two of the overall goals of the Implementation Plan:

- Conserve and augment steelhead trout populations
- Restore an annual spawning run of coho salmon

We acknowledge the County's concern that these goals may not be attainable solely by taking action to address the sediment impairment in San Gregorio Creek; however, implementing the actions set forth in the WQIP is a necessary step to achieving these goals. Without suitable spawning habitat, steelhead and coho runs will not be able to recover. Stakeholders in the San Gregorio Creek watershed have taken major steps to protect and restore water quality over the last two decades, outlined in Section 5.7, and we believe the WQIP will aid stakeholders in continuing to make progress to achieve the goals stated in Section 8.4.

As stated above, we do not believe that the high sediment levels in San Gregorio Creek reflect background levels. Accordingly, we expect that implementation actions to reduce sediment will help to attain the goals of restoring steelhead trout and coho runs.

Comment 3E: *The breadth and scope of implementation actions goes beyond the WQIP's focus on sediment and includes actions that may be limited by external factors.*

The actions identified in the WQIP are intended to improve watershed health. The County supports some of the identified implementation actions, as described below. However, the County does have concerns regarding the expansive nature and breadth of many of the activities identified and under whose responsibility specific actions would occur. In our comments below, we seek additional clarification regarding the scope of implementation actions and the individual parties responsible for implementation.

The County's four related points are addressed individually below.

Comment 3E-1:
The County supports the development of a Road Erosion Inventory and a prioritized list and schedule of actions for County roads in the San Gregorio Watershed, similar to the ongoing effort for the Pescadero-Butano Watershed. The County believes such a road inventory is a useful planning tool to identify project priorities for the County to consider and implement over the longer-term. The County would implement this requirement as required in Provision C.16 of the Municipal Regional Permit and in support of the County's Routine Maintenance Program.

Response: The Water Board appreciates the County's support for the Road Erosion Inventory and prioritized list and schedule of actions for County roads.

Comment 3E-2:
The description of responsibilities in Section 8.3 is problematic in terms of the jurisdiction of the County. The County's means to implement supportive actions in the watershed is limited to the County's jurisdiction on public lands and the public right of way. Section 8 Implementation Plan identifies many projects and activities to be potentially undertaken in support of the WQIP, but most of the project activities identified in Section 8 Implementation Plan are well beyond the scope of the County's responsibility.

Response: The County is responsible for implementation actions identified in Section 8.5.2 of the Staff Report. These actions are proposed as requirements in Provision C.16 of the Municipal Regional Stormwater Permit (MRP) and are consistent with the San Mateo County Routine Maintenance Program, approved by the Water Board in 2021 (Order No. 2021-0005). Neither of these permits require the County to implement projects outside its jurisdiction or scope of responsibility.

Comment 3E-3:
Section 5.6.3 describes removal of instream large woody debris (LWD) from the 1960s to 1990s but County staff have been unable to find evidence of direct removal. The County would like to request that Water Board staff provide additional details on the extent of in-channel LWD removal.

Response: Our reference to the removal of instream LWD from the 1960s to the 1990s is based solely on the Rapid Sediment Budget (Attachment 3 of the Staff Report) which states:

Prior to human disturbances, sediment supply, storage, and yield increased and decreased episodically in response to forcing from climate and tectonics. Most subsequent land use changes increased rates of supply, storage, and yield—with the Q/Qs determining landscape change. An exception was the effort that took place between 1960-1990 to remove large woody debris from creeks, which likely reduced sediment storage and morphologic diversity in channels.

Comment 3E-4:
Specific actions that are beyond the focus of sediment impairment and specific 303(d) listing include addressing summer base flows, barrier removal, and lagoon management. While the County generally supports and acknowledges the need for continued conservation efforts, these actions seem beyond the scope and focus of this sediment related WQIP and may be better achieved through another existing regulatory effort.

Response: In addition to the sediment impairment, the Water Board also finds San Gregorio Creek to be impaired due to the lack of habitat complexity and connectivity, which impairs the Population and Community Ecology beneficial use. We state this in Chapter 4 of the Staff Report as follows:

Centuries of human activity in the watershed have degraded habitat (e.g., by removing large woody debris) and decreased habitat connectivity (e.g., by disconnecting floodplains), exacerbating excessive sedimentation that harms salmonids and physically limiting spawning and rearing habitat. This results in non-attainment of the water quality objective for Population and Community Ecology, which states that the health and life history characteristics of aquatic organisms in water affected by controllable (i.e., anthropogenic) water quality factors shall not differ significantly from those for the same waters on areas unaffected by controllable water quality factors. Controllable water quality factors include recruitment and retention of woody

debris, channel incision and floodplain disconnection, and water withdrawal during critical low-flow periods.

Section 8.8 of the Staff Report recommends actions that could be taken to address the impairment for Population and Community Ecology. Recommended actions focus on increasing channel complexity by restoring floodplain connectivity, increasing large woody debris volumes, increasing base flow in the Creek, removing barriers to fish passage, and reducing human disturbance in the San Gregorio Creek lagoon. These recommendations are intended to encourage stakeholder engagement and to enhance the competitiveness of future grant funding efforts via their inclusion in the WQIP.

Comment 3F: *Additional regulatory requirements without dedicated funding should be considered in the context of existing regulations with compounding costs, staff time, and effort.*

While the County generally supports restoration efforts in this watershed, it is important to consider the level of effort and environmental benefit achieved in relation to other efforts, including regulatory requirements such as existing TMDLs and the Municipal Regional Permit. Each of these requirements have additional costs and no revenue source.

Response: We recognize the need for funding. To minimize the costs of implementation, we have worked with the County to develop actions and schedules that are consistent with those called for in the Pescadero Creek and Butano Creek watersheds, as well as with the County's existing Routine Maintenance Program. Likewise, we worked closely with County staff to incorporate the WQIP implementation actions into the proposed MRP.

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