SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD RESPONSE TO WRITTEN COMMENTS RECEIVED ON PROPOSED AUGUST 2020 REVISIONS TO BASIN PLAN AMENDMENT BIOLOGICAL OBJECTIVES FOR THE SAN DIEGO REGION

November 18, 2020

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY





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1) Background

California Water Code (CWC) section 13241 directs the California Water Quality Control Board, San Diego Region (San Diego Water Board) to establish water quality objectives (WQOs) to protect beneficial uses and prevent nuisance in waters of the State within its Region. During the 2014 Basin Plan Triennial Review process, the San Diego Water Board began the public process to amend the Water Quality Control Plan for the San Diego Basin (Basin Plan) to add a Stream Biological Water Quality Objective (Stream Biological Objective) for perennial and seasonal streams when the Board included consideration of biological objectives as a Tier I Issue.

In January 2018, Board staff released an informal draft Basin Plan amendment to adopt a biological objective and held a subsequent public workshop to solicit early public feedback on the project. The San Diego Water Board released proposed Basin Plan amendments (proposed BPA) for rulemaking purposes with a draft Staff Report and Substitute Environmental Documentation (SED), on February 28, 2019 (February 2019 proposed BPA). The 63-day public comment period, which closed on May 02, 2019, exceeded the minimum required 45-day public comment period (23 CCR §3779(b)). At a public workshop on April 18, 2019, staff received verbal comments and subsequent written requests to extend the public comment period an additional 30-60 days. On April 25, 2019, the written comment period was extended an additional 30 days to June 01, 2019, for a total public comment period of 93 days.

In response to written comments and Scientific Peer Review, the San Diego Water Board released a revised proposed BPA on August 14, 2020 (August Revisions), prior to an originally scheduled October 14, 2020 public hearing. The August Revisions were not significant and represented a logical outgrowth of comments received during the Basin Plan amendment public process. While not legally required to recirculate the revisions for public comment, San Diego Water Board staff released the August Revisions for a two-week comment period.

In response to requests for additional time, the San Diego Water Board extended the written comment period to September 4, 2020, for a total written comment period of 21 days. The San Diego Water Board received fifteen timely written comment letters from local governmental agencies, non-governmental organizations, professional associations, a private developer, a governmental agency outside of the San Diego Region, and a non-profit association of public agencies located within the Central Valley region of California. This document presents a summary and general response to the significant comments on the August Revisions to the proposed BPA.

2) Table of Acronyms and Abbreviations

The following table presents acronyms and abbreviations used throughout the document. This includes acronyms and abbreviations that are generally used by commenters.

Acronym/Abbreviation	Definition
Basin Plan	Water Quality Control Plan for the San Diego Basin
BMP	Best Management Practice
CCR	California Code of Regulations
CSCI	California Stream Condition Index
CWA	Clean Water Act
CWC	California Water Code
MS4	Municipal Separate Storm Sewer System
SCCWRP	Southern California Coastal Water Research Program
SED	Substitute Environmental Document
SOP	Standard Operating Procedures
State Water Board	State Water Resources Control Board
TMDL	Total Maximum Daily Load
WQIP	Water Quality Improvement Plan
WQO	Water Quality Objective

3) Comments Received and Response to Comments

The San Diego Water Board received public comment letters on the August Revisions from the following entities:

Written Comments on the Proposed Basin Plan Amendment

- 1. City of San Diego
- 2. County of Orange
- 3. County of San Diego
- 4. County of San Diego Copermittees
- 5. Coalition of Non-Governmental Organizations
- 6. Riverside County Flood Control and Water Conservation District
- 7. Building Industry Association
- 8. California Stormwater Quality Association
- 9. Central Valley Clean Water Association
- 10. Clean Water Now
- 11. Ranch Mission Viejo
- 12. South Orange County Wastewater Authority
- 13. Construction Industry Coalition on Water Quality
- 14. Ventura County
- 15. Santa Margarita Water District

San Diego Water Board staff have formatted this document to include general responses to significant comments.

a) Comments on the August Revisions to the Proposed BPA.

Comments received on the August Revisions are summarized below and followed by responses.

Inadequate Comment Period

Multiple commenters stated that the comment period for the August Revisions was not of sufficient duration or did not meet legal requirements for public comments.

Response: The written public comment period was voluntary and intended as a courtesy to provide the public with an extended opportunity to review and comment on the August Revisions prior to the Board hearing at which only oral comments are allowed. In addition, since the August Revisions were released, San Diego Water Board staff have had meetings with multiple commenters to discuss the August Revisions.

<u>Phase I Municipal Stormwater Permits: Implementation of the Stream Biological</u> Objective as a Receiving Water Limitation and Permit Implementation

MS4 permittees and representative organizations continue to oppose inclusion of the proposed Stream Biological Objective as a receiving water limit in Phase I Municipal Separate Storm Sewer System (MS4) permits due to concerns that dischargers would be in potential, immediate non-compliance if streams into which they discharge have CSCI scores that do not meet the objective.

<u>Response:</u> San Diego Water Board staff consider the inclusion of the Stream Biological Objective as a receiving water limit in the MS4 permits to be critical to both the ability of the MS4 permit and permittees to focus adaptive management measures on environmental outcomes and the ability of the Water Board to implement the proposed objective.

In response to the comments, additional clarification has been made to the proposed final BPA (Chapter 4) regarding implementation of the objective in the Phase I MS4 permit as a receiving water limitation through the Water Quality Improvement Plans and in the permit's alternative compliance pathway provisions.

As explained in more detail in the separate Response to Comments Report released on October 16, 2020 (October Response to Comments Report), exceedance of the Stream Biological Objective in a perennial or seasonal stream would not necessarily result in immediate non-compliance with a receiving water limitation in a MS4 permit. Instead, as with all other applicable water quality objectives incorporated as receiving water limits, determination of non-compliance would require a determination that a permittee's discharge caused or contributed to the exceedance of the objective.

MS4 permittees also requested additional language be added to Chapter 4 specifying implementation details for the MS4 permit.

<u>Response:</u> Staff disagree that including additional detail in the implementation program is necessary or appropriate. Stormwater discharge permits are subject to separate public review and comment processes for specific permit implementation requirements to be included in individual permits. Specifying permit compliance determination processes and specific permit language in the proposed BPA is therefore inappropriate.

Applicability to Physically Hardened "Modified" Streams

Multiple commenters objected, though for different reasons, to revision of the Stream Biological Objective to exclude streams where the entire stream channel substrate had been artificially lined with concrete or other impervious materials from toe of bank to toe of bank ("hardened streambed segments").

<u>Response:</u> No changes to the proposed BPA were made in response to these comments. The revised Staff Report provides the rationale for the revision and why the exclusion for hardened streams was limited to hardened streambed segments as opposed to streams with other types of channel alteration.

The environmental NGOs objected to the exclusion of hardened streambed segments from the proposed BPA, while multiple regulated parties objected to the limitation on the exclusion and commented that it should extend to streams with other forms of anthropogenic modification. Some comments suggested that the revision excluding hardened streambed segments from the proposed objective was made because such streams cannot be feasibly restored

Response: Chapter 4 of the Basin Plan has long noted that anthropogenic modification of streams impacts Beneficial Uses, and that such streams can and should be restored (see section beginning p.4-98 "Impacts of Channelization"). The comments suggesting that the revision to exclude hardened streambed segments was made because such streams cannot be feasibly restored is incorrect. As explained in the October Response to Comment Report, and in the Staff Report, hardened streambed segments are capable of restoration. The inclusion of hardened streambed segments in the Stream Biological Objective, including for restoration purposes, was supported by Scientific Peer Review of the February 2019 proposed BPA.

Hardened streambed segments have been excluded from the Stream Biological Objective to allow development of additional information on the timeframes and associated mechanisms for restoration. In addition, as indicated in the August Revisions to the draft Staff Report, it is not reasonable to expect that hardened streambed segments will be restored to meet the Stream Biological Objective until the substrate hardening the streambed is removed. Because there is no existing regulatory permit framework for the removal of the substrate, additional information is needed on the estimated timeframe and mechanisms to address removal of concrete or other impervious materials (See, CWC section 13242, subd. (b).). Thus, at this time it is appropriate to exclude hardened streambed segments from the proposed Stream Biological Objective.

Many commenters asserted that streams that do not have hardened streambeds but have otherwise anthropogenically modified features ("otherwise modified streams") cannot meet the Stream Biological Objective. Commenters therefore suggested the inclusion of such streams was not "reasonable" and conflicted with the intent of CWC 13241 which requires water quality objectives "ensure the reasonable protection of beneficial uses." Commenters disagreed with the conclusions and evidence provided in the revised Staff Report and stated these otherwise modified streams require additional study and evaluation prior to application of a Stream Biological Objective. Several suggested further stakeholder studies be conducted while also waiting for SCCWRP to complete a new study on modified streams that is focused outside of southern California.

Response: Such otherwise modified streams are included in the proposed objective because, in contrast to hardened streambed segments, otherwise modified streams do have timeframes within the existing regulatory permit framework that can be applied through specific permitting actions to address pollutants and flows that are precluding attainment of the Stream Biological Objective. Using the CSCI to restore biological integrity was supported by Scientific Peer Review as a scientifically sound approach. The draft Staff Report identifies prior research in areas with low anthropogenic flow and pollutant impacts, but where the streams are otherwise modified, that had CSCI scores that meet the proposed Stream Biological Objective. This was done to illustrate the appropriateness of this approach and some language has been added to clarify this intent.

Exclusion of Modified Streams will have Disproportionate Ancillary Impacts

The environmental NGOs opposed the exclusion of hardened streambed segments because excluded streams were more likely to be in low-income areas and in communities of color, and this would shift restoration areas and associated benefits to wealthier areas that already contained open-space. The environmental NGOs also requested the San Diego Water Board include language committing to collection of further information on the timeline for restoration and inclusion of hardened streambed segments in a future biological objective.

<u>Response:</u> As stated above, Chapter 4 of the San Diego Water Board Basin Plan already identifies the hardening of streambeds as detrimental to water quality and beneficial uses, such as through limiting groundwater recharge and impacting water quality (e.g. pH). The lack of inclusion of hardened streambed segments does not preclude resolving these impairments.

Regarding the request for a date-certain inclusion in the Basin Plan triennial review process, the public is able to propose Basin Plan updates to the San Diego Water Board as part of any triennial review. Staff anticipates making efforts to obtain additional data and information to support development of potential future biological objectives for many, if not most, of the areas excluded in the proposed BPA.

Ephemeral and Seasonally Intermittent Streams

Many commenters requested modifications to terms and definitions for streams, specifically perennial streams, seasonally intermittent streams, and ephemeral streams. Commenters suggested expanding the definition of ephemeral streams to effectively exclude streams from the proposed objective that have a longer flow duration or flow higher annual flow frequency.

Response: While the Stream Biological Objective language was revised in August 2020, the criteria used to identify a stream as perennial or seasonally intermittent, and thus subject to the Stream Biological Objective (unless a hardened streambed segment), was not changed. Both the August Revisions and the February 2019 proposed BPA used the same minimum flow duration criteria (4 weeks) from Mazor et al. 2015 to specifically identify and include streams as perennial and seasonally intermittent for Stream Biological Objective applicability. This approach was supported by Scientific Peer Review which affirmed that it is appropriate to apply the Stream Biological Objective to seasonally intermittent streams using the proposed flow criteria.

The August Revisions to Chapter 3 simply flip this language around to identify which streams are <u>not</u> perennial and seasonal streams (i.e. ephemeral streams) and are therefore excluded. The revision to exclude hardened streambed segments required language modifications to accommodate this approach of excluding hardened streambed segments, as well as other waterbodies and stream categories, from those inland surface waters covered by the Stream Biological Objective.

The comments requesting to change the number of weeks of flow expressed concerns about sampling too early (at 4 weeks) possibly resulting in a low CSCI score.

Response: The sampling standard operating procedures (SOP) does not specifically state that sample collection has to occur at exactly 4 weeks of flow, but can be delayed to later in the index period if feasible. If sampling occurs exactly at 4 weeks and concerns are present about benthic macroinvertebrate development, the sample results can be evaluated for valid use as a representative CSCI score (e.g. see Beck and Mazor 2020).

Other commenters requested changes to the method used to determine if a stream is ephemeral and therefore excluded (e.g. changes to the period (number of years) for streamflow evaluation).

Response: The August Revisions provided for Stream Biological Objective applicability (not an ephemeral stream or otherwise excluded under other factors) to any stream having sufficient flow in any year beginning in 1999, because that is representative of the data used in the CSCI development dataset. Commenters requested to expand the streams that will be considered for exclusion to include those that lacked sufficient flows in at least 3 of the last 10 years. Such a change, however, is not scientifically justified and could effectively exclude seasonal streams which may go dry during drought years. Commenters were also concerned about the use of 1999 in regard to changes in streamflow associated with climate change. In response to this concern, some clarifications have been made to proposed final Chapter 3 to allow for the use of more recent stream flow data and information, as suggested by the commenters.

Identification of Excluded Waterbodies

Some commenters requested that the Stream Biological Objective not be adopted until the Board provides a list of excluded waterbodies.

Response: No changes were made in response to this comment. The August Revisions to the proposed BPA provide a process for determining excluded waterbodies. As described in the Draft Staff Report, existing data and tools are available for waterbodies throughout the region, so the collection of additional data is expected to be minimal and can be incorporated if necessary into existing permit program activities and requirements. Therefore, data needs and requirements for supporting exclusion determinations are not expected to be significant.

The Term Elevated Risk and Determination of Elevated Risk

Multiple commenters were concerned that the revisions of the proposed BPA to change the term "Probable Threat" to "Elevated Risk" did not eliminate the likelihood of the term being construed as a determination that a discharge caused or contributed to a violation of a receiving water limitation that may be incorporated in a permit.

<u>Response:</u> The August Revisions indicate otherwise. For example, the following language in Chapter 4 provides clarification for the term Elevated Risk:

"Note that this identification for a discharge is not in itself an identification of that discharge as causing or contributing to an exceedance of water quality standards, nor is it a determination of permit non-compliance. However, a discharge that is found by the San Diego Water Board to cause or contribute, or have caused or contributed, may be identified as presenting an elevated risk that the Stream Biological Objective will not be attained."

In proposed Basin Plan Chapter 4, a determination of an Elevated Risk is conducted to determine if potential additional permitting requirements may be warranted for inclusion, such as monitoring or BMP implementation.

Nonetheless, additional language has been included in Chapter 4 to further clarify that a determination of "Elevated Risk" is not equivalent to a determination that a particular discharge has caused or contributed to an exceedance of the Stream Biological Objective.

In addition, commenters continued to state the inclusion of Phase I MS4 discharges as representing an elevated risk (formerly "probable threat") was unjustified.

<u>Response:</u> As stated in the October Response to Comments Report and Staff Report, prior San Diego Water Board findings in the Phase I MS4 Permit support the identification of Phase I MS4 discharges as presenting an elevated risk to stream benthic macroinvertebrate communities.

Consistency with the 2020 Water Resilience Portfolio

On July 28, 2020, Governor Gavin Newsom publicly released the final Water Resilience Portfolio in response to Executive Order N-10-19. Multiple commenters stated that the proposed BPA conflicted with the 2020 Water Resilience Portfolio (Portfolio). For instance, the comment letter from the Central Valley Clean Water Association and California Association of Sanitation Agencies stated that "biological objectives appears to prioritize modification of stream channels from current conditions to enhance CSCI scores at the expense of flood control, water conservation, and water supply and reuse."

<u>Response:</u> Staff reviewed the Portfolio prior to releasing the August Revisions and recognized that the Stream Biological Objective is consistent with and would help achieve the principles in Executive Order N-10-19. For instance, the Executive Order specifically states that:

"...providing clean, dependable water supplies to communities, agriculture, and industry while restoring and maintaining the health of our watershed is both necessary and possible."

The Portfolio identifies challenges and opportunities for meeting a variety of beneficial uses of State waters, and it represents a shared commitment by State agencies to develop opportunities to maintain and diversify the State's water supply challenges without compromising biological integrity.

The Stream Biological Objective, as a direct measurement of aquatic life beneficial use attainment, is especially well equipped to ensure that watershed health is restored and maintained as our regional partners develop clean and dependable water supplies. The establishment of a Stream Biological Objective will provide a benchmark which can be used to protect and enhance natural systems (Portfolio, Section 9).

b) Comments Unrelated to Revisions & Repeat Comments

Although the public notice instructed comments be limited to the August Revisions, many comments repeated comments submitted on the February 2019 proposed BPA and/or were unrelated to any revisions made to the February 2019 proposed BPA. These are summarized below.

Applicability of Biological Objective to General Construction and Industrial NPDES Permit Enrollment and Lack of Clarity for Phase I MS4 Permit Implementation

Multiple commenters opposed the inclusion of the proposed Stream Biological Objective as a receiving water limit in General NPDES permits due to concerns that dischargers would be in potential non-compliance if streams into which they discharge have CSCI scores that do not meet the objective. They also expressed concerns about implementation of Stream Biological Objective monitoring requirements to determine compliance. In addition, commenters were concerned regarding potential additional monitoring requirements for general NPDES enrollments as a result of implementation of the Stream Biological Objective.

Response: Please see the responses to the MS4 comments above regarding the general determination of non-compliance with a receiving water limitation. A finding of non-compliance must be based upon a determination by the Board or discharger that the discharge is causing or contributing to a low CSCI score, and the minimum process for doing so is described in the proposed implementation language for Basin Plan Chapter 4. As stated in section V.B.3 of the proposed Basin Plan Chapter 4, discharges by enrollees under general NPDES permits are expected to be protective of water quality objectives, including the Stream Biological Objective, with implementation of standard permit requirements and BMPs required for enrollees.

The time schedule for implementation within Chapter 4 of the proposed BPA explains the Board anticipates modifications to the monitoring requirements will occur within five years, but only for General Permit enrollees that are found to present an elevated risk such that the Stream Biological Objective would not be attained. This monitoring and reporting would not necessarily be accomplished through biological assessment, but could be for BMPs, discharges, receiving waters, or other factors related to the discharge. This is a reasonable approach to protecting biological integrity of streams that is consistent with existing requirements of statewide and regional General NPDES permits.

Applicability of Biological Objective to 401 Water Quality Certifications

Multiple commenters were concerned regarding the use and inclusion of the proposed Stream Biological Objective in Clean Water Act section 401 Water Quality Certifications (401 Certifications) due to uncertainty about monitoring requirements and the use of the Stream Biological Objective to set mitigation success criteria.

Response: As stated in the proposed implementation plan for the BPA (Chapter 4), the Board will include the Stream Biological Objective in CWA section 401 Certifications on a case-by-case basis based on potential impacts and within two years will incorporate CSCI scores as a mitigation performance target where appropriate. Case-by-case considerations will include the magnitude, scope, and duration of individual projects in addition to receiving water condition. CWA section 401 Certifications are also subject to a public participation process and thus the proposed Basin Plan amendments provide appropriate implementation guidance rather than permit-specific requirements.

Bioassessment monitoring is already typically required for a small number of 401 Certifications based upon their project-specific considerations. The vast majority of projects are of a size and duration that do not warrant biological assessment monitoring for benthic macroinvertebrates, and this is not expected to change with the adoption of the Stream Biological Objective. The San Diego Water Board has relied on the use of lower-cost semi-quantitative measurements of aquatic resource condition (e.g. California Rapid Assessment Method) for the majority of projects, and this is not expected to change or be replaced due to the Stream Biological Objective.

Further, the Stream Biological Objective will provide for meaningful mitigation requirements consistent with the goals of the CWA and State policy. The Stream Biological Objective will provide a better baseline assessment of the pre-project condition for large stream project impact and mitigation areas, as well as to document the restoration and protection success associated with mitigation banks. As stated in the Draft Staff Report, the lack of quantitative information on restoration has been identified as a shortcoming in the 401 Certification Program (e.g. Sudol and Ambrose 2002). The San Diego Water Board does not expect site-specific projects or mitigation banks to resolve upstream independent pollutant discharges that may be impacting a 401 Certification site, and the Stream Biological Objective is expected to provide clarity regarding potential impacts to these projects that are independent of the 401 Certification project.

<u>Use of the Reference Approach and CSCI to Establish a Biological Objective</u>

Multiple commenters opposed using the reference approach to establish a biological objective, and many asserted the use of the CSCI and setting of the threshold was not a valid or appropriate scientific approach.

<u>Response:</u> Scientific Peer Review found the reference approach and use of the CSCI and 10th percentile threshold to be scientifically sound and defensible. No changes were made in response to this comment.

Inconsistent with State Water Board / Delay Consideration of the Stream Biological Objective and Begin a Stakeholder Process with State Water Board

Multiple commenters, including entities outside of the San Diego Region, repeated requests to delay consideration of the proposed Stream Biological Objective and instead wait for the State Water Board to complete its policy efforts for statewide biological integrity. Many of the comments also stated that the San Diego Water Board's proposal was inconsistent with the State Water Board's efforts and affiliated science. Some comments also requested the San Diego Water Board delay consideration and form a stakeholder group to work towards development of alternative objectives, goals, or other criteria. As with similar comments on the February 2019 proposed BPA, no changes were made in response to these comments.

Response: San Diego Water Board staff has been involved in the State Water Board's statewide biological integrity efforts since 2008 and has been an active participant in the statewide process on both stakeholder and technical advisory groups. Doing so has, among other benefits, ensured the proposed Stream Biological Objective is entirely consistent with applicable scientific findings and reports derived from the statewide process (e.g., Mazor et al. 2016 and Ode et al. 2016, among other studies).

The State Water Board project, most recently renamed the "Biostimulatory Substances Objective and Program to Implement Biological Integrity," is projected by State Water Board staff to be adopted as statewide policy in 2025. The State Water Board has not released a draft policy, so any comments on the policy remain speculative.

Biological Objectives Could Be Precedent Setting

Multiple commenters repeated concerns that the Stream Biological Objective would set a statewide precedent, and some commenters stated that biological objectives have not been established within California.

<u>Response:</u> These comments are incorrect. First, the establishment of any water quality objective by one Regional Water Board does not set precedent nor require any other Regional Water Board to establish a biological objective. Second, other Regional Water Boards and the State Water Board already have various forms of biological objectives (see Response #43 in October Response to Comments Report).

Expand the Scope of Assessment and Conduct Additional Assessment under Water Code Sections 13141 and 13142

Multiple commenters repeated requests for additional review and a broadening of the scope of assessment under CWC sections 13241 and 13242, as well as repeated assertions that the evaluation under CWC sections 13241 and 13242 was insufficient.

Response: Staff disagree. The Staff Report, including the SED, adequately consider the factors identified under CWC 13241 and the descriptions and time schedules required under CWC 13242. The comments generally reflect a disagreement on the conclusions reached. Additional discussion regarding consideration of the factors in CWC section 13241 and 13242 can be found in the October Response to Comments Report's Executive Summary and e.g., Responses #9, #50, #51, and #68.

The Stream Biological Objective is Incompatible with Flood Control

Multiple commenters stated that the Stream Biological Objective is incompatible with flood control to protect public health and property. Some also suggested this is inconsistent with the 2020 Water Resilience Portfolio (see above).

Response: The Stream Biological Objective does not prevent or impair agency implementation of statutory responsibilities for flood control. The San Diego Water Board's regulatory permitting programs that would implement the Stream Biological Objective already regulate the discharge of pollutants into receiving waters, and they do not mandate removal of historic in-stream alteration of receiving waters for flood control purposes. The proposed Stream Biological Objective provides another, more meaningful, objective by which to assess the condition of aquatic life beneficial uses and the potential harm thereto of proposed discharges and regulated activities. It does not establish any new beneficial uses of State waters.

The identification of pollutants associated with discharges and implementation of BMPs to address those pollutants is expected to reduce untreated flows into receiving waters from impervious areas. This is expected to provide increased flow mitigation outside of streams, as the Legislature has identified capture, treatment, and reuse of stormwater and dry weather runoff as a valid flood control method (see e.g. Senate Bill 985). The Phase I MS4 permit also allows for watershed planning through the water quality improvement plan (WQIP) process, which allows for the consideration of in-stream conditions and timeframes for setting and meeting goals, which can include flood control considerations.

Use of a Watershed Monitoring Plan Instead of a Biological Objective

Multiple commenters in the San Juan hydrologic unit suggested the use of a stakeholder driven watershed monitoring and assessment plan to evaluate receiving water condition and guide San Diego Water Board actions.

Response: While the San Diego Water Board is supportive of stakeholder-driven monitoring and assessment, such an approach would not meet the goals of the Stream Biological Objective. A monitoring-only effort would not alleviate the need for the San Diego Water Board to address all 303(d) listed chemical parameters through the use of total maximum daily loads (TMDLs) and TMDL alternatives. Rather, the lack of a Stream Biological Objective would maintain challenges to the effective identification of specific pollutants and pollution resulting in beneficial use impairment, thus stalling regulatory and planning actions to prioritize restoration and permitting actions. The Stream Biological Objective will also provide a basis for the evaluation of the appropriateness of current chemistry water quality objectives, potentially facilitating the development of site-specific chemical objectives where appropriate. In addition, the use of a Stream Biological Objective will provide for better protection of high quality waters.

While not a focus of the comment, it should be noted that the revisions to the proposed BPA at Chapter 4 included a reference to the appropriateness of using a watershed approach for Stream Biological Objective implementation, consistent with existing Basin Plan language. The use of a watershed-based monitoring plan to implement the Stream Biological Objective would be consistent with section 4-99 in the current Basin Plan.

4) References

Beck, M.W., Mazor, R.M., Johnson, S., Wisenbaker, K., Westfall, J., Ode, P.R., Hill, R., Loflen, C., Sutula, M. and E.D. Stein. 2019. Prioritizing management goals for stream biological integrity within the developed landscape context. Freshwater Science 0:000.

Beck, M.W. and R.M. Mazor. 2020. A decision framework for evaluating bioassessment samples and landscape models. SCCWRP Technical Report #1115.

Mazor, R., Rehn, A., Pendelton, P., Dark, S., Giraldo, M., Stein, E. and C. Loflen. 2015. Final Report on Assessment of Nonperennial Streams. SCCWRP Report to San Diego Regional Water Quality Control Board.

Senate Bill No. 985. 2014. An act to amend Sections 10561, 10562, 10563, and 10573 of, and to add Sections 10561.5 and 10565 to, the Water Code, relating to stormwater.

Sudol, M.F. and R.F. Ambrose. 2002. The US Clean Water Act and Habitat Replacement: Evaluation of Mitigation Site in Orange County, California, USA. Environmental Management 30(5): 727-734.