June 1, 2019

Attn: Chad Loflen  
San Diego Regional Water Quality Control Board  
2375 Northside Drive, Suite 100  
San Diego, California 92108

Subject: Comment — Proposed Basin Plan Amendment to Incorporate Biological Objectives, PIN: CW-825417

Dear Mr. Loflen:

On behalf of the Stakeholders Implementing Total Maximum Daily Loads (TMDLs) in the Calleguas Creek Watershed (Stakeholders), we appreciate the opportunity to provide comments on the San Diego Regional Water Quality Control Board’s (San Diego Regional Board) Proposed Basin Plan Amendment to the Water Quality Control Plan for the San Diego Basin to Establish Biological Water Quality Objectives for Perennial and Seasonal Streams (Biological Objectives). The Stakeholders consist of the following organizations:

- Publicly Owned Treatment Works (POTW) Permittees
  - Camrosa Water District
  - Camarillo Sanitary District
  - Ventura County Waterworks District No. 1
  - City of Simi Valley
  - City of Thousand Oaks

- Municipal Separate Storm Sewer System (MS4) Permittees
  - California Department of Transportation
  - City of Camarillo
  - City of Moorpark
  - City of Oxnard
  - City of Simi Valley
Mr. Chad Loflen
June 1, 2019
Page 2

- City of Thousand Oaks
- County of Ventura
- Ventura County Watershed Protection District

- Other Stakeholders
  - Members of the Ventura County Agricultural Irrigated Lands Group
  - U.S. Department of Navy
  - California State Parks (in the process of joining the Stakeholders)

The Stakeholders support the goal of the proposed Biological Objectives to protect and restore biological integrity of waters. The Stakeholders agree that the assessment of biological communities provides a comprehensive measure of biological integrity that extends beyond the existing paradigm of analyzing for individual chemicals. However, the Stakeholders have concerns that the approach outlined in the proposed Biological Objectives will not effectively achieve these goals.

The Stakeholders therefore request that the San Diego Regional Board consider either delaying adoption of the objectives until after the State Water Resources Control Board (SWRCB) has adopted the Statewide Biointegrity and Biostimulatory Plan (Statewide Plan) or only adopt the proposed objectives for high quality waterbodies at this time and include an implementation approach that supports integrated watershed evaluations to identify appropriate actions for other waterbodies while the Statewide Plan is being developed. Once the Statewide Plan is adopted, the San Diego Regional Board could consider other objectives for non-reference waterbodies if the Statewide Plan is not considered sufficient to address the goals of the project. The following comments provide support for this proposed approach.

**Comment #1: Proposed Biological Objectives do not align with the Statewide Biointegrity Plan approach or incorporate key lessons and information produced during the development of the Statewide Biointegrity and Biostimulatory Plan.**

Over the last several years, advisory groups to the Statewide Plan have developed and communicated a significant base of knowledge aimed at producing scientifically sound statewide biological objectives. In October 2018, State Water Resources Control Board presented their proposed approach to developing the “Biostimulatory Substances Objective and Program to Implement Biological Integrity.” The same framework was reiterated in December 2018 and February 2019 in presentations to the Science Panel. The framework presented is summarized below:

Amendment to the Inland Surface Waters Enclosed Bays and Estuaries (ISWEBE) Plan to:
- Establish a framework to control eutrophication and support biological integrity in all waterbodies
- Focus on wadeable streams
Likely Key Components:
- Narrative biostimulatory water quality objective
- Indicators and thresholds for biostimulatory substances and conditions
- Biological integrity assessment methods
- Implementation approaches

The SWRCB is considering a number of implementation approaches, including (from the October 2018 presentation):
- Approaches to treat constrained channels differently.
- Watershed-based causal assessment and source control options
- Watershed-based credit trading

The SWRCB also posed the following questions in the presentation:
- Will constrained channels be addressed prior to or during implementation actions?
  - Example: different thresholds and/or a process for determining site-specific thresholds
- Will there be a phased approach to implementation focusing on less developed waterbodies?
- What would the watershed approach look like and how will it integrate with existing regulatory programs?

The implementation approaches being considered by the SWRCB are a result of many years of scientific studies, stakeholder discussions, and expert technical panel input. However, the San Diego Regional Board’s proposed Biological Objectives do not include any consideration of the implementation approaches being evaluated for the Statewide Plan.

The Stakeholders are particularly concerned that the proposed Biological Objectives default to the use of a single CSCI threshold for all waterbodies to determine biological impairment, including channels in modified landscapes. The SWRCB has developed tools that indicate modified channels may not be capable of attaining the 10th percentile of reference score, regardless of BMP implementation or stream restoration, simply due to the existence of urban and agricultural land uses. The Stakeholder Advisory Committee for the Statewide Plan has provided significant input on the challenges associated with selecting a single numeric threshold for biological integrity and the Technical Advisory Committee has provided numerous examples of alternative approaches that could be implemented to address identified concerns. As a result, the Statewide Plan has moved away from setting a numeric objective for biointegrity; instead, other options, including different thresholds or expectations for modified channels, are being evaluated.

In addition, recognizing the challenges associated with addressing waterbodies in the developed landscape, the Statewide Plan tasked the Southern California Coastal Water Research Project (SCCWRP) and other technical experts with developing a number of technical work projects, such as the Channels in Developed Landscapes manuscript and summaries on the Biological
Condition Gradient. The proposed Biological Objectives do not appear to have considered the information included in those documents in developing the objectives. The Stakeholders request that the San Diego Regional Board consider the technical information developed for the Statewide Plan and use it to support the recommended approach for modifying the objectives as outlined in the beginning of the letter. As noted above, this approach would be consistent with the phased approach being considered by the SWRCB and could protect high quality waters and require other waterbodies to maintain existing conditions during phase 1 and addresses other waterbodies after the Statewide Plan has been developed. This approach would allow the San Diego Regional Board to move forward with adopting objectives that will prevent further degradation of waterbodies while the Statewide Plan is being developed, while allowing time for the implementation questions identified in the Statewide Plan to be effectively addressed.

**Comment #2: Watershed assessments, rather than a discharger by discharger approach, would be more effective in attaining biological integrity goals.**

The Stakeholders have developed and implemented six effective TMDLs in the Calleguas Creek Watershed. The Stakeholders have relied heavily on a collaborative watershed approach to solving complex water quality issues and implementing restoration solutions. Through this process, the Stakeholders have identified that many of the best opportunities for improving water quality and stream health are through actions that either involve multiple stakeholders (e.g. regional projects that capture runoff from urban and agricultural areas) or are undertaken for reasons not associated with requirements in individual permits (e.g. Arundo removal and improvement of wildlife corridors). In several cases, the Stakeholders have had to develop creative regulatory solutions to allow the watershed implementation actions to be implemented. Water quality objectives, TMDLs, and permit requirements have in some cases been a hurdle to implementing effective watershed solutions. As a result, the Stakeholders are concerned that the proposed Biological Objectives and the associated implementation actions will have unintended consequences for the ability of permittees to implement actions to achieve the goals of the project.

The implementation approach presented in the proposed Biological Objectives focuses on evaluating impacts and incorporating objectives into permits on a discharger-by-discharger basis. Multiple studies have been completed that show the challenges of this approach for effectively improving the biological health of waterbodies. For example, in *Global Review of the Physical and Biological Effectiveness of Stream Habitat Rehabilitation Techniques*¹, the authors reviewed over 345 studies of the effectiveness of stream rehabilitation techniques and identified that a lack of understanding of factors that could limit biotic production and watershed-scale processes was a key factor in the failure of many projects:

"Our review demonstrates that the failure of many rehabilitation projects to achieve objectives is attributable to inadequate assessment of historic conditions and factors limiting biotic production; poor understanding of watershed-scale processes that

---

influence localized projects; and monitoring at inappropriate spatial and temporal scales. We suggest an interim approach to sequencing rehabilitation projects that partially addresses these needs through protecting high-quality habitats and restoring connectivity and watershed processes before implementing instream habitat improvement projects.”

The implementation approach for the proposed Biological Objectives does not recognize the importance of considering a holistic, watershed approach to identifying biological stressors and taking collaborative watershed-scale solutions to address these stressors. By setting a single numeric objective for assessing compliance, individual dischargers are put into the position of having to comply with the objectives based on the impacts their specific discharge or be deemed out of compliance with their permit conditions. This will likely lead to ineffective restoration activities and disincentives to develop holistic approaches to evaluating the best solutions for the watershed.

Comment #3: Modify Discussion in the Staff Report Related to Calleguas Creek Watershed Metals and Selenium TMDL.

The Stakeholders appreciate the inclusion of the Calleguas Creek Watershed (CCW) Metals and Selenium TMDL as an example of the challenges associated with only using chemistry-based water quality objectives in addressing waterbody impairments. The example cited supports the concerns the Stakeholders have with implementing a numeric biological integrity objective. The Stakeholders identified that site-specific conditions warranted consideration of alternative copper objectives for some reaches of the watershed and therefore developed a site-specific objective for the watershed. The site-specific objective was needed because the Los Angeles Regional Water Quality Control Board (Los Angeles Regional Board) was under a Consent Decree to develop TMDLs for the watershed within a certain time period. Even though all parties, including the Los Angeles Regional Board, agreed that the site-specific objective would likely remove the impairment listing, the TMDL was still required to be developed because of the Consent Decree. The modification to the TMDL discussed in the proposed Biological Objectives Staff Report was simply a result of the timing constraints resulting from the fact that the TMDL was required to be adopted prior to the site-specific objective becoming effective. The key point is that once an objective exists and a waterbody is placed on the 303(d) list, it will need to be addressed through a TMDL and very little flexibility exists to modify this approach. Much unnecessary work could have been avoided had the Los Angeles Regional Board had the ability to not develop the TMDL under the Consent Decree timeline. Because the San Diego Regional Board is not currently under a similar legal deadlines, above mentioned information and lessons learned can be considered to develop Biological Objectives considering various watercourse conditions, e.g., natural versus modified channels, and require actions that have high probability of success to effectively address the identified problems in a cost-effective way. It is also important to note that the CCW Metals and Selenium TMDL was focused on addressing impairments in the lagoon and the tidally influenced portion of the waterbody where the saltwater metals objectives apply. Therefore, the biological integrity scores for the freshwater portions of the watershed that are referenced in the proposed Biological Objectives Staff Report were not considered because they are not applicable to the impairments. Copper and nickel objectives are not currently, and have not been historically, exceeded or identified as potential sources of toxicity in the freshwater
portions of the waterbody. Therefore, the Stakeholders request that the CCW Metals and Selenium TMDL discussion be modified to remove the discussion of the lack of consideration of the biological integrity scores in the TMDL reopener.

**Comment #4: Implementation approach relies too heavily on causal or other complicated assessments to determine if dischargers are causing or contributing to lowered CSCI scores and to clearly identify biological stressors.**

The Stakeholders believe that the implementation approach included in the proposed Biological Objectives relies too heavily on the causal assessments or other, not clearly defined, assessment approaches, to determine if dischargers are causing or contributing to lowered CSCI scores and to identify the biological stressors are causing the lowered scores. The proposed Biological Objectives oversimplify the ability to determine causes for CSCI not attaining the single value threshold and whether or not dischargers are causing or contributing to the lowered scores. The Stakeholders believe that causal assessments are a critical component of the Biological Objectives, as accurately determining the cause of biological stressors will have a significant impact on the appropriate actions to be implemented to address lowered scores and the success of those actions in improving biological conditions. However, a 2012 pilot program of the EPA’s Causal Assessment procedures, under the SWRCB Biological Objectives Program, found that the procedures achieved greater success at ruling out causes of impairments rather than determining the specific cause of impairment. Case studies summarized by EPA on their CADDIS website\(^2\) demonstrate that most successful causal assessments result in the identification of multiple stressors and multiple sources. Of the fourteen case studies summarized, ten causal assessments identified multiple stressors and sources as the cause, and several discussed the challenges in separating out and identifying specific causes.

The implementation approach in the proposed Biological Objectives relies on the ability of the San Diego Regional Board to make the assessment of the cause to determine the appropriate integrated reporting listing category for the waterbody. Then, once the cause is determined, individual dischargers have to determine if they are causing and contributing to lowered CSCI scores through methods that are not defined and have unclear effectiveness. Given the complexities of the causal assessment process and the lack of clearly defined methods for assessing whether discharges are causing or contributing to lowered CSCI scores, it seems unlikely that the proposed implementation approach will be successful. The proposed approach will likely lead to confusion regarding responsibilities and implementation requirements, incorrect 303(d) listings for waterbodies that cannot attain the objective simply by addressing pollutants, and the inability of dischargers to demonstrate compliance with the objectives. The challenges with simply identifying stressors and being able to clearly link them to individual dischargers support the need to consider an alternative approach to developing and implementing the proposed Biological Objectives.

\(^2\) [https://www.epa.gov/caddis-vol3/caddis-volume-3-examples-and-applications-case-studies](https://www.epa.gov/caddis-vol3/caddis-volume-3-examples-and-applications-case-studies)
Comment #5: Pre-determination of MS4 and agricultural dischargers as a “probable threat” is inappropriate and lacks justification.

In addition to the comments above supporting an alternative approach, the Stakeholders are very concerned about the presumption that storm drain (MS4) and agricultural dischargers are a “probable threat” to waterbody biological integrity. The Staff Report notes that MS4 and agricultural “dischargers have already been determined by the San Diego Regional Board to represent a probable threat to the Stream Biological Objective.” The Stakeholders strongly disagree with the use of the “probable threat” language included in this context. No evidence is presented in the proposed Biological Objectives documents or San Diego Regional MS4 Permit that justifies designating all MS4 and agricultural dischargers as a “probable threat” without an appropriate assessment. The proposed Chapter 4 Basin Plan Amendment Section V.B.2 defines the term “probable threat” to mean: “the discharge is or has the potential to cause or contribute to a decrease in the CSCI score in the receiving water or downstream waters”. Therefore, in order to be considered a probable threat, a waterbody must have a low CSCI. The Staff Report contains language in multiple sections that describes the process for determining if a discharge is a probable threat, yet it does not appear that this process has been completed for all MS4 and agricultural dischargers. This designation also assumes that physical modifications to the waterbody are not the cause of low CSCI scores, which is a determination that should be made using causal assessments. The Stakeholders believe that the use of probable threat in this case, sets a dangerous precedent to establish dischargers as probable threats without presenting justification in the form of a scientifically defensible assessment and request that this language be removed.

Comment #6: Modify the Chapter 4 Implementation Language to Clarify the Requirements for the MS4 and Agricultural Permittees

Should the San Diego Regional Board not choose to pursue the recommended modifications to the Biological Objectives outlined in the previous comments, the Stakeholders request that the Chapter 4 Implementation Language be modified to clarify the obligations of the MS4 and agricultural permittees. Specifically, the Stakeholders request that the requirements to include the Biological Objectives as receiving water limitations and water quality benchmarks be removed and the actions required to address impairments due to pollution be clarified as follows:

- Remove the requirement for MS4 permit receiving water limitations and Agricultural Waste Discharge Requirement (WDR) water quality benchmarks to be set equal to the proposed biological objective. Instead receiving water limitations and water quality benchmarks would only be included for pollutants identified through a causal assessment as contributing to lowered CSCI scores.
- Clearly state that MS4 and agricultural Permittees are only responsible for addressing pollutants that are impacting biological integrity and will not be required through a NPDES permit or WDR to address channel modifications.
- Include a compliance schedule or other mechanism to clearly outline the expectations that constrained waterbodies may not meet the biological objectives until channel
modifications and other sources of “pollution” have been addressed. The time frame for these changes might be decades.

- Include a requirement that the San Diego Water Board conduct a complete causal assessment prior to the waterbody being listed on the 303(d) list. Waterbodies for which pollution is identified as a cause of the biological impairment should only be listed in Category 4c until such time as the pollution is addressed. Once the pollution is addressed, if the Biological Objective is still not met, the waterbody could be moved to the appropriate Integrated Report category (e.g. Category 5).

- For waterbodies that are identified as impaired due to channel modification (i.e. pollution), TMDLs will not be developed to address pollutants listed solely to address biological objectives until the channel modifications or other sources of pollution are addressed.

The intent of the proposed policy is to regulate pollutants that may be impacting beneficial uses, as illustrated by a comparison of the CSCI to the Stream Biological Objectives; therefore, it is not necessary to incorporate the new objective as a receiving water limitation in the MS4 Permit or as a water quality benchmark in the agricultural WDR. When low CSCI scores are identified, the required cause or contribute assessments will be performed, and in some cases, specific pollutants will be identified within the receiving waters that are impacting CSCI scores. Pollutants already have established water quality objectives in the Basin Plan, and since compliance is ultimately based on the pollutants that are causing or contributing, there is no need for another layer of potential receiving water limitations liability. Should MS4 or agricultural discharges be determined to be causing or contributing to the impairment through discharges of the identified pollutants, requirements for those pollutants can be incorporated into the respective permits or required plans. If at least part of the cause of the low CSCI scores is determined to be pollution, inclusion of receiving water limitations or water quality benchmarks would create confusion as to the methods permittees would use to demonstrate they are not causing or contributing to the impairment. Including separate requirements for Biological Objective receiving water limitations and water quality benchmarks are duplicative of existing pollutant requirements and create confusion and potential liability for impairments due to pollution that cannot be easily remedied by the permittees.

Additionally, as noted above, the Biological Objectives set the expectation that all waterbodies will attain reference conditions at some point in the future. While the Supplemental Environmental Document (SED) and statements at the Board workshops indicate that the intent of the Biological Objectives is not to require permittees to remove concrete and restore waterbodies, this intent is not clearly reflected in the objectives or implementation provisions as written and the objectives could easily be interpreted differently in the future. The implementation provisions in Chapter 4 do not provide clear clarification that different approaches or expectations will be set based on existing waterbody constraints or that long time frames are anticipated to be necessary to address waterbodies impaired due to pollution rather than pollutants. As a result, the Chapter 4 implementation discussion should be revised to more clearly align with the discussion in the SED and statements made at the workshops by San Diego Regional Board staff as noted in the bullets above.
Thank you for your time and consideration of these comments. If you have questions, please contact me at (805) 388-5334 or at mcgovern@cityofcamarillo.org.

Sincerely,

Lucia McGovern
Deputy Public Works Director, City of Camarillo
Chair of the Stakeholders Implementing TMDLs in the Callequas Creek Watershed

cc: Ewelina Mutkowska, CCW TMDL Program Manager
Member agencies of Stakeholders Implementing TMDLs in the Callequas Creek Watershed