May 31, 2019

Via Electronic Mail Only

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Comment – Proposed Basin Plan Amendment to Incorporate Biological Objectives, PIN: CW-825417; Attn: Chad Loflen

Mr. Gibson:

The Central Valley Clean Water Association (CVCWA) appreciates the opportunity to provide public comments on the Proposed Basin Plan Amendment to Incorporate Biological Objectives into the Water Quality Control Plan for the San Diego Region. CVCWA is a non-profit association of public agencies located within the Central Valley region that provide wastewater collection, treatment, and water recycling services to millions of Central Valley residents and businesses. We approach these matters with the perspective of balancing environmental and economic interests consistent with state and federal law.

The California Association of Sanitation Agencies (CASA) joins with CVCWA in the submission of these comments on the Proposed Basin Plan Amendment. For 60 years, CASA has been the leading voice for public wastewater agencies on regulatory, legislative and legal issues. CASA is an association of local agencies engaged in advancing the recycling of wastewater into usable water, generation of renewable energy, and other valuable resources. Through these efforts CASA’s members help create a clean and sustainable environment for Californians.

CVCWA is an active participant in the State Water Resources Control Board’s (State Water Board) ongoing efforts to develop a Biostimulatory Substances Objective and Program to Implement Biological Integrity (Biostimulatory and Biointegrity Policy) applicable to wadeable inland surface waters of California, including the San Diego region. Rather than wait for the State Water Board to
produce the Biostimulatory and Biointegrity Policy and use the data developed in that effort to inform its actions, the San Diego Regional Water Quality Control Board (San Diego Water Board) has decided to move forward with its own approach to establishing objectives to protect the biological integrity of surface waters.

Although not directly applicable to CVCWA’s members, this action causes concern because the San Diego Water Board’s proposed Basin Plan Amendment would set biological objectives at levels that are too low to be reasonably attained in numerous water bodies. Furthermore, the San Diego Water Board’s approach fails to identify relevant data and evidence to support thorough analyses of the current water quality in the region; the attainability of the proposed water quality objective (WQO); past, present and future beneficial uses of all surface waters; and the projected impacts the proposed WQO will have on the region’s water quality. CVCWA is also concerned that the proposed Basin Plan Amendment fails to consider data and other information that is readily available from the overlapping State Water Board process.

Similarly, CASA does not routinely comment on matters within individual regions, except in circumstances such as this, where the proposed regional action could have significant statewide implications. To the extent that the San Diego Water Board’s actions related to the Proposed Basin Plan Amendment could affect or interfere with how the State Water Board develops and implements its Biostimulatory and Biointegrity Policy, or could be replicated in other regions, all of CASA’s members statewide have a significant interest in the development and implementation of the Proposed Basin Plan Amendment.

**Proposed Biological Water Quality Objectives**

The proposed Basin Plan Amendment would establish a biological water quality objective (described as a “formal minimum standard” in the accompanying Substitute Environmental Document [SED]) for both perennial and seasonal surface waters in the region that would require attainment of a California Stream Condition Index (CSCI) score of 0.79. The CSCI is a biological metric used to “score” the condition of benthic macroinvertebrate (BMI) communities in perennial wadeable streams and rivers. As stated in Section 1 of the Staff Report, “the goal and intent of the Biological Objectives project is to use biological assessment … to better protect and restore waters using biological metrics to directly measure beneficial use attainment.” The proposed Basin Plan Amendment, Staff Report, and SED are clear that where discharges are determined to cause or contribute to degradation (i.e., a CSCI score of less than 0.79), permit and TMDL requirements will be established which require attainment of this CSCI index value in those waters. However, the proposed Basin Plan Amendment and its supporting materials do not provide the required analyses for basin plan amendments as set forth in the Water Code, and as a
result do not accurately portray the impacts or reasonableness of actually achieving the proposed biological WQO.

**Major Comments**

The proposed Basin Plan amendment and accompanying Staff Report and SED have the following significant problems which must be remedied:

1. **Failure to adequately consider the ability to attain the proposed water quality objective in the perennial and seasonal streams of the San Diego Region**

   From both a practical and a legal perspective, the San Diego Water Board is obligated to consider whether the proposed biological water quality objectives can be achieved in all of the perennial and seasonal surface waters in the region. (Wat. Code, § 13241(c) [requiring consideration of “[w]ater quality conditions that could reasonably be achieved”]; see also Wat. Code § 13000 [“[T]he waters of the state shall be regulated to attain the highest water quality which is reasonable. . .”].) A first step is an evaluation and accounting of waters that currently reliably achieve or do not reliably achieve the proposed objective (i.e. a CSCI score of 0.79). Then, if the water does not achieve the proposed objective, the San Diego Water Board would determine the degree to which the proposed objective is not achieved. Information available through the work performed by the Southern California Coastal Water Research Project (SCCRWP) for the State Water Board’s Biostimulatory and Biointegrity Policy effort would enable such an evaluation. The database compiled by SCCWRP containing CSCI data and other factors used in the policy development contains 5,890 records of sample results from sites across California. These records indicate that, State-wide, 57.6% of the measured CSCI scores are 0.79 or greater.

   Measurements in Region 9 occurred at 318 unique sites, of which 52.2% have average CSCI scores greater than 0.79, and 40.6% of sites have a minimum measured CSCI score greater than 0.79. There are a number of water bodies corresponding to those 318 unique sites that will fall into the category of not meeting the proposed objective. Currently, however, such readily available information is not presented in the Basin Plan Amendment, staff report, or SED, and has apparently not been considered in drafting the proposed Basin Plan Amendment. Thus, the proposed Basin Plan Amendment fails to include available information that would illustrate the extent to which water bodies would be able to achieve the proposed WQO.
2. **Lack of a policy approach and program of implementation in surface waters that currently do not meet and probably will not ever meet the proposed biological WQO**

Because information has not been articulated regarding the number of surface waters that do not currently, and probably would never, meet the proposed biological water quality objective, an associated regulatory policy approach and program of implementation to address such waters has also not been described. This is a fundamental flaw with the proposed Basin Plan Amendment. Water Code section 13242 requires the San Diego Water Board to develop a program of implementation that describes the step “necessary to achieve the [water quality] objectives . . . .” The proposed Basin Plan Amendment glosses over the fact that water bodies might not meet the proposed WQO and fails to outline the actions that must be taken to ensure that water quality eventually complies with the proposed WQO.

The State Water Board process for developing its Biostimulatory and Biointegrity Policy recognizes streams may have physically constrained habitat limiting the possible CSCI score. In the work plan to develop the subject policy, the State Water Board acknowledges that the “biological objectives should be flexible enough to accommodate different biological expectations for different types of systems including unaltered streams, moderately, and even highly modified streams.” In the most recent Stakeholder Advisory Group (October 2018) the State Water Board noted that the statewide Biostimulatory and Biointegrity Policy will include consideration of alternative approaches for constrained channels. To support this consideration, the State Water Board has developed supporting technical tools that should be considered when developing the San Diego Biological Objectives.

One of the tools developed for the State Water Board’s process is a model Predicting Biological Integrity of Streams Across a Gradient of Development in California Landscapes,¹ or “Developed Landscapes Project.” The model predicts which CSCI scores are possible in a waterbody given a range of potential non-water quality constraints. Anthropogenic and natural landscape features can constrain biological condition (such as impervious surfaces, non-native vegetation cover, road density and crossings, elevation, geology) and were used to create categories considered by the tool. The model calculates the range of CSCI scores that are likely for a given site and can also predict the probability of achieving a particular CSCI score, based on the physical constraints. The model results and corresponding CSCI measurements for the Santa Margarita Watershed are presented in Figure 1, with the bars representing the range of expected scores and circles corresponding to the

measured values. It is notable how variable the CSCI scores are at any individual site, calling into question what is considered compliance, i.e. whether all measurements are greater than 0.79, whether the average is greater than 0.79, or whether any measurement is above 0.79. The red and dark red bars correspond to channels unlikely to achieve a 0.79 CSCI score (the average of samples is likely to be less than 0.79), or the range of potential CSCI scores is unlikely to exceed 0.79 (the maximum measurement is likely to be less than 0.79). The modeled ranges of CSCI scores consider constraints due to local geography and development, which are semi-permanent or permanent features. Without changing these features, improved water quality will likely not result in increasing the CSCI score above 0.79.

Figure 1. Channels in Developed Landscapes modeled (bars) and actual site CSCI scores (dots and triangles). Each horizontal bar represents a CSCI score prediction range for a stream in the Santa Margarita River Watershed.
3. **Failure to fully acknowledge or address its responsibilities under the California Water Code in setting water quality objectives**

Section 13241 of the Water Code provides that:

Each regional board shall establish water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance; however, it is recognized that it may be possible for the quality of water to be changed to some degree without unreasonably affecting beneficial uses. Factors to be considered by a regional board shall include, but not necessarily be limited to, all of the following:

(a) Past, present, and probable future beneficial uses of water.
(b) Environmental characteristics of the hydrologic unit under consideration, including the quality of water available thereto.
(c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.
(d) Economic considerations.
(e) The need for housing within the region.
(f) The need to develop and use recycled water.

Section 13242 of the Water Code requires that:

The program of implementation for achieving water quality objectives shall include, but not be limited to:

(a) A description of the nature of actions which are necessary to achieve the objectives, including recommendations for appropriate action by any entity, public or private.
(b) A time schedule for the actions to be taken.
(c) A description of surveillance to be undertaken to determine compliance with objectives.

The SED includes text which is intended to address Water Code section 12341 requirements, however, does not attempt to address Water Code section 13242 requirements. The SED describes the regulatory mechanisms (permits, TMDLs, non-TMDLs, enforcement actions) that would be used to compel dischargers to achieve the proposed biological water quality objective. The SED also makes general reference to actions that would be employed (e.g. monitoring, pollutant and flow controls, in-stream restoration actions). The SED implies, but does not
demonstrate, that all waters in the region will eventually meet the proposed objective. This information is insufficient in fulfilling the requirement of Section 13241.

Specifically, the SED fails to address the fact that some waters of the region do not currently achieve, and may not “probably” achieve, the beneficial use defined by attainment of the CSCI index score of 0.79. As mentioned above, Water Code sections 13241(a) and (b) require the San Diego Regional Board to discuss the current uses and conditions of the subject water bodies. Additionally, the California Environmental Quality Act (CEQA) requires a discussion of the current environmental conditions for a given project, or the “baseline” environmental conditions. This failure to clearly acknowledge and quantify the status of beneficial uses is a fundamental flaw which hampers the overall Water Code section 13241 analysis offered in the SED, as well as impairs the SED’s ability to evaluate the degree of environmental impact associated with the proposed Basin Plan Amendment under CEQA. In order to meet legal requirements, the proposed Basin Plan Amendment and SED must consider actual data for waters in the region, quantify (i.e., estimate) the percentage of waters that do and do not currently meet the proposed objective, and examine the degree to which specific waters do not meet the proposed objective.

The SED also falls far short of a credible assessment of the achievability of the proposed objective in all waters in the region as required by Water Code section 13241(c). After determining whether and where the proposed WQO is achieved in waters, the assessment should then discuss the ability for waters that do not currently meet the objective to achieve the objective through certain remediation actions. This information should be based on some form of tangible analysis, for instance case examples where improvements in water quality have been seen and information to indicate that proposed remediation measures will be effective. The assessment must also include an analysis to demonstrate whether such measures are reasonable (i.e., feasible, proven, cost-effective, affordable). Finally, the assessment should identify waters that are not expected to ever meet the objective, despite the implementation of remediation actions. This finding should inform the program of implementation for such waters, as required under Section 13242.

The SED includes arguments that the adoption of the Basin Plan amendment will not increase costs due to savings that will occur due to a reduction in existing permit and TMDL requirements. However, these arguments are non-specific and include questionable assumptions regarding: (1) the ability to identify causative factors for water bodies which do not attain the desired CSCI value of 0.79; and (2) changes in existing requirements (e.g. chemical-specific NPDES permit or TMDL requirements) as a result of implementation of the proposed biological objective. With respect to (1), there is little evidence that causal assessments will yield specific solutions that lead to attainment of the proposed objectives. With respect to (2), such
changes require significant future regulatory actions which may or may not be approved and implemented. Therefore, the assumed economic benefits of the proposed objectives are not certain to occur, and cannot be treated as certain. The economic analysis provided in the SED is insufficient in its detail and conclusions because it fails to consider economic impacts that may result if the assumptions listed in the SED do not become reality.

The SED’s insufficient analysis of Water Code section 13241 requirements (i.e., the failure to identify measures that will lead to the achievement of the proposed water quality objectives in all surface waters in the region) precludes satisfaction of Water Code section 13242 requirements. By failing to provide a comprehensive analysis of the objective and whether it will or could be met in various water bodies in the San Diego area, there is no starting point of water quality from which to develop an adequate program of implementation.

In summary, the SED fails to provide adequate information to address pertinent Water Code requirements. Beyond this legal and technical failure, the lack of an approach to deal with surface waters that do not currently achieve the desired CSCI index value represents a fundamental flaw in the proposed water quality objective and associated program of implementation. This flaw must be addressed prior to adoption of the proposed Basin Plan amendment.

4. **Reliance on causal assessment tools which are unproven and unlikely to identify solutions as implied in the proposed Basin Plan Amendment, Staff Report, and SED**

With regard to causal assessment tools, the SED states the following:

Work in the San Diego region found the USEPA CADDIS tool to show promise but be overly cumbersome and not cost effective (Chiff et al. 2015). More recent rapid causal assessment methods have been developed by the City of San Diego with Tetra Tech, and by SCCWRP, which automates the process and uses existing predictive modeling and extensive bioassessment datasets (City of San Diego 2015b, Gillett et al under review).

Given the inherent difficulty in successfully identifying the causes and corrective measures needed to improve CSCI scores in a given water body, the SED appears to be overly optimistic regarding the effectiveness of the tools in question. This raises the following questions:
What is the track record of proposed causal assessment tools in identifying causes and management measures needed to improve CSCI scores to the proposed objective?

What happens if these tools are not successful, i.e. when cause cannot be determined?

What assurance or evidence exists that solutions derived from efforts to comply with the proposed biological objectives will have influence over ongoing regulatory requirements or processes in permits and TMDLs?

These questions should be addressed in the SED, given the reliance of the proposed approach on the causal assessment step.

**Recommendation**

CVCWA and CASA recommend that the San Diego Water Board decline to adopt the Basin Plan Amendment in its current form, and direct staff to remedy the above-described problems in a revised version of the Basin Plan Amendment that addresses these issues holistically.

Again, CVCWA and CASA appreciate the opportunity to review the proposed Basin Plan Amendment for biological WOQs, Staff Report, and SED, and to provide these comments. We are available to connect with your staff to discuss our comments and approaches to address the deficiencies we have described. If you have any questions, or if CVCWA or CASA can be of further assistance, please contact Debbie Webster of CVCWA at eofficer@cvcwa.org or (530) 268-1338; or Adam Link of CASA at alink@casaweb.org or (916) 446-0388, extension 102.

Sincerely,

**CVCWA**

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