



CVCWA Central Valley Clean Water Association

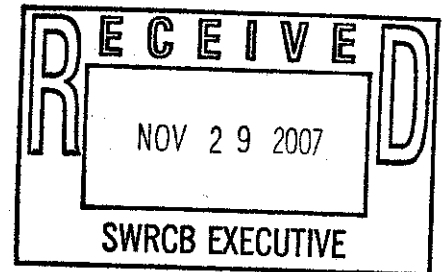
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November 29, 2007

Via electronic mail to: commentletters@waterboards.ca.gov

Jeanine Townsend
Acting Clerk to the Board
Executive Office
State Water Resources Control Board
PO Box 100
Sacramento, CA 95812-0100



RE: CVCWA Comment Letter on the Proposed Water Quality Control Plan for Enclosed Bays and Estuaries of California – Sediment Quality Objectives

Dear Ms. Townsend,

The Central Valley Clean Water Association (CVCWA) appreciates the opportunity to provide comments on the proposed Phase 1 sediment quality objectives (SQO) policy. CVCWA is an organization comprised of many of the communities in the Central Valley that own and operate publicly owned wastewater treatment facilities. CVCWA is particularly interested in aspects of the proposed policy that pertain to the Sacramento-San Joaquin Delta.

CVCWA is pleased with the excellent work that your staff and the other members of the SQO Science Team have done in the development of the proposed policy document. CVCWA is highly supportive of the technically sound, data driven approach that is embodied in the current proposal.

CVCWA is also very much in favor of the stakeholder involvement process that you have employed over the past four years while all the technical work on SQO development has been progressing. We are especially impressed with the efforts you have taken to validate the SQO numeric sediment assessment tools using an independent panel of national experts. We believe these process elements have led to a strong draft policy.

CVCWA is very supportive of the Multiple Line of Evidence (MLOE) approach to implementing the narrative SQOs for direct effects. We believe the science strongly supports this approach. We also believe the step-wise approach to sediment assessment, stressor identification, source evaluation and management plan development is the right way to proceed as a prerequisite to cleanup plans or other management requirements.

CVCWA believes that the proposed use of the proposed SQOs in NPDES permits as receiving water limitations is the proper approach; we see it as similar to the approach that the State Board has taken in implementing whole effluent toxicity limitations in the State Implementation Plan (SIP). **CVCWA strongly supports the proposed policy language that requires the performance of stressor identification and source assessment studies prior to a determination whether a discharge is causing or contributing to an SQO violation.** This approach is essential because causation is not established from the initial test results that are determined in the SQO evaluation process. Stressor identification and source assessment studies are necessary to link a permitted source with toxic pollutants identified in those studies.

Our primary concerns regarding the proposed policy are as follows.

Foremost in our concerns is the need to develop data and applicable SQO tools for proper implementation of the policy to the Sacramento-San Joaquin Delta. CVCWA is very concerned that the tools that exist in the current policy are not properly applied to the Delta and that significant time and resources will be required to bring the Delta approach up to the same level as is proposed in coastal bays. We ask for a commitment by the State Water Resources Control Board (SWRCB) to provide equivalent time and resources to that which has been required for proper tool development and validation in the coastal bays. That effort has taken approximately four years and \$2 million dollars to develop and validate the essential tools for coastal bays. We specifically request that the SWRCB extend its sediment quality monitoring effort using three lines of evidence to 2008 and 2009 to acquire an adequate data set for use in tool development and validation. The current data collection effort in 2007 is a start but is not nearly adequate (with less than 100 data points).

We are also concerned that the interim approach to SQOs in the Delta that is described in the plan may lead to inappropriate actions ahead of proper tool development. We appreciate the intent conveyed in the draft policy to use three lines of evidence in the Delta but would like to see more definitive direction in the policy that would avoid or preclude premature action using interim tools. The SQO policy should clearly state that the funding for this effort will be provided by the SWRCB. The policy (or staff report) should delineate the steps and responsibilities necessary to transition from the interim approach in Phase I to the more robust approach in Phase II. This is particularly important because, as has been acknowledged, the development and interpretation of MLOE tools in estuaries is significantly more difficult than the work completed to date for coastal embayments. Thus, a substantial amount of effort will be required during this transition.

The interim approach requires the use of three lines of evidence and requires the determination of effect for at least two lines to determine that a site is "Impacted." The determination of the significance of an effect, however, would seem to depend on where the chosen metric falls in relation to the reference envelope developed using reference site data and statistical methods. Proper determination of the reference envelope for the Delta region will require significant resources. Given the interim nature of these tools, it is not equitable that the costs for this reference envelope work be passed on to stakeholders in the Central Valley.

CVCWA is supportive of the concept of regional monitoring as the best means to perform sediment quality assessments and follow-up studies. We are concerned that the implementation of a regional sediment quality monitoring program in the Delta will take significant resources.

The State and Water Quality Control Boards are encouraging the formation of a regional monitoring entity for the Delta, which would presumably include sediment quality monitoring. CVCWA believes that a significant portion of the funding for the Delta monitoring should be from State funding sources, e.g. utilizing Surface Water Ambient Monitoring Program (SWAMP) funds, and from other beneficiaries of the Delta, e.g. drinking water suppliers.

CVCWA agrees with many other stakeholders that the Policy should explicitly state that the initial emphasis under the program will be on those sites in bays where the SQOs indicate a **"Clearly Impacted"** condition. We believe this approach will lead to appropriate actions as soon as possible at the sites that most need action and where assessments are based on the best tools.

CVCWA requests that a tiered approach be used in response to a determination that sediments in a water body are "Possibly Impacted", "Likely Impacted" or "Clearly Impacted". We recommend the sites listed as "Clearly Impacted" would receive first priority in terms of resource commitment and initiation of follow-up studies; sites classified as "Likely Impacted" would be second priority. For sites listed in these two categories, we recommend the policy establish a deadline for completion of the studies in an approved work plan within two (2) to three (3) years of approval of that plan by the Regional Water Quality Control Board (Regional Water Board).

We agree with proposed policy language that water bodies that are listed as "Possibly Impacted" should be treated differently from water bodies that are determined to be "Clearly" or "Likely Impacted". We believe that sediments listed as "Possibly Impacted" have the greatest uncertainty in terms of impacts and will be the most difficult to evaluate to determine causative factors and management solutions. We request that the policy include specific language that acknowledges the difficulties in determining causation or stressors for sites classified as "Possibly Impacted". Specifically, we request that the policy state that the procedure taken for "Possibly Impacted" sites would be to first perform a confirming round of SQO monitoring, followed by an initial round of stressor identification studies. If the stressor identification studies are inconclusive, a determination should be made to either suspend such studies pending additional routine monitoring or to perform additional stressor identification studies where initial results indicate that such studies may be conclusive.

Detailed Comments

The following specific comments are referenced to Sections of the proposed policy.

Section VI. Integration and Interpretation of MLOE, subsection 4.b. Relationship to the Aquatic Life – Benthic Community Protection Narrative Objective

The policy should be revised to state that Regional Water Boards "shall designate" (rather than "may designate") the category "Possibly impacted" as meeting the protective condition if studies demonstrate that measures of effects and exposure are not responding to toxic exposures in sediment and other causes of the observed responses are known to exist in a given water body. Sediments that are "possibly impacted" means that contamination may be causing adverse impacts to aquatic life, but these impacts are either small or uncertain because of relatively poor agreement among LOE. Given this definition, we see no need to authorize Regional Water Board discretion when available evidence indicates measured effects are not in response to toxic exposures in sediment particularly since the language is conditioned on a finding that other causes of observed responses are known to exist in the water body. We would agree, however,

that substantiation of "other" causes be emphasized and closely tracked where regional discretion is voided. Lastly, we note that in proposing the "Unimpacted" and "Likely Unimpacted" categories the State Board has recognized that this option provides for a margin of safety. This margin exists because the next category "Possibly Impacted" indicates that there would be more sites in this category that are unimpacted than actually impacted. (Staff Report section 5.6)

Section V.J. Application of Aquatic Life – Benthic Protection to Other Bays and Estuaries

The proposed Plan authorizes the use of the maximum probability of effects using the California Logistic Regression Model (CA LRM P_{max}) metric for evaluating the sediment chemistry line of evidence. The use of this metric in estuaries should be validated prior to its use in the interpretation and implementation of SQOs.

Additionally, the appropriateness of the selected sediment toxicity tests (*Hyalella* and *Eohaustorius*) in San Francisco Bay and the Sacramento-San Joaquin Delta needs to be validated. Historic issues have existed regarding the grain size and other characteristics of San Francisco Bay sediments that may affect the toxicity test results for these species. If the validity of these test species is confirmed, the use of the threshold values listed in Table 13 for *Hyalella* and *Eohaustorius* test result interpretation must also be validated for use in estuaries.

Section V.J. Table 13 [page 19] and 14 [page 20]

The District supports the use of measures that indicate clear evidence of impact, which presumably is the intent of these tables based on the Table 14 matrix and the definition of "impacted" under Table 13. We understand the value in conservative assumptions built into an "effect" determination using the metrics prescribed in Table 13. However, we request additional information that demonstrates that the use of reference ranges or intervals for chemical concentrations and benthic community data are proper thresholds of high exposure or high disturbance.

Section VII.F. Stressor Identification

Exceedance of the direct effects SQO indicates that toxic pollutants are a "likely cause", but does not demonstrate conclusively that toxic pollutants are the stressor driving an impact determination. Physical alterations or other nontoxic related stressors (i.e. nutrients) can also degrade the benthic community. This is reflected in the definition of "likely impacted" since the evidence upon which this determination is based is "persuasive" but not "clear" and may have conflicting lines of evidence. The language of the policy should be modified to clarify this point.

The Plan should also address the case where stressors cannot be determined. It is anticipated that this will often be the case where the MLOE analysis yields a "Possibly Impacted" determination. It is anticipated that stressors will also not be able to be determined from some "Likely Impacted" and "Clearly Impacted" sites. We recommend the policy state that, where stressors cannot be identified and toxic pollutants cannot be ruled out, additional sediment monitoring shall be performed to confirm or reassess the initial SQO determination. A revised work plan should then be developed and implemented to make a final attempt at stressor identification. Completion of that work should satisfy follow-up study requirements.

Section VI., Table 11

We are supportive of the "Inconclusive" determination, with the provision that follow-up studies be performed to address the specific facts for the sites in question. As an alternative, we are supportive of a reclassification of the three "Inconclusive" cases to the "Likely unimpacted" category pending further clarification.

Section V.F. Sediment Toxicity, Subsection 4 – Use of Supplemental Toxicity Tests [page 10]

The process for approval of additional sediment toxicity test types and protocols should be specified in greater detail. The methodology for determination of values to be used in Table 4 must be screened and validated prior to use in interpreting narrative objectives. The technical documentation for the values provided in Table 4 should also be referenced.

Sections V.F., V.G., and V.H Integration of Sediment Toxicity, Benthic Community, and Sediment Chemistry Categories [page 11]

These sections require the rounding up (to the next higher response category) of the average of categories when the average falls between two adjacent categories. This may lead to a conservative estimate of violations of the SQO. Where such rounding occurs, it should be tracked and taken into account in causation studies and in the establishment of sediment management requirements. It should also be considered as part of the 303(d) listing determination. This is particularly important where "rounding up" causes a site to be classified as "possibly impacted" where a "likely unimpacted" determination would result otherwise.

Section VII. C. Exceedance of Receiving Water Limit

The criteria for establishing an exceedance of a SQO receiving water limit on an NPDES permit requires the stations included in the analysis to be located in the vicinity of the discharge location. The Plan should also require the stations to have a strong link to the discharge in question such as being located along a discharge gradient in the immediate vicinity of a discharge. Likewise, the policy should state the determination that a discharge is causing or contributing to an SQO exceedance must only be made after completion of stressor identification studies that link specific toxic pollutants in a discharge to the SQO exceedance.

Section VII.F. Stressor Identification, subsection 3d – Multiple Sources

This section directs Regional Water Boards to require multiple sources present in a water body to take all reasonable steps to address an exceedance of the SQO. This section should also clarify that the steps to be taken include the confirmation and pollutant identification steps wherein causative pollutants have been identified and linked to the sources in question. The Regional Water Boards should refrain from requiring further steps of dischargers where a causal link cannot be established or is inconclusive.

Section VII.G. Development of Site-specific management guidelines

We recommend deletion of the sentence that starts with "Although this relationship is not always easy..." This sentence appears to establish a backdoor standard that may exceed the intent of SQO.

Appendix C – Direct Effects Station Assessment, Example Calculation

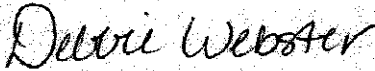
The example provided highlights the effect of rounding up. In the example provided, the sediment in question was listed as "Possibly Impacted" as a result of the "rounding up" of the chemistry result. If the result was rounded down, the result would have been a Low exposure to chemicals, and the category in the LOE combination table would have changed from No. 38 to No. 22, "Likely Unimpacted."

The example provided also demonstrates the sensitivity of the approach to an individual test result. In this case, a single elevated concentration for mercury led to a result of "Moderate Exposure" in the California Logistic Regression Model (CA LRM). All other individual chemical results in the CA LRM were at a score of "Low Exposure", or less. The score for the sediment sample using the Chemical Score Index (CSI) led to a finding of "Low Exposure". As noted above, due to the rounding up approach, the CA LRM result ultimately led to a finding of "Possibly Impacted".

The policy or guidance should clarify how situations such as those shown in the example calculation should be addressed in the implementation of follow-up studies and management actions.

Again, CVCWA is grateful for the opportunity to offer the above comments on the proposed policy. We look forward to working with SWRCB staff on Phase II of the policy development where the appropriate tools for the Delta will be established. Please contact me at (530) 268-1338 if you have any questions regarding our comments or for Phase II involvement.

Sincerely,



Debbie Webster, Executive Officer
Central Valley Clean Water Association