CITY OF VENTURA

Sediment Quality Obj.
Deadline: 11/28/06 5pm

November 28, 2006

Song Her, Clerk to the Board
Executive Office
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100.

Dear Song,

Please accept the enclosed document stating the City of Ventura's comments regarding the State Water Resources Control Board's CEQA Scoping Meeting Informational Document, *Sediment Quality Objectives for Enclosed Bays and Estuaries.*

Nautilus Environmental on behalf of the City of Ventura prepared these comments. If you have any questions please contact my office at 805 677 4114.

Sincerely,

Dan Pfeifer
Wastewater Superintendent
City of Ventura

Comments on "Development of Sediment Quality Objectives for Enclosed Bays and Estuaries—State Water Resources Control Board, August 17, 2006

Section 2.2, this document provides overall guidance on the application of sediment quality objectives for enclosed bays and estuaries in California. However, page 5, Section 2.2 or the document clearly notes that there are differences between bays and estuaries, and further notes that "tools, methods, and thresholds developed for bays cannot be applied to estuarine waters without undergoing rigorous assessment..." The City of Ventura would suggest that while it may be administratively convenient to apply one set of objectives to both enclosed bays and estuaries the State's document does not support that action.

Section 2.3, would benefit from a clear definition of "surficial sediments" and the "biologically active layer", preferably by reference to a numerically specific sampling depth, in order to ensure comparability across studies.

Section 2.4, the City supports Alternative 2. Leaving discretion to the Regional Boards may result in differences in policy between, and even within Regional Boards, and also over time. Presumably under Alternative 2, uniform language will be prepared that will be applicable across the State. Consistent application of SQOs is also consistent with language in preferred alternatives in Sections 2.7 ("... counter to the argument for statewide consistency of assessment tools."), Section 2.10 ("... there is a need for statewide consistency in their application."), and Section 2.18 ("May result in inconsistent decisions within a single region and from region to region."), as well as Section 2.19 ("...which does not promote statewide consistency...") that emphasize uniform application of these guidelines across the State.

Section 2.5, the City supports Alternative 2—SQOs should not be applicable to dredged materials. For all of the reasons mentioned in this Section, and in previous Sections, it is not appropriate to apply these SQOs in the context of a dredged materials program. Briefly, these reasons include: 1) The SQOs are tools that are developed and intended solely to assess the biologically active layer (wording from Section 2.3); 2) other programs have been established at the federal level (USEPA, USACE) for evaluating the suitability of disposal of dredged materials. These programs have an established history, are nationally consistent and incorporate assessments of impacts on water column and benthic organisms, and human health.

Section 2.14, the City is unable to comment on the selection of sediment toxicity tests to use in implementing the narrative SQO because none of the supporting data that went into the selection process have been provided for review. This Section concludes that certain tests offer the best combination of feasibility, documentation and sensitivity, but no data are provided to support the rankings. Given the potential importance of this issue, the City requests that such information regarding the decision process be provided as an Appendix prior to evaluating alternatives and test methods.

Section 2.16, sediment chemistry is often used as an indicator of potential effects. This section describes several options for deriving SQOs, but provides no basis for selecting between them. Moreover, the recommended Alternative 3 provides for use of existing, regional or new SQOs, with methodologies and thresholds selected based on how the approach works within the SQO framework. The City feels that the selection of a method for deriving SQOs must be made based on objective criteria, and those comparisons be made available for review and comment prior to making any selection decisions.

Section 2.17, this section is entitled "Should the State Board specify the method or index used to assess community data?" From the perspective of consistency across the State, the answer is yes. However, the Section itself describes different approaches, and the Alternatives include choices between no methods, a single method, or multiple methods. In view of the lack of rigorous comparison between the methods (an Appendix should be provided here), and the lack of detail as to how the results from multiple methods would be integrated, the City feels that it is premature to comment on, or to even pose this question in the absence of sufficient supporting detail.

Section 2.18, Table 2.2, the combination of moderate disturbance (benthos) and non-toxic should be classified as a Low Effect in the Effects Classification. Similarly, the Classifications in Table 2.3 should be revised to reflect the fact that chemical concentrations do not reflect bioavailability (as stated elsewhere in the document). Thus, the combination of Moderate Exposure and Nontoxic should be classified as Minimal Potential; the combination of Moderate Exposure and Low Toxicity should be classified as Low Potential; High Exposure and Nontoxic should be classified as Low Potential; High Exposure and Low Toxicity should be classified as Low Potential, High Exposure and Moderate toxicity should be classified as Moderate Potential; and Moderate Exposure and High Toxicity should be classified as High Potential. The classifications of impact at the station level require additional clarification to aid in consistency of interpretation. For example, the word "significant" is used in several categories, but is unclear as to its meaning in terms of degree of impact and/or statistical separation from a control or reference condition. Similarly, what does "severe" mean in this context? Finally, the City is not prepared to comment on the suitability of a "logic system" without reviewing associated documentation that describes methods and results of the comparisons with the panel of "experts", as well as the comments of the independent scientific peer review. Again, these details should be provided as an Appendix.

Section 2.19, the City believes that it is premature to implement the narrative SQOs in estuaries until after the technical team has developed appropriate tools and they have been thoroughly reviewed and evaluated. Consequently, the City supports Alternative 1. This Section is clear in describing the fact that the tools developed for California embayments have not been validated for estuaries and, in fact, may not even apply to estuaries. Thus, it is inappropriate to consider Alternatives 2 and 3 at this time. Moreover, it is extremely important that the development of tools consider the breadth of salinities and communities found in estuaries located throughout the State.

Section 2.20, assuming that Alternative 1 is selected for Section 2.19, no sunsetting language will be required; thus, the City supports Alternative 1 for Section 2.20. Conversely, in the event that Alternative 2 or 3 is selected for Section 2.19, then the City supports a clear sunset for interim tools in the absence of more robust tools (Alternative 2). Only a clear date will force development of appropriate tools.

Section 2.21, there are no Alternatives specified under this section; consequently, the City cannot comment.

Section 3 II.D.2, this should be deleted as the SQOs defined in this plan do not apply to bulk sediment dredged material programs.

Section 3 IV.A, this section should include wording that reinforces the fact that the current iteration only applies to enclosed bays, and not estuaries, consistent with the City's previous comments and current state of the science.

Section 3 V.B., the description of Limitations must include the lack of applicability to estuaries.

Section 3 V.C.2, this section should be deleted, as application of tools developed for enclosed bays is inappropriate for estuaries. Moreover, the Scientific Steering Committee was specifically critical of implementing this approach, even though it was the preferred staff alternative for Section 2.19.

Section 3 V.D.1, sample depth should be specified (e.g., 2.5 cm). Also, please add guidance for selecting the number of stations, and their location.

Section 3 V.F.1 and 2., specification of test methods should not be made until details of the selection process are for review; these data and comparisons should be provided in an Appendix.

Section 3 V.F.3, the assessment categories need to be more clearly defined. Toxicity, even low, cannot be present in the absence of statistical significance, since it is impossible to separate from test variability. How were the categories in Table 3.4 derived, and how are they applied? Is an effect considered "Low" if it falls between Low and Moderate? How is it possible that only 3% separates Low and Moderate for *Mytilus*? How is it possible that a Moderate Effect differs by 4% across the 3-amphipod species? Similarly, the interval between Low and Moderate is 3% and Moderate to High is nearly 40% for *Mytilus*, the reverse pattern is true for *Neanthes* (22% and 9%, respectively). These values imply different dose-response curves or inconsistent methodologies. Ultimately, none of these values are acceptable until the methodology through which they were derived is made available and reviewed by stakeholders.

Section 3 V.F.4., it is not clear how this works, since each species has different numeric categories, how do you take an average and what do you compare it against? Is the value

compared against the category for the most sensitive species? This process needs to be clearly defined and reviewed before implementation.

Section 3 V.G.2-5, none of these tools (community metrics) should be applied until the selection criteria and evaluation the metrics have been made available to stakeholders for review. No negative category (i.e., Low disturbance) should be assigned unless that community response is statistically different from the reference condition. How is the median of all four metrics used to determine the response? Are all metrics on the same scale? Do they have category breaks at the same intervals? This guidance needs to be clarified prior to program implementation.

Section 3 V.H.1., if the analytes identified in Appendix A are the only ones to be included in the evaluation of the exposure assessment, there is no justification for including additional analytes unless the regulated entity feels that there may be some justification for doing so. In other words, if the assessment is limited by design to include only certain contaminants determined to be of interest, and there is no place (or SQOs) for other contaminants to be included, then there is no point in including additional analytes in a testing program used for regulatory purposes.

Section 3 V.H.3-6, it is inappropriate that the document provides exposure thresholds and methods for categorizing risk without appropriate supporting documentation. The documentation that supports the use and derivation of Chemical Category Scores is missing. Document should demonstrate how were the thresholds determined. What is the variability around the estimated thresholds (confidence intervals?)? What methods/models were used? How were the weighting factors determined? What was the sample size? Similarly, what is the justification for using a logistic equation for the Pmax approach? What were the results for tests of goodness of fit? What were the associated confidence intervals for the original curve-fitting exercises? How can the average value of both approaches be used to determine the final chemical exposure category when the intervals are completely different? These issues and technical background must be clarified and available for review by stakeholders prior to inclusion in any sediment quality monitoring program.

Section 3 V.I.1-2., the categories for the toxicity and benthic effects, and chemical effects (Tables 3.7 and 3.8) should be revised to reflect comments made previously.

Section 3 V.I.3., this section needs to be clarified, since the terms site and station are both used, and it is not clear what this level of assessment refers to. If the assessment refers to a "site", then guidance needs to be provided as to what level of effects at what proportion of stations constitutes an adversely impacted site. In Tables 3.9 and 3.10, the word "impacted" should be replaced or preceded by "potential", or something similar. The tables make the assumption that there is a link between chemical concentrations and observed effects. In fact, at this point in the assessment, there is no empirical evidence for such a link, just an inferential conclusion. Without a TIE confirming the cause, there is no basis for the categorical statements above (e.g., "... sediment contamination is

causing severe adverse direct impacts to aquatic life."; "... sediment contamination present at the site is causing significant adverse direct impacts...").

Section 3 VII.B.5., this section describes Study Design in general terms, but needs to provide quantitative guidance (#'s of samples) as to what would constitute at least a minimally acceptable program (1 station? 3 stations?, 5 stations?) that would meet Regulatory intent. The State needs to provide guidance to avoid having different levels of effort required by different Regional Boards. In addition, there is no guidance in terms of designing the study to provide a link (e.g., gradient) between the permitted potential source of contamination and observed effects.

Section 3 VII.B.5 there are two B.5. sections, with the second referring to an Index Period. With respect to the Index Period of June through September when all stations must be sampled, the City does not find this period appropriate since benthic communities and even sediment contaminant concentrations may reflect or integrate a variety of impacts that occur over time. Although this program is targeted at direct discharges, the Index Period does not encompass the winter run-off period. Thus, the community and sediments may be impacted, but the cause could well be related to contaminants in stormwater or even direct impacts from outflow events, but incorrectly attributed to a point-source discharger. Therefore, design of the program and timing of sampling must take into account the potential impacts of stormwater.

Section 3 VII.C.1., change "indicates that pollutants in the sediment are the cause..", to "suggests that...". Without empirical evidence of a link between contaminants and effects, any logic path or statistical association is merely a basis for further speculation, and focus for additional studies that must be undertaken before contaminants and source control options can be considered.