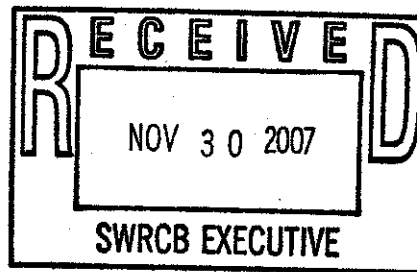


November 30, 2007

Ms. Tam Doduc, Chair and Board Members  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814  
Via Email: [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)



2825 Dewey Road, Ste. 200  
San Diego, CA 92106

**Re: Comment Letter – Sediment Quality Objectives**

Dear Chair Doduc and State Board Members:

Please accept the following comments on behalf of San Diego Coastkeeper and its more than 5,000 supporters. Coastkeeper is a non-profit environmental organization protecting the region's bays, beaches, watersheds and ocean. We have worked with State Board staff for the last four years and are eager to see the development of a protective sediment quality objective (SQO) program for the state. We hope these standards will serve as the foundation for identifying and addressing some of the severe contamination problems confronting our waters and protect against the threat of future contamination of our most sensitive waters and ecosystems.

We also support the comments made by San Francisco Baykeeper and Heal the Bay on this topic and urge you to incorporate their recommendations.

**I. Introduction**

**A. General Comments**

We appreciate the many hours of work that State Board staff has dedicated to this project, and commend all of the expert scientific efforts that have combined to shed light on a complex issue. We understand that the SQO Plan currently represents only part of the full SQO Process. We are eager to see staff bring their attention to Phase II, an approach to address sediment quality related human health risk. Without the inclusion of this critical phase, the SQO Plan will not serve as an effective measure of protection for all sediment receptors.

As we commented in the scoping process and through regional and Board workshops, the SQO Plan falls short of meeting its ultimate protection goal. In general, the Plan lacks the precision and certainty necessary to ensure effective oversight of applicable sediments, provide guidance in the assessment of sediments, draw a bright line to identify degraded sediments, and allow for transparent, timely and implementable management decisions.

Specifically, the SQOs must:

- Protect all sediments in our bays and estuaries and all of the beneficial uses of those waters
- Include all chemical constituents of concern
- Identify and include sufficient margins of safety
- Draw a bright line between the protected and degraded conditions
- Direct management decisions rather suggest possible options
- Ensure that magnitudes of exceedances are accounted for in making assessments
- Require monitoring that will assist implementation
- Integrate with existing sediment management programs and strategies

## II. The SQO Plan Must Have Broad Applicability and Scope

### A. The Plan's Goals Should Strive for Maximum Protection

An earlier draft of the SQO Plan<sup>1</sup> (Appendix I) stated that it was the goal of the State Water Board to protect the sediment quality dependent resources living in California's bays and estuaries and human health. The current version of the document states that the goal is merely to adopt SQOs in compliance with the Water Code.<sup>2</sup> However, the Water Code also calls for the Board to establish a program that provides *maximum* protection of existing and future uses in bays and estuaries.<sup>3</sup> The Staff Report relies on the word reasonable within the Water Code definition of SQO in developing goals. Though the level of contamination in the sediment should be set at levels that are reasonably protective, the overall goal of the program should be *maximum* protection. Because the chosen objectives are narrative rather than numeric, it is even more important that the goals clearly mandate maximum protection.

The first part of the plan is meant to determine if biota are protected or degraded as a result of exposure to toxic pollutants in sediment and to protect human health. In order to provide maximum protection of existing and future beneficial uses, the determinations should be whether biota and human health are protected, not whether they are degraded. If they are not protected, the goals are not met.

As stated in the Staff Report, the Water Code defines sediment quality objectives as that level of a constituent in sediment established with an adequate margin of safety for the reasonable protection of beneficial uses or prevention of nuisances.<sup>4</sup> The Staff Report then lists a series of goals for the SQO program. Among them is the goal to "[e]stablish a condition that is considered protective for each targeted receptor."<sup>5</sup> The current goals of the SQO Draft Plan and those listed in the Staff Report are not protective of beneficial uses and do not prevent nuisance. The stated goals are protective of specific identified receptors and are therefore narrow in application. Although narrative objectives have been chosen, they should nonetheless be protective of all aquatic life and benthic communities and the use of specific receptors to measure sediment may not achieve that goal.

The problem is exacerbated by the use of the phrase 'ambient sediment quality' in Section II(A) of Appendix A.<sup>6</sup> Although the goal is to protect all applicable sediment, a particular site must either be in a protected or degraded condition. Certainly in the water quality context objectives are not ambient – WQOs measure specific areas.

### B. SQOs Inappropriately Limit Geographic Application

We renew our objections to the limited geographic applicability of the SQO Plan<sup>7</sup>. While we are well aware of the data limitations of some of the excluded areas, excluding vast portions of the state's bays from the Plan only guarantees that data will remain elusive. We recommend that the SQO Plan include all areas with applicable sediment and environmental character (e.g. fines, salinity). Incomplete data sets can be addressed through monitoring requirements if necessary.

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1 Appendix A: Draft Water Quality Control Plan for Enclosed Bays and Estuaries of California Part I Sediment Quality (Appendix A)

2 Appendix A, p. 5

3 California Water Code Section 13390

4 California Water Code Section 13391.5(d)

5 Staff Report, p. 6

6 Appendix A, p. 5

7 The SQO Plan specifies that "[t]he Plan does not apply to ocean waters including Monterey Bay, Santa Monica Bay, or inland surface waters." Appendix A at 6.

**C. The Proposed List of Beneficial Uses is Incomplete**

The Water Code requires the state and regional water boards to protect all existing and future beneficial uses of a water body.<sup>8</sup> In addition, the statute requires that the SQOs “provide adequate protection for the most sensitive aquatic organisms.”<sup>9</sup> The short list of beneficial uses and receptors (Table 1) does not accomplish this.<sup>10</sup> A longer list is included in the draft staff report<sup>11</sup> but this too excludes several uses. Incorporating additional beneficial uses into the plan will likely result in a more robust margin of safety in the objectives, and in SQOs that ultimately protect all existing and future beneficial uses.

While some of the beneficial uses will be only tangentially related to sediment quality, many are affected by the health of our sediments. The selective approach taken in the Staff Report does not meet the goals mandated by the legislature to provide *maximum* protection of all existing and future beneficial uses. The staff report gives criteria for beneficial uses to be included, but there is no clarity in why a use is excluded. In fact one use cited as clearly meeting these criteria, Rare and Endangered Species, is not included in Table 1. We hope this is simply an oversight.

We specifically call your attention to two key beneficial uses that are not considered for inclusion at all: “Subsistence Fishing” and “Traditional and Cultural Practices”. In 2005, there were over 1 million “angler trips” made from a man made structure in California.<sup>12</sup> The California Department of Fish and Game does not require fishing licenses for fishing from man made structures because they assume that the majority of these anglers are subsistence fishermen. Also, Koreans and Pacific Islanders are examples of ethnic groups who rely on fish from these inland marine areas in their traditional and cultural practices. Thus, these two beneficial uses should likewise be protected by the objectives.

Although we do not have these beneficial uses codified in the San Diego Basin Plan, we certainly have these uses. In 2005, a pier survey by the Environmental Health Coalition showed that a significant subset of San Diego Bay fishers regularly catch and eat fish from the Bay<sup>13</sup>. Even more significant, the survey found that 96% of the fishers (57% Latino, 39% Filipino) were people of color. 58% of the surveyed fishers fish at least once a week and 25% fish daily. Almost two thirds of the fishers eat their catch. 41% of the children of fishers eat the fish as well. Fish were prepared in a variety of methods including those that maximize exposure to contaminants. Should the Basin Plan catch up with current activities and include these beneficial uses, the SQO Plan must be set up to provide protection for those receptors.

Another troubling omission is the failure to include an objective to protect fish and wildlife from bioaccumulative toxins (indirect effects). As noted above California law requires the SQOs “provide adequate protection for the most sensitive aquatic organisms.” The SQO Plan acknowledges that “[f]ish are an important receptor that can be affected by pollutants in sediments and pollutants that bioaccumulate up the food chain.” However, fish are not used as an indication of pollutants (receptor) in sediment because they cannot be linked with specific sediments without “significant and detailed site-specific studies.” This rationale is disingenuous and evidences backwards-thinking. The fish are important receptors, they just can’t be used to pinpoint contamination from specific discharges. However, if you see a problem with fish tissue, sediment contamination could be a cause. The SQO Plan clearly envisions an implementation plan that requires verification (too much verification in our opinion)

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8California Water Code Section 13390

9 California Water Code Section 13392.6.

10 Appendix A, p. 7

11 Staff Report, p. 56

12 California Department of Fish and Game. CRFS Database. <http://www.recfin.org/forms/est2004.html>

13 <http://www.environmentalhealth.org/PierStudyFINALMarch.30.05.pdf>

before steps are taken to remediate the sediment. A ‘hit’ on fish receptors would only give more information, and a discharger could follow up with additional studies if they were needed. A simple narrative objective could be adopted such as:

“Pollutants shall not be present in sediments at levels that will bioaccumulate in aquatic life to levels that are harmful to fish or wildlife.”

In addition, an objective should be included for the direct impact to aquatic species residing in the water directly above sediments. As discovered at the Palos Verdes shelf, the water directly above contaminated sediments can also be impacted. Thus, the narrative objective should be tweaked to consider this direct impact. A narrative objective could be adopted such as:

“Pollutants in sediments shall not be present in quantities that, alone or in combination, are toxic to benthic communities or aquatic species in bays and estuaries of California”

***D. Receptors Should Include Fish and Wildlife and be Tailored to the Most Sensitive Part of the Population***

As stated in the staff report, selection of appropriate receptors is a critical element of every standards development proposal.<sup>14</sup> Receptors are one of the primary indicators of the health of sediment and the status of beneficial uses of a water body. One example of the link between receptors and beneficial uses is found in the staff report: human health can be used as a receptor to assess commercial and sportfishing.<sup>15</sup> However, fish would also be a primary receptor for commercial and sportfishing. Because selection of the correct receptors is so vital, it is important to include receptors that can be used to assess all the beneficial uses of a water body. Therefore, the receptors used should include fish and wildlife as well as the benthic community and human health. Furthermore, the specific receptors should be tied to the most sensitive part of the population, such as pregnant women and subsistence fisherman who would be more impacted by consuming contaminated fish. The World Health Organization has established toxic equivalent factors (TEF) for dioxin-like PCBs for birds, humans and fish. These TEFs indicate that sensitivity to these dioxin-like PCBs is highest for birds, then humans and lastly fish.<sup>16</sup> Phase II should be addressing these indirect effects up the trophic levels. Instead the document states that “[a]dditional receptors and information on pollutants in the sediments can be evaluated in the later phases of the program.”<sup>17</sup> This should not be an optional evaluation.

***E. Applicable Discharges Should be More Clearly Explained***

The distinction drawn between point and nonpoint sources is confusing.<sup>18</sup> Nonpoint sources are apparently not subject to the intent or implementation of the SQO Plan. As they are subject to the same narrative objectives, this leaves no implementation or management strategy for polluted sediment should they be discovered not to have been caused by a point source. This is untenable as many known sites of contamination have both point and nonpoint sources. Will contamination be left untreated and unmanaged if it cannot be traced wholly to a point source? On whom does the burden fall for this assessment?

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14 Staff Report, p. 57

15 Id.

16 EPA 2000 PCB ID Toxicity Equivalency Factors available at <http://www.epa.gov/toxteam/pcb/tefs.htm>

17 Staff Report, p. 59

18 Appendix A, p. 6

**F. *Applicable Sediments Should Include the Entire Biologically Active Layer***

The SQO Plan only applies to surficial sediments, defined as the top two centimeters of sediment. Examining just the top layer of sediment does not give sufficient insight on the ecological health of the water body. Species such as ghost shrimp and spoon worms burrow a meter or more into the sediments. Thus, buried sediments can impact the benthic community. Also sediments can be dynamic, shifting and changing in a single storm event. If contamination is found, there is no guidance on whether Regional Boards can issue cleanups for more than the top two centimeters, an unpractical and ineffective limit. The State Board must consider deeper sediments, in order to understand and protect the health of the water body.

**G. *The SQO Plan Does Not Include an Explicit Margin Of Safety***

SQOs are defined as “a level of a constituent in sediment which is established, with an adequate **margin of safety**, for the reasonable protection of beneficial uses of water or the prevention of nuisances.”<sup>19</sup> Despite this explicit statutory requirement, the SQO Plan does not mention the term and provides no analysis of what elements of the plan could be considered as part of this important ‘safety net’.

Inexplicably, the Staff Report does mention the margin of safety, but rejects the most conservative alternative, defining the protective condition as only those in the unimpacted category, as not including a margin of safety.<sup>20</sup> If the most conservative definition of protective does not pass this test, a less protective definition, everything up to possibly impacted, cannot possibly make the grade.

**H. *Factual References Should be Updated***

While we appreciate the inclusion of information on sediment contamination sources in the staff report, we hope that some sections can be updated to reflect recent factual changes. For example, section 4.8.1 covers agricultural programs in each region. The San Diego Region’s waiver policy has been updated since the drafting of the staff report.<sup>21</sup>

We were pleased to see the inclusion of information in the Staff Report on marinas and recreational boating.<sup>22</sup> Copper from boat hull paint is responsible for several 303(d) listings in San Diego, and one copper impairment TMDL in Shelter Island Yacht Basin.<sup>23</sup> We hope that staff will consider including these references in the staff report. While the current impairments are for water, the contamination can easily settle out and affect sediments. The implementation measures, as well as the successes and failures of the TMDL will be of interest to many sediment quality stakeholders.

**I. *Staff Report Lacks Consistency and Ease of Use***

Part of the difficulty in assessing the efficacy, legality, and protective nature of the SQO Plan lies in the Plan’s complexity. It is not clear how sections relate to one another and some terms used in the body of the Plan do not track to the Glossary (e.g. definition of reference in benthic community assessment). A flowchart was described at the November State Board workshop, but has not been made available on the website. The SQO Plan would benefit from a clear step-by-step plan of how practitioners would move through the assessments, integration, and management actions.

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19 California Water Code Section 13391(d). Emphasis added.

20 Staff Report, p. 93

21 See Resolution No. R9-2007-0104 available at <http://www.waterboards.ca.gov/sandiego/misc/waivers.html>

22 Staff Report, p 48

23 See Resolution No. R9-2005-0019 available at

<http://www.waterboards.ca.gov/sandiego/units/watershed%20units/souwatershed.html>

### III. Specific Concerns with Assessment Methodology

#### A. Toxicity Assessment is Lacking

We appreciate that the toxicity line of evidence includes both lethal and sublethal tests. Unfortunately, the SQO Plan still lacks echinoderm species, which can be extremely sensitive to sediment contamination. We hope staff will consider adding echinoderms or explaining why they were not included.

The Plan should also make it clear that Table 4 presents the relevant categories for assessment, rather than the narrative explanation of the category in V(F)(3). We foresee some confusion if a discharger records results that put the assessment in one category numerically and another one from the narrative perspective.

The use of supplemental toxicity tests is useful and should be encouraged. Unfortunately, without a mandate to do the tests in certain situations, the extra cost of the tests will likely discourage their use. We are also troubled that these supplemental tests could be used to 'game the system' that is move the final category lower than it would have been otherwise. Some additional guidance to the Regional Board on the subject of when and how additional tests should be used would be helpful. The Regional Boards should use their Best Professional Judgment (BPJ), not the dischargers in making this decision.

Integration of sediment toxicity categories is necessary, but the method should be more explicit. The word 'midway' should be excluded, instead focusing on any value about the category being rounded up to the next higher response category. This would avoid any confusion about whether a value is midway between or not.

#### B. Benthic Assessment is Flawed

The same basic concerns with the toxicity LOE (integration, narrative vs. numeric description) apply to the benthic assessment. Additionally, it is unclear whether all indices must be used or only the applicable ones. If the indices disagree wildly, there is no process for determining what caused the disagreement, one still takes the median. This is better than averaging, but still allows for some inflation to either side.

We are also troubled by the lack of information on what constitutes reference. The narrative defines the reference disturbance category as 'a community composition equivalent to a least affected or unaffected site.'<sup>24</sup> There can be a broad difference between least affected and unaffected. There is also concern with how large a site is defined. If the entire 'site' has just been decimated by pollution reference could be completely thrown off. While this could still occur in the larger bay area, one would be more able to find an undisturbed area to use as a reference. The SQO Plan should acknowledge this and develop guidelines for determining reference placement.

#### C. Chemistry Assessment is Insufficient

As we have stated previously, additional analytes should be included in Attachment A.<sup>25</sup> We also have concern with the last two sentences of (V)(H)(1) – 'Inclusion of additional analytes cannot be used in the exposure assessment described below. However, the data can modify the final sediment quality assessment category and assist in stressor identification.'<sup>26</sup> This irrationally removes potentially critical

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<sup>24</sup> Appendix A, p. 12

<sup>25</sup> We point staff to San Francisco Baykeeper's suggested additions and rationale in its November 2007 comment letter as well as the joint environmental comments on the scoping document (November 28, 2006).

<sup>26</sup> Appendix A, p. 13

clues to contamination from the initial assessment. Without these analytes, we may never get to the stressor identification stage.

We also renew our general questions and concerns with the assessment's narrative categories and integration.

***D. Lack of Bioaccumulation Review***

We are concerned that no line of evidence deals specifically with bioaccumulation. The exclusion is difficult to fathom as the narrative objective for human health specifically includes bioaccumulation. Instead, bioaccumulation is only briefly mentioned in the stressor identification provision and in the glossary.

We can only guess that bioaccumulation and biomagnifications will be covered in Phase II, indirect effects. We urge the State Board to ensure that this critical topic is carefully and fully addressed. We also recommend that language be included to inform practitioners how and when bioaccumulation will be included.

***E. Integration of Lines is not Protective***

As explained above, station assessment does not appear to give an explicit margin of safety.<sup>27</sup> Certainly the SQO Plan goes too far when it allows a Regional Board to designate Possibly Impacted sites as meeting the protective condition. It is unclear why, having set up stressor identification and management action procedures, the SQO Plan ignores them completely, giving a wholly different way of dealing with sediments.<sup>28</sup> If, as seems to be contemplated here, there is concern that Possibly Impacted sediments may be clean, the flaw is in the SQO Plan design. Either, tighten up the categories so there is less uncertainty as to exceedances, or provide a method for determining compliance after all initial tests are done. This 'offramp' from management actions is all the more troubling as staff has admitted up to 75% of sediments could fit in this category.<sup>29</sup>

***F. MLOE Station Integration Is Overly Biased Toward "Showing Effects"***

We are concerned with the elimination of the provision in the scoping document that allowed for assessment of sediment quality in the absence of benthic data.<sup>30</sup> This flexibility is critical for an effective policy. While we understand the scientific need for the Multiple Lines of Evidence (MLOE) approach, the station integration is overly biased toward "showing effects." The guiding idea that underlies the MLOE approach is that evidence gathered regarding sediment chemistry and toxicity must be validated by evidence of actual effects on the relevant benthic community. This method requires a demonstration of impact before remedial action can be taken.

In other regulatory programs we do not ordinarily demand proof of effect before remedial action is taken. We merely require a demonstration that a particular condition creates a risk of an unacceptable effect. Should benthic data, which is expensive to collect and difficult to manage, not be available, we must provide some way to move forward in its absence. The SQO Plan's integration does not allow this currently, nor is there any guidance to Regional Boards for how to proceed in this situation.

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27 Appendix A, p 17. See Margin of Safety discussion above, I(G).

28 Appendix A, p. 17

29 Personal communication with Chris Beegan and Steve Bay

30 CEQA Scoping Meeting Informational Document, Development of Sediment Quality Objectives for Enclosed Bays and Estuaries Section (V)(I), p: 49-50

#### IV. Specific Concerns Regarding the Monitoring Provisions

##### *A. Monitoring Timelines are Vague and Lenient*

The SQO Plan calls for sediment monitoring at intervals of between once and twice per permit cycle.<sup>31</sup> This would result in the minimum amount of testing being once every five years. There is no evidence that this is a sufficient amount of monitoring, indeed the SQO Plan points out the dynamic nature of bays and embayments.<sup>32</sup> Such infrequent monitoring would allow accumulation of contaminants in sediment and degradation of water quality for years. Also, extensive monitoring is necessary to satisfy the sediment assessment methodologies described in the Plan. Thus at a minimum, the State Board should require sediment monitoring on an annual basis. More frequent monitoring should be performed especially in more dynamic areas like river and stream mouths.

##### *B. Enforcement of Monitoring is Undeveloped*

The plan also does not state how monitoring will be enforced within the envisioned monitoring coalitions. Regional Boards are given an oversight role in the coalitions and we appreciate that the Plan now requires a detailed workplan to be submitted and approved by the Board. However, we hope that state guidance on evaluating these workplans will be forthcoming. Without any information about what workplans should include, Regional Board staff will likely find it difficult to proceed with consistency.

##### *C. Regional Monitoring Should Supplement Rather than Supplant Compliance Monitoring*

We agree with the benefits mentioned for the monitoring coalitions. However, there is little incentive for groups to form these coalitions. Why develop a 'broader understanding of pollutants [sic] effects'<sup>33</sup> if it only means that dischargers will be more likely to be required to act? The SQO Plan provides no incentives for this exchange of ideas, assuming instead that economy of resources will bring coalitions together. We would rather see more specific requirements to achieve these benefits, rather than relying on discharger groups to develop rapid and efficient response strategies of their own accord.

##### *D. Existing Monitoring Programs are a Valuable Unexplored Resource*

Although we recognized this inconsistency at the scoping level, and Regional Board staff has also raised the issue, we still see no incorporation of existing monitoring programs into the SQO process. This is especially troubling given that the Southern California Coastal Water Research Project (SCCWRP) conducts this type of monitoring (the Bight Regional Monitoring programs) and has provided key members to the SQO development team. Just one example of an existing program is the Regional Harbor Monitoring Program for ambient water quality monitoring, adopted by the San Diego Regional Board. With the program defined as a coordinated monitoring effort of harbors in the San Diego Region to provide water quality status and trends information, as well as, assess the surface water's abilities to support designated beneficial uses, it could be an ideal vehicle for ambient sediment quality monitoring, and should be a tool considered by the SQO Plan. Instead, the Plan makes no mention of any existing plans, leaving Regional Boards in the dark as to how and whether they can consider existing plans.

#### V. The Policy Must Lead Directly to Effective Action

##### *A. Receiving Water Limitations Should Be Based on Station Level Assessments Directly*

An exceedance at a single site is adequate justification for management action to address the contamination at that site. We are confused as to why the binomial test is used, especially as it does not

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31 Appendix A, p.22

32 Id. p. 23

33 Appendix A, p.23



take into account the magnitude of an exceedance. One or a few stations could have highly toxic sediment and yet the water body as a whole might meet the SQOs. This approach would not protect the beneficial uses of a water body. If a station fails to meet SQOs, this should be a signal that cleanup actions should be undertaken promptly *for that site* to prevent degradation of a larger portion of the water body and the impairment of beneficial uses. Management actions can be taken on a station-by-station basis, requiring more than 16 samples to run another test is unnecessary. Instead, the SQO Plan gives one more hoop to jump thorough to get to stressor identification and potential management action.

**B. The Policy Must Require Effluent Limits in Permits**

The plan contemplates incorporating only receiving water limits into NPDES permits. This is a mistake. Receiving water limits are notoriously difficult to enforce and reduce accountability for the redress of contamination problems. Effluent limitations are vastly preferable for compliance assurance purposes. Although deriving effluent limitations can be more difficult they are simple to enforce and set clear expectations for the discharger. Further, we believe effluent limitations are required by the federal regulations whenever a discharge has the reasonable potential to cause or contribute to the violation of a sediment quality standard.<sup>34</sup> We suggest the adoption of guidance to assist the regional boards in deriving effluent limitations. At a minimum, effluent limitations should not be precluded by the plan.

**C. Stressor Identification is Burdensome and Lacks Connection to Clear Management Actions**

The stressor identification process is lengthy, variable, and provides numerous avenues for dischargers or other potentially responsible parties to avoid taking action. The sequential process includes first, confirmation of pollutant related impacts; second, pollutant identification; and lastly, source identification.<sup>35</sup> . By offering many variable opportunities for dischargers to prove they are not responsible for the SQO violation, the stressor identification process allows adverse impacts to SQ to continue so long as the discharger can introduce some doubt as to the source.

For example, one of four different methods of pollutant identification may be utilized and once the pollutant is identified, it can be verified using one of two offered methods. This pollutant identification phase follows the multi-faceted confirmation and characterization process in which the discharger can choose one of five methods for confirmation and characterization of pollutant related impacts. Then “compelling evidence” that the SQO exceedances are not due to toxic pollutants result in the assessment area being designated as compliant. This process is skewed toward inaction and thus does not meet the goal of SQOs, namely protecting beneficial uses.

Providing various methods of testing allows a discharger the opportunity to find a method most convenient to it, but also enables continued testing until one of the various test methods provides a favorable result.

Only at the last step of the stressor identification, only if a discharger or dischargers are found responsible (a process not explained), and only if the loading rate is significant, is a Regional Board directed to take steps to address the exceedance. A cleanup is never specifically mentioned and no guidelines are given. Moreover, there is no indication that the necessary and appropriate steps will protect the beneficial uses of the water body. Although the stressor identification process requires determination of legacy or ongoing sources (and it is not stated who or how this determination is made) no management actions are given for legacy pollutants, only a TMDL for reducing pollutant loading.

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34 See 40 CFR 122.45

35 Appendix A, p. 25-26

No specifics or bright-line levels are evident for TMDL development. This is problematic and can lead to inconsistency and delays. Given the long compliance times contemplated for most restoration plans, this process should begin as soon as possible.

The stressor identification process should not be the last word in sediment cleanup. If a non-toxic stressor such as a physical disturbance or pollutant-related stressor is involved, simply allowing the water body to be deemed in compliance is not protective of beneficial uses. A physical disturbance may be just as damaging to sediment quality as toxins. A pollutant-related stressor may also be damaging, as well as an indication of toxic impacts that have not reached elevated levels.

***D. Site Specific Management Guidelines are Vague and Unhelpful***


The SQO Plan ends, rather abruptly, where it should have begun: how to ensure that sites meet the narrative objectives. It is deeply concerning that this section provides no enforceable steps or timelines for action. Instead, a Regional Board is cautioned that only after stressors have been identified and controllable sources exist – or the almost laughable if ‘remedial goals are desired’, guideline development should be *considered*.<sup>36</sup> After cautioning, again, that this step is not to be taken until stressors have been identified, the Plan exhorts staff to develop a relationship between exposure and biological effect.

Despite the fact that determining this relationship was the stated goal of the MLOE and the stressor identification processes, the Plan points out that ‘this relationship is not always easy [sic] identify’.<sup>37</sup> Four approaches are then presented to establish such a relationship. We are left wondering why, if these approaches are being recommended to develop ‘management guidelines’ why they could not be used to develop numeric objectives. After all, if these targets can be used in cleanup actions, why must we engage in the time, expense, and effort of the MLOE? Once management guidelines are developed in one bay, all other sediment in the bay should be judged by the objective numeric targets. Below the targets, the sediment must meet the protective condition. Above the targets, the sediment is degraded. Taken to a logical conclusion, why not develop management guidelines in all bays – a one time effort compared to assessing all sediments by the MLOE triad *and* developing guidelines if sediments are degraded.

**VI. Conclusion**

The SQO Plan is a necessary step forward in the State’s efforts to protect sediment quality. We are eager to see a protective, effective, and useful document adopted, and urge you to make the resources and time available for this to be done. We hope you will carefully consider our recommendations and suggestions for improving the Plan. Please do not hesitate to contact me with any questions.

Sincerely,



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Legal Director

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<sup>36</sup> Appendix A, p 27  
<sup>37</sup> Id.