

SSC Summary comments
July 10-12, 2007 Meeting

1. Document Review

Guidance Manuals:

- The SSC supports production of a single combined manual that covers all lines of evidence, although review of individual chapters is appropriate.
- Any individual or combined manuals should incorporate responses to QA failures (esp. toxicity)
- SSC formal review not necessary, but would like to review author responses to Advisory Committee/user review.
- Send user manuals to SSC for review by interested committee members, however the review is not mandatory.

2. Technical Reports:

- Individual comments have been received for three documents (Toxicity and two Benthos documents), but no final resolution process or consensus among SSC member has been reached for the record.
- Recommended approach: 1) Give notice of document distribution as far in advance as possible. 2) SSC provides individual comments to Steve Bay. Focus on scientific content, not wordsmithing. SSC members may opt out of reviewing a document due to lack of expertise/interest. 3) Suggest a 4 week review deadline, unless modified by SSC. 4) Steve will compile comments, prepare responses, and send out a response document for SSC concurrence. 5) A conference call to discuss and reach concurrence will be scheduled, if necessary. 6) Chair of SSC will provide a consensus statement regarding document review.
- Next steps: 1) SB puts together comment response documents to toxicity and two benthos documents for SSC discussion. Schedule a conference call for discussion, August 9 at 11 am PDT for any resolution. 2) Indirect effects report review is a low priority relative to the technical documents for the direct effects. However, reviews will come in over the next couple of months. 3) Steve will prepare table of document status and deadlines. 4) The Science Team will hold off on journal submission until SSC review completed. 5) MLOE documents and Chemistry SQG are due out soon. However, if the SSC gets four documents in the next month there necessarily will be a staggered review deadline.
- Technical reports will need to go through a formal adoption process.

3. Policy Document/Staff Report

- Unclear about SSC role in review of policy document.
- Some SSC members would like to see the document to gain perspective of ultimate use of tools and framework, while others may not have sufficient time available to read the document.
- Chris will send SSC a draft of policy. Will hold a conference call to explain elements of document to SSC. This conference call will be a combination of the

discussion of technical report comments and the policy document. Date: August 9 at 11:00 Pacific Daylight Time.

4. SSC Status and Changes

- All current members will stay on to finish review of Phase I reports
- Bob V. will have less availability in future due to job limits and will only participate in the development of direct effects in the Delta (Phase II) activities.
- Ed L. will continue to participate in review of Phase 1 direct effects documents and in Phase 2 activities, but reduce travel to meetings unless paid for those services, and reduce participation on indirect effects activities because of lack of expertise.
- Tom G. interested and expects to stay involved but will be able to travel only to one meeting every 8 months as has occurred during phase I.
- Todd, Peter, Rob are planning to continue on in their current capacity.
- The SSC recommends that two new members be added to enhance the indirect effects expertise with one of those having expertise for metals. Names will be sought by the Science Team from the SSC and Science Advisory Committee as to possible candidates.
- Additions to the SSC should be vetted by Advisory Committee as was done previously.

5. Statewide analysis

- The SSC was very pleased with the outcome and the apparent robustness of the analysis.
- This demonstration provides confidence that framework and MLOE approach is appropriate and functions well.
- Important to capture and communicate patterns and magnitude of individual LOE results for study, perhaps through the use of pie diagrams for the 3 LOE results with each station category in center. These pie diagrams would be presented on the site maps to coincide with the station locations. . Also a summary table of LOE combinations frequency could be added to the presentation. The data for individual stations can be pooled for entire water bodies by weighting the stations to the areas that they represent and then calculating the counts and percentages of areas that were classified in each category, following the basic procedures of EMAP and NS&T
- It may also be useful to assign numeric code to each MLOE combination to permit a statistical summary of relative category position.
- The color coded table of the 64 LOE combinations was extremely useful and should be part of the information that goes with the 305(b) report, and there was discussion of ways to enhance the layout and the need for a text explanation. This kind of presentation is significant because it retains the information from each LOE, shows the complexity of the classifications, indicates which LOE contributed to the overall classification, and includes an overall classification.
- Results highlighted in this report provide an opportunity to have a test of how the data would be used to make management decisions. The decision-making process

and guidance for follow up studies should be provided by SWRCB to complement assessment strategy. Risk (or relative risk) reduction should be considered.

- The SSC suggested that the policy document consider that the management outcome on the water bodies found to be “possibly impacted” be different from the management outcome for water bodies in the moderate/high categories, as is performed in the tiered 303(d) listing approach used in Washington.

7. Scoping document responses

- SSC compliments Chris on quality of proposed responses to the scoping document. SSC agreed with substance of responses and provided some suggestions to supplement them.

6. Phase II

- There is some concern that the sole focus of Phase II work will be on the Delta, and other estuaries (e.g., Elkhorn Slough, Tijuana River Slough, lower Salinas River) will not be directly considered. Chris explained political and legal issues driving focus on Delta and the SSC recognizes and understands the need for emphasis on the Delta. However, the SSC suggests that a long term strategy be developed that would show when the other estuarine water bodies would be incorporated into the overall design, thereby ensuring that Phase 2 is expected to be a statewide program, not specific to only the Delta.
- There was also some concern about the absence of inclusion of inland waters in SQO program. They are an important component of sediment quality studies in other states (e.g., Indiana, Minnesota, Florida). They should be included in the long-term vision, provided by the SWRCB of how protection/management of the various types of waters relate to each other.
- SSC has concerns that Phase II validation data set may not be large enough to provide confidence in tool development and asks that a field validation data set be specifically considered in the development of the Phase II design..
- The SSC also directed the Science Team to consider a tiered analysis approach for Delta studies to select best subset of stations for all analyses. For example, screen a large number of stations for toxicity while preserving the materials for directed benthos and chemistry determination. It may also be possible to develop a tiered approach to the total chemistry analysis although adding the pesticides is prudent considering the likely agricultural sources contributing to potential Delta contamination.
- The Science Team should consult with Chris Ingersoll and Parley Winger regarding freshwater toxicity test selection and application in variable salinities. Review 1995 paper (Ingersoll et al.) that relates exposure length vs. exposure time. Longer term tests for Hyalella and Chironomus are not likely to provide much more information than 10-day and 28-day tests of survival and growth.
- The SSC suggests using toxicity methods that have been applied in other studies, as opposed to developing new methods for this phase of the study. However, as part of the long term strategy new tests with different estuarine, marine, and freshwater species need to be developed to a) ensure current test organisms are

sensitive enough and afford adequate protection of groups not currently represented by test organisms (molluscs)

- SSC supports strategy of focusing tool development on habitats that have best chance of success and to collect a sufficient number of samples, such as emphasis on Suisun Bay or other portion of the Delta so that clear advancement can be made. If the sampling is too diluted then there may not be adequate data to make any progress.

7. Indirect Effects

- The SSC found that the indirect effects technical report demonstrated that a lot of good work has been performed toward advancing investigation of this extremely difficult task. The SSC is supportive of efforts and agrees that indirect effects should be a priority for the upcoming year. The SSC has yet to fully review the technical report and has not come to consensus. However, the next several bullets do identify some of the issues with the report observed to date.
- The report should state assumptions for each LOE in the framework portion of the document so that users can evaluate chance for success and accuracy of result.
- There was currently no consensus from SSC regarding adequacy of the framework approach due to differences in perspective and limited discussion that has taken place on the indirect effects development.
- SSC does have a number of concerns and suggestions regarding the approach, but there is a definite need to come to consensus on an approach first. There needs to be a clear presentation of the goal of the approach and the steps need to be presented in a manner that provides a clear flow for the assessment. Part of the limitations recognized by the SSC has been the emphasis on the direct effects portion of the project and limited time to discuss this portion of the project.
- To advance work on the indirect effects, the SSC suggests the addition of two members to its committee with specific backgrounds in indirect effects, a dedicated two day meeting in the Fall 2007 to consider existing and alternative models for assessing indirect effects. The goal is to work out differences and design the SQO approach. The Science Team is directed to collect alternative frameworks that may provide an alternative pathway forward. The meeting will be to evaluate and select a way forward to advance the indirect effects.
- Without the work that has been performed to date the potential limitations/utility and the complications of developing an indirect effects framework could not have fully appreciated. The Science Team (Ben) is to be complimented on this effort.
- The SSC recognizes that it may not be possible to develop a framework that will be applicable to both metals and organics and that the best chance for success is to focus on organic contaminants.

8. Implementation and documents

- Should publish documents electronically (save paper and facilitate updates)
- Should provide software tools to facilitate the data analysis that leads to the classification of stations for the MLOE approach.

9. Advisory Committee Concerns

- The SSC agrees with the concerns that insufficient data will be generated or available for Phase II direct effects development and has suggested some approaches to help with the design.
- The SSC wishes to reiterate that chemical thresholds included in MLOE framework do not equate to clean up targets or causality indicators. The Chemistry LOE should not be used as a stand alone tool.
- SSC may provide additional comments to the Science Advisory Committee's questions after inspection of draft policy.
- The SSC reiterates its consensus position that the state should continue to pursue sediment quality assessments based on the full MLOE approach.