Sediment Quality Objectives Stakeholder Advisory Committee

Meeting Summary

June 20, 2013

Note: The list of attendees and the meeting agenda follow the meeting minutes. Additional materials from the meeting (PowerPoint presentations) have been sent to each Committee member and interested party along with this meeting summary.

Another note: The summary captures the major issues presented and discussed during the meeting, though they are not intended either as formal minutes as an exhaustive record of all comments made. Rather the summary is intended to provide participants and other interested parties with a general description of topics addressed and different perspectives on those topics.

Where it contributes to the readability of the summary, discussion of the same issue that occurred at more than one place during the meeting is summarized together. Items on which the Committee expressed general agreement are indicated **in bold**, although it is important to emphasize that the Committee did not vote on these items. General agreement was assessed by the facilitator although no votes were taken. Specific commitments by State Board staff, SCCWRP, the facilitator, or Committee members are also indicated **in bold**.

Meeting objectives

The objectives of the meeting were to provide an update on the progress of the technical effort to conduct a preliminary statewide assessment, review the case study focused on the Ports of Los Angeles and Long Beach, and begin a more in-depth discussion of assessment steps and policy implementation.

SQO technical update

(See the presentation "Adv comm mtng 06-20-13 Vidal-Dorsch presentation.pdf" distributed with these notes)

Doris Vidal-Dorsch summarized progress in developing the dataset needed to conduct a statewide application of Tier I and Tier II assessment tools, as well as the analyses to be conducted once the assessment results are available.

Discussion and comments included the following:

- The assessment may produce results that conflict with existing 302(d) listings. Such cases could result from several causes, including use of different datasets, the lack of specificity in historical listings, or other factors. Where differences are found, an attempt will be made to identify the source(s) of such differences
- It is important to make a distinction between a listing made in response to elevated fish tissue levels and a listing that would focus on sediment's contribution to elevated fish tissue levels; they focus on two separate things
- Steve Bay clarified that thresholds in the assessment tools are related to what percentage of the population is exposed to a level of risk
- The Tier I tool includes conservative assumptions (e.g., selecting the most conservative option when lines of evidence disagree) because it is intended in part as an "off ramp" if there is no evidence of a

sediment-related problem; however Tier II does not include such assumptions because it is intended to provide a site-specific assessment
- Values in the tools for risk levels and daily consumption are middle-of-the-road placeholders for now; final decisions on these factors will be made by the Board

Ports and harbors update

(See the presentation "Adv comm mtng 06-20-13 Harbors Update.pptx" distributed with these notes)

David Glaser of Anchor QEA summarized recent technical progress on the Ports of Long Beach and Los Angeles Toxics TMDL program.

Discussion and comments included the following:

- Exchange between water and the atmosphere is estimated based on a combination of measurement and calculation, with no particular provision made for the potentially higher concentrations in the surface microlayer
- All work has been planned on a five-year schedule in order to ensure results are available for the TMDL reopener
- It is important to understand bioavailability, as opposed to simple concentrations, if the role of contaminants is to be accurately described

SQOs in regulatory programs

(See the presentation "Adv comm mtng 06-20-13 Beegan on Programs.pdf" distributed with these notes)

Discussion and comments included the following:

- Slide #8 – the SQO framework is intended to address bedded sediment as opposed to dredge material suitability testing and as such there is no requirement for applying the SQO Phase I (i.e., direct effects) for navigation dredging; however, if data to apply the SQO are available, then the requirements listed in Slide 8 must be followed
- Consistent with the NPDES requirements included in the Phase I SQOs is a need to identify the discharge(s) responsible for the observed tissue levels, which in effect connects permitting issues to specific sources
- Slide #14 – regulations include language that permittees shall not cause or contribute to an impairment
    - one important issue is to identify criteria for determining cause or contribution
    - the policy may assume that, if a discharge contains a problematic contaminant, the burden of proof would be on the discharger to show that its discharge was not causing or contributing to observed tissue levels, e.g., if evidence showed that fish were non-resident and/or were obtaining contaminants elsewhere
- Slide #12 – determining the boundary of the "site" is a critical issue
    - if the site is large (e.g., an entire waterbody such as a harbor) it may contain subareas that are not significantly contributing contaminants into tissue
    - some permits are being written and/or interpreted to encourage cooperative effort among multiple dischargers, something that may be especially useful for legacy contaminants; a discharger-by-discharger approach may be unproductive except in unique or less developed water bodies
- Slide #15 – the distinction between a listing for fish tissue and a listing for sediment contribution to fish tissue was reiterated
    - this is important when considering next steps after a listing
    - there could be a listing for fish tissue with no accompanying sediment listing

    - any listing for sediment contribution should also consider the source(s) of this contamination; new listings should be as specific as possible
- Slide #15 – it is not valid to depend completely on the presence / absence of consumption advisories, or their scope, for identifying problems
    - OEHHA has a backlog of data they have not yet assessed and advisories are often geographically very broad
    - because consumption advisories result from a formal risk assessment process, rather than simply the observation of elevated tissue levels (and require more data), there is no reason to assume a one-to-one correspondence between listings and consumption advisories
- Slide #15 – any listing would be at the scale of the site assessment, which again emphasizes the importance of identifying site boundaries with a valid site conceptual model
- Slide #15 – Water Board staff agreed with the appropriateness of creating a listing after a Tier 2 assessment but were less sure about how to link consumption advisories and the sediment; the real question at that point is defining the scope of the listing, the source of the problem, etc
- Slide #15 - what if data are only available from a Tier 1 assessment and this shows the site failing the SQO but no further data are available? It's not clear how a more detailed listing could be developed at that point
    - Chris Beegan responded that the result of a failed Tier 1 assessment is to move on to Tier 2, where more site-specific data will be available
    - Chris Beegan clarified that the intent is that Tier 1 would not result in a listing but would require moving to Tier 2
- Slide #15 – risk levels in the SQO may end up differing from those OEHHA uses
    - USEPA allows for a range of risk levels from 10^{-7} to 10^{-4} and OEHHA uses different levels to communicate two different types of message
    - selection of final risk level(s) for the SQO will be a State Board decision
- Slide #15 – it might be useful to have the same criteria for listing and delisting, as opposed to much stricter requirements for delisting, as is now the case
- Slide #16 – it may be difficult to use the Phase II assessment to make a link between assessment findings and individual dischargers, partly because of differences in spatial scale
    - it may be possible is to identify portions of a waterbody that do not have a problem
    - the SQO assessment tools establish the link between fish tissue and sediments but identifying the source(s) of that sediment contamination is another step that is outside the SQO assessment tool
- Slide #16 – once a link to the sediment has been established, effort would move to remedy planning which would involve determining if, for example, it is more efficient to first address smaller portions of the waterbody with higher contamination and/or contributions to tissue levels
- It's possible that a given site may fail direct effects SQO while meeting the indirect effects SQO or vice versa. In either case, the Regional Board would decide if management is necessary. One possible outcome would be a combination of high sediment contamination but no fish tissue problem; in that case, the Phase I SQO for direct effects may find that direct effects exist which would lead to a listing for direct effects, but not for a sediment contribution to fish tissue

SQO assessment and implementation issues

(See the presentation "Adv comm mtng 06-20-13 Beegan on Implementation.pdf" distributed with these notes)

Discussion and comments included the following:

- Slide #5 – **participants agreed that there should be a pathway to a Tier 3 assessment even if the Tier 2 assessment indicated the SQO was being met**, e.g., if there's reason to believe the consumption rate is actually higher than the defaults used in Tier 2
- Slides #7 & 8 – the proposed assessment framework includes triggers (yet to be specifically defined) that would have to be met in order to move from a Tier 2 to a Tier 3 assessment
  - triggers were suggested to forestall the use of ongoing assessment and analysis as a delaying tactic
  - some explicit process would be needed for making this decision
  - Tier 2 is intended as the full assessment that would link sediments to fish at a site and Tier 3 could be used if, for example
    - a different bioaccumulation model or different fish feeding guilds were considered more appropriate
    - there was high uncertainty about the Tier 2 result that undermined faith in the result
  - some participants suggested that responsible parties should have the ability to move to Tier 3 on their own, although such studies are likely to be much more expensive
  - conversely, a requirement to always move to Tier 3 would be expensive and counterproductive
  - responsible parties, as defined in permits and the current regulatory framework, would most likely be responsible for paying for a Tier 3 assessment
  - a Tier 3 assessment might be triggered by a Regional Water Board request, although in that case there was doubt about who would pay for the assessment (Regional Board vs. responsible parties)
  - a Tier 3 assessment is similar in some ways to a site-specific objective, which depends on additional, detailed, site-specific studies; the decision pathways leading to an SSO could be relevant to the Tier 3 decision
    - the statewide criteria for implementing an SSO could provide a model for the decision on whether to move to a Tier 3 assessment
  - some participants made a strong case for the need for maximum flexibility at this decision point in order to accommodate differences among situations
- Slide #7 – if Regional Water Board agreement were needed to move from Tier 2 to Tier 3, this might look something like a TMDL workplan (although the actual Tier 3 assessment would be outside the formal TMDL process) or a TIE requirement for additional studies in stormwater and wastewater permits
- Slide #10 – need to establish a clear distinction between the purpose of a Tier 3 assessment and remedy planning of the sort being conducted by the Ports of Los Angeles and Long Beach
  - Tier 3 continues to be focused on determining whether there is a problem, i.e., a link between sediment contamination and observed elevated tissue levels in fish
  - remedy planning is focused on improved characterization of the scope of the problem (e.g., spatial heterogeneity) and evaluation of the relative costs and benefits of alternative management responses (e.g., cleanup only hotspots)
  - the process the Ports are undertaking falls under remedy planning because there has already been a determination that a problem exists and that sediments are involved
  - some confusion in the discussion stemmed from the fact that Tier 3 and remedy planning use many of the same analysis approaches; however, the purpose and the position in the flow of decision making is different; the more detailed information produced by Tier 3 should inform remedy planning
- **Participants agreed that it is important to identify the specific regulatory / management decisions that would be made for each possible Tier 2 and Tier 3 outcome**, especially where listings could occur
  - listings cannot occur as the result of Tier 1, which can only result in a finding either that the SQO is met or that a Tier 2 assessment is needed
  - listings occur in the flowcharts where it says, "Site sediments do not meet SQO"

- the flowchart should include an additional box showing TMDLs and other options (e.g., cleanup and abatement, water quality improvement plan) after the listing decision – this could be called "regulatory action"
- given that the goal of the assessment (Tiers 1 – 3) is to determine whether there is a link between sediments and fish tissue, it is not likely that these results would provide enough information for management planning such as TMDL development or remediation plans, which generally require information about contaminant distribution, sources, and fate and transport studies
- the State Water Board's desire for statewide consistency should be balanced with the need for local flexibility
  - one way to accomplish this is to be more prescriptive about the requirements for a listing decision but more flexible about implementation responses to a listing
  - it will be important to clarify that not every situation / listing will necessarily lead to a TMDL
  - however, the TMDL framework can readily be applied to legacy pollutants
  - if there is no ongoing existing discharges or loads then the NPDES framework would not be effective at restoring the beneficial uses

- **Participants agreed on the following main discussion points**
  - Tier 3 is optional but there should be a clear path to the decision about whether or not to conduct Tier 3
  - The "other factors" that would trigger a Tier 3 assessment should be clarified more specifically
    - there should be some statewide consistency in these triggers
    - avoid the word "criteria" because of its regulatory implications
  - The flowcharts and accompanying language should clarify where listing and other types of decisions occur
  - The flowcharts and accompanying language should clarify the range of potential regulatory and management options possible after a site fails the SQO and is listed
  - The flowcharts and accompanying language should clarify that remedy planning leads to further regulatory and management actions
  - Develop a higher-level flowchart that shows the overall steps from site conceptual model to assessment to meet SQO or not meet SQO to regulatory decisions (e.g., listing) to planning (see figure below)
    - assessment and planning can include the same methods
    - planning for management action or remedy uses very site-specific data

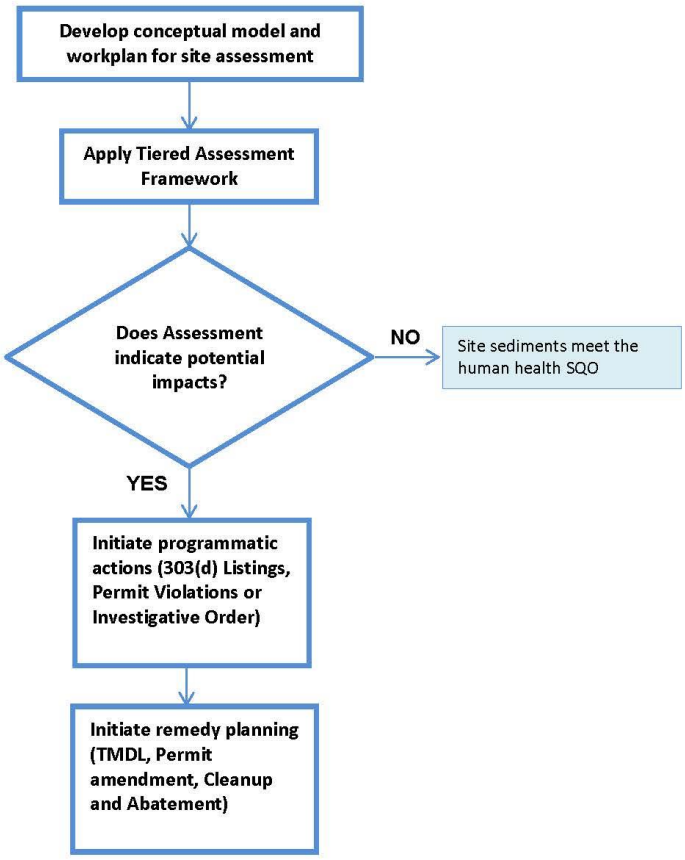
Next meeting and next steps

A date for the next Advisory Committee has not been set.

The project team will revise the flowcharts and send them out for review and comment.

Attendees

Name	Organization	Representing	Position
Staff			
Steve Bay	SCCWRP		
Chris Beegan	State Water Resources Control Board		
Brock Bernstein	Facilitator		
Committee			
Chuck Anthony	Latham & Watkins	Legacy Pollutants	Primary
Kevin Buchan	Western States Petroleum Association	Industrial SW	Alternate
Karen Cowan	Larry Walker Associates	POTWs	Primary
Kathryn Curtis	Port of Los Angeles	Ports	Primary
Lisa Haney	Orange County Sanitation Districts	POTWs	Alternate
Ed Kimura (P)	Sierra Club	Env. Protection	Primary
Jeff Wingfield (P)	Port of Stockton	Ports	Primary
Other Participants			
Shelly Anghera	Anchor QEA		
Matt Arms	Port of Long Beach		
Scott Bodensteiner (P)	Weston Solutions		
Mariela Paz Carpio-Obeso	State Water Resources Control Board		
Jennifer Casler-Goncalves (P)	Latham & Watkins		
Elaine Darby (P)	Anchor QEA		
David Glaser	Anchor QEA		
Richard Hanken	Physis		
Raymond Hiemstra (P)	Coastkeeper		
Sheila Holt (P)	Weston Solutions		
Wendy Hovel	Anchor QEA		
Andrew Jirik (P)	Port of Los Angeles		
Scott Johnson	Aquatic Bioassay & Consulting		
B. Lamoureux (P)	Anchor QEA		
Fred Lee (P)	G. Fred Lee & Associates		
Shokoufe Marashi	City of Los Angeles		
David Moore	Environ		
Thanhloan Nguyen	Los Angeles Regional Water Board		
Mark O'Brien (P)	ERS Corporation		
Marilyn O'Neill (P)	Nautilus Environmental		
LB Nye	Los Angeles Regional Water Board		
Jeff Orell (P)	Brown and Winters		
Renee Purdy	Los Angeles Regional Water Board		
Chris Stransky	AMEC		
Chi-Li Tang	LA County Sanitation Districts		
Doris Vidal-Dorsch	SCCWRP		
Jo Ann Weber (P)	County of San Diego		
Vada Yoon	Flow Science		


Develop conceptual model and workplan for site assessment
Apply Tiered Assessment Framework
Does Assessment indicate potential impacts?
NO
Site sediments meet the human health SQO
YES
Initiate programmatic actions (303(d) Listings, Permit Violations or Investigative Order)
Initiate remedy planning (TMDL, Permit amendment, Cleanup and Abatement)

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Agenda

Agenda
Sediment Quality Objectives Advisory Committee Meeting
June 20, 2013, from 9:30 to 3:30
Southern California Coastal Water Research Project
3535 Harbor Blvd., Suite 110, Costa Mesa, CA 92626.

9:30 – 9:45	Introductions	Brock Bernstein
9:45 – 10:30	Technical update	Steve Bay
10:30 – 11:15	Port workgroup update	Kathryn Curtis / Matt Arms
11:15 – 12:00	Use of SQO in regulatory programs	Chris Beegan
12:00 – 1:00	Lunch	
1:00 – 3:00	Assessment steps and policy implementation	Chris Beegan
3:00 – 3:30	Future meetings and next steps	Brock Bernstein