

Draft
Minutes of the
ASBS Natural Water Quality Committee
January 12, 2010
At SCCWRP

Members in attendance:

Andrew Dickson - Scripps Institution of Oceanography
Rich Gossett - CRG Marine Laboratories
Dominic Gregorio - State Water Resources Control Board
Bruce Posthumus - San Diego Regional Water Quality Control Board
Kenneth Schiff - Southern California Coastal Water Research Project
Steve Murray - California State University Fullerton
Burt Jones - University of Southern California

Members absent:

None

Others in attendance:

None

Dominic Gregorio began the meeting at 10:15 AM. There were six items on the day's agenda: 1) Introductions, updates and approval of minutes; 2) ASBS water quality monitoring update; 3) intertidal biological monitoring update; 4) status report on a case study with the Ocean Observing system; 5) review draft of the Final Report.

The minutes from October 26, 2009 were reviewed and, with minor edits, were approved by the NWQC. Dominic will make the edits and mail out to the NWQC.

Ken Schiff led the second item and discussed the preliminary results from the southern California ASBS regional monitoring. He started with a review of the monitoring questions, sampling design, and methods. The sampling design, which was conducted during wet weather, targeted two types of sites; in the ocean either directly in front of reference watersheds or ASBS regulated discharges. The sampling inventory indicated that the stakeholders had achieved 100% sampling success. The NWQC did have some concerns regarding the quality assurance (QA) aspects of the chemistry laboratory. The success rate of accuracy assessments based on spiked samples averaged 83-87% for nutrients, metals, and PAHs. The NWQC asked for more detailed information on which analytes had not passed QA objectives. Rich Gossett volunteered to examine the QA data to gain an independent assessment of deviation magnitude.

Ken then discussed the distribution of reference site concentrations. First, he identified sites with outlier concentrations for individual chemicals. No single reference site stood out as being tremendously different than the others. In comparison to Ocean Plan objectives, a number of chemicals exceeded the lowest (six month median) thresholds in Table B. The NWQC asked for an additional analysis indicating the frequency of exceedence for other Ocean Plan thresholds. Finally, it appeared that average concentrations during pre-storm samples were frequently not significantly different than post-storm samples at reference sites. The NWQC focused on identifying if there were differences between reference site pre- and post-storm chemistry concentrations at individual sites. Steve Murray volunteered to subject the data for multi-variate analysis, to determine if additional differences could be identified.

Ken presented the concept of potential thresholds to be generated from the reference data. He examined three empirically-based thresholds (median, max, and 85%) and two based on data distributions (95% or 99% prediction intervals). After examining the threshold concentrations, comparing to reference site and discharge site receiving water data, and much discussion of what thresholds are meant to convey, the NWQC provided a list of four conceptual ideas:

- 1) the data should be examined for explanatory variables to determine site-specificity vs. a regional reference condition;
- 2) a single sample threshold should be selected such that additional follow-up investigation is necessary (i.e., 85 percentile);
- 3) A confirmation threshold should be contemplated that verifies consistency of exceedence (i.e., some average condition at a lower concentration or a frequency of exceedence at a higher level)
- 4) Discharge monitoring should also be conducted to confirm the regulated party's contribution to the exceedence.

Dominic and Ken presented the update on intertidal biological monitoring. Sampling is being conducted currently. A workshop in Catalina is being held Mar 3-5 to examine the potential for developing an index of intertidal biological health. Steve Murray, who is participating, described the workshop in more detail. Fifteen experts are getting together to look at data from 31 sites and evaluate different approaches, different endpoints, and different indicators. The goal is to determine a "gold standard" from which to build an assessment tool.

Burt Jones led the item on the Southern California Coastal Ocean Observing System (SCCOOS). He is processing the last 36 months of current velocity and direction data for the targeted locations in San Diego and Ventura. He expects to finish modeling the current data in April 2010. At that time, products for ASBS will be produced for Los Penasquitos and Calleguas Creek discharge plumes.

Ken Schiff presented the item on the Final Report. The first draft had been distributed the week prior. Comments on the draft were due to Ken by Jan 31, 2010.

The next meeting will be scheduled for mid- to late-April. Ken will send out a Doodle poll for scheduling closer to the date. On the agenda for the next meeting:

- 1) Kim – summary of final NPDES sampling results
- 2) Burt – ocean observing results
- 3) Rich – final TCDD paper
- 4) Ken – final report
- 5) Ken – regional monitoring results
- 6) Bruce – NWQ definition question/issues
- 7) Pete – preliminary intertidal results

The meeting was adjourned at 2:15