

**Minutes of the
ASBS Natural Water Quality Committee**

draft

July 27, 2007

at the Southern California Coastal Water Research Project

Members in attendance:

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

Members absent:

Jim Allen - Southern California Coastal Water Research Project
Steve Murray – California State University Fullerton

Others in attendance:

Rolf Schottle – AMEC Environmental, Inc.
Kimberly O’Connell - UC San Diego /Scripps Institution of Oceanography
Meleah Ashford – Ashford Consulting
Julie Hampel – UC San Diego/ Scripps Institution of Oceanography
Steve Benedict – UC San Diego/ Scripps Institution of Oceanography
Tom Reeves – City of Monterey
Vada Yoon – Flow Science, Inc.
Nora Jans – RBF Consulting/Caltrans

Dominic Gregorio began the meeting at 9:30 AM. There were six items on the day’s agenda: 1) approve minutes from May 2007; 2) Update on State Board ASBS activities; 3) Regional Monitoring scope of work; 4) Discussion in preparation for an upcoming Board presentation; 5) Draft SIO letter to Regional Board; 6) Discuss data gaps for implementation of SIO/City San Diego Integrated Coastal Watershed Management (ICWM) Plan; and 7) other issues/public comment.

The minutes from May 7, 2007 were reviewed and, with minor edits, were approved by the Committee.

Dominic provided an update on the SWRCB ASBS activities. He mentioned a public hearing in Sacramento for the Bodega (UC Davis) exception, which can be found on the SRWCB’s web site. Dominic also updated the group on the additional data analysis of the Bodega Marine Lab monitoring data by Steve Murray. In general, his analysis had similar conclusions as the SWRCB’s data analysis. Finally, Dominic provided an update

of the meeting held the previous day at SCCWRP with the ASBS stakeholders from southern California. The goal was to solicit collaboration for a regional/statewide ASBS monitoring program. There will be a similar meeting for northern California August 20th in Monterey.

Ken Schiff provided an update of the regional monitoring program being pursued by the SWRCB in collaboration with the stakeholders. SCCWRP is under contract to the SWRCB to help facilitate and organize the large scale monitoring effort. Ken then described the decisions reached at the stakeholder meeting the previous day. The stakeholders had identified three monitoring questions; 1) a question about what constituents are in the ASBS discharges; 2) an assessment of the extent and magnitude of impact in the ASBS; and 3) source identification of pollutants in the ASBS discharge waste stream. The natural water quality committee prioritized the second question as the most important of the three questions. The answer to question 2 could be addressed for southern California through the Bight '08 regional monitoring program; a similar approach could be pursued statewide. The committee also felt a fourth question was important, which included an assessment of trends. The action item from this topic was:

- Dominic will prepare a brief written memo describing the questions of greatest value to the northern California stakeholders.

The next agenda item was a discussion of what should be in the annual presentation to the SWRCB and the San Diego RWQCB. The issue of the exact mandate of the committee was revisited. Dominic reinforced that the goal of the committee was to answer the three questions: 1) are water quality objectives and permit limits being met at SIO? 2) Are there impacts to species and communities in the SIO ASBS? And 3) what would ambient water quality be like without the waste discharge from SIO? The natural water quality committee was formed as an action of the SWRCB and has three years to complete a final report that answers these questions. The Committee felt that the first question was mostly answered and that we should move on to questions 2 and 3. The second two questions were very difficult to answer, will require not just site-specific SIO data, and should focus on biology as well as chemistry. These questions can be, at least partially, addressed through the SIO biological survey and the Bight '08 monitoring program. A timeline was created ([attached](#)) to achieve these goals by the sunset of the committee, but also in time to inform the SIO permit renewal in March 2010. The action item from this topic was:

- SIO to create an inventory of biological studies in the ASBS and present the information on what is already known to the natural water quality committee at their next meeting
- SIO to present their biosurvey design to the committee at their next meeting
- Ken to lead a discussion of the Bight '08 design ideas that should be brought forward at the Bight kickoff meeting on Sep 19
- Ken is to give a practice presentation for the SWRCB to the Committee for their approval

This will require a longer than usual meeting, likely 8 AM to 5 PM.

Kim presented a description of the draft monitoring modification letter SIO will be presenting to the RWQCB. There were six items they wanted to have modified by the Regional Board including: 1) discontinue monitoring of certain constituents based on reasonable potential analysis (RPA) and discontinue radioactivity monitoring; 2) increase the dilution factor; 3) revise the surf zone bacteria monitoring; 4) change the numeric effluent limits for dioxins (TCDD equivalents) and total residual chlorine (TRC); 5) revise the acute toxicity reporting requirements; and 6) provide an 18 month extension for numeric limits.

The following were the committee's responses:

1) The NWQ committee agreed that, assuming all calculations were done correctly and accurately, reducing the number of constituents relying on an RPA result of "2" made sense. However two constituents (DDTs and dichlorobenzidine) were confusing because the RPA results given suggested no monitoring was necessary, but the detection limits were greater than the permit limits. Committee members stated that radioactivity monitoring should continue because of the possibility for spills or discharges that are outside of the UCSD guidelines.

2) The committee agreed that the model selected, the input data sets, and modelers themselves were as good as one would find for this application for calculating dilution factors. In addition, the dilution estimates provided appeared reasonable based on past experience. However, two issues arose that should be considered. First, there was no it was unknown whether there had been any site-specific calibration or validation, so certainty in the model estimates was unknown.¹ Second, the selection of 20:1 dilution factor was based on an assumption that this dilution will occur 89% of the time. The selection of frequency was not a technical issue but rather a policy decision for the RWQCB. Based upon model estimates, dilutions of 7:1 were a worst case and therefore might be considered a more protective approach; however 7:1 was only observed 0.13% of the time in model space.

3) Bacteria monitoring is not strongly correlated with the ASBS marine life beneficial use for the La Jolla area. The committee was not averse to supporting a Regional Board decision to remove the wet weather intensive study. This was with the understanding that SIO would continue their regular bacteria monitoring required under the permit.

4) Regarding TCDD, the committee recognized the ubiquitous nature of dioxins and questioned the direct relevance to marine life at the levels observed. For residual chlorine Rich Gossett abstained from any decisions made because his firm is involved in the analyses. The rest of the committee recognized that the currently employed approved method provides questionable results (in terms of accuracy); it would be preferred to allow evaluation and use of an alternative method.

¹ After the meeting Kimberley O'Connell spoke to Dr. Jenkins and confirmed the model calibrations did in fact include a dye study at Scripps Beach in 1971 by Dr. Inman (Inman, D.L., Tait, R., J., and C.E. Nordstrom, 1971, "Mixing in the Surf Zone" Jour. Geophys. Res., v.76, no. 15, pp 3493-3514.) This information was sent to the Committee on Aug. 17, 2007 via email.

5) The draft UCSD/SIO letter inaccurately quoted the committee from the Dec 21, 2006 meeting regarding toxicity. There were no such decisions ~~made~~ recorded in the December meeting minutes regarding toxicity. Toxicity reporting is required under the Ocean Plan, which the permit is based on. However, ~~t~~ there is a known glitch in the toxicity equation related to results having higher survival than controls. The definitions of acute and chronic toxicity also need editing. The Ocean Plan is in the process of being amended to make these corrections. The committee agreed that revising the toxicity reporting would be a policy matter to be worked out by the State and Regional Boards.

6) The question of extending the compliance for numeric limits was deemed by the committee to be a policy decision that is outside of the committee's scientific advisory role.

The committee further stated that SIO's participation in a regional monitoring program would be very valuable. The committee agreed that any cost savings realized by reductions in monitoring would be best directed toward collaboration in a regional monitoring program.

Another question arose regarding the permit and exception. Dominic explained that the exception has a sunset provision at the end of the permit cycle. The exception must be re-issued by the State Board before the Regional Board may re-issue the permit. The committee's final report to the State Board will be pivotal in determining whether water quality and beneficial uses are being protected, an essential determination in order to renew the exception.

There was insufficient time to fully discuss the final agenda item, consideration of monitoring components of the ICWM Plan. The committee discussed some possibilities, such as independent review and comments, a teleconference, or addressing on the next agenda. Meleah stated that the current deadline for comments is August 31. The meeting adjourned at approximately 3:45 PM.

The next agenda items will be:

- Approval of Minutes
- Planning toward assessing biological impacts in the ASBS.
 - Revisit mussel watch results
 - Presentation of inventory of historical biological studies
 - Consideration of a design for an intertidal survey design at SIO
- Planning toward defining natural water quality.
 - Summary of Stakeholder Meetings
 - Reference and Regional Monitoring study designs
- Approval of presentation/outline to the SWRCB
- Review of SIO/San Diego ICWM monitoring plans

Timeline of NWQC activities.

