

**Minutes of the
ASBS Natural Water Quality Committee**
June 5, 2008
at the Southern California Coastal Water Research Project

Members in attendance:

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

Members absent:

none

Others in attendance:

Nick Buhbe - Nautilus Environmental, Inc.
Kimberly O'Connell - UC San Diego /Scripps Institution of Oceanography
David Pryor - California State Parks
Vada Yoon - Flow Science, Inc. Kari Holmes (on telephone) - SWRCB DFA

Dominic Gregorio began the meeting at 10:45 AM. There were eight items on the day's agenda after introductions and approving the previous meeting minutes: 1) regulatory update; 2) update on Marine Life Protection Act; 3) Report on toxicity from the Granite Canyon Lab; 4) Update on regional monitoring; 5) How can southern California Coastal Ocean Observing System (SCCOOS) help with ASBS regional monitoring; 6) Preparation for Regional Board presentation; 7) update on SIO monitoring; and 8) White paper on monitoring for implementation projects to present to the ASBS Task Force and Division of Financial Assistance (DFA). Item 8 was moved to item 4. The minutes from March 6th were approved.

Dominic opened the agenda item on ASBS regulatory updates. SWRCB DFA staff (Kari Holmes) on the telephone reported that the proposal deadline for Proposition 84 ASBS Implementation Projects had closed. Twenty-five proposals were submitted of which 24 were eligible. Fifty-five million dollars were requested, but only \$33 million is available. The DFA will rank and cull the proposals to about 125% of available funds for the second round of full proposals. The ASBS Task Force will help review the proposals and make recommendations to the SWRCB for funding.

Dominic then provided an update on the staff presentation on ASBS to the SWRCB on April 1, 2008 in Monterey. Connie Anderson provided a regulatory update. Dominic provided an extremely brief update on monitoring. Ken Schiff presented the NWQC natural water quality definition. The definition was well received by the SWRCB members. The outcome of the

meeting was to allow the SWRCB staff to move forward with the public process on the draft special protections for the upcoming exceptions.

Dominic provided a summary of the draft Data Report on findings from the ASBS waste discharge exception monitoring supplied by all of the ASBS exception applicants statewide. The goal of the Report was to provide information available to determine if beneficial uses will be protected under the new ASBS special protections. He began with many caveats including lack of standardization, problems associated with data management, concerns associated with quality assurance/quality control. Given all of the caveats, some general findings included: 1) trace metal concentrations in ASBS discharges were typically greater than concentrations in nearby streams. Also, trace metal concentrations in ocean waters near ASBS discharges were typically greater than concentrations in ocean waters away from ASBS discharges. In many cases (i.e., copper), the concentrations in ASBS discharges exceeded California Ocean Plan limits; 2) PAH concentrations followed a similar concentration gradient as trace metals, except that PAHs were very low in receiving water. Many of the concentrations appeared to be related to particle concentrations; 3) toxicity was measured at a subset of ASBS in the state with the most toxic samples located in southern California; 4) an examination of mussel watch data provided largely unexplained trends in bioaccumulation of contaminants in invertebrate tissue; and 5) biological monitoring studies submitted were quite variable in terms of design and purpose. One study indicated that more green algae was located near ASBS discharge sites than control sites. One set of studies assessed results as not being significant if differences between sites were less than 50%. Steve expressed concern about that statement and agreed to take a look at those specific reports. While some subtle effects to rocky intertidal organisms were found near one of the marine laboratory discharges, those were constant seawater discharges and not intermittent runoff. Examination of MARINE intertidal data were not well-designed for assessing specific ASBS discharge impacts and enhancements would be necessary to adapt MARINE monitoring for ASBS. The info in the Draft Data Report, once finalized, will be used by the SWRCB staff as documentation to support its upcoming CEQA Document.

Dominic provided some information on the second agenda item for the MLPA interactions with ASBS. The MLPA initiative is finishing the creating of marine protected areas in north-central California and will be moving to southern California next. Dominic was able to add water quality as a consideration in the MPA evaluation document. This addition enables water quality to be considered as an informational item in southern California in evaluating potential MPAs.

Dominic presented the third agenda item on a recent report entitled “A Comparison of Common Stormwater Chemical Constituents to Tolerance Thresholds of Standard Toxicity Organisms” drafted by Brian Anderson and Bryn Phillips at the State’s Marine Pollution Studies Laboratory. The report compiled existing data on concentrations of toxic constituents in urban stormwater runoff and compared them to toxicity thresholds for a number of California marine species. The comparison showed that concentrations of some trace metals (i.e., copper, zinc) and some pesticides (i.e., diazinon, pyrethroid) frequently exceeded toxicity benchmarks for these species. Some studies had found toxicity in urban discharges, but that studies that focused on ecosystem impacts were rare.

Ken Schiff presented the next agenda item on results from the ASBS regional monitoring special studies. The goal of the pilot was to evaluate site selection criteria for reference sites, evaluate sampling methods, and use the information to improve the monitoring for the upcoming regional program. In general, site selection for reference sites appeared appropriate since concentrations were typically low, no human derived pesticides (i.e., chlorinated hydrocarbons) were detected, and no samples exhibited toxicity using the sea urchin fertilization test. The NWQC did provide some recommendations to help remove some site-to-site variability by enhancing the monitoring design. The design enhancement would not only compare receiving water concentrations at reference sites to ASBS discharge sites, but it would do so based on concentration magnitude and differences in concentration pre- to post-storm. The NWQC also suggested that dischargers might want to measure their discharge as an option to protect themselves against false positives identified in the receiving water measurements.

Ken Schiff then debriefed the NWQC on the meeting between Bight'08 ASBS and the Multi-Agency Rocky Intertidal Network (MARINe) on potential biological designs for an ASBS regional monitoring program. Steve Murray provided a good description of the MARINe program design and methods. Steve also re-iterated the potential value of MPAs in teasing out potential runoff effects (i.e., removing poaching and other "take" as a cause). The main topic of discussion was the ability to detect differences between sites (or time periods). At the end of the discussion, the NWQC agreed on at least three items: 1) biological intertidal monitoring will require large spatial scale and time series monitoring to detect perturbations; 2) determining causality if changes are detected will be challenging; and 3) the expectations for resources in time and effort relative to the ability to detect differences needs to be clearly articulated to the ASBS stakeholders. Ken will communicate these concepts to the Bight'08 ASBS participants at their next meetings.

Ken Schiff presented the draft NWQC white paper on Proposition 84 Monitoring Recommendations for the ASBS Task Force. The draft white paper tried to capture the discussion on this topic from the last NWQC meeting. The recommendation included generating a monitoring question; 2) a unified monitoring design including comparable methods and data management; 3) a coordinating agency responsible for implementation. The NWQC members generally liked the draft with one major exception. They would like to see more specificity in the recommendations. The NWQC agreed that the SWRCB should coordinate this monitoring collaborative with the assistance of internal programs such as SWAMP. Also, the NWQC felt that the monitoring should consist of approximately 10% of the total grant; the SWRCB should either be a coordinator if the grantee wants to retain control of their monitoring or the grantee can give 10% of their grant back to the SWRCB to conduct the monitoring for them. Finally, the NWQC felt that providing a 1-year extension specifically for grant monitoring would be appropriate. Otherwise, the monitoring design recommendations should remain vague to allow for flexibility by the ASBS Task Force.

Agenda items 6 and 7 were postponed until the next meeting.

Kimberly O'Connell summarized two recent monitoring reports sent to the Regional Board for agenda item 8. The first report was for the dry season (Jan.-June 2007), dated August 31, 2007. Exceedences of the permit limits were associated with an unexpected dry weather flows from an

air compressor system and leaking potable water. For this sampling period, from outfall 003, six month median copper was 18.9 µg/L (limit 5 µg/L) and residual chlorine was 10 µg/L (limit 6 µg/L). Another permit exceedence was at seawater at outfall 004b, for suspended solids (30 day average 116 mg/L, limit 60 mg/L) in the filter backwash.

The second report was for wet weather (July-Dec. 2007), dated February 29, 2008. Several chemical/physical constituents were detected above effluent limits for storm water and co-mingled storm water and seawater. Elevated constituents included suspended solids, turbidity, copper, lead, zinc, total PAHs, TCDD, and total DDT. Residual chlorine was also high, but likely due to false positives. The most unexpected result was the elevated DDT, which was actually all DDD; Rich Gossett stated that he was especially surprised that only the DDD isomer was present. The wet season results also exhibited some chronic toxicity (kelp growth – 16.0 TUc, kelp germination – 4.0 TUc, and purple urchin fertilization – 4.0 and 8.0 TUc). TIEs indicated that copper and zinc were the likely toxicants in the kelp growth and purple urchin fertilization toxicity tests. However, the cause of the kelp germination toxicity was not discovered.

For copper results waste seawater in outfall 1, one error was noted in the Table 1 of the report: the headings for instantaneous maximums and daily maximums should be switched.

Finally, Dominic suggested to Kimberly and Bruce that, if possible, it would be best if the dates coincided for the NWQC report and the SIO Permit agenda items for the Regional Water Quality Control Board.

The next NWQC meetings in 2008 will be held on September 4 at SCCWRP and November 21 at SIO.

The meeting adjourned at approximately 4:00 PM.