

**MINUTES OF THE REGULAR MEETING
OF THE COMMISSION OF
SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT AUTHORITY**

**HELD AT THE OFFICES OF THE AUTHORITY
3535 Harbor Blvd., Costa Mesa, California 92626**

**September 1, 2010
9:30 AM**

COMMISSIONERS PRESENT

Mas Dojiri - *City of Los Angeles*
Enrique Zaldivar - *City of Los Angeles*
Sam Unger - *Los Angeles Regional Water Quality Control Board*
Janet Hashimoto - *US Environmental Protection Agency, Region IX*
Darrin Polhemus - *State Water Resources Control Board*
Kurt Berchtold - *Santa Ana Regional Water Quality Control Board*
Steve Maguin - *Sanitation Districts of Los Angeles County*
Robert Ghirelli - *Orange County Sanitation District*
Steve Meyer - *City of San Diego*
Gerhardt Hubner - *Ventura County Watershed Protection District*
Mark Pestrella - *Los Angeles County Flood Control District*
Mary Anne Skorpanich - *County of Orange*
Cid Tesoro - *County of San Diego*

STAFF PRESENT

Stephen Weisberg - *Executive Director*
Bryan Nece - *Administrative Officer*
Wesley Beverlin - *Legal Counsel*
Ken Schiff - *Deputy Director*
Steve Bay - *Principal Investigator*
John Griffith - *Principal Investigator*
Keith Maruya - *Principal Investigator*
Eric Stein - *Principal Investigator*
Shelly Moore - *Information Systems Manager*
Peter Miller - *Supervising Scientist*
Raphael Mazor - *Senior Scientist*
Karen McLaughlin - *Scientist*
Karen Setty - *Science Writer*
Marlene Merchain - *Programmer*

OTHERS PRESENT

Ed Torres - *Orange County Sanitation District*
Dominic Gregorio - *State Water Resources Control Board*
Joe Gully - *Sanitation Districts of Los Angeles County*
Dean Pasko - *Orange County Sanitation District*
Ron Coss - *Orange County Sanitation District*
Pamela Creedon - *Central Valley Regional Water Quality Control Board*
Bill Sharpsteen

Commission Chair Dojiri called the meeting to order at 9:30 AM.

CONSENT AGENDA

1. **MINUTES OF MEETING HELD JUNE 2, 2010**
2. **QUARTERLY FINANCIAL STATEMENT FOR THE PERIOD ENDED JUNE 30, 2010**
3. **QUARTERLY STATEMENT OF INVESTMENTS AT JUNE 30, 2010**
4. **MINUTES OF CTAG MEETING HELD MAY 11, 2010**

There were no comments on the consent agenda. Commissioner Maguin motioned for approval of consent items, seconded by Commissioner Unger, and the items were unanimously approved with Commissioner Hashimoto abstaining.

REGULAR AGENDA

5. EXECUTIVE DIRECTOR'S REPORT

Weisberg began the Director's Report by stating that SCCWRP was meeting its financial goals. He highlighted several aspects of the quarterly financial statement, indicating that the agency had rebuilt its fund balance to its historical target of three months of operating expenses, after having used much of this financial cushion for expenses related to relocating the organization to its present facility. He indicated that he was now aiming to increase the fund balance to four months of operating expenses given the uncertainties associated with the State's poor financial condition.

Weisberg next described some of the agency's external interactions, which had recently been outstanding. At the upcoming California and the World Ocean conference, SCCWRP staff would chair five sessions (microbiology, wetlands, harmful algal blooms [HABs], contaminants of emerging concern [CECs], and new regulatory approaches), and assist with two additional sessions on ocean acidification and marine debris. He next described several recent workshops held at SCCWRP which led to new interactions for the organization. One of these was an ocean acidification workshop that led to interactions with the shellfish industry. Weisberg passed out a brochure summarizing the background, goals, and outcomes of the workshop. He next described a workshop held at SCCWRP bringing together users of HAB monitoring information (e.g., desalination industry, marine mammal rescue centers). SCCWRP also hosted another workshop to help the State develop a sustainable seafood program that led to interaction with seafood suppliers (fisherman, wholesalers, restaurants).

Weisberg next described two interactions intended to enhance partnership with the Water Environment Research Foundation (WERF). First, SCCWRP staff attended and gave key presentations at a WERF conference on the use of rapid microbiological monitoring methods in inland water bodies. Second, SCCWRP was planning a September joint meeting between the SCCWRP advisory panel on CECs in coastal and marine ecosystems and a similar WERF panel which is examining a similar topic but focused on freshwater ecosystems.

Concluding his report, Weisberg demonstrated two new additions to SCCWRP's website related to external interaction. One was a feature on the home page was called "SCCWRP in the

media” and provides links to external news coverage of SCCWRP activities. The second, “Get Connected” under the “Contact Us” section, provides an opportunity for people to sign up for SCCWRP mailing lists and subscribe to the a SCCWRP News RSS feed.

6. CTAG REPORT

Dominic Gregorio, Chair of the Commissioner’s Technical Advisory Group (CTAG), reported on the regular May 11 meeting and a special meeting held July 21 to discuss preparation of a thematic document on the effect of the Clean Water Act (CWA) in southern California. At the regular meeting, CTAG approved the minutes from their joint May meeting with the San Francisco Estuary Institute’s Regional Monitoring Program Technical Review Committee. They received the Director’s Report and contract memo, and raised several topics for discussion. CTAG discussed the CEC list issued by the advisory panel for recycled water, commenting that it was a limited list and reinforced the need for development of a biological screening approach. The California Coastal Commission representative raised questions about whether removal of beach wrack, specifically kelp, would reduce health risks to beachgoers. CTAG agreed that it would be beneficial to extend the Bight ’08 Shoreline Microbiology effort to begin examining the contribution of bacteria from kelp. Third, CTAG discussed the source identification pilot program. CTAG also set the date for the next SCCWRP Symposium (January 25, 2011) and listed topics of interest for potential inclusion.

Gregorio next described the July special CWA document meeting at which CTAG concluded they should proceed with preparation of this document and created a series of chapter subcommittees that would begin meeting in September. CTAG approved the draft document outline and timeline, targeting completion in fall 2011. Next, CTAG heard a Bight ’08 progress update and the three technical presentations on the agenda for the Commission meeting. They lastly selected some agenda items for the November 4 meeting, including presentation of current research interests, discussion of progress on the CWA document, a technical presentation on nutrients, a rapid methods Demonstration Project update, and review of the draft Symposium schedule.

Commissioner Pestrella arrived at 9:48 AM.

7. CONTRACT REVIEW

The Executive Director described, and requested that the Commission approve a resolution regarding, the following contract that had been offered to the Authority:

- 1) State Water Resources Control Board (\$4,000,000)
Source Identification Pilot Program

Commissioner Ghirelli asked for further information on how the source ID program would work. Weisberg indicated that the process would be fleshed out at the team’s September 16 initial planning meeting, but in general, there were four tasks: 1) source identification method evaluation, 2) a reconnaissance survey to prioritize which beaches are most problematic and in need of upstream source identification, 3) application of source identification methods at priority beaches and 4) training of local laboratories in the latest source identification techniques. Upon the motion of Commissioner Ghirelli, seconded by Commissioner Maguin, the contract was unanimously approved by resolution, with Commissioners Hashimoto and Polhemus abstaining.

As an informational item, Weisberg presented contracts with a value of \$250,000 or less that the Authority has accepted or indicated a willingness to accept. While the governing agreement of SCCWRP requires no Commission action on these, the contracts were described to inform and ensure that the direction of the Authority's work is consistent with the desires of the Commission.

- 2) USEPA (through Innovative Technical Solutions, Inc.) (\$220,818)
Palos Verdes Shelf Passive Sampling
- 3) County of Orange (\$48,500)
Implementation Guidance for Dry Weather Action Levels
- 4) MacTech (\$37,000)
Laboratory Analysis
- 5) San Diego Gas & Electric (through WRA, Inc.) (\$43,000)
Development of an Arid Stream CRAM Module
- 6) UC Santa Barbara (\$5,000)
Ecotoxicology of the Gulf Oil Spill
- 7) NOAA (\$98,000)
Eelgrass Wetlands Portal

There were no objections to any of these contracts. Commissioner Skorpanich mentioned that a source ID study planned for Poche Beach in San Clemente represented a potential partnership for the source ID team. Weisberg encouraged the Commissioners to communicate beach sites of interest, especially highly frequented beaches where the municipality showed an interest in source control.

Commissioner Hashimoto asked Commissioner Polhemus to comment on the status of beach monitoring funding in light of a recent LA Times article indicating that beach monitoring in the State had been reduced by more than half as a result of the State's financial difficulties. Polhemus responded that beach monitoring funds were no longer being provided out of the State's general fund, but that the Water Board had been able to provide funds to the local counties out of residual Proposition 13 funds during the last two years. He further indicated that funding prospects were poor and if they were able to provide temporary sources to cover the next year it would be the final year for temporary funding and a more permanent source was needed. Several Commissioners commented that the LA Times article was misleading and Commissioner Maguin added that the frequency of beach monitoring in LA County had not been affected by the state's budget crisis. Commissioner Unger asked whether rapid beach monitoring methods might save money, to which Weisberg replied that they would have comparable or slightly higher cost. Commissioner Dojiri pointed out that side-by-side implementation of rapid methods with traditional methods, which would probably be required initially, would add cost. Commissioner Polhemus suggested that the Commission charge the Rapid Methods Task Force, which includes a cross section of the community, to report to the Commission at their December meeting about what mechanisms they envision might be used to cover future funding. Dojiri agreed to add this topic to the agenda for the next Task Force meeting.

Commissioner Hubner arrived at 9:57 AM.

8. ELECTION OF COMMISSION CHAIR AND VICE-CHAIR

Weisberg explained that the agency's Joint Powers Agreement calls for an annual election of a Chair and Vice Chair. He noted that traditionally these positions have been renewed for a second term, but that the present leadership had already been in those roles for two years. He also noted that the Chair and Vice-Chair have historically included one regulated agency and one regulatory agency. Weisberg noted two small errors in the written materials provided to the Commission in support of this agenda item. In the "Election of Commission Chair and Vice-Chair" memo, he indicated that the memo should have read that Samuel Unger assumed the role of Vice-Chair rather than assuming the role of Chair, when Vice-Chair Tracy Egoscue resigned. In the Director's Report, Unger role as the Executive Officer for the Los Angeles Regional Board should have been reported as *Interim* Executive Officer.

Commission Chair Dojiri then requested nominations for the position of Chair. Commissioner Ghirelli nominated Samuel Unger as Commission Chair, which Commissioner Maguin seconded. The nomination was unanimously approved with Commissioner Hashimoto abstaining. Dojiri then requested nominations for the position of Vice-Chair. Commissioner Ghirelli nominated Commissioner Meyer from the City of San Diego, which was seconded by Commissioner Maguin and unanimously approved with Commissioner Hashimoto abstaining.

Commissioner Dojiri stepped down to permit Commissioner Zaldivar to represent the City of Los Angeles for the remainder of the meeting.

9. FUTURE MEETING DATES

Weisberg introduced this topic, noting that the Commission had previously moved their meetings from the first Friday of the month to Wednesdays due to furloughs. Commissioners Maguin and Meyer requested reverting to the first Friday of the month except in the case of holidays, as Friday meetings would enhance their attendance. The Commission proceeded to select their 2011 meeting dates, and also revisited the December 2010 meeting date. The following dates were selected:

- December 3, 2010
- March 4, 2011
- June 3, 2011
- September 9, 2011
- December 2, 2011

Commissioner Maguin motioned to approve these dates, seconded by Commissioner Berchtold. They were adopted unanimously with Commissioner Hashimoto abstaining.

10. RAPID MICROBIOLOGICAL METHODS UPDATE

John Griffith started his presentation by indicating that the rapid microbiological methods Demonstration Project had ended the previous day and had gone well. He described the program used to train the three labs that participated in the program and mentioned a training video had been prepared and would be shown after the meeting. Next, Griffith displayed data showing three manners in which competency of the participating laboratories was assessed: amplification efficiency, repeatability among replicates, and comparability with SCCWRP on split samples. Griffith concluded that training was successful with all of the labs performing as well as SCCWRP and that they all felt comfortable implementing the new method.

Griffith next described logistical challenges involved in achieving same day health warnings. He indicated that we were almost always successful in issuing warnings before 12:30 and mostly successful at doing so by noon, though a number of strategies were necessary to do so. One of those was to limit the number of beaches and employ a separate set of samplers for those beaches. Another was to automate data processing and quality assurance checks, and using electronic signs and social media such as Twitter to quickly communicate results. Griffith showed an example electronic sign display that was created in partnership with MiOcean, and a flyer that was created to explain it to beachgoers. Copies of the flyer were distributed.

Griffith indicated that everyone involved seemed pleased with the outcome of the Demonstration Project, but reminded the Commission that they had established a Task Force to oversee the project and that they were meeting on September 27 to interview participants, assess success and help determine future directions. He further indicated that Gary Yamamoto from the California Department of Health Services (DHS) was added to the Task Force, as DHS will be responsible for certifying laboratories for this new method once it moves past the demonstration phase into application. Griffith also indicated that SCCWRP was in close communication with the EPA, which is considering adoption of qPCR in about two years, and would be providing presentations to other organizations, like the Gulf of Mexico Alliance.

Commissioner Zaldivar asked about the lag time between peak contamination and sample processing. Griffith replied that ocean conditions can change even more rapidly than the new methods can measure, but that SCCWRP's beach epidemiology studies showed that same day morning samples were much better correlated with health risk than presently used methods. He suggested that the only way to avoid missing peak contamination events was to use a continuous automated sampler, which SCCWRP is also working on. Commissioner Polhemus added that qPCR was clearly an improvement over the present sampling approach, which frequently missed contamination events. Commissioner Skorpanich asked about the difference between the SCCWRP and EPA qPCR methods. Griffith responded that the methods are largely the same, but the EPA method used an older class of reagents and slower machine settings that took about 75 minutes longer to run than the method used in this study. Skorpanich also asked if qPCR provided more information about the bacteria source. Weisberg responded that the indicator used this summer does not, but that the best source identification methodologies are based on the same qPCR technology and it would not take much incremental effort to train laboratories in source identification methods once they had mastered the rapid methods used this summer.

11. OCEAN ACIDIFICATION

Karen McLaughlin gave a presentation on the status of ocean acidification (OA) science, the outcomes of the recent workshop held at SCCWRP, and national directions in regulating CO₂ as a pollutant. As background, McLaughlin explained that excess CO₂ in the atmosphere affected the ocean by increasing concentration of the hydrogen ion and reducing presence of the carbonate ion. The result is a decreased saturation state, making it harder for organisms to precipitate shells. Globally, about a 0.1 pH unit drop had been observed since preindustrial times, corresponding to a 30% increase in the hydrogen ion given the logarithmic pH scale. The concern is that this could be faster than organisms are able to adapt. Main effects on organisms include shell dissolution, physiological stress, and decreased availability of nutrients and metals. Laboratory exposure studies using CO₂ projections from the Intergovernmental Panel on Climate Change showed decreased skeletal growth and increased mortality at levels that are beginning to be observed. The West Coast of the US was particularly susceptible, owing to upwelling of deeper "corrosive" water. Limited data from the shellfish industry in this region

indicated that shellfish recruitment was good during periods of downwelling and poor during upwelling, when deeper corrosive waters are closest to shore.

McLaughlin next described the shellfish workshop that SCCWRP hosted, which encouraged cooperation among three groups: academic scientists, industry biologists, and physical oceanographers, each of which has different types of data that are necessary pieces of the assessment puzzle. McLaughlin reviewed the five conclusions from the workshop, and then went on to discuss regulatory issues that may arise from acidification. The regulatory aspect results from lawsuits claiming that water bodies impaired from warming and acidification should be 303d listed and that greenhouse gases are pollutants that should be regulated through Total Maximum Daily Loads. These claims have gained traction and EPA has identified six greenhouse gases that they intend to regulate as primary contributors to climate change, three of which were also produced by publicly operated treatment works (POTWs). Though national efforts will likely focus on atmospheric inputs from light duty vehicles in the near term, POTWs might need to reduce atmospheric emissions in the future, particularly for methane and nitrous oxide emissions.

Upon conclusion of the presentation, Commissioner Unger asked if acidification was reversible. McLaughlin responded yes and suggested sequestration of CO₂ as one possible approach. Commissioner Hubner asked whether the Bight '08 study would capture pH changes and Weisberg replied that it would not, owing to the need for specialized measurement methods that are more sensitive than the ones used by the local monitoring agencies. At the workshop, they discussed how oceanographic scientists might adapt the more sensitive technology for use in routine monitoring programs and SCCWRP planned to work with them towards this goal.

Commissioner Pestrella left at 11:16 AM.

12. REGIONAL STREAM MONITORING

Raphael Mazor presented an update on SCCWRP's regional stream monitoring program, which is a cooperative effort modeled as a freshwater analog to the Bight Regional Monitoring Program. Mazor showed some results from the first year of the program, which indicated that half of the sites were in poor condition, while one-quarter were in fair condition and another quarter were in good condition, as measured by the Index of Biotic Integrity. Few of the open land use sites were in the poor category, but nearly all urban sites were. Mazor pointed out that very few sites had measurable contaminant toxicity and he presented a relative risk assessment indicating that high nutrients and habitat alteration were the most likely stressors affecting the biota.

Mazor continued his presentation by noting some of the intangible benefits of the program, such as training of field crews, a quality assurance plan that served as a model for bioassessment throughout the state, improved knowledge of local resources, and data sharing via the California Environmental Data Exchange Network. He stressed the importance of southern California data contributing to statewide programs, assuring that statewide thresholds would have local relevance. The program had just completed the second year of sampling, and a report from the first year was in preparation. They were also prepping data for use by the bio-objectives team. In the future, they hoped to expand the monitoring program to non-perennial streams.

Commissioner Meyer asked about the sampling design. Mazor responded that they used a probabilistic design similar to the Bight Regional Monitoring program, equally representing 15 watersheds and three land uses. He indicated that it differs from the Bight program in that it

collects one-fifth of the selected sample sites each year over a five-year period rather than collecting all of the regional samples in a single year. Commissioner Hashimoto asked about alternative options for assessing site impairment when reference sites were not available. Mazor replied that this was a primary question for the bio-objectives development team. He indicated that they would likely examine the range of variability in each category and to understand what contributed to that variability. Weisberg reminded Commissioner Hashimoto that this was a difficult philosophical question that the State would need to determine. Commissioner Polhemus and Meyer asked about SCCWRP's ability to do comparisons of relative risk among different parameters, to which Mazor responded that abundant data was available for such analyses. Commissioner Skorpanich commented that it was interesting that nutrients appeared to be more important than chemical stressors in the relative risk assessment. Commissioner Zaldivar commented that he liked this approach because TMDLs were presently focused on individual chemicals than the whole and it was impressive to see that the stressors on the TMDL lists do not seem like the most meaningful ones to focus on to achieve a healthy system.

Ken Schiff added that the next steps were to encourage additional participation in the regional program. The San Diego Regional Board was encouraging participation of agricultural entities through the agricultural waiver monitoring program. The Stormwater Monitoring Coalition also wanted industrial stormwater dischargers to participate. In response to a question about whether management efforts should be focused on better quality sites rather than trying to improve urban sites, Mazor responded that this was a policy decision, but that the program was collecting the necessary scientific data to facilitate that discussion. Schiff added that the bio-objectives scientific steering committee had just formed to provide external review, and the stakeholder advisory committee already met once to review the work plan. Schiff encouraged the Commissioners to interact with these committees. He stated that the next bio-objectives stakeholder meeting will be in November in Sacramento, and the next science advisory committee meeting is scheduled for October 20-21 at SCCWRP.

13. FUTURE MEETING AGENDA ITEMS

Two items were identified for the December Commission meeting: 1) a technical presentation on nutrient criteria development; and 2) an update from the Rapid Methods Task Force.

14. OTHER BUSINESS AND COMMUNICATIONS

Steve Weisberg introduced two guests in attendance. The first was Pamela Creedon, who is Executive Officer for the Central Valley Regional Water Quality Control Board. Pamela indicated that she was interested in observing the structure of SCCWRP Commission meetings as a possible model for their organizational development of the San Francisco Aquatic Science Center for which she is a Board of Directors member. The second was Bill Sharpsteen, who is author of *Dirty Water: One Man's Fight to Clean Up One of the World's Most Polluted Bays*, a book about the history of water quality management in the Los Angeles region. Bill shared the story of how he came to write the book. He thanked Mas Dojiri and Steve Weisberg for providing him helpful information while he was researching the book.

15. PUBLIC COMMENTS

Joe Gully recommended that the Rapid Methods Task Force consider how we can better use rapid methods for re-opening beaches with known sewage spills. Weisberg responded that there had actually been a sewage spill at a beach adjacent to one of the Demonstration Project

beaches during the Demonstration Project sampling period, but the Health Department had not yet developed a comfort level to use the new methods for reopening.

16. ADJOURNMENT

The meeting was adjourned at 12:12 PM, until the next Commission meeting on December 3, 2010.

ATTEST:
Bryan Nece
Secretary