

**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**

**March 13, 2009
9:30 a.m.**

COMMISSIONERS PRESENT

Brian Baird - *Ocean Protection Council*
Diego Cadena - *Los Angeles County Department of Public Works*
Mas Dojiri - *City of Los Angeles*
Tracy Egoscue - *Los Angeles Regional Water Quality Control Board*
Robert Ghirelli - *Orange County Sanitation District*
Gerhardt Hubner - *Ventura County Watershed Protection District*
Steve Maguin - *Sanitation Districts of Los Angeles County*
Darrin Polhemus - *State Water Resources Control Board*
Bruce Posthumus (for John Robertus) - *San Diego Regional Water Quality Control Board*
Mary Anne Skorpanich - *County of Orange*
Alexis Strauss - *US Environmental Protection Agency, Region IX*
Jo Ann Weber (for Cid Tesoro) - *County of San Diego*
Gerard Thibeault - *Santa Ana Regional Water Quality Control Board*
Alan Langworthy - *City of San Diego*

STAFF PRESENT

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

OTHERS PRESENT

Jon Bishop - *State Water Resources Control Board*
Robert Bunting - *Crystal Diagnostics*
Derrick Charbonnet - *Chipotle Business Group, Inc.*
John Christensen - *NOAA Coastal Oceanographic Assessment, Status and Trends*
Sara Fan - *Gen-Probe*
Phil Friess - *Sanitation Districts of Los Angeles County*
Mark Gold - *Heal the Bay*
Dominic Gregorio - *State Water Resources Control Board*

Joe Gully - *Sanitation Districts of Los Angeles County*
Janet Hashimoto - *US Environmental Protection Agency, Region IX*
Rainer Hoenicke - *San Francisco Estuary Institute (SFEI)*
Larry Honeybourne - *Orange County Health Care Agency*
Lauretta Johnson - *Gen-Probe*
Debbie Larson - *NOAA National Ocean Service*
Charles McGee - *Orange County Sanitation District*
Jeff Mosher - *National Water Research Institute*
Rachel Noble - *UNC Chapel Hill*
Richard Sanchez - *Orange County Health Care Agency*
Taro Smith - *Crystal Diagnostics*
Jim Spitzer - *IDEXX*
Eric Strahan - *Hydrolab Environmental*
Tim Stebbins - *City of San Diego*
Juli Trtanj - *NOAA Oceans & Human Health Initiative*
Brian Wendelburg - *HandyLab*

Commission Chair Dojiri called the meeting to order at 9:34 AM. Dojiri recognized Bruce Posthumus as an acting Commissioner for the San Diego Regional Water Quality Control Board and Jo Ann Weber as an acting Commissioner for the County of San Diego.

CONSENT AGENDA

1. **MINUTES OF MEETING HELD DECEMBER 12, 2008**
2. **QUARTERLY FINANCIAL STATEMENT FOR THE PERIOD ENDED DECEMBER 31, 2008**
3. **QUARTERLY STATEMENT OF INVESTMENTS AT DECEMBER 31, 2008**
4. **MINUTES OF CTAG MEETING HELD NOVEMBER 19, 2008**

The Executive Director noted a small error in the Commission Minutes from September 12; Tim Stebbins from the City of San Diego should not have been included on the list of attendees. The Commission asked for a typographical correction to agenda item #3 (Quarterly Statement of Investments); the percentage yield of 83.00% for the money market account should read 0.83%. With these changes, Commissioner Maguin motioned for approval of consent items, seconded by Commissioner Baird, which was unanimously approved.

Commissioner Thibeault arrived at 9:40 AM.
Acting Commissioner Weber arrived at 10:00 AM.

REGULAR AGENDA

5. EXECUTIVE DIRECTOR'S REPORT

The Executive Director began with a financial report, indicating that the suspended bond-funded state contracts comprised roughly 40% of SCCWRP revenues. In addition, work previously invoiced on bond-funded State contracts, totaling about \$2 million, have gone unpaid pending additional bond sales by the State. The Agency has taken several actions to mitigate the

effects of this reduced revenue, including cost reductions, reallocating personnel to other billable projects, and pursuing new contracts. The Executive Director noted that several member agencies had stepped in to assist the Agency with allocation of federal stimulus funds, Supplemental Environmental Projects, and bridge funding for some particularly crucial projects. The Executive Director provided a list of bond-affected projects, showing those for which work was stopped, those for which some work was continuing, and those planned but not yet initiated. Although the Agency's fund balance is expected to decrease by approximately \$200K each month for several months until new contracts can be put into place, Dr. Weisberg indicated that the fund balance would remain above \$1M through the end of the fiscal year. The Executive Director stated he was going to maintain fiscal conservatism in this time of uncertainty, but drastic actions such as personnel layoffs or furloughs were not yet required. The Commission asked about the costs associated with restarting frozen projects. The Executive Director responded that there might be substantial restart costs, especially if subcontractors for the projects dismissed trained staff and need to rehire/retrain staff at a later date.

The Executive Director transitioned to the technical portion of his report by summarizing the second annual SCCWRP Symposium. Approximately 110 people attended the event held January 20th. Major changes from the first year included talks on new research themes, a poster session, and interactive laboratory demonstrations. Evaluations from attendees indicated that this year's symposium was as good as, or better than, 2008.

Dr. Weisberg presented three technical items. The first addressed several recent and planned activities regarding contaminants of emerging concern (CECs). A meeting sponsored by NOAA was held at SCCWRP March 11-12 to determine how they might restructure the federal Mussel Watch Program to become a screening tool for CECs. The workshop led to a proposed pilot study that will be conducted in California and later expanded to the rest of the country. The NOAA Mussel Watch Program Manager, John Christensen, was present at the Commission meeting and stated he was prepared to make substantial changes to the program based on the workshop findings. Commissioners Egoscue and Dojiri commented on their participation in the workshop, indicating that they were pleased by the outcome and encouraged SCCWRP to support the pilot study. A second meeting on CECs will be held at SCCWRP April 28-29 jointly sponsored by SCCWRP, San Francisco Estuary Institute, UC Irvine, National Water Research Institute, and the California Ocean Science Trust. The meeting will be comprised of half scientists and half managers. The outcome will focus on a recommended management strategy for responding to CECs in California. Finally, the Agency was asked by the SWRCB to convene a Blue Ribbon panel of scientific experts to make recommendations on emerging constituents of concern as specified in the SWRCB's recently released Recycled Water Policy.

The second technical item focused on microbiological water quality. The Agency will serve as a local host for the US EPA's National Beaches Conference, to be held at the Huntington Beach Hyatt April 20-22. The Beaches Conference, which is held every three years, brings together roughly 400 of the nation's top beach scientists and managers. An EPA-sponsored workshop, to be held at SCCWRP, will immediately follow the Beaches Conference to provide EPA recommendations on development of microbial water quality criteria. Finally, the Executive Director noted that he had recently been appointed as Chair of the NOAA Science Advisory Board Committee on Oceans and Health and introduced Dr. Juli Trtanj, the Program Director for NOAA's Oceans and Human Health Initiative (OHHI), who was in the audience.

The third technical area focused on the Agency's biological activities in benthic index development. The Agency is beginning to explore technology to perform benthic community analyses using genetic barcoding techniques that, if successful, should cost less and take less time than traditional taxonomic methods. Member agencies have been very helpful in providing DNA samples of local macroinvertebrate species to build the reference library necessary to support this new technology. The Agency has also started a new project coordinating benthic indices used in southern California with those used in Puget Sound, consistent with the needs of the West Coast Governors' Agreement on Ocean Health. Lastly, a conference call will be held on March 16th that will include two dozen benthic ecology experts from Europe and the US, with the aim of comparing and harmonizing benthic indices used internationally.

Finally, the Executive Director emphasized intra-state collaborations, the goal of which is to ensure that harmonized scientific messages to managers. As an example, the Interim Director of the San Francisco Estuary Institute, Rainer Hoenicke, was in the audience. The Executive Director had been working closely with Dr. Hoenicke planning a joint meeting between SCCWRP's CTAG and SFEI's Technical Review Committee to be held May 28th. Hoenicke and Weisberg had also both attended a meeting in Eureka with stakeholders and regulators advising the North Coast RWQCB about the potential creation of a science-base organization like SCCWRP or SFEI for that region.

The Executive Director's Report concluded with Commissioner Strauss noting that EPA's RFP for their Section 104 Wetlands Program Development Grants would be open until March 30. She encouraged the Agency to investigate this potential funding source for some of the suspended state bond-funded projects.

6. CTAG REPORT

Dominic Gregorio, Chair of the Commissioner's Technical Advisory Committee (CTAG), presented a summary of their meeting on February 26th. Elections were held, resulting in Gregorio as the new Chair and Tim Stebbins from the City of San Diego as the new Vice-Chair. CTAG received an update on SCCWRP's financial status as well as the draft Research Plan for 2009-2010. The Plan assumed that state bond-funded projects would resume within the year and the potential for several additional projects existed. Some minor edits were requested by CTAG, such as tagging new projects, revising the Bight'08 Water Quality section, and considering a potential project for Ocean Plan compliance in monitoring offshore plumes. The latter item would move forward informally amongst the interested member agencies. A presentation on the SCCWRP Symposium was well received, with CTAG making some suggestions for next year. CTAG also discussed adoption of rapid indicators for use in issuing beach health warnings in summer 2009. Representatives showed support for advancement of the technology, but were divided on whether to roll out the methods in summer 2009 versus summer 2010. Reservations about a 2009 roll-out were based largely on financial and logistical issues such as the potential dichotomy between public health versus compliance monitoring. Lastly, CTAG discussed the agenda for their joint meeting with SFEI's Technical Review Committee in May.

7. CONTRACT APPROVAL

The Executive Director requested that the Commission approve resolutions regarding the following contracts that had been or would be offered to the Authority.

- 1) Moss Landing Marine Laboratory/San Jose State (\$659,000)
SWAMP Special Studies

Upon the motion of Commissioner Langworthy, seconded by Commissioner Maguin, the contract was unanimously approved by Resolution, with Commissioner Strauss abstaining.

- 2) State Water Resources Control Board (\$400,000)
Rapid Indicator Methodology for Measuring Fecal Indicator Bacteria

Upon the motion of Commissioner Langworthy, seconded by Commissioner Baird, the contract was unanimously approved by Resolution, with Commissioner Strauss and Polhemus abstaining.

- 3) State Water Resources Control Board (\$300,000)
Whole Effluent Toxicity Policy Technical Support

Upon the motion of Commissioner Egoscue, seconded by Commissioner Langworthy, the contract was unanimously approved by Resolution, with Commissioner Strauss and Polhemus abstaining.

- 4) State Water Resources Control Board (\$600,000)
Biocriteria Study

Upon the motion of Commissioner Egoscue, seconded by Commissioner Langworthy, the contract was unanimously approved by Resolution, with Commissioner Strauss and Polhemus abstaining.

- 5) State Water Resources Control Board (\$250,000)
Blue Ribbon Panel

Upon the motion of Commissioner Langworthy, seconded by Commissioner Ghirelli, the contract was unanimously approved by Resolution, with Commissioner Strauss and Polhemus abstaining.

- 6) Los Angeles County Department of Public Works (\$500,000)
Surfrider Beach Epidemiology Study

Upon the motion of Commissioner Maguin, seconded by Commissioner Polhemus, the contract was unanimously approved by Resolution, with Commissioner Strauss and Cadena abstaining.

As an informational item, Weisberg described contracts with 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.

- 7) South Orange County Wastewater Authority (SEP through Santa Diego Regional Board) (\$37,500)
Encina Wastewater Authority (\$28,000)
Bight'08 Water Quality
- 8) County of Los Angeles (\$106,025)

- Cal Trans (\$100,000)
Bight'08 ASBS
- 9) County of San Diego (\$189,000)
Los Angeles Regional Water Quality Control Board (\$34,000)
Orange County Sanitation District (SEP through Santa Ana Regional Board) (\$65,000)
Bight'08 Shoreline Microbiology
 - 10) County of San Diego (\$140,000)
Bight'08 Wetlands
 - 11) County of San Diego (\$150,000)
Rainbow Creek
 - 12) County of San Diego (\$75,000)
Hydromodification Assessment and Management Tools
 - 13) Stormwater Monitoring Coalition (\$75,000)
Regional Watershed Monitoring
 - 14) Water Environment Research Federation (through Tetra Tech) (\$53,000)
Emerging Contaminants
 - 15) US EPA Region 9 (\$34,500)
Whole Effluent Toxicity Policy Technical Support

There were no objections to any of these contracts.

8. RESOLUTION FOR LINE OF CREDIT

The Executive Director stated that the agency was exploring establishing a line of credit against the outstanding \$2M of State bond-related invoices that remained unpaid for work conducted prior to the contract suspensions. He indicated that the bank was willing to establish the line of credit at a favorable rate, but needed a resolution from the Commission since the agency's joint powers agreement is vague as to whether the Executive Director has authority for establishing a line of credit. Commissioner Maguin indicated that the Personnel and Finance Committee had reviewed and voted to approve the resolution, as long as it was secured only by receivables and not by capital assets. After discussion, it was agreed that there is lack of clarity within the JPA's language as to the procedure for providing this authorization. SCCWRP's legal counsel offered to investigate the matter and provide guidance on what is required to open a line of credit for the Agency. The Executive Director withdrew the request for a resolution at this time, indicating that the line of credit was precautionary and would not be needed until late in the year, if at all. The Commission took no action and agreed to reconsider the item in the future, if needed.

9. RAPID MICROBIOLOGICAL MEASUREMENT METHODS

The Executive Director made a presentation on the status of rapid microbiological measurement methods, an area of active research by the Agency for more than five years. The presentation was in response to a Commission request at their December 2008 meeting to help the Commission determine whether these new methods could be made ready for deployment in summer 2009. The presentation included reference to several methods that the agency has

been exploring, but focused on quantitative polymerase chain reaction (QPCR), which is the most advanced of these technologies.

Dr. Weisberg addressed the Commission's question about method readiness in three parts: technical feasibility, impediments to adoption, and implementation options. The discussion regarding technical feasibility focused on previous research conducted with QPCR. Based on multiple intercalibration studies, the QPCR method was found to be repeatable and correlated with traditional methods for *Enterococcus*. Despite some concern that QPCR would lead to overestimation of bacterial counts (owing to inclusion of DNA from dead cells), the results demonstrated that QPCR actually underestimated the values found by traditional methods, possibly due to non-specificity of traditional methods. If the intercalibration samples had been used for beach closure decisions, differences in threshold exceedence between QPCR and traditional methods was only marginally greater than when comparing two traditional methods to one another. Finally, very preliminary data from the Doheny Beach epidemiology study indicated that the *Enterococcus* QPCR method correlated with swimming-related illness, albeit not as strong a correlation as the traditional *Enterococcus* method.

The next part of the discussion dealt with impediments to adoption. The Executive Director described seven potential impediments: 1) technology transfer; 2) start up costs; 3) ongoing costs; 4) the cost of lost opportunity; 5) supplier reliability; 6) public health notification versus regulatory compliance application; and 7) stakeholder acceptance.

The final part of the discussion dealt with implementation options. Dr. Weisberg described several options, but recommended that if the Commission proceeds with implementation that it be focused in a single county, as statewide implementation was logistically infeasible at this time. Additionally, roll-out in a single county would provide needed feedback before expansion to other areas. He specifically suggested that Orange County would be a good choice, as it was proximate to SCCWRP, SCCWRP had considerable experience working with the three agencies presently monitoring in the County, and the Orange County Health Department had expressed interest in participating in such a method trial.

The Commission addressed several questions to Dr. Weisberg. The first was the risk of overestimating health risk based on the new QPCR method in areas subjected to chlorination, as overestimation could occur when dead cells are quantified because their DNA is intact. Dr. Weisberg concurred with this concern and suggested that application of QPCR in such areas may be inappropriate. The Commission followed with discussion about needing to differentiate application of these new methods for monitoring public health versus regulatory compliance. Dr. Weisberg indicated that staff was planning additional studies of chlorination effects on QPCR quantification in partnership with the Orange County Sanitation District. The second question was whether Dr. Weisberg felt that chemical inhibition was of sufficient concern to delay implementation. Dr. Weisberg responded that this was an area of active research at SCCWRP, but that initial results suggest internal controls were working sufficiently well that inhibition should not be an impediment to implementation.

The Commission took several comments from the audience. The first was a concern about inadvertently discouraging development of competing rapid measurement technologies by adopting QPCR at this early date. Audience members from technology development companies commented that adoption of QPCR in summer 2009 would not influence their technological innovation unless the QPCR was adopted at the statewide, large-scale level. Another comment was from Dr. Mark Gold, who was supportive of the new methods, but expressed concern that

adoption in summer 2009 would confound the existing County Health Agency monitoring programs, which were already struggling for funds to conduct public health monitoring due to the State's existing fiscal crisis. He also expressed concern that there were many details associated with implementation, such as how to communicate changes in the warning system to municipalities and the public, that had yet to be worked out and suggested delaying implementation for a year so that they could be addressed. Several Commissioners agreed with these concerns and expressed interest in creating a Task Force from the user community that could assist SCCWRP staff in working through these details before implementation.

Upon the motion of Commissioner Ghirelli, seconded by Commissioner Baird, staff was directed to form a Task Force comprised of Commission members, technical experts and community stakeholders that would guide the future activities of the agency toward roll-out of these new methods. The Task Force would be asked to target implementation for April 1, 2010. The Task Force shall address both technical issues such as over/underestimation and correlation with health effects data, as well as policy issues influencing RWQCB's, Public Health Agencies and public outreach. This motion was unanimously approved.

Commissioner Baird suggested that rapid method roll-out would make an excellent topic for the California and the World Ocean 2010 conference, as well as a potential topic for presentation at an Ocean Protection Council meeting and asked if Dr. Weisberg would be willing to provide a presentation at one of their future meetings. Weisberg offered to provide such a briefing to any of the member agency's boards.

10. FUTURE MEETING AGENDA ITEMS

The Commission identified three items for future meetings. The first was a report on outcomes of the recent and upcoming emerging contaminants workshop. Second, an update on the rapid microbiological measurement methods research was requested as a standing agenda item. Third, the Commission requested an update on the Authority's financial status. The Executive Director will also send financial updates by email on a monthly basis.

11. OTHER BUSINESS AND COMMUNICATIONS

Commissioner Egoscue thanked the meeting attendees for coming and offering input as the Commission considered adoption of rapid microbiological measurement methods. The Executive Director offered a demonstration following the meeting for those interested in seeing the rapid microbiological measurement equipment developed by Gen-Probe and Crystal Diagnostics.

12. PUBLIC COMMENTS

There were no public comments.

13. ADJOURNMENT

The meeting was adjourned at 12:13 PM, until the next Commission meeting on June 12, 2009.

ATTEST:

Bryan Nece
Secretary