

**Minutes of the Regular Commission Meeting of the
Southern California Coastal Water Research Project Authority**

**Held at the offices of the Authority:
3535 Harbor Blvd., Costa Mesa, California 92626**

**March 2, 2012
9:30 AM**

COMMISSIONERS PRESENT

Steve Meyer (Chair) - *City of San Diego*
Kurt Berchtold (Vice-Chair) - *Santa Ana Regional Water Quality Control Board*
Janet Hashimoto - *US Environmental Protection Agency, Region IX*
Vicky Whitney - *State Water Resources Control Board*
Sam Unger - *Los Angeles Regional Water Quality Control Board*
David Barker - *San Diego Regional Water Quality Control Board*
Gerry McGowen (*for Mas Dojiri*) - *City of Los Angeles*
Grace Chan - *Los Angeles County Sanitation Districts*
Ed Torres - *Orange County Sanitation District*
Gerhardt Hubner - *Ventura County Watershed Protection District*
Diego Cadena - *Los Angeles County Department of Public Works*
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*
Martha Sutula - *Principal Investigator*
Steve Steinberg - *Principal Investigator*
Karen Setty - *Science Writer*
Karen McLaughlin - *Scientist*

OTHERS PRESENT

Phil Friess - *Los Angeles County Sanitation Districts*
Tim Stebbins - *City of San Diego*
Joe Gully - *Los Angeles County Sanitation Districts*
John Kemmerer - *US Environmental Protection Agency, Region IX*
Steve Maguin - *Former Commissioner, Los Angeles County Sanitation Districts*

Commission Chair Meyer called the meeting to order at 9:36 AM.

Steve Weisberg presented a plaque to former Commissioner Steve Maguin in thanks for his service. He next introduced Grace Chan as the new Commissioner for the Los Angeles County Sanitation Districts. He also introduced Diego Cadena, who previously served as Alternate Commissioner for the Los Angeles County Department of Public Works and was recently re-appointed to that role. Weisberg then indicated Gerry McGowen had been appointed as an alternate Commissioner from the City of Los Angeles for this meeting. Lastly, he introduced John Kemmerer, whom the US Environmental Protection Agency (EPA), Region IX was planning to appoint as a Commissioner upon renewal of the SCCWRP Joint Powers Agreement in 2013.

CONSENT AGENDA

- 1. Minutes of Meeting Held December 2, 2011**
- 2. Quarterly Financial Statement for the Period Ended December 31, 2011**
- 3. Quarterly Statement of Investments at December 31, 2011**
- 4. Minutes of CTAG Meeting Held November 3, 2011**

Weisberg stated that Commissioner Dojiri had submitted one small wording change to the December Commission meeting minutes via email. Commissioner Hashimoto requested revision to the paragraph regarding the CEC fact sheet discussion, clarifying that her earlier concern stemmed from the implication that pyrethroids have unknown effects even though several studies have documented their effects. Commissioner Unger also noticed a typo, where "AM" should be changed to "PM". With these changes to the Commission minutes, Commissioner Whitney motioned to approve the consent items. The motion was seconded by Commissioner Skorpanich and unanimously approved with Commissioner Hashimoto abstaining.

REGULAR AGENDA

5. Executive Director's Report

Executive Director Weisberg started by commenting on SCCWRP's high productivity, citing a large increase in the number of articles included in the 2011 Annual Report. In addition, he noted the speed of SCCWRP's work, and pointed out that the Bight '08 synthesis report had been completed a year earlier than in the previous Bight program.

He then commented that SCCWRP was producing impactful products, citing several examples. The first was a KCET feature story on the Ballona Creek historical ecology. Second, he talked about the contaminants of emerging concern (CEC) ecosystem effects panel being coordinated by SCCWRP that recently released a draft report for public comment. Weisberg felt this was a nationally prominent document which would have a substantial management impact. The panel will meet to respond to public comments on March 23. SCCWRP was also in the process of planning a first-of-its-kind quantitative

microbial risk assessment (QMRA) pilot study with the USEPA in Ventura County. Gerry McGowen asked whether it would be possible to add beaches to the study, particularly Cabrillo Beach. Weisberg explained they would like to expand to other areas if interest and funding were available and suggested McGowen discuss the idea with Ken Schiff. Currently, SCCWRP is funding part of the study while the EPA will fund water quality tests SCCWRP cannot perform locally and provide contractor support for modeling. Schiff noted the most recent planning meeting with the EPA was very successful, and offered to brief the Commission on QMRA at a later meeting.

Weisberg next discussed service and communication activities. He first recognized Eric Stein of SCCWRP's biology department, who was named Outstanding Associate Editor for the year by the Society of Wetland Scientists. The fifth annual SCCWRP Symposium held in January had received high ratings and Weisberg continued to hear positive feedback. He finished by displaying a new series of short videos produced by SCCWRP with an overview, methods, and findings for different research areas. These were aimed at introducing people to new topics. Weisberg asked the Commissioners to check out the videos and share any feedback with him.

6. CTAG Report

Tim Stebbins reported on the February 1 CTAG meeting. He was reelected as CTAG Chair, and Wanda Cross of the Santa Ana Regional Water Quality Control Board was reelected as Vice-Chair. CTAG reviewed four new contracts and asked SCCWRP to provide more information on the first one from the California Energy Commission. Ultimately, CTAG recommended the Commission endorse the listed contracts. CTAG also received several project presentations and the 2012-13 Research Plan draft. Research Plan discussion was minimal as compared to previous years because CTAG now had more opportunity for ongoing review throughout the year. Finally, CTAG received two fact sheets and recommend advancing them to the Commission with a few small revisions. The next regular CTAG meeting will be held May 10, and two special meetings will be held (a) March 28, jointly with the San Francisco Bay Regional Monitoring Program Technical Review Committee; and (b) April 23 to discuss the 2008 Bight Regional Monitoring Program findings and future directions.

7. Contract Review

The Executive Director requested the Commission approve a resolution regarding three contracts that have been offered to the Authority.

- 1) California Energy Commission (\$500,000)
Sediment Transport in Intermittent Desert Streams

At CTAG's request, Weisberg informed the Commission the first contract involved a new client for SCCWRP and new geographical area. Commissioner Torres asked if SCCWRP had adequate existing resources to fulfill the contract, and Weisberg responded it would continue relations with existing partners and also utilize sub-contractors. Commissioner Whitney motioned to approve the first contract, and was seconded by Commissioner Unger. The motion was unanimously approved with Commissioner Hashimoto abstaining.

- 2) State Water Resources Control Board (\$110,000)
Assess Eutrophication in San Francisco Bay
- 3) State Water Resources Control Board (\$250,000)
Technical Support for Developing Sediment Quality Objectives

Commissioner Torres motioned to approve the second and third contracts, and was seconded by Gerry McGowen. The motion was unanimously approved with Commissioners Hashimoto and Whitney abstaining.

As an informational item, the Executive Director presented contracts with a value of \$250,000 or less that the Authority has accepted or indicated a willingness to accept. While SCCWRP's governing agreement requires no Commission action on these, they were presented to ensure the Authority's directions are consistent with the Commission's intentions.

- 4) US EPA (through Tetra Tech) (\$15,000)
Wetland and Riparian Area Monitoring Program (WRAMP) Workshop
- 5) South Coast Water District (through the San Diego Regional Water Quality Control Board) (\$109,500)
Bight Rocky Reef Study
- 6) Moss Landing Marine Laboratory/San Jose State (\$197,000)
Surface Water Ambient Monitoring Program (SWAMP) Special Studies
- 7) State Water Resources Control Board (\$92,000)
Sampling to Support San Gabriel River Bacterial Total Maximum Daily Load (TMDL)
- 8) State Water Resources Control Board (\$38,930)
Newport Bay Watershed Water Quality

There were no objections to any of these contracts.

8. Joint Powers Agreement (JPA)

The Commissioners received a written version of the revised JPA consistent with the changes announced at the previous Commission meeting. Commissioner Torres motioned to advance the JPA for approval by signatories, and was seconded by Gerry McGowen. The motion was unanimously approved with Commissioner Hashimoto abstaining.

9. Fact Sheets

Karen Setty presented two fact sheets for Commission approval, one on microbial source identification and the other on integrated sediment quality assessment. She explained SCCWRP is making good progress in ironing out the review process for the fact sheets. The sediment fact sheet had been held back for a second round of CTAG review, but both were

recommended for advancement to the Commission with only minor changes at the last CTAG meeting. Setty asked the Commissioners for feedback about the level and balance, and reminded them there would be opportunity to submit small wording changes via e-mail through the following week.

For the microbial source identification fact sheet, Commissioner Skorpanich commented that the level was on target and Commissioner Meyer agreed. Seeing no further comments, Commissioner Skorpanich motioned to approve the microbial source identification fact sheet, and was seconded by Commissioner Chan. The motion was unanimously approved.

For the sediment quality assessment fact sheet, there was some discussion of the limitations for the benthic community condition indicator, and the Commissioners suggested clarifying the text on how non-contaminant-related physical conditions could influence the benthic community. Commissioner Unger suggested changing "people who consume large amounts of seafood" to simply "people who consume seafood" under the human risk assessment section. Commissioner Torres asked about the last section on Sediment Quality Objectives (SQOs), commenting that it was more about regulation than science. The Commission agreed that the document was basically sound and that staff should be able to address the comments without further review. Commissioner Torres motioned to approve release of the sediment quality assessment fact sheet, which was seconded by Commissioner Unger and unanimously approved.

10. Coastal Hypoxia

Martha Sutula presented background information on, and research directions regarding, coastal hypoxia. SCCWRP has been working in this area for about nine months in partnership with the Center for Ocean Solutions. Although hypoxia has been studied extensively in estuaries and inland waters, it has received less attention in the southern California ocean. She presented some preliminary analyses showing that oxygen levels have been declining in nearshore waters over the last 12 years. She indicated that one of the research challenges was to determine whether this observed decline was a systematic reduction in water quality or merely an artifact of cyclical climatic patterns. To address that, one research focus was to obtain and keypunch historic oxygen data from the member agency monitoring programs, some of which extend back 50 years. She indicated the second research challenge would be determining how much of the decline was attributable to local anthropogenic inputs as opposed to upwelling of naturally hypoxic deep ocean waters that are beyond the influence of local discharges. To address this challenge, SCCWRP and its partners will use modeling to investigate the drivers of hypoxia at both the local and regional scales.

Commissioner Meyer observed this type of project requires long-term study over a large area. Sutula agreed large data sets were important for understanding variation and suggested that SCCWRP member agencies are contributing some of those critically important data through the regional monitoring programs. Commissioner Hubner asked about collaborations with the California Cooperative Oceanic Fisheries Investigations (CalCOFI). Sutula explained that linkage between the nearshore data sets collected by SCCWRP member agency and the offshore data sets collected by CalCOFI are at the core of

the planned analyses to assess the relative importance of deep offshore waters shoaling into nearshore waters as a potential explanation for observed hypoxia.

Commissioner Skorpanich asked if the findings were also pertinent to harmful algal bloom (HAB) research. Sutula explained this issue is intricately linked with HABs and ocean acidification. Commissioner Meyer asked about the future directions for this line of research. Weisberg explained that SCCWRP's investment in this research area is currently small, focused on assessments that could be conducted with existing data. Should the hypoxia trends become more apparent after examining the historical data, then SCCWRP would likely elevate this research to focus on causal mechanisms. Doing so would likely involve leveraging the Bight Regional Monitoring Program and increasing our interactions with other important partners such as the Center for Ocean Solutions.

11. Ocean Acidification

Karen McLaughlin provided a Commission-requested briefing on ocean acidification issues. She began the presentation describing how atmospheric carbon dioxide changes lead to changes in ocean chemistry. She next focused on the observed rates of change in the ocean and their potential effects on shellfish and coral reefs, as well as how acidification relates to hypoxia. She finished by talking about the California Current Acidification Network (C-CAN), which was formed to standardize monitoring protocols and parameters, improve scientific understanding, and make data available for predictive modeling. C-CAN was currently targeting monitoring guidance for three levels of data providers, one of which was the monitoring conducted by NPDES dischargers. Dr. Weisberg reminded the Commission that SCCWRP hosted the two meetings that helped form C-CAN. However, SCCWRP's acidification research program has been small because most ocean acidification results from atmospheric inputs rather than local land-based discharges. Weisberg was interested in Commission feedback as to whether SCCWRP should to become more active in this area.

Commissioner Hashimoto responded that the Center for Biological Diversity was encouraging all states to include water quality impairments for pH as part of their 303(d) listing process, which provides motivation for SCCWRP research in this area.

Commissioner Unger suggested that the linkage between acidification and hypoxia meant SCCWRP needed to stay connected to the issue, even if they were not leading the efforts. Other Commissioners agreed and suggested that SCCWRP focus on determining how the member agencies could adapt their pH monitoring technology to provide relevant data.

12. Toxicity Testing Protocols

Steve Bay presented an analysis of false positive and false negative rates in relation to repeated sampling with the new whole effluent toxicity testing procedure that the Commission had requested at their last meeting. He explained that he was showing a range of values, since the analysis was based on a binomial expansion of the error rates for an individual test and there was considerable uncertainty in those underlying individual test error rates. He illustrated that regardless of which underlying individual error rates he used, repeated sampling would lessen the number of false positives, while having little effect on the false negatives since those would typically be captured in the following month

of sampling. He next provided the Commission with a study design and cost estimate for conducting a study to improve the underlying individual test error rates. He indicated that such a study would cost about \$400,000 and take one year. Weisberg asked the Commissioners whether they needed greater precision in these analyses and if they thought that this additional research was a good investment.

The conversation started with a discussion about the individual test error rates used in Bay's analysis. Commissioner Whitney believed the 15% error rate used as an upper bound in the presentation was likely too high, since subsequent estimates were closer to 5%. Commissioner Hashimoto concurred this was her understanding, and the rate specific to California dischargers could be as low as 2%. Bay explained he provided analysis for a range between 2% and 15%, based on previous information, rather than selecting a single value since the science underlying those estimates had uncertainties. The conversation next shifted to how the State would use information from the toxicity testing, with Commissioner Whitney describing that the State was planning to adopt a repeated sampling approach. Commissioner Hashimoto felt that there was no need to conduct a study to achieve greater precision in the individual test error rate estimates since the outcome of the repeated analysis was basically the same across the range of values used. Commissioner Chan agreed that the intended changes to State policy about how the tests would be used removed the need for additional study to improve precision. The Commission agreed that SCCWRP staff did not need to initiate this study at this time.

In response to questions from Commissioner Meyer, Commissioner Whitney explained that the draft policy is currently undergoing EPA and independent peer review. A new draft will be released in May for public comment, with a presentation to the State Water Board planned for this summer. The EPA Office of Law review should be completed by the end of the calendar year. Finally, Commissioner Skorpanich asked if stormwater testing had been removed from the new draft. Commissioner Whitney explained that stormwater toxicity testing had been removed, but testing would still be required if it were in the stormwater NPDES permit. Commissioner Whitney indicated she would distribute the revised policy to the Commission when it becomes available.

13. Rapid Methods Task Force

Gerry McGowen announced the Commission's Rapid Methods Task Force had met on March 2 and distributed a brief written report from the meeting. He indicated that their current focus was on developing a demonstration project in Los Angeles. They had been successful in technology transfer, with the City of Los Angeles lab now consistently producing data comparable to that of SCCWRP. He indicated, though, that the correlation between results from traditional methods and the rapid methods was less at Los Angeles beaches than had been observed in Orange County and that future efforts would focus on understanding the lesser correlation before proceeding to use the rapid methods for beach health warning decisions.

14. Microbial Source Identification Study

John Griffith reported that many microbial source identification methods have been developed in the last decade, but few have undergone independent testing. To resolve this,

SCCWRP conducted a method evaluation study in which 64 blind samples containing fecal material from one or more of twelve fecal sources (e.g., human, cow, dog, gull) were provided to 28 topical experts. These experts employed 36 source identification methods to provide their assessments of which fecal source types were in each sample. The participating researchers met at SCCWRP in December to review these results and reached consensus about which methods worked best, which was presented to the Commission. Griffith indicated that a special issue of the journal *Water Research* had been dedicated to results from this groundbreaking study. He next indicated that the methods that worked best will be applied to field studies at four sites throughout California and a manual for how to employ those methods as part of source identification study would be produced.

Commissioner Tesoro asked when the manual would become available and Griffith explained that it was due in December 2013. Weisberg added that Chuck Hagedorn, one of the world's experts in microbial source identification, would be doing a six month sabbatical at SCCWRP starting in June 2012 and that he hoped to have a first draft of that document completed during that tenure. Commissioner Meyer asked about repeatability and technology transfer. Griffith responded that method repeatability was high, which had been quantified in the method evaluation study by having multiple labs perform each method. He also indicated that technology transfer should be easy, as the underlying molecular technology was the same as that for the rapid microbial methods that SCCWRP had already successfully transferred to several laboratories in Los Angeles and Orange Counties. Weisberg indicated that SCCWRP intends to conduct training in use of the source identification methodologies for local laboratories next year.

15. Future Meeting Agenda Items

The Commission asked that the June meeting agenda items include: (a) presentation of the 2012-13 SCCWRP Research Plan for review and approval during the business portion of the meeting, and then (b) a full day of Bight '08 findings presentation and discussion. The meeting will be extended until 3:30 to accommodate hearing about all elements of the Bight program.

Commissioner Whitney requested an agenda item to hear about the final report from the CEC ecosystem effects panel, either at the June meeting (time permitting) or a subsequent meeting.

16. Other Business and Communications

Commissioner Meyer announced Commissioner Chan's election to the Commission's Personnel and Finance Committee. He also indicated the Personnel and Finance Committee had completed the Executive Director's annual performance review and offered to share it with individual Commissioners on request. Lastly, Commissioner Skorpanich recognized Commissioner Cadena for his active role in fostering young engineers through the American Society of Civil Engineers.

17. Public Comments

No public comments were raised.

18. Adjournment

The meeting was adjourned at 12:21 PM until the next Commission meeting on June 1, 2012.

Attest:

Bryan Nece

Secretary