

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

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

**March 4, 2016
9:30 AM**

COMMISSIONERS PRESENT

Janet Hashimoto — *U.S. Environmental Protection Agency (EPA), Region IX*
Karen Larsen — *State Water Resources Control Board*
Jennifer Phillips (Vice-Chair) — *California Ocean Protection Council*
Kurt Berchtold — *Santa Ana Regional Water Quality Control Board*
David Barker — *San Diego Regional Water Quality Control Board*
Mas Dojiri — *City of Los Angeles*
Phil Friess — *Los Angeles County Sanitation Districts*
Bob Ghirelli — *Orange County Sanitation District*
Peter Vroom — *City of San Diego*
Tully Clifford (Chair) — *Ventura County Watershed Protection District*
Angela George — *Los Angeles County Department of Public Works*
Chris Crompton — *County of Orange*
Todd Snyder — *County of San Diego*

STAFF PRESENT

Stephen Weisberg — *Executive Director*
Bryan Nece — *Administrative Officer*
Claire Collins — *Legal Counsel*
Ken Schiff — *Deputy Director*
Steve Bay — *Principal Scientist*
John Griffith — *Principal Scientist*
Keith Maruya — *Principal Scientist*
Eric Stein — *Principal Scientist*
Steve Steinberg — *Principal Scientist*
Martha Sutula — *Principal Scientist*
Scott Martindale — *Editor*
Karen McLaughlin — *Senior Scientist*
Mayra Molina — *Sea Grant Fellow*
Joshua Steele — *Scientist*
Susanna Theroux — *Scientist*
Emily Lau — *Laboratory Assistant*

OTHERS PRESENT

Paul Alva — *Los Angeles County Department of Public Works*
Jeff Armstrong — *Orange County Sanitation District*
Jon Bishop — *State Water Resources Control Board*

Richard Crompton — *County of San Diego*
Joe Gully (CTAG Past Chair) — *Los Angeles County Sanitation Districts*
Ruth Kolb — *City of San Diego*
Michelle Mata — *San Diego Regional Water Quality Control Board*
Lisa Peters — *Individual*
Bruce Posthumus — *San Diego Regional Water Quality Control Board*
Brad Fowler — *City of Dana Point*
Larry Honeybourne — *Individual*

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

1. Minutes of Meeting Held December 4, 2015

2. Quarterly Financial Statement for the Period Ended December 31, 2015

3. Quarterly Statement of Investments at December 31, 2015

4. Minutes of CTAG Meetings Held February 4, 2016

Commissioner Dojiri motioned to approve the minutes with three minor revisions, and Commissioner Berchtold seconded the motion. The Commission approved the motion unanimously.

REGULAR AGENDA

5. Personnel and Finance Committee Report

Commissioner Ghirelli reported that the Personnel and Finance Committee reviewed SCCWRP's finances and the organization remains in strong financial shape. Ghirelli said the committee provided guidance to staff on SCCWRP's 2016-17 salary resolution, which the Commission will be asked to approve at its June meeting. Ghirelli also reported that the four signatories to the ninth Joint Powers Agreement are on track to obtain the required signatures over the next 12 months.

6. Executive Director's Report

Executive Director Weisberg introduced two of SCCWRP's four new staff members: Dr. Susanna Theroux, an ecologist in the Biogeochemistry Department who recently completed a postdoc at the Lawrence Berkeley National Laboratory, and Mayra Molina, a Sea Grant Fellow in the Biogeochemistry Department who recently completed a master's at California State University, Los Angeles. The other two new hires are Dr. Faycal Kessouri, a joint postdoctoral researcher in the Biogeochemistry Department and the University of California, Los Angeles, and Dr. Dovi Kacev, a joint postdoctoral researcher in the Biology Department and the NOAA Southwest Fisheries Science Center.

Weisberg reported that the 2015 Annual Report is the second year SCCWRP has produced a document designed for Commissioners to hand up the chain to their governing boards, rather than just down to their technical staff. He also explained that at the Commission's suggestion, the 2015 Annual Report contains a two-page overview of metrics that the

organization uses to judge its success. He invited Commissioners to provide feedback on those metrics.

7. CTAG Report

Past CTAG Chair Joe Gully presented the CTAG report on behalf of CTAG Chair Greg Gearheart. Gully reported that following the departure of CTAG Vice Chair Bram Sercu in May 2015, CTAG decided that the 2015 CTAG Chair and Past-Chair will remain in their present roles for another year and that Paul Alva was elected as the new Vice Chair.

Gully reported that CTAG held an Ecohydrology research planning workshop on January 25 and identified as its three top priorities: (1) developing models to assess management strategies in watersheds, (2) linking hydrology to habitat and ecological endpoints (including the biological potential of modified channels), and (3) developing models to support whole-watershed management strategies. Gully also reported that CTAG Representative Chris Crompton suggested that SCCWRP explore possibly developing a 10th thematic research area focused around regulatory program effectiveness and evaluation, which will be the focus of a future CTAG agenda.

Gully said CTAG reviewed Contracts 1-2 and recommends Commission endorsement.

8. Contract Review

As an informational item, Weisberg presented three contracts, all of which have values of \$250,000 or less and thus do not require Commission action. The contracts were presented to ensure consistency of the agency's directions with the Commission's intentions.

- 1) Ocean Science Trust (\$45,000)
Ocean Acidification and Hypoxia Panel
- 2) U.S. Department of Health and Human Services (\$10,000)
Symposium on Harmful Algae
- 3) San Diego Association of Governments (200,000)
Resource Enhancement and Mitigation Program Technical Support

The Commission did not raise any objections to the contracts.

9. Findings of the West Coast Ocean Acidification Expert Panel

Executive Director Weisberg introduced this item by noting that the Commission first heard from staff about of ocean acidification (OA) approximately seven years ago, when SCCWRP hosted meetings that day lighted OA's effects on the Pacific Northwest shellfish industry. Then, three years ago, SCCWRP was asked to participate on the West Coast Ocean Acidification and Hypoxia (OAH) Science Panel, which was tasked with summarizing the state of the science and identifying West Coast management options for addressing OA. Weisberg stated that the Panel's final report will be released publicly in early April and that state and federal ocean managers already are being briefed. Weisberg reprised the Panel's conclusions that while OA is driven by global carbon dioxide emissions, there are options

local managers can take now to lessen its impacts and to help ecosystems and organisms cope. Among the Panel's recommendations is development of West Coast coupled physical-biogeochemical models that estimate the effects of various nutrient discharge scenarios, which is already a major focus of SCCWRP research. The Panel also recommended revising water-quality criteria to be ecologically relevant to OA, an area SCCWRP is well-positioned to help lay the scientific foundation for. Furthermore, the Panel recommended expanding and improving OA monitoring, including through development of new technologies. SCCWRP and its POTW member agencies are already involved in this work via an ongoing effort to evaluate ocean pH profiling prototypes developed through an international XPRIZE competition.

Asked by Commissioner Snyder about the origins of OA, Weisberg said OA has been intensifying in lockstep with rising carbon dioxide emissions into the atmosphere. Asked by Commissioner Dojiri about the stakeholder advisory committee that SCCWRP is assembling to provide feedback on the development of Bight OAH models, Weisberg said every Commissioner has received an invitation to participate on the committee; the stakeholder committee's goal is to ensure the Bight OAH models are developed and applied in ways that are relevant and responsive to management needs.

10. Coupled Physical-Biogeochemical Models

Senior Scientist Karen McLaughlin provided an overview of the development of coupled physical-biogeochemical models that will estimate the relative contributions of anthropogenic nutrient sources to biogeochemical cycling processes in the Southern California Bight (Bight model). McLaughlin said that while coastal upwelling is the dominant driver of acidification of West Coast waters, anthropogenic nutrient inputs could potentially add to the issue closer to shore. By building on and validating existing Bight models, researchers will be able to model the fate of nutrient discharges, both under existing conditions and under a variety of alternate nutrient-reduction scenarios. She indicated that SCCWRP was presently planning stakeholder meetings that will include all of the member agencies, that will offer opportunities to provide valuable feedback on managerially relevant indicators and endpoints that should be used in Bight model development.

Asked by Commissioner Friess about the implications of downscaling the Bight model to the tens of meters, Principal Scientist Martha Sutula said smaller scale is technically more difficult and expensive to accomplish, but also allows the models to provide outputs at a scale most relevant to manager's questions. The stakeholder process will offer Bight managers the opportunity to opine on the appropriate spatial scales for corresponding model outputs.

11. Wet Weather Epidemiology Study

Deputy Director Ken Schiff provided a briefing on the preliminary findings of a wet weather epidemiology study co-run by SCCWRP that seeks to quantify the health risks for surfers who enter the water in San Diego during the three days following rain events. Southern California's public health officials typically issue blanket advisories warning beachgoers to stay out of the water during the three days following wet weather, but there has never been

an epidemiology study to assess whether the indicators and thresholds that were developed during dry-weather summer conditions are applicable during wet weather. The study's preliminary findings indicate that gastrointestinal illness health risk increases when surfers enter the water in wet weather, but the thresholds developed for summer application overstate that health risk in the winter. Schiff emphasized that this study arms water-quality managers with the data they need to set informed thresholds for water quality; it also is the foundation for management discussion about the level of risk that is acceptable to protect public health.

Schiff said that SCCWRP already is following up on the study's findings by using microbial source tracking technology to better understand the fecal contaminant sources that led to the observed GI illnesses. Researchers are starting at the coast and working their way up the watersheds, looking for a variety of pathogens, including norovirus. Schiff said the surfer epidemiology study raises questions about the degree to which the results may be extrapolated to other beaches and the applicability of human health risk models known as Quantitative Microbial Risk Assessment (QMRA). Additionally, the study paves the way for an economic analysis examining the cost-benefit of implementing management actions.

Jon Bishop, Chief Deputy Director for the State Water Board, commented that the state is putting together draft water-quality criteria that will propose an acceptable illness rate that could be coupled with the epidemiology study to identify appropriate indicator thresholds. Commissioner Ghirelli commented that the cost-benefit analysis will be important, as society could be asked to spend billions of dollars to protect beachgoers entering the water in wet weather. Commissioner Crompton commented that the study will have big implications for the POTW community if it is determined that sanitation infrastructure is leaking. Commissioner Barker echoed that sentiment, noting that permits are written with the assumption that there is zero human sewage leaking from sanitation infrastructure.

Asked by Brad Fowler of the City of Dana Point about when the health risks were highest, Schiff said the size of the storm appeared to be the biggest controlling factor, not necessarily the "first flush" of the storm season. Commissioner Hashimoto commented that source tracking is an important and valuable strategy, as it goes beyond simply using various fecal indicator bacteria to identify the problem.

12. Future Meeting Agenda Items

Executive Director Weisberg reported that Commission Chair Hubner is revising the structure of the Commission agendas to focus less on research items that flow up from CTAG and more on summarizing science about management items that the Commission will soon be confronted with. Hubner wants to see the Commission engage on these issues while there is still time to do science to inform them; he also wants SCCWRP to focus on presenting the items in ways that are directly applicable and relevant to the decisions that managers will need to make. Additionally, Hubner wants to flesh out the meeting agendas a year in advance to give the Commission more time to prepare for them.

Commissioner Hashimoto commented that she appreciated the renewed interest in having open dialogue about management issues well in advance of taking regulatory action on them. She emphasized, however, that these early discussions should not be construed as Commissioners making any official agency statements, but rather as expressing individual opinions. Commissioner Ghirelli commented that he looked forward to testing out this new approach to the Commission agenda.

Jon Bishop of the State Water Board suggested that one of the Commission's long-term topics could focus on water supply issues – specifically, how prolonged drought, increased water recycling, stormwater capture and climate change will alter water supply dynamics statewide.

13. Other Business and Communications

No comments were raised.

14. Public Comments

No public comments were raised.

15. Adjournment

Commission Chair Clifford adjourned the meeting at 11:46 AM until the next Commission meeting on June 3, 2016.

Attest:

Bryan Nece
Secretary