

**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**

**September 9, 2016
9:30 AM**

COMMISSIONERS PRESENT

Karen Larsen — *State Water Resources Control Board*
Jennifer Phillips (Vice-Chair) — *California Ocean Protection Council*
Paula Rasmussen — *Los Angeles Regional Water Quality Control Board*
Kurt Berchtold — *Santa Ana Regional Water Quality Control Board*
David Gibson — *San Diego Regional Water Quality Control Board*
Mas Dojiri — *City of Los Angeles*
Robert Ferrante (Chair) — *Los Angeles County Sanitation Districts*
Bob Ghirelli — *Orange County Sanitation District*
Halla Razak — *City of San Diego*
Angela George — *Los Angeles County Department of Public Works*
Amanda Carr — *County of Orange*
Todd Snyder — *County of San Diego*

STAFF PRESENT

Stephen Weisberg — *Executive Director*
Bryan Nece — *Administrative Officer*
Wes Beverlin — *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*
Yiping Cao — *Senior Scientist*
Scott Martindale — *Editor*
Karen McLaughlin — *Senior Scientist*
Shelly Moore — *Supervising Scientist*
Ashley Parks — *Scientist*
Joshua Steele — *Scientist*

OTHERS PRESENT

David Barker — *San Diego Regional Water Quality Control Board*
Jim Colston — *Orange County Sanitation District*
Chris Crompton — *County of Orange*
Jason Freshwater — *Santa Ana Regional Water Quality Control Board*

Phil Friess — *Los Angeles County Sanitation Districts*
Celine Gallon — *Los Angeles Regional Water Quality Control Board*
Joe Gully (CTAG Past Chair) — *Los Angeles County Sanitation Districts*
Laurie Nye — *Los Angeles Regional Water Quality Control Board*
Phil Markle — *Los Angeles County Sanitation Districts*
Bruce Posthumus — *San Diego Regional Water Quality Control Board*
George Robertson — *Orange County Sanitation District*
Peter Vroom — *City of San Diego*
Shelly Walther — *Los Angeles County Sanitation Districts*

Commission Vice Chair Jennifer Phillips called the meeting to order at 9:02 AM.

1. Minutes of Meeting Held June 3, 2016

2. Quarterly Financial Statement for the Period Ended June 30, 2016

3. Quarterly Statement of Investments at June 30, 2016

4. Minutes of CTAG Meetings Held August 4, 2016

Commissioner Ghirelli motioned to approve Consent Items 1-4, and Commissioner Ferrante 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 financial position as of the end of FY 2015-16, and concluded that finances remain strong. SCCWRP closed out the year about \$200,000 in the black. Ghirelli also reported that SCCWRP is going through a competitive bidding process to select a vendor to upgrade its financial accounting software.

6. Election of Commission Chair and Vice-Chair

Commission Vice-Chair Phillips requested nominations for Commission Chair and Vice-Chair. Commissioner Ghirelli nominated the Commissioner from the Los Angeles County Sanitation Districts as Chair, and the Commissioner from the California Ocean Protection Council as Vice-Chair. Commissioner Dojiri seconded the nomination. The Commission approved the nominations unanimously. Leadership of the meeting transitioned from Phillips to Commission Chair Robert Ferrante.

Ferrante said that Commission Chair Grace Hyde will be unable to attend Commission meetings on a regular basis going forward, and that he looks forward to chairing most Commission meetings.

7. Future Meeting Dates

Executive Director Weisberg proposed the following dates for the 2017 Commission meetings:

- March 3

- June 2
- September 8
- December 1

No Commissioners expressed conflicts. Commissioner George motioned to approve the meeting dates, and Commissioner Razak seconded the motion. The Commission approved the motion unanimously.

8. Executive Director's Report

Executive Director Weisberg introduced four new faces on the Commission: (1) Amanda Carr, Deputy Director of Environmental Resources for Orange County Public Works, replacing Mary Anne Skorpanich, (2) Robert Ferrante, Assistant Chief Engineer of the Sanitation Districts of Los Angeles County, replacing Philip Friess, (3) Jim Colston, Director of Environmental Services for the Orange County Sanitation District, replacing Ed Torres, and (4) Paula Rasmussen of the Los Angeles Regional Water Quality Control Board, who is serving as a one-time substitute for Commissioner Sam Unger. Weisberg also introduced Dr. Ashley Parks, a toxicologist who started at SCCWRP in July.

Weisberg noted that SCCWRP is continually looking for ways to strengthen its relationships with state and federal partners, as much of the work SCCWRP does is affected by – and has an impact on – what happens at the state and national level. At the state level, SCCWRP has been welcoming California Association of Sanitation Agencies (CASA) attendance at recent Commission and CTAG meetings, as well as enhanced dialogue about partnership opportunities. Also at the state level, SCCWRP has enhanced its interaction with the California Stormwater Quality Association (CASQA). For example, at CASQA's upcoming annual conference, SCCWRP staff serve on the planning committee, are running workshops, moderating sessions, and giving presentations. Finally, Weisberg said SCCWRP is looking forward to strengthening relationships with the staff of member agencies during the 7th biennial SCCWRP Symposium, scheduled for March 1, 2017.

9. CTAG Report

CTAG Past Chair Gully presented the CTAG report on behalf of CTAG Chair Greg Gearheart, who was unable to attend. Gully reported that CTAG is finishing the last of nine research planning workshops that focus on each of SCCWRP's nine thematic areas; the Regional Monitoring workshop on October 4 will conclude a successful first cycle of the long-term CTAG research planning effort initiated in 2014.

Gully said CTAG is recommending approval of Contract 1. Contract 2 came in after the CTAG meeting and was therefore not reviewed by CTAG.

10. Contract Review

SCCWRP's Joint Powers Agreement requires Commission approval of contracts in excess of \$250,000, and the State of California requests a resolution of acceptance for contracts exceeding \$100,000 offered by the State or Regional Water Boards. Weisberg recommended approval of the following contracts:

- 1) State Water Resources Control Board (\$289,000)

Assessing Vulnerability of Biological Communities to Drought and Climate Change

- 2) State Water Resources Control Board (\$250,000)
Watershed-Based Compliance and Management Guidelines

Commissioner Carr motioned to approve the two contracts requiring Commission approval, and Commissioner Dojiri seconded the motion. The Commission approved the motion unanimously, with Commissioners Larsen and Rasmussen abstaining.

As an informational item, Weisberg also presented contracts with a value of \$250,000 or less, which SCCWRP has accepted or indicated a willingness to accept. While SCCWRP's governing agreement requires no Commission action on these, the contracts were presented to ensure consistency of the agency's directions with the Commission's intentions.

- 3) County of San Diego (\$222,814)
Southern California Monitoring Stormwater Coalition
- 4) NOAA (through UCI) (\$210,000)
Advancing Nature Based Strategies to Address Sea Level Rise Effects
- 5) NOAA (through Coastal Conservancy) (\$62,835)
Wetland Transgression in Response to Sea Level Rise
- 6) SANDAG (\$200,000)
Scientific Advisor Committee
- 7) County of Orange (\$90,000)
Reference Watersheds Study
- 8) San Elijo Lagoon Conservancy (\$16,700)
Assess Eutrophication of the San Elijo Lagoon
- 9) Sanitation Districts of Los Angeles County (\$45,000)
Chlorophyll Trends Analysis
- 10) City of San Diego (through AMEC) (\$5,000)
Microbiological Sample Analysis

The Commission did not raise any objections to the contracts.

11. Antibiotic Resistance Bacteria

Executive Director Weisberg introduced this item by explaining that this is the first of two presentations that are not about SCCWRP research, but that instead focus on broader areas where SCCWRP possesses the technical expertise to illuminate topic areas about which the Commission has expressed interest in learning more.

Principal Scientist John Griffith provided an overview of antibiotic-resistant bacteria. He said the genetic material that confers antibiotic resistance is widespread in the environment, and can pass through wastewater treatment processes into the environment in viable form. Because of the potential environmental health risk that this genetic material could pose, SCCWRP and its POTW member agencies are designing a study that will measure the prevalence of antibiotic-resistant bacteria entering wastewater treatment plants across Southern California, and the types of bacteria and genetic material that survive treatment and are discharged into the environment. The study is scheduled to be launched in January.

Commissioner Halla Razak suggested that the international treatment plant, which treats water from Tijuana, could also be included in the study. Commissioner David Barker offered the resources of the San Diego Regional Board to help coordinate participation by the international plant. Commissioner Mas Dojiri commended SCCWRP and its member agencies for taking on a high-profile issue via this timely study.

12. Effect of Drought on Water Treatment Processes

Executive Director Weisberg provided an overview of the ways that California's prolonged drought is impacting water treatment processes, and the research that will be needed to better manage for these changes. In particular, Weisberg explained that the volume of wastewater being generated is dropping as Californians conserve water, while there is a growing focus on reusing water instead of discharging it into the environment as effluent. These practices will reduce flows into streams, as well as change the concentration of minerals in the water that remains. Furthermore, regulations are written around the concentrations of contaminants, not their total mass; however, it is contaminant mass that is of greatest ecological concern, raising the question of how much resources should continue to be devoted to lower rising concentrations.

Commissioner Razak expressed support for moving into this research area and revisiting regulations to ensure they still make sense. Asked by Commission Chair Ferrante if management tools for the flow issue are site-specific or generic, Principal Scientist Eric Stein said the focus is on developing management tools that are applicable across an entire watershed or region. Commissioner Amanda Carr noted that the water flow issues highlight the inherent tension between improving water quality and improving habitat condition. Commissioners Kurt Berchtold, Bob Ghirelli and Mas Dojiri expressed concerns about the rising concentration of salt in effluent. Commissioner Peter Vroom commented that the changing composition of influent could potentially pose toxicity challenges for microbial-based treatment processes; Weisberg said he will talk to CTAG about further exploring this potential concern.

13. Results from the Bight'13 Regional Monitoring Program

Deputy Director Ken Schiff provided an overview of the value of regional monitoring and how the Southern California Bight Regional Monitoring Program is regarded as an international leader in the design and execution of regional monitoring. Schiff explained the

ecological importance of the Southern California Bight and introduced the five elements of Bight '13:

Contaminant Impact Assessment: Schiff explained that the CIA element focuses on assessing Bight sediment quality as a proxy for tracking the ecological condition of the Bight. Bight '13 found that sediment quality across the vast majority of the Bight are relatively unimpacted by contamination, but that embayments are disproportionately impacted, with half of the area of marinas and a third of the area of estuaries impacted by sediment contamination. Contamination also is widespread in seabird eggs across the Bight, but the contamination levels are mostly below the birds' risk thresholds of concern.

Asked by Commissioner Razak how to interpret toxicity data in Bight submarine canyons, Schiff said researchers do not yet have an agreed-upon assessment tool for quantifying the impacts of sediment contamination at these depths. Commissioner Dojiri commented that he thinks of biology and toxicity data as illuminating the endpoints of an impact, and chemistry data as illuminating its cause.

Water Quality: Senior Scientist Karen McLaughlin explained that the Water Quality element is focused on understanding carbon and nutrient cycling in the Bight. For Bight '13, study participants conducted a first-of-its-kind synoptic analysis of temporal and spatial patterns associated with ocean acidification (OA) across the Bight. Bottle samples were collected to measure pH and alkalinity, allowing calculation of aragonite saturation state, a key indicator of OA. The synoptic analysis found that some Bight marine communities are being exposed to waters at or near aragonite saturation state thresholds. Additionally, the accuracy of glass electrode technology to measure pH was assessed, as were prototype pH sensor technologies developed through an international XPRIZE competition. The final report will be published in late 2017.

Commissioner Jennifer Phillips commented that the California Ocean Protection Council is working to bring key managers together with the State Water Board and EPA to facilitate development of the science necessary to develop OA criteria.

The Commission took a half-hour lunch, reconvening at 12:30 PM.

Shoreline Microbiology: Senior Scientist Yiping Cao explained that the Shoreline Microbiology element is focused on transferring next-generation microbial contamination monitoring technologies into use by beach managers. For Bight '13, SCCWRP member agencies and other participants conducted an intercalibration exercise to examine whether qPCR DNA-based microbial detection could be used to provide results as accurately and as reliably as traditional culture-based detection methods. The program also had a component to assess the extent of human sources of microbial contamination at Southern California beaches. She explained that the study involved over two years of data collection and laboratory work was still ongoing, with only about half of the data presently available. She anticipates that the final report will be prepared by June 2017.

Trash and Marine Debris: Supervising Scientist Shelly Moore provided an overview of the Trash and Marine Debris element, which provided a comprehensive snapshot of the extent of trash in streams, and of marine debris along the Bight ocean floor. There is about an 80% chance of finding trash in a 100m segment of Southern California's streams, and about a one in three chance of finding marine debris in a sample at the bottom of the Bight. In embayments, that figure increases to an 80%-plus chance. Moore said areas with plastic bag bans tend to have less debris, but cautioned against assuming that the bans are responsible because a historical comparison isn't possible.

Commissioners made a number of suggestions for expanding future debris studies, including measuring the effect of coastal clean-up days, quantifying the impacts of homeless encampments adjacent to streams, studying the role of storm drains in transporting trash, and helping to tease apart why water quality can be good even when trash is widespread in a water body.

Rocky Reefs: Deputy Director Schiff provided an overview of the Rocky Reefs element, which is focused on gaining new insights into the relative impacts of fishing vs. pollutant discharges on Bight subtidal rocky reefs. A fishing index was created to measure extraction density, a plume exposure index was created to measure pollutant loading and the degree to which rocky reefs are exposed to this plume, and a reef response index was created to measure biological impacts. The biological response index estimated that 84% of Bight reefs contain the biological communities that the index says should be present. However, study participants concluded that this index still needs refinement, and will be working with the California Ocean Science Trust to improve the index in the coming years.

To close out the Regional Monitoring presentations, Schiff explained that three of the Bight '13 elements are already largely completed and the other two elements are expected to be completed by mid-2017. Bight '18 also is scheduled to kick off in late 2017. Commission Chair Ferrante commended staff on the thoroughness of the presentations, especially given that some Bight '13 elements are still ongoing.

14. Future Meeting Agenda Items

Commissioner Ferrante asked whether there were agenda items remaining from the list that Commissioner Hubner had developed and Weisberg responded that there had been a request for a presentation on alternative compliance. Weisberg also asked if there was interest in a presentation about the State's new Trash Policy, which had been brought up during the presentation about the Bight '13 trash assessment. Weisberg also indicated that CTAG was working on two SCCWRP thematic research areas, one tentatively called Regulatory Program Effectiveness and one on Sediment quality, and that the Commission typically includes at least one of the CTAG topic priorities on its agenda.

15. Other Business and Communications

None.

16. Public Comments

No public comments were raised.

17. Adjournment

Commission Chair Ferrante adjourned the meeting at 1:52 PM until the next Commission meeting on December 2, 2016.

Attest:

Bryan Nece
Secretary