

**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. Suite 110, Costa Mesa, California 92626**

**March 2, 2018
9:00 AM**

COMMISSIONERS PRESENT

Janet Hashimoto — *U.S. Environmental Protection Agency, Region IX*
Karen Larsen — *State Water Resources Control Board*
Jennifer Phillips (Vice-Chair) — *California Ocean Protection Council*
Renee Purdy — *Los Angeles Regional Water Quality Control Board*
David Barker — *San Diego Regional Water Quality Control Board*
Mas Dojiri — *City of Los Angeles*
Robert Ferrante (Chair) — *Los Angeles County Sanitation Districts*
Jim Colston — *Orange County Sanitation District*
Peter Vroom — *City of San Diego*
Arne Anselm — *Ventura County Watershed Protection District*
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*
Keith Maruya — *Principal Scientist*
Eric Stein — *Principal Scientist*
Steve Steinberg — *Principal Scientist*
Martha Sutula — *Principal Scientist*
Nabiul Afrooz — *Scientist*
Marcus Beck — *Scientist*
Meredith Howard — *Senior Scientist*
Scott Martindale — *Communications Coordinator*
Karen McLaughlin — *Senior Scientist*
Alvina Mehinto — *Senior Scientist*
Shelly Moore — *Senior Scientist*
Dana Shultz — *Research Technician*
Jenny Taylor — *Senior Research Technician*

OTHERS PRESENT

Jonathan Bishop — *State Water Resources Control Board*

Chris Crompton — *County of Orange*
Sean Maguire — *State Water Resources Control Board*
Phil Markle — *Los Angeles County Sanitation Districts*
Nikos Melitas — *Los Angeles County Sanitation Districts*
Shane McFaul — *Public*
Arthur Pugsley — *Los Angeles Waterkeeper*
Hassan Rad — *City of Los Angeles*
George Robertson — *Orange County Sanitation District*
Lori Webber — *State Water Resources Control Board*

Commission Chair Robert Ferrante called the meeting to order at 9:01 AM.

Commission Chair Ferrante introduced a one-time substitute Commissioner, Renee Purdy, representing the Los Angeles Regional Water Quality Control Board.

CONSENT AGENDA

- 1. Minutes of Meetings Held September 8, 2017 and December 1, 2017**
- 2. Quarterly Financial Statement for the Period Ended December 31, 2017**
- 3. Quarterly Statement of Investments at December 31, 2017**
- 4. Minutes of CTAG Meetings Held November 2, 2017**

Commissioner Vroom motioned to approve the Consent Items with a minor revision to the September 8, 2017 minutes, and Commissioner Dojiri seconded the motion. The Commission approved the motion unanimously.

REGULAR AGENDA

5. Personnel and Finance Committee Report

Commissioner Vroom, Chair of the Personnel and Finance Committee, reported that SCCWRP remains in excellent financial health and that SCCWRP has successfully renegotiated a lease extension at a favorable rate to continue to occupy the same building for 11 more years. The Committee is recommending Commission approval of the building lease (Agenda Item 9). Vroom also reported that SCCWRP remains on track to reach an optimal staffing level of 45 full-time employees by the end of 2018; three new full-time hires will be starting over the next few months. The Committee also approved a staff recommendation to retain Teaman, Ramirez & Smith to provide independent financial auditing of SCCWRP; the new auditor will start in May 2018. Vroom also reported that the Committee has formed a SCCWRP 50th Anniversary Planning Committee that has established clear goals and is beginning to flesh out an event schedule; SCCWRP will celebrate its 50th anniversary in fall 2019. Commissioner Ghirelli added that the 50th

Anniversary Planning Committee will be looking not just to Commissioners and staff for help planning the event, but also to others active in the SCCWRP community.

6. Executive Director's Report

Executive Director Weisberg welcomed Jayne Joy as a new Alternate Commissioner representing the Santa Ana Regional Water Quality Control Board; he said that she was planning to be in attendance but had a personal emergency. Weisberg also reported that Commissioner Unger from the Los Angeles Regional Water Quality Control Board is retiring, as is Commissioner Ghirelli, who has served on the Commission for nearly 20 years.

Weisberg reported that SCCWRP is on track to return to its optimal staffing size of 45 full-time employees by the end of 2018. He introduced Dana Shultz, a Research Technician in the Biochemistry Department who started at SCCWRP in March and comes out of the University of California, Santa Cruz lab of Professor Raphael Kudela, a close SCCWRP collaborator. Weisberg reported that Principal Scientist Steve Steinberg, head of the Information Management and Analysis Department, will be leaving SCCWRP in a few weeks to become the Geographic Information Officer for the County of Los Angeles.

Weisberg introduced SCCWRP's newly released 2017 Annual Report, noting that the two-page Snapshot of Success section, which provides an overview of key SCCWRP accomplishments, was created in response to a Commission request. Weisberg encouraged Commissioners to ask for extra copies of the Annual Report to share with their staffs and Boards; SCCWRP tracks the number of extra copies requested by Commissioners and reports this figure in the Executive Director's annual performance review.

Weisberg reported on three recent activities that continue to reinforce SCCWRP's role as a leader in transitioning science to management: (1) Weisberg noted that Principal Scientist Eric Stein this year is an author on an updated version of the State of California's seminal Climate Change Assessment report. (2) Weisberg reported that Commissioner Barker has invited SCCWRP to help facilitate a series of San Diego Regional Water Quality Control Board climate change planning discussions, and that SCCWRP's approach to climate change research has become a foundation for the Regional Board's strategic planning efforts. Weisberg said the San Diego Regional Board is a model for how to engage in long-term planning around climate change, and encouraged other Commissioners speak with Barker. Commissioner Barker echoed Weisberg's sentiments, explaining that SCCWRP has played a pivotal role in helping the Regional Board to incorporate climate change considerations into long-term permitting decisions and other policies. (3) Weisberg reported that he has been asked to serve as Co-Chair for a new State of California Ocean Acidification Task Force.

7. CTAG Report

CTAG Chair Phil Markle reported that CTAG held elections at its February meeting, and Markle was elected Chair, Chad Loflen was elected Vice Chair, and Paul Alva became Past Chair. Markle said that CTAG is planning to revisit three of SCCWRP's thematic research areas by the end of 2018 – Emerging Contaminants, Nutrients/Eutrophication, and

Bioassessment – as well as schedule a research planning workshop to discuss development of a potential SCCWRP research theme centered around evaluating performance effectiveness. CTAG is recommending approval of Contracts 1-4 (Agenda Item 8).

8. Contract Review

SCCWRP's Joint Powers Agreement requires Commission approval of contracts of more than \$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) County of San Diego (through Brown and Caldwell) (\$480,000)
Los Coches Wet Weather Sources of Human Fecal Contamination
- 2) County of San Diego (through Weston Solutions) (\$500,000)
Evaluate Sources of Human Fecal Contamination
- 3) State Water Resources Control Board (through UC Davis) (\$326,000)
Developing Statewide e-flows Framework
- 4) State Water Resources Control Board (\$275,000)
Biostimulatory-Biointegrity for Santa Margarita River
- 5) State Water Resources Control Board (\$200,000)
Shellfish Bacterial Water Quality Objectives

Commissioner Colston motioned to approve the five contracts requiring Commission approval, and Commissioner Carr seconded the motion. The Commission approved the motion unanimously, with Commissioner Snyder abstaining on Contracts 1-2 and Commissioner Larsen abstaining on Contracts 3-5.

Weisberg presented five contracts, all of which have values of \$250,000 or less and thus do not require Commission approval. All five contracts were presented to ensure consistency of the agency's directions with the Commission's intentions.

- 6) State Water Resources Control Board (through UC Davis) (\$195,000)
Geomorphic Classification of Southern California Streams
- 7) City of Pasadena (through PSOMAS) (\$25,000)
Arroyo Seco Environmental Flow
- 8) County of Nevada (\$25,000)
Lake Wildwood
- 9) County of San Diego (through Weston Solutions) (\$4,875)
Los Coches – Wet Weather Sampling

- 10) Georgia Aquarium (\$22,500)
Dolphin Dart Biopsy Sample Analysis

The Commission did not raise any objections to the contracts.

9. Facility Lease

Executive Director Weisberg said that SCCWRP has negotiated an extension of its building lease and that the contract has been reviewed by legal counsel. SCCWRP's current lease ends in spring 2019; the lease amendment would extend SCCWRP's lease for an additional 10 years, meaning SCCWRP would remain in its current building until 2029. Weisberg said the Commission is being asked to approve a resolution authorizing Weisberg to sign the lease extension.

Commissioner Vroom motioned to approve a resolution authorizing the Executive Director to sign a lease amendment extending SCCWRP's current lease, and Commissioner Carr seconded the motion. The Commission approved the motion unanimously

10. Contaminants of Emerging Concern Expert Panel

Executive Director Weisberg introduced this presentation by explaining that SCCWRP was asked by the State Water Board to facilitate an expert review panel that developed updated recommendations for monitoring CECs in recycled water in California. Although SCCWRP was not represented on the panel, SCCWRP is in an excellent position to explain the panel's history and thought processes. Principal Scientist Maruya said the original panel was formed in 2009; which the State asked to reconvene as the scientific foundation has advanced significantly in the last decade; all of the original panelists, plus a seventh panelist, agreed to participate, reflecting their commitment and support for the panel's work. The panel updated its list of priority CECs that should be individually monitored for certain recycled water applications, as well as updated the criteria for how CECs should be placed on the priority list. The panel also recommended incorporating bioanalytical cell screening assays into recycled-water monitoring; bioassays are a non-targeted monitoring approach that can detect unknown chemicals not being explicitly monitored, as well as transformation products of chemicals being monitored. Maruya said State Water Board staff will develop a draft policy amendment based on the panel's recommendations and release it in the coming months.

Commissioner Purdy asked whether the panel considered crop irrigation applications and Maruya replied that the panel was asked to limit its scope to incidental contact, not ingestion. Asked by Commissioner Anselm about whether the panel considered ambient water impacts of emerging contaminants, Maruya said discussions are underway regarding possibly reconvening a State panel that previously explored ecosystem effects of emerging contaminants. Commissioner Barker commented that the panel's recommendations are timely because the San Diego Regional Board is in the process of developing a permit to allow the City of San Diego to discharge recycled water into a reservoir. Weisberg said that SCCWRP has been at the forefront of developing bioassays to screen for CECs, and considers the possible adoption of this technology by the State Water Board to be a seminal

SCCWRP accomplishment. Weisberg invited member agencies to visit SCCWRP to see a demonstration of bioscreening technology.

11. Sediment Quality Objectives

Executive Director Weisberg introduced this presentation by emphasizing that much of SCCWRP's work on sediment quality assessments already has been transitioned to management applications. Principal Scientist Steven Bay noted that SCCWRP previously developed a sediment quality triad scoring tool for evaluating sediment condition; a version of the triad has been adopted by the State Water Board to protect the health of bottom-dwelling invertebrate communities, which is one of California's three narrative SQOs for enclosed bays and estuaries. Bay then described the technical underpinnings for a second narrative SQO for protecting the health of humans who consume seafood. Bay indicated that the human health SQO assessment framework could be adopted by the State Water Board as early as this summer.

Commissioner Hashimoto applauded SCCWRP's work, noting that California is a national leader in developing standardized sediment quality assessment frameworks and that these integrated assessment approaches are far superior to chemical-by-chemical assessments. Weisberg also noted that it brings regulatory certainty to an assessment that is inconsistently applied in other states.

Asked by Commissioner Carr about how SQOs would be integrated into 303(d) impairment listing criteria, Bay said the assessment frameworks would enable listings to move away from a frequency-based approach to a spatially oriented approach. For example, instead of a water body being listed because two or more sites are classified as having impaired sediment quality, the criteria would be based on having 15% or more of total area with impaired sediment quality.

12. Status of EPA's Cyanotoxin Criteria

Executive Director Weisberg introduced this presentation as one the Commission asked for as national EPA is presently developing cyanotoxin criteria; while SCCWRP is not directly involved in that development, SCCWRP staff has the expertise to provide perspective and an overview of the science. Senior Scientist Meredith Howard said that a draft of the EPA cyanotoxin criteria released last year is made up of multiple thresholds covering both water quality and human health. The EPA is working to incorporate the public feedback received on the draft criteria, and has not announced a release date for the revised criteria. The cyanotoxin criteria under consideration are not as stringent as California's present guidelines, but would be significant because California presently only has in place advisory thresholds that do not come with mandatory monitoring requirements; the EPA criteria would create a monitoring mandate.

Asked by Commissioner Anselm about the state of the science regarding being able to predict cyanotoxin bloom events, Howard said California has developed a coarse-level risk model that predicts where blooms will occur. Commissioner Phillips commented that California does not yet have in place a comprehensive monitoring program for tracking toxins that travel downstream. Asked by Commissioner Carr about the relative

contributions of climate change vs. nutrient-rich discharges, Howard said both factors work synergistically to fuel cyanotoxin blooms. Asked by Commissioner Dojiri about which species produce cyanotoxins and why, Howard said there is not yet clarity around this issue, with some bacteria producing cyanotoxins even as other bacteria that are part of the same species do not.

13. Status of the Bight '18 Regional Monitoring Program

Executive Director Weisberg introduced this presentation by explaining that Senior Scientist Karen McLaughlin has been promoted to coordinator for the Southern California Bight Regional Monitoring Program to ensure continuity as he and Ken Schiff, the two people who have run the program historically, are getting older. McLaughlin provided an overview of each of the five Bight '18 study elements: (1) Sediment Quality will document trends in Bight sediment health across time and space, as well as track bioaccumulation in fish tissue and screen for emerging contaminants via bioanalytical cell assays. (2) Harmful Algal Blooms will examine how toxins produced by some blooms can be transported through watersheds and linger in coastal sediment. (3) Trash will track the distribution of trash across the Bight seafloor, as well as test-drive multiple assessment methods for quantifying levels and types of trash in streams. (4) Ocean Acidification will track changes in seawater chemistry resulting from ocean acidification and hypoxia, as well as document the linkages between chemical changes and changes to calcifying organisms. (5) Microbiology will examine the relevance and reliability of using coliphage viruses to track beach water quality. McLaughlin said that field sampling for Bight '18 will kick off in July 2018 and invited Commissioners to weigh in with feedback during the planning stage.

Asked by Commissioner Vroom if microplastics would be tracked in the Trash element, Weisberg said Bight participants declined to pursue that element, in part because they lack the capacity to perform Raman spectroscopy analyses to identify microplastics. Asked by Commissioner Carr about whether coliphage would be tracked in shellfish as part of the Microbiology element, Weisberg said not enough Bight participants were interested in committing laboratory resources to perform the shellfish analysis Bight-wide, preferring to limit the coliphage work to the water column. Asked by Commissioner Hashimoto if trash will be picked up as part of the Trash element, Senior Scientist Shelly Moore said the Southern California Stormwater Monitoring Coalition is collaborating with citizen groups to pick up stream trash.

14. Emerging Flow issues in the Los Angeles Region

Executive Director Weisberg introduced this presentation by explaining that the State Water Board has begun receiving applications to divert treated wastewater effluent out of effluent-dominated streams for water recycling purposes, which potentially poses a threat to the in-stream biological communities that depend on these flows. The State Water Board will need to decide how to go about evaluating these applications, known as 1211 wastewater change petitions. Jonathan Bishop, Chief Deputy Director for the State Water Board, explained that the State already has received 1211 wastewater change petitions and written protests against the petitions. The State has invested heavily in promoting water recycling, but also in protecting environmental flows, especially in the face of climate change. The State Water Board is pursuing development of a case study that will be

conducted in the Los Angeles River to figure out how to develop a methodical, science-informed approach for evaluating 1211 petitions.

Commission Chair Ferrante commented that the effluent discharges by the Sanitation Districts of Los Angeles County into the San Gabriel River have dropped in recent years due to increased water conservation, which has already made it difficult for the agency to meet its recycled water customer needs. Asked by Commissioner Carr about wet-weather flows, Bishop said the focus was on dry-weather flows from effluent discharges, urban runoff and natural base flows.

Principal Scientist Eric Stein presented the other half of this agenda item, focusing on work that SCCWRP was already doing that could help form the foundation for an L.A. River case study. Stein explained that SCCWRP and partners across the state have been working to develop a consistent technical approach for protecting environmental flows statewide. To develop science-informed minimum-flow targets for an effluent-dominated system like the L.A. River, SCCWRP would prioritize and rank beneficial uses, then use a framework to develop flow targets that appropriately weigh tradeoffs, demands, risks and benefits. The flow targets likely would not be single numbers for an entire year, but would be ranges that would change throughout the year.

Bishop said he will convene a half-day workshop on the L.A. River case study, and will invite wastewater treatment dischargers and other stakeholders. Bishop said strong stakeholder participation will be important to help the State make the best-informed decisions on 1211 petitions.

Commissioner Dojiri expressed support for the State Water Board's approach and said he does not support the default option for approving 1211 petitions, i.e., a first-come, first-served approach. Dojiri said SCCWRP is ideally positioned to facilitate the L.A. River study. Commissioner George echoed Dojiri's sentiments, saying there would be strong support for this study from stormwater discharge permittees as well. Asked by Commission Chair Ferrante about how beneficial-use criteria are established, Stein said engaged stakeholders are critical in reaching consensus on these issues.

16. Other Business and Communications

None

17. Future Meeting Agenda Items

Executive Director Weisberg reminded the Commission that they had previously identified four topics for the June meeting: (1) scientific advances supporting development of California's biointegrity-biostimulatory policy, (2) development of molecular methods for conducting bioassessments, (3) an overview of new flow management policies in California, and (4) implementation of toxicity policy. Commissioner Larsen said someone from the State Water Board would plan to make a presentation on the toxicity policy.

18. Public Comments

Arthur Pugsley, Senior Attorney for Los Angeles Waterkeeper, said his organization was supportive of the State Water Board's proposed case study to better understand environmental flow needs in the L.A. River. He expressed concerns regarding how conflicting beneficial uses will be sustainable as effluent-dominated flows continue to drop in response to changing water-use practices.

19. Adjournment

Commission Chair Ferrante adjourned the meeting at 12:07 PM until the next Commission meeting on June 1, 2018 at 9:00 AM.

Attest:

Bryan Nece
Secretary