

**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**

**June 3, 2022
9:00 AM**

COMMISSIONERS PRESENT

Ellen Blake — *U.S. Environmental Protection Agency, Region 9*
Mark Gold — *California Ocean Protection Council*
Karen Mogus — *State Water Resources Control Board*
Renee Purdy (Vice Chair) — *Los Angeles Regional Water Quality Control Board*
Lauma Willis — *Santa Ana Regional Water Quality Control Board*
David Barker — *San Diego Regional Water Quality Control Board*
Mas Dojiri — *City of Los Angeles*
Martha Tremblay — *Los Angeles County Sanitation Districts*
Lan Wiborg — *Orange County Sanitation District*
Peter Vroom — *City of San Diego*
Arne Anselm — *Ventura County Watershed Protection District*
Melissa Turcotte — *Los Angeles County Department of Public Works*
Grant Sharp — *County of Orange*
Jo Ann Weber (Chair) — *County of San Diego*

OTHER COMMISSIONERS PRESENT

None

STAFF PRESENT

Stephen Weisberg — *Executive Director*
Bryan Nece — *Administrative Officer*
Wes Beverlin — *Legal Counsel*
Ken Schiff — *Deputy Director*
John Griffith — *Department Head*
Eric Stein — *Department Head*
Martha Sutula — *Department Head*
Charles Wong — *Department Head*
Christina Frieder — *Scientist*
Zachary Gold — *Scientist*
Minna Ho — *Scientist*
Faycal Kessouri — *Senior Scientist*
Scott Martindale — *Communications Director*
Karen McLaughlin — *Principal Scientist*
Elizabeth Fassman-Beck — *Principal Engineer*
Christina Frieder — *Scientist*
Jayme Smith — *Senior Scientist*

Kris Taniguchi-Quan — *Scientist*
Susanna Theroux — *Senior Scientist*
Leah Thornton Hampton — *Scientist*

SCCWRP displayed an opening slide that described the operating procedures for the remote meeting, which was conducted via Zoom. Audience members were invited to address the Commission by making a request via the Zoom Q&A box.

Commission Chair Jo Ann Weber called the meeting to order at 9:00 AM. It was announced that there would be three one-time replacements for Commissioners. Lauma Willis is attending the meeting for Commissioner Joy, Grant Sharp for Commissioner Carr and Melissa Turcotte for Commissioner Lilley.

CONSENT AGENDA

- 1. Minutes of Meetings Held March 4, 2022**
- 2. Quarterly Financial Statement for the Period Ended March 31, 2022**
- 3. Quarterly Statement of Investments on March 31, 2022**
- 4. Minutes of CTAG Meetings Held May 12, 2022**
- 5. Resolution Authorizing a Remote Participation Meeting**

After hearing the consent agenda, the Commission agreed to delay voting on this agenda item until later in the meeting, to combine this roll-call vote with other agenda items.

REGULAR AGENDA

6. Personnel and Finance Committee Report

Peter Vroom, Chair of the Personnel and Finance Committee, reported that SCCWRP remains in strong financial health. SCCWRP was projected to end the fiscal year with a \$400,000 positive balance, and staff productivity remains high. SCCWRP also has developed a plan to reduce some recent staff turnover. For operational planning purposes, SCCWRP has begun treating the pandemic as an endemic, with in-person meetings taking place almost daily even as SCCWRP remains cautious. Vroom said the Committee recommends approval of the annual budget (Agenda Item 10) and the annual salary resolution (Agenda Item 11), which reflects changes to salary ranges in response to a recently completed compensation survey. Vroom said SCCWRP received three bids to retain a new financial auditing firm; SCCWRP has selected Rogers, Anderson, Malody & Scott LLP; the first audit will cost about \$30,000, and the new firm will be considered for up to five years of annual contract renewals.

7. Executive Director's Report

Executive Director Weisberg began his remarks by introducing Dr. Zachary Gold, a joint Scientist in the SCCWRP Biology Department and the Scripps Institution of Oceanography who specializes in environmental DNA (eDNA) research; Gold will help coordinate the

eDNA research and monitoring initiatives for three organizations: SCCWRP, the Southern California Bight Regional Monitoring Program and CalCOFI (California Cooperative Oceanic Fisheries Investigations). Weisberg also said SCCWRP had recently hired several new Research Technicians.

Weisberg announced that SCCWRP has resumed hosting in-person meetings, including meetings for external audiences. SCCWRP is requiring all attendees to show proof of COVID-19 vaccination or to take a rapid COVID-19 test upon arrival. SCCWRP will host a national scientific workshop on eDNA in September 2022. Weisberg said staff also have resumed traveling to offsite meetings, including scientific conferences.

Weisberg said SCCWRP's top two performance metrics revolve around achieving scientific consensus and transitioning science to management. On the consensus-building front, Weisberg reported SCCWRP's work on flow ecology and microplastics is featured in two recent special issues of scientific journals devoted to these topics. On the management adoption of science, Weisberg reported that San Diego County Public Health Department recently adopted rapid molecular methods for beach water-quality monitoring as a replacement for bacteria culture-based methods – a direct outcome of SCCWRP's work to vet and transition molecular methods for routine management use. Meanwhile, the California Environmental Laboratory Accreditation Program (ELAP) recently began training its staff how to evaluate laboratories' proficiency measuring microplastics – a direct outcome of SCCWRP's work facilitating the development of standardized measurement methods. Commissioner Willis commented that the Santa Ana Regional Water Quality Control Board has partnered with the University of California, Riverside on microplastics research, and hopes to see SCCWRP continue to collaborate with UC Riverside and the Water Boards on this work.

Weisberg said SCCWRP has been discussing with research partners how the agency might study the potential ecological effects of thousands of barrels of DDT that were recently confirmed to have been dumped off the coast of California from the 1940s to 1960s. The Southern California Bight Regional Monitoring Program is discussing monitoring options for its upcoming 2023 cycle. Commissioner Gold said the State may provide matching funding for federal money that has already been allocated to investigate the DDT barrels.

Commissioner Dojiri asked fellow Commissioners to support his proposal for SCCWRP to restart production of two-page fact sheets; the original series was produced between 2011 and 2014 to provide brief updates to the boards of SCCWRP's member agencies on pressing issues. Commissioners expressed strong support for resuming production of the fact sheets, and suggested numerous possible topics, including microplastics, ocean acidification, environmental flows, PFAS/PFOA, harmful algal blooms, and microbial biofilm communities. Weisberg said staff will work with CTAG to produce a draft of the first fact sheet for review at the Commission's September 2022 meeting, along with a plan for ongoing production of the fact sheets.

8. CTAG Report

CTAG Chair Sam Choi reported that Terry Fleming from the U.S. Environmental Protection Agency, Region 9 is retiring and will be replaced on CTAG by Eric Dubinsky. Choi said CTAG has agreed to continue to meet remotely and was tentatively planning to meet in a hybrid remote/in-person format at its August 2022 meeting, subject to member agencies' travel restrictions that may be in place at the time. Choi summarized the results of CTAG's annual research prioritization exercise, during which each SCCWRP member agency is invited to split an imaginary \$1 million among SCCWRP's research themes. Choi said that there is generally strong alignment between SCCWRP staff's funding priorities and CTAG's funding priorities. Choi said CTAG is using a special subcommittee to review SCCWRP's ongoing work to model the ecological effects of ocean acidification and hypoxia (OAH) on Southern California's coastal ocean; the subcommittee is helping to shape what additional analyses and modeling scenarios that SCCWRP pursues to ensure that modeling outputs are aligned to management decision-making and that managers can have confidence in the modeling results. The subcommittee also is working with SCCWRP to develop "office hours" where CTAG can discuss the OAH modeling work in more depth.

Choi said CTAG's planned upcoming agenda topics include an update on the OAH modeling work, San Diego County's decision to adopt rapid molecular methods for routine beach water-quality testing, and SCCWRP's Ecohydrology research theme, which has been among SCCWRP's lowest-ranked themes.

Choi said CTAG recommends approval of the two SCCWRP contracts requiring Commission approval (Agenda Item 9) and SCCWRP's 2022-2023 Research Plan Executive Summary and Budget (Agenda Item 10).

9. 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) National Philanthropic Foundation (\$754,234)
Marine eDNA Decay Rate Models
- 2) Coastal Conservancy (\$284,099)
Building Capacity for Assessing Wetlands Recovery Efforts

Asked by Commissioner Willis to explain the eDNA project, Executive Director Weisberg said environmental DNA offers a promising alternative for routinely monitoring aquatic species, as the method allows researchers to identify the species present in a water body using the DNA they've shed into their environment. SCCWRP's new eDNA project will enable researchers to measure how rapidly eDNA decays in ocean water under different environmental conditions. Asked by Commissioner Gold if the eDNA study will examine degradation under multiple types of environmental conditions, Weisberg said the study will be comprehensive. Asked by Commissioner Dojiri if eDNA from fecal matter can be distinguished from other types of eDNA, Department Head Stein said scientists can look at

fragment length to determine if the DNA likely went through a digestive system, although this consideration is not part of the current eDNA project.

Asked by Commissioner Willis to explain SCCWRP's capacity to take on these new projects given recent staff turnover, Weisberg said that these projects represent important, strategic research directions for SCCWRP, and that SCCWRP routinely leverages its extensive network of research partners to shift and balance its workload as necessary. Moreover, Weisberg said that much of the recent turnover has been at the Research Technician level which they are moving to fill. He added that some of the departures were salary-related and SCCWRP is responding by recommending raising salary ranges for staff (Agenda Item 11).

After hearing this agenda item, the Commission agreed to delay voting on these two contracts until later in the meeting, to combine this roll-call vote with other agenda items.

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

- 3) Los Angeles County Sanitation Districts (\$51,360)
San Gabriel River Benthic Temperature Study
- 4) Santa Cruz County (\$7,000)
Juvenile Steelhead and Stream Habitat Database
- 5) Water Research Foundation (through Carollo Engineers) (\$3,000)
Stormwater Harvesting
- 6) Ventura County (\$12,000)
Permeable Pavement Data Analysis and Literature Review
- 7) U.S. EPA (through Jacobs) (\$171,349)
DDT in Palos Verdes Shelf Revisited
- 8) State Water Resources Control Board (\$39,000)
CEC Science Advisory Panel for Ambient Waters
- 9) Jiji Foundation (through International Community Foundation) (\$21,446)
Baja Estuary Assessment
- 10) County of Orange (\$200,000)
Newport Bay wet season shellfish microbial evaluation

The Commission did not raise any objections to the contracts.

10. Fiscal Year 2022/2023 Research Plan and Budget

Executive Director Weisberg provided an overview of SCCWRP's 2022-2023 Research Plan Executive Summary, which contains high-level summaries of dozens of research projects and programs that SCCWRP is working on over the next 3-5 years. SCCWRP's research directions remain largely consistent with previous years. Highlights of the 2022-2023 Research Plan include investments in eDNA, microplastics, OAH modeling, and a potential new research theme called Ecological Risk Assessment, for which pilot projects are just beginning.

Asked by Commissioner Barker about the use of the term "manageable stressors" in reference to how SCCWRP is characterizing the stressors it will prioritize studying as part of its Bioassessment research theme, Department Head Stein said SCCWRP intended for it to mean stressors that are typically within the ability of stormwater agencies to manage. Stein said SCCWRP will tweak the language to clarify this point; Barker said he was submitting other minor suggested edits to the document.

After hearing this agenda item, the Commission agreed to delay voting on this item until later in the meeting, to combine this roll-call vote with other agenda items.

11. Resolution Establishing Rules Governing Compensation, Benefits, and Personnel, Policies and Procedures

Executive Director Weisberg described the Personnel and Finance Committee's recommendations for changing SCCWRP's annual salary resolution, including adjusting salary ranges for all positions based on results of a recent salary survey, creating a new career track for programmers, adding a third position on the network administrator track, and increasing the employer match on SCCWRP's 403b retirement plan from up to 4% of salary to up to 6% of salary.

After hearing this agenda item, the Commission agreed to delay voting on this item until later in the meeting, to combine this roll-call vote with other agenda items.

12. ROMS-BEC Nutrient Modeling Update

Department Head Sutula began this presentation by explaining that SCCWRP and its partners have pivoted from developing and validating models that predict how Southern California's coastal ocean will be affected by intensifying ocean acidification and hypoxia (OAH), to applying the models to study if or how much nutrient management practices on land alter ocean conditions. Sutula explained that the goal of the presentation is to offer a progress report, not a final set of answers. Initial model results indicate that land-based nutrient discharges cause an increase in algal productivity in nearshore coastal waters, primarily limited to the late summer months, which can reduce dissolved oxygen levels and aragonite saturation state. Sutula said that a CTAG modeling subcommittee has been meeting to help guide the development of the modeling scenarios, and that SCCWRP will be hosting "office hours" for CTAG to engage with SCCWRP's modeling team in even more depth. SCCWRP will provide an update on the scenarios work at the September 2022 Commission meeting.

Scientist Frieder delivered the remainder of this presentation, focusing on how the changes to seawater chemistry translate to potential biological effects. That translation is based on

converting ocean chemistry to habitat availability for sensitive species, in which some portions of the coastal ocean may no longer be habitable due to reduced dissolved oxygen levels and lower aragonite saturation state. Frieder said that based on initial analyses, land-based nutrient discharges are compressing vertical habitat across about 25% of the coastal ocean's upper surface waters during the late summer/early fall.

Asked by Commissioner Vroom if raw sewage discharges being transported from Mexico had been incorporated into the modeling, Sutula said Tijuana River flows have not yet been incorporated. Asked by Commissioner Tremblay if coastal nutrient discharges vary over the course of the year, Sutula said the changes were small. Asked by Commissioner Tremblay about natural sources of coastal nutrient discharges, Sutula said that they account for only a tiny fraction and that point sources account for the majority. Asked by Commissioner Gold why the San Diego region is less affected than other parts of Southern California's coastal ocean, Sutula said about 80% of all nutrient inputs are concentrated between Santa Monica Bay and northern Orange County, plus raw sewage being transported from Mexico has not yet been incorporated into the modeling. Sutula added that the goal of the modeling work conducted to date is not to explain what proportions of the effects are attributed to any single nutrient discharge. Asked by Commissioner Turcotte if potential reductions in oxygen levels from legacy contaminants in the coastal ocean had been factored into the modeling, Sutula said researchers are only modeling the effects of point and nonpoint discharges from land.

Commissioner Mogus encouraged managers to consider the findings of the modeling work in the context of California's increased investments in water recycling – specifically, ensuring that as capacity is built to recycle more wastewater, California also simultaneously invests in nutrient removal strategies. Commissioner Wiborg noted that the Orange County Sanitation District already has completed preliminary nutrient-reduction modeling scenarios for its discharges, and found that nutrient removal has the potential to help mitigate OAH's coastal ecological effects. Commissioner Tremblay noted that removing nutrients from wastewater is an energy-intensive proposition and that it will be important to weigh costs vs. benefits when making these decisions.

13. State of Oregon Planning Process

Executive Director Weisberg began by explaining that the State of Oregon is moving forward with developing a 303(d) listing process for coastal ocean acidification (OA), which would require development of biological and chemical assessment metrics for determining when a water body is considered to be impacted by OA. Oregon recently formed a workgroup of scientific experts including SCCWRP, to help with that task. Weisberg explained how the existing scientific foundation that SCCWRP and its research partners have built for understanding the chemical and biological effects of OA will play a key role in shaping the workgroup's ongoing deliberations. Weisberg said Oregon is targeting getting final recommendations from the workgroup by the end of 2022. Once the workgroup has completed its deliberations, Oregon is planning to replicate this approach to pursue development of a 303(d) listing process for coastal hypoxia.

Commissioner Wiborg said it would be valuable to interact with Oregon and other areas outside Southern California on not just coastal water-quality modeling, but inland modeling as well. Weisberg said he would be happy to facilitate these interactions.

14. Other Business and Communications

Commissioner Gold noted that the agenda for an upcoming California Ocean Protection Council meeting will include projects involving sea level rise and coastal vulnerability assessments. Commissioner Willis said the Santa Ana Regional Water Quality Control Board is continuing to work with the California Department of Fish and Wildlife to eradicate the invasive alga *Caulerpa prolifera* in Newport Bay.

15. Closed Session Under California Government Code 54957.6: Raises for SCCWRP Employees

Commission Chair Weber announced that the Commission would go into closed session under the provision of California Government Code Section 54957.6 to discuss the individuals for whom the Executive Director is recommending raises >10%.

When the Commission resumed from closed session, Executive Director Weisberg reported that recommended raises for 24 SCCWRP employees had been discussed and approved unanimously by roll-call vote, with Commissioners Blake, Gold and Willis abstaining.

Commissioner Vroom moved to approve the five Consent Agenda items along with Agenda Items 9-11, with Commissioner Dojiri seconding the motion. The Commission approved the motion unanimously by roll-call vote, with Commissioners Weber and Willis abstaining on Agenda Item 1, and Commissioner Blake abstaining on all items.

16. Future Meeting Agenda Items

Executive Director Weisberg said CTAG has recommended two agenda items for the next Commission meeting: (1) an update on the latest coastal OAH modeling work, and (2) a case study about San Diego County's transition from culture-based methods to molecular methods for routine beach water-quality testing. Commissioner Wiborg suggested adding the upcoming kickoff of Bight '23 as an agenda item.

17. Public Comments

Jared Voskuhl from the California Association of Sanitation Agencies (CASA) commented on Agenda Item 13: He noted that Oregon, but not California, has a water-quality nutrient trading program that can provide a potential pathway for dischargers to address impairments. He also noted that CASA has studied what proportion of wastewater in California has the potential to be recycled; the estimate could be as high as 60%-70%, with 100% not realistically feasible.

Asked by Voskuhl to explain the role of modeling simulations vs. field observations in the OAH modeling work (Agenda Item 12), Executive Director Weisberg said that the OAH models have been extensively validated and described in peer-reviewed literature, but that all models have uncertainty. He further stated that it is incumbent on scientists to quantify this uncertainty and ensure end users understand it. Weisberg noted that this has been a major SCCWRP focus, with SCCWRP devoting an additional year to working with CTAG to

do more extensive validation of the models against field observations. Weisberg added that SCCWRP has been working with CTAG and CTAG's invitees to get feedback on how SCCWRP is approaching quantifying uncertainty and conducting sensitivity analyses. Commissioner Mogus noted that the State Water Resources Control Board recognizes the model uncertainty and is not planning to use the OAH models as part of regulatory decisions at the present time. Instead, the Water Board will be looking to work cooperatively with the utilities to implement nutrient reduction as part of recycling efforts that the Board is willing to help finance.

Steve Jepsen from the Southern California Alliance of POTWs (SCAP) commented on the OAH modeling work (Agenda Item 12). He said he is uncertain about whether the CTAG subcommittee has been effective in building consensus, and encouraged CTAG to put more emphasis on communicating with stakeholders and more subcommittee meetings to facilitate consensus-building. Weisberg responded that SCCWRP encouraged CTAG to set up the subcommittee with diverse stakeholders specifically to work toward these goals, and noted that SCCWRP is continuing to prioritize quantifying modeling uncertainty and help stakeholders understand model uncertainty. Asked by Jepsen about upcoming SCCWRP office hours to facilitate additional interactions between SCCWRP and stakeholders, Department Head Sutula said multiple subcommittees and office hours will be scheduled, and SCCWRP will be encouraging stakeholders to help CTAG prioritize SCCWRP's next steps toward giving stakeholders the information they need to effectively use the models for management decision-making.

18. Adjournment

Commission Chair Jo Ann Weber adjourned the meeting at 12:27PM until the next Commission meeting on September 9, 2022 at 9:00 AM.

Attest:

Bryan Nece
Secretary