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

December 10, 2021
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*
David Barker — *San Diego Regional Water Quality Control Board*
Hassan Rad — *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*
Mark Lombos — *Los Angeles County Department of Public Works*
Amanda Carr — *County of Orange*
Jo Ann Weber (Chair) — *County of San Diego*
Chris Crompton — *County of Orange*

STAFF PRESENT

Stephen Weisberg — *Executive Director*
Bryan Nece — *Administrative Officer*
Wes Beverlin — *Legal Counsel*
Ken Schiff — *Deputy Director*
John Griffith — *Department Head*
Alvina Mehinto — *Department Head*
Eric Stein — *Department Head*
Martha Sutula — *Department Head*
Charles Wong — *Department Head*
Scott Martindale — *Communications Director*
Karen McLaughlin — *Principal Scientist*
Elizabeth Fassman-Beck — *Principal Engineer*
Jayme Smith — *Senior Scientist*
Joshua Steele — *Senior Scientist*
Amy Zimmer-Faust— *Senior Scientist*
Kris Taniguchi-Kwan — *Scientist*
Christina Frieder — *Scientist*
Minna Ho — *Scientist*
Jan Walker — *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.

Commissioner Jo Ann Weber recommended that the Vice Chair lead the meeting because it was Weber's first meeting serving as a Commissioner. Commission Vice Chair Renee Purdy called the meeting to order at 9:01 AM. The following announcements were made: (1) Hassan Rad is attending the meeting as a one-time replacement for the City of Los Angeles; (2) Kaitlyn Kalua will represent Commissioner Mark Gold for certain portions of the meeting; (3) the Santa Ana Regional Water Quality Control Board would not be represented because Commissioner Jayne Joy had a scheduling conflict. Commissioner Mark Lombos announced that he has replaced Commissioner Paul Alva, who retired, and that Commissioner Daniel Lafferty also recently retired.

CONSENT AGENDA

1. Minutes of Meetings Held September 3, 2021

2. Quarterly Financial Statement for the Period Ended September 30, 2021

3. Quarterly Statement of Investments on September 30, 2021

4. Minutes of CTAG Meetings Held November 4, 2021

The Commission agreed to postpone voting on the consent agenda till the roll call vote on agenda item number ten.

REGULAR AGENDA

5. Personnel and Finance Committee Report

Peter Vroom, Chair of the Personnel and Finance Committee, reported that the Committee passed a declaration acknowledging the emergency situation created by the COVID-19 pandemic; the declaration enables the Committee to meet remotely. Vroom said that SCCWRP for the 21st year in a row reported no exceptions during the agency's 2020-2021 financial audit, and the Committee is recommending that the Commission accept the audit. SCCWRP remains in strong financial health with a strong revenue funnel and high staff productivity. About 60% of staff are working at the SCCWRP facility on any given day. The Committee at its March 2022 meeting will be discussing the results of a salary survey that SCCWRP will be undertaking, as well as the possibility of updating position descriptions.

6. Resolution Regarding COVID State of Emergency

Legal Counsel Beverlin reported that the Commission will be required at the start of each remotely conducted Commission meeting to pass a resolution that attests to an ongoing state of emergency created by the COVID-19 pandemic; the resolution allows the Commission to meet remotely. The necessity of this action was created by recent expiration of California's state of emergency declaration. The Personnel and Finance Committee, which met just prior to the Commission meeting, decided to pass a resolution that

"acknowledges and affirms" the emergency, as opposed to "proclaiming" the emergency; the latter wording is the default language that was offered by the California Special Districts Association. Beverlin said he does not believe the language adopted by the Committee will have any legal bearing on the resolution's intent or effect. Beverlin also commented that the resolution is valid for 30 days and since the Commission meets every three months the resolution will need to be passed at the start of every remotely conducted Commission meeting, though it can go on the consent agenda at future meetings.

Commissioner Vroom motioned to approve Agenda Item 6 using the same resolution language passed earlier by the Personnel and Finance Committee, and Commissioner Anselm seconded the motion. The Commission agreed to postpone voting until the roll call vote on Agenda Item 10.

7. 2021 Financial Audit

Executive Director Weisberg presented the results of the agency's annual audit. The financial audit report was clean without deficiencies or matters of noncompliance, and Weisberg noted that the auditor complimented SCCWRP for being such a well-run organization.

Commissioner Carr motioned to receive the 2021 Financial Audit, and Commissioner Gold seconded the motion. The Commission agreed to postpone voting until the roll call vote on Agenda Item 10.

8. Executive Director's Report

Executive Director Weisberg reported that SCCWRP is moving back toward normal operations, with 100% vaccination among staff and staff reporting feeling comfortable returning to work. SCCWRP is open to visitors who are meeting with individual staff, though they are required to wear face masks for the duration of their visit. SCCWRP also has resumed in-person meetings, beginning with an October 2021 meeting hosted by the California Association of Sanitation Agencies and the California Water Environment Association that drew about 50 people that had to show proof of vaccination. SCCWRP is planning to host two large in-person meetings in early 2022: (1) an international urban drainage modeling conference that will focus on stormwater BMPs, and (2) a national scientific conference on transitioning environmental DNA, or eDNA, monitoring methods into routine management applications.

Weisberg explained that SCCWRP measures its success by the interest that SCCWRP Commissioners and their staffs take in SCCWRP's work, and cited recent examples of SCCWRP's successes in this arena: (1) The Commission requested a special presentation (Agenda Item 11) on how the environmental flow science co-developed by SCCWRP has moved from research to adoption and incorporation into water management decision-making across California; (2) SCCWRP is building a scientific foundation for California to manage microplastics in aquatic environments, including by facilitating international standardization of microplastics measurement methods; SCCWRP is leading two special issues of scientific journals and is a co-author on about 20 manuscripts that are devoted to microplastics; and (3) SCCWRP has partnered with Verily, a health sciences subsidiary of

Google parent company Alphabet, to help process samples being collected from POTWs so that they can be used to track COVID-19 viral levels in wastewater influent. Weisberg introduced Brent Coco with Verily. Coco said that his company is looking to help transform California's COVID-19 wastewater surveillance pilot program into a national monitoring program, and invited SCCWRP member agencies to become partners with Verily.

Commissioner Tremblay said the Sanitation Districts of Los Angeles County is interested in partnering with Verily. Asked by Commissioner Wiborg about SCCWRP's interactions with the California Department of Public Health regarding the wastewater surveillance program, Weisberg said SCCWRP is partnering with CDPH to help them build internal capacity to process samples.

9. CTAG Report

CTAG Chair Sam Choi announced two new CTAG representatives: Kaitlyn Kalua from the Ocean Protection Council, replacing Holly Wyer, and Mark Lombos from the Los Angeles County Department of Public Works, replacing Paul Alva. During CTAG elections in November 2021, David Laak was elected Vice Chair; CTAG will elect its Chair in February 2022, and Choi is rotating to Past Chair. Choi said CTAG has approved the latest update to SCCWRP's Thematic Bioassessment Research Plan; this document provides a long-term vision for SCCWRP's bioassessment research and will be posted to SCCWRP's website.

CTAG recommends that the Commission hear presentations focused on microplastics at its March 2022 meeting, as there have been numerous recent research and policy advances on microplastics. Commissioner Gold expressed his support for this topic and said that SCCWRP has been instrumental in providing a scientific foundation for the Ocean Protection Council to develop a microplastics strategy for managing microplastics in the coastal ocean.

CTAG is recommending approval of the three contracts that CTAG reviewed at its November 2021 meeting (see Agenda Item 10, Contracts 1-3); CTAG did not review Contracts 4-5 due to the timing of when the contracts were offered to SCCWRP.

10. 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) State Water Resources Control Board ($1,046,000)
   SWAMP Special Studies

2) U.S. EPA Region 9 ($443,000)
   Developing a Submerged Aquatic Vegetation Monitoring Program for the Southern California Bight

3) U.S. EPA Region 9 (through the Coastal Conservancy) ($365,000)

Building Capacity for Assessing Wetland Recovery Efforts in Supporting Regional Wetland Health and Resiliency

4) Santa Monica Bay Restoration Commission ($447,555)
Support of Bay Conservation Plan's Wetlands Evaluation through Monitoring and Assessment of Santa Monica Bay Estuaries

5) DCor LLC ($349,675)
Evaluation of Effects of Industrial Produced Water on OAH

Commissioner Vroom motioned to approve the five contracts requiring Commission approval, and Commissioner Tremblay seconded the motion. The Commission approved the motion by roll call – along with Consent Items 1-4, Agenda Item 6 and Agenda Item 7 – with Commissioner Mogus abstaining on Contract 1, and Commissioner Blake abstaining on all five contracts.

Weisberg presented the remaining three 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.

6) Los Angeles County ($22,000)
Dominguez Channel

7) SFEI ($21,000)
Assessment Framework Support

8) BOEM ($10,000)
NOAA ($10,000)
Smithsonian Institution ($10,000)
Packard Foundation ($30,000)
Second National eDNA Conference

The Commission did not raise any questions about, or objections to, the contracts.

11. Environmental Flow Management

Department Head Stein began his presentation by explaining that there has been significant progress – both from a scientific and management perspective – regarding development and implementation of environmental flow management programs in California. A statewide framework has been built to create a standardized approach for determining the environmental flow needs of streams statewide. The framework's development is supported by case studies and tools that explain how managers can apply the framework to make flow management decisions, including a recently completed study examining how to set scientifically defensible environmental flow targets to protect Los Angeles River beneficial uses, as well as an ongoing study examining how to restore more natural flow regimes to watersheds in southern Orange County. The tools are flexible and transferrable, and have broad stakeholder support. Already, these scientific products are being used by

agencies like the State Water Board's Division of Water Rights to develop policy around how to allocate water to cannabis farms. In a separate but related advancement, SCCWRP is the technical lead in developing a series of tools for classifying streams by the duration of their flows using easily observable field indicators; the streamflow duration assessment tools are being used to determine, among other things, which streams can be regulated under the Clean Water Act as Waters of the United States. Going forward, these advances in environmental flow management have the potential to be integrated into a wide variety of management actions, from storm drain retrofits to hydromodification management.

Commissioner Carr noted that outdoor cultivation of cannabis is not permitted within the County of Orange and said that future regulatory policies that could affect the County should not be based on or reference any of the decision-making elements behind the State's cannabis water allocation policy. Asked by Commissioner Gold to provide more information about the L.A. River project, Stein said the technical tools developed through the project enable managers to dial back discharges into the river under a number of different specific scenarios – including enhanced stormwater capture through implementation of LID (low-impact development) projects – and to evaluate how it will affect beneficial uses. Asked by Commissioner Rad about ongoing work to understand how water temperature interacts with changing flows, Stein said this new project will enable managers to decide how best to comply with receiving water temperature standards in the face of anticipated reduced flows. Commissioners Tremblay and Purdy complimented the temperature-flows project, noting its strong managerial relevance.

12. Bight'18 Progress Report and Bight'23 Planning Process

Executive Director Weisberg introduced this talk by explaining that it is the first of a two-meeting presentation that provides an overview of the outcomes of Bight '18, plus planning for Bight '23. The second half of this Bight presentation will be delivered during the Commission's March 2022 meeting. Ken Schiff kicked off the talk by providing an overview of the Southern California Bight Regional Monitoring Program, which began in 1994 and has grown to encompass more than 80 participating agencies – all of whom work together to decide which questions about coastal ecosystem health they most want to answer through the program. The consensus-building aspect of Bight monitoring dovetails well with SCCWRP's own consensus-building mission. SCCWRP's member agencies appreciate that the Bight program – through laboratory intercalibration exercises – provides a forum for their staffs to gain proficiency in laboratory methods and to generate high-quality, comparable data. Schiff said that as planning for Bight '23 gets underway, SCCWRP is reaching out first to its member agencies to understand member agencies' priorities and goals for Bight '23, then will invite other participants into the conversation. Schiff turned over the presentation to two SCCWRP scientists to summarize outcomes of three recently completed Bight '18 study elements – Trash, Harmful Algal Blooms and Sediment Quality – as well as what is being envisioned for these elements for Bight '23.

Principal Scientist McLaughlin provided an overview of the Bight '18 Trash element, explaining that California has made numerous significant investments in better managing trash and that the Bight program's trash surveys are designed to get at whether these actions have been effective. The Bight program monitors the extent of trash across the

coastal seafloor, as well as extent along inland waterways via a partnership with the Southern California Stormwater Monitoring Coalition (SMC). Trash was found across nearly one-third of the seafloor and along about three-quarters of stream-kilometers in Southern California. McLaughlin highlighted two recent success stories: California's statewide plastic bag ban that took effect in 2016 has significantly reduced plastic bags in watersheds, and the Santa Monica Bay watershed experienced a significant decrease in trash following full implementation of the watershed's trash TMDL (total maximum daily load). She indicated that the next frontier in trash management is microplastics and anticipates that Bight'23 will include additional focus on measuring the extent of microplastics.

Commissioner Carr commented that management strategies for microplastics vs. other, larger forms of trash are very different, which could inform if and how microplastics monitoring gets incorporated into the Bight '23 Trash element. Carr also suggested that tracking the brand labeling on trash particles might help managers more effectively target source-control initiatives.

Senior Scientist Smith transitioned to discussing the Bight '18 Harmful Algal Blooms element, which tracked the spread of a toxin known as domoic acid that is produced by *Pseudo-nitzschia*, the most ubiquitous type of harmful algal bloom in coastal Southern California. Researchers examined how much domoic acid is settling into seafloor sediment and how much of the toxin is found in the bodies of sediment-dwelling aquatic life that absorb and ingest it. Bight '18 found domoic acid across more than half of Southern California's coastal seafloor, as well as consistently found throughout the year in the bodies of sediment-dwelling organisms, even at times of the year when domoic acid isn't being produced, and even in places where the toxin could not be detected in the surrounding sediment. During Bight '23, researchers are proposing to expand on this work by doing risk assessment, particularly in higher trophic-level organisms like fish and birds, to understand how domoic acid could be bioaccumulating in marine food webs.

Commissioner Carr commented that domoic acid contamination might present a bigger health risk to shellfish than fecal indicator bacteria, and that it would be valuable for the Bight program to investigate the relative risks of these two contaminants, as there is a regulatory structure built around fecal indicator bacteria but not domoic acid. Deputy Director Schiff commented that this type of risk assessment work dovetails well with SCCWRP's proposed Risk Assessment research theme, which is being developed in consultation with CTAG.

Principal Scientist McLaughlin transitioned to discussing the Bight '18 Sportfish Bioaccumulation element, which examined how five common types of sediment-associated contaminants have bioaccumulated in sportfish commonly caught in Southern California. Bight '18 found that average levels of five key contaminants, including mercury, were relatively low in the tissues of these fish. None of the five contaminants exceeded average levels that would place the fish in the most restrictive "Do not consume "consumption advisory threshold, as defined by California's Office of Environmental Health Hazard Assessment (OEHHA). However, some contaminants, including mercury and total PCBs,

were at concentrations elevated enough to trigger advisory limits on the number of servings considered safe to consume each week.

Asked by Shelly Walther from the Sanitation Districts of Los Angeles County (LACSD) to compare and contrast the Bight '18 sportfish bioaccumulation findings with the LACSD's own monitoring findings, McLaughlin explained that any differences in the findings are a consequence of each program's study design – a phenomenon that highlights the importance of investing in both regional monitoring and local monitoring.

13. COVID-19

Senior Scientist Steele began this presentation by explaining that California's wastewater treatment community, in partnership with SCCWRP and other researchers, has moved rapidly to build a wastewater monitoring program for tracking COVID-19 virus levels entering treatment plants. Nearly two years of data are now available on how virus levels have risen and fallen in sewer-sheds, as well as on COVID-19 variants. SCCWRP has been working with researchers and public health managers nationally to understand sources of variability associated with the different sampling and analysis methods being used by individual laboratories to quantify virus levels in influent. SCCWRP also has been working to understand how to optimally track COVID-19 variants in wastewater, including comparing performance of a PCR-based assay approach vs. a gene-sequencing method. Furthermore, SCCWRP has partnered with the California Department of Public Health to transition ongoing wastewater monitoring activities in California to a CDPH laboratory, which will ensure the long-term continuity of the wastewater-based epidemiology program. Finally, SCCWRP has begun exploring how to use the program to track other pathogens and chemicals besides the COVID-19 virus and its variants, which will further extend the value of wastewater-based epidemiology monitoring.

Commission Vice Chair Purdy applauded this work, noting that the number of agencies involved in moving this work forward is particularly impressive.

14. Other Business and Communications

None

15. Future Meeting Agenda Items

Executive Director Weisberg reminded the Commission that CTAG recommended the Commission hear an update on recent developments in microplastics research and policy development, as well as the second half of presentations summarizing Bight '18 monitoring studies and planning for Bight '23. Commissioner Purdy requested that the Commission also include an update on laboratory intercalibration exercises being conducted to support the COVID-19 wastewater surveillance program.

16 Public Comments

None

17. Adjournment

Commission Chair Renee Purdy adjourned the meeting at 11:51 AM until the next Commission meeting on March 4, 2022 at 9:00 AM.

Attest:

Bryan Nece
Secretary