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 6, 2026
9:00 AM

COMMISSIONERS PRESENT

Susana Arredondo — *Los Angeles Regional Water Quality Control Board*
Brian Covellone — *Santa Ana Regional Water Quality Control Board*
Laurie Walsh — *San Diego Regional Water Quality Control Board*
Jim Marchese — *City of Los Angeles*
Robert Ferrante — *Los Angeles County Sanitation Districts*
Rob Thompson — *Orange County Sanitation District*
Kris McFadden — *City of San Diego*
Jolene Guerrero — *Los Angeles County Flood Control District*
Amanda Carr — *County of Orange*
David Pohl — *County of San Diego*
Hayley Luna — *County of Ventura*
Peter Kozelka — *U.S. Environmental Protection Agency, Region 9*
Phillip Crader — *State Water Resources Control Board*
Kaitlyn Kalua — *California Ocean Protection Council*

OTHER COMMISSIONERS PRESENT

Lan Wiborg — *Orange County Sanitation District*
Martha Tremblay — *Los Angeles County Sanitation Districts*
Grant Sharp — *Orange County Public Works*
Christiana Gauger — *City of San Diego*
Hannah Dewey — *Los Angeles County Flood Control District*

SCCWRP STAFF PRESENT

Stephen Weisberg — *Executive Director*
Bryan Nece — *Administrative Officer*
Ken Schiff — *Deputy Director*
Jessica Lienau — *Legal Counsel*
Elizabeth Fassman-Beck — *Department Head*
John Griffith — *Department Head*
Alvina Mehinto — *Department Head*
Charles Wong — *Department Head*
Eric Stein — *Department Head*
Martha Sutula — *Department Head*
Scott Martindale — *Communications Director*
Susanna Theroux — *Principal Scientist*
Christina Frieder — *Senior Scientist*

Kris Taniguchi-Quan — *Senior Scientist*
Joshua Steele — *Senior Scientist*
Jill Tupitza — *Scientist*
Danhui Xin — *Scientist*
Lara Jansen — *Scientist*
Ariane Jong-Levinger — *Engineer*
Emily Lau — *Communications Specialist*

OTHERS PRESENT
Lauren Hubbell — *Santa Ana Regional Water Quality Control Board*
Danny Tang — *Orange County Sanitation District*
Samuel Choi — *Orange County Sanitation District*
Josh Westfall — *Los Angeles County Sanitation Districts*

The meeting was broadcast on Zoom for audience members. Remote audience members were invited to address the Commission by requesting the Zoom Q&A box.

Commission Chair McFadden called the meeting to order at 9:05 AM.

CONSENT AGENDA

1. Minutes of Meetings Held December 5, 2025
Commissioner Carr motioned to approve Consent Item 1, and Commissioner Arredondo seconded the motion. The Commission approved the motion unanimously.

2. Quarterly Financial Statement for the Period Ended December 31, 2025

3. Quarterly Statement of Investments on December 31, 2025

4. Minutes of CTAG Meetings Held February 5, 2026

Commissioner Carr motioned to approve Consent Items 2-4, and Commissioner Arredondo seconded the motion. The Commission approved the motion unanimously.

REGULAR AGENDA

5. Personnel and Finance Committee Report
Commissioner Marchese, Chair of the Personnel and Finance Committee, reported that SCCWRP remains on solid financial footing. Marchese said the Committee discussed SCCWRP's 2026-2027 salary resolution, which will be brought forward for Commission approval at the June 2026 meeting. Marchese said the Committee provided feedback on plans for developing SCCWRP's first written strategic plan, which will be updated every three years. Marchese also reported that the Committee has reached a tentative agreement with Executive Director Weisberg for a five-year contract renewal, which the Commission will be asked to approve at the June 2026 meeting. Commissioners congratulated Weisberg on his new contract and expressed appreciation for his leadership of the organization.

6. Executive Director's Report

Executive Director Weisberg began by welcoming new Commissioners who were attending the meeting: (1) Commissioner Jolene Guerrero from the Los Angeles County Flood Control District, who previously served as a one-time Commissioner replacement, (2) Alternate Commissioner Hannah Dewey from L.A. County Flood Control District, and (3) Alternate Commissioner Christiana Gauger from the City of San Diego Public Utilities Department, and (4) Commissioner David Pohl from the County of San Diego Watershed Protection Program. He also mentioned that Traci Minamide had been named Commissioner of the City of Los Angeles. Weisberg also congratulated Commissioner Walsh on her recent promotion to Assistant Executive Officer for the San Diego Regional Water Quality Control Board.

Weisberg reported that CTAG is operating effectively and that staff are engaged in a high volume of work across multiple active committees. He noted that CTAG held a successful intersessional research planning workshop on the Stormwater BMPs research theme in February 2026, and that a Bioassessment research planning intersessional is scheduled for April 21, 2026. In advance of each intersessional, SCCWRP staff have been meeting individually with member agency staff to discuss SCCWRP's existing research and to identify potential new project directions; Weisberg noted that these meetings have been well received.

Weisberg reported that two CTAG subcommittees have been especially productive: (1) The CTAG ROMS-BEC modeling subcommittee has been meeting monthly and has completed expanded quality assurance documentation, which has been a high priority for CTAG. The subcommittee recently completed a case study quantifying uncertainty in modeling predictions and has been advising the management-level modeling scenarios committee. (2) The CTAG Trawl Alternatives subcommittee is taking a structured approach to evaluating potential alternatives to trawling, including eDNA and camera-based artificial intelligence methods, to identify appropriate monitoring use cases for trawl alternatives.

Weisberg highlighted multiple recent high-profile workshops that underscore SCCWRP's effectiveness at bringing people together to build consensus: (1) A BMP maintenance workshop that brought together national experts to discuss best practices for quantifying BMP effectiveness over time; (2) a workshop on HAB mitigation techniques that attracted HAB experts from across the nation and was held at the Orange County Sanitation District; (3) an all-day meeting of approximately 40–50 participants to engage in planning for a statewide intertidal eDNA project; (4) a joint workshop on sewer exfiltration co-led by the Southern California Stormwater Monitoring Coalition (SMC) and the California Association of Sanitation Agencies (CASA) that brought together stormwater and wastewater agencies to develop a path forward for investigating sewer exfiltration (Agenda Item 11); and (5) a collaborative workshop between SCCWRP and the California Cooperative Oceanic Fisheries Investigations (CalCOFI) to advance coordination on Southern California Bight regional monitoring and CalCOFI's offshore monitoring, including addressing eDNA, ocean acidification and shell dissolution, post-fire-related impacts to downstream ecosystems, and microplastics.

Weisberg highlighted publication of SCCWRP's 2025 annual report and thanked Communications Director Martindale for overseeing its development. The annual report is available electronically, and hard copies will be mailed.

Weisberg announced the passing of two individuals close to SCCWRP: (1) Ananda Ranasinghe, who served as SCCWRP's benthic ecologist for more than 10 years and contributed significantly to the agency's work on benthic indices and bioassessment tools, and (2) Al Dufour, a microbiologist and longtime SCCWRP partner at the USEPA, who played a key role connecting SCCWRP to national dialogue on beach water quality, helping to cement SCCWRP's position as a world leader in beach water quality monitoring.

Asked by Commissioner Arredondo about SCCWRP's microplastics work, Weisberg described four classes of research: development and refinement of measurement methods; application of those methods to quantify the extent and sources of microplastics in the environment; toxicological research on the effects of microplastics; and research on BMPs for removing microplastics. Weisberg explained that SCCWRP developed the only standardized, accredited laboratory methodology for measuring microplastics worldwide, but at a cost of approximately $2,000 per sample. Thus, a near-term SCCWRP priority is to develop cheaper screening methods and to improve the size limit of detection, as existing methods are currently reliable only for measuring particles 50+ microns in size.

7. CTAG Report

CTAG Chair Grant Sharp of Orange County Public Works introduced himself, explaining that he was elected CTAG Chair at the February 2026 CTAG meeting and Stacee Karnya of the City of Los Angeles was elected CTAG Vice Chair. Lauren Hubbell rotated to Past Chair. Sharp thanked Ryan Kempster, who rotated off the CTAG executive committee, for his contributions as Past Chair. Sharp reported that CTAG recommends Commission approval of the Climate Solutions and Cell Bioassays fact sheets (Agenda Item 14). Sharp reported that CTAG in February 2026 piloted a new readiness assessment process where CTAG evaluates the readiness of a SCCWRP project – in this case, a recently completed illicit discharge sensor project (Agenda Item 13). The central management question that emerged was whether the new generation of low-cost sensors has reached the point where management-level discussions about their use to fulfill permit-monitoring requirements are appropriate. CTAG concludes that the answer is yes, in certain use cases. Sharp said CTAG plans to conduct a readiness assessment for one SCCWRP project per quarter. Sharp reported that CTAG is pleased with the productivity of the ROMS-BEC modeling subcommittee, which recently completed a modeling quality assurance document, and that CTAG has requested that this subcommittee conduct a future readiness assessment.

Asked by Commissioner Kalua how the proposed ROMS-BEC modeling readiness assessment relates to the expert independent review panel that evaluated ROMS-BEC's readiness for management application, Sharp said that CTAG views the readiness assessment as complementary to the review panel's work, as the CTAG assessment will focus on ensuring that the modeling is aligned with the Commission's expectations and priorities. Weisberg added that the independent review panel provided a holistic assessment of the modeling work. In contrast, CTAG is examining the substantial work done since the panel's original review. Weisberg suggested that the CTAG subcommittee's assessment could help structure the agenda for a future reconvening of the expert panel.

Sharp said CTAG recommends two items for future Commission meeting agendas: (1) a Bight '23 update; and (2) a presentation on the West Coast Ocean Health Dashboard development (Agenda Item 8; Contract #2).

Sharp reported that CTAG is recommending approval of the two contracts requiring Commission approval (Agenda Item 8). Sharp said CTAG held an online meeting a day before the Commission meeting to discuss three contracts that were offered to SCCWRP since the February 2026 CTAG meeting; CTAG has no concerns about these contracts.

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 asked for approval of the following contracts.

1) Stormwater Monitoring Coalition (SMC) Eleven Member Agencies ($912,660)
SMC 2026-2027 Technical Support

2) NOAA (through West Coast Ocean Alliance) ($282,956)
West Coast Ocean Health Dashboard

Commissioner McFadden motioned to approve the two contracts, and Commissioner Carr seconded the motion. The Commission approved the motion unanimously, with Commissioner Kozelka abstaining.

Weisberg presented the remaining eight contracts, valued at $250,000 or less, and thus not requiring Commission approval. The contracts were presented to ensure consistency of the agency's directions with the Commission's intentions:

3) County of Los Angeles ($85,300)
Surface Flow Monitoring

4) City of San Diego ($23,920)
Chemical Exposure Assessment

5) Genentech, Inc. (through San Diego Regional Board SEP Fund) ($9,000)
North CV Waterfront LP (through San Diego Regional Board SEP Fund) ($9,000)
City of San Diego (through San Diego Regional Board SEP Fund) ($3,000)
Bight Regional Monitoring Program

6) Newport Conservancy (through California State University, Long Beach) ($48,000)
Monitoring in Upper Newport Bay

7) NOAA (through UC San Diego) ($60,000)
Passive Sampler Data from Mooring

8) County of Orange ($30,000)

Develop a Plan for Network-scale Automated Illicit Discharge Detection

The Commission did not raise any concerns with these contracts.

9. Shell Dissolution

Senior Scientist Frieder presented an update on SCCWRP's work to develop biological indicators for ocean acidification (OA). Frieder explained that while monitoring programs along the U.S. West Coast have collected extensive chemical data on ocean acidification, less information is available on how chemical changes translate to biological effects. SCCWRP is working with monitoring partners to develop standardized methods for measuring shell dissolution, which researchers agree is an effective way to monitor OA's biological effects because of its specificity to OA. SCCWRP is standardizing protocols for measuring shell dissolution, including via an ongoing intercalibration study to ensure consistent scoring among researchers. Frieder next described ongoing work to select species for which the Bight program would measure dissolution. She said the original plan was to measure Limacina helicina, a pteropod species used by other West Coast OA monitoring programs, but it was not encountered in the Bight '18 sampling. Researchers are working to determine whether Limacina was absent because it does not occur in the Bight or because the monitoring methods failed to detect it. The former is the predominant thought at this time, and SCCWRP is looking to see what other species that were captured would make good candidates for dissolution measurements.

Commissioners discussed the implications of *Limacina* pteropods not being recovered in Southern California. Commissioner Thompson expressed concern that another species was originally misidentified as *Limacina*. Thompson also questioned the appropriateness of continuing OA biological monitoring until the *Limacina* issue is resolved. Frieder responded that the initial identification of Limacina was preliminary, quickly corrected, and unpublished. She agreed that the Bight program's biological monitoring is on hold until the shell-dissolution methods are finalized and an appropriate target species is identified. Meanwhile, the ongoing intercalibration exercise to reduce measurement variability will improve the quality of shell dissolution measurements across the West Coast. Weisberg added that the new shell dissolution methods are expected to be finalized and go through CTAG review in about six months. Commissioners requested an update once species selection and protocol development are completed.

10. Estuarine Regional Monitoring Program

Senior Scientist Walker presented an update on the new California Estuary Monitoring Program, a statewide effort developed over five years in coordination with the California Ocean Protection Council. Walker began by explaining that California is making substantial investments in coastal protection, with approximately $10 billion in Proposition 4 funds anticipated to support coastal planning and restoration. The monitoring frameworks developed for this program will enable researchers to evaluate the success of these investments at both project and regional levels. The assessment framework is flexible and adaptable for use across the diversity of estuary types and project scales found in Southern California and throughout the state. A central data management system, available at calemp.sccwrp.org, is being expanded to include data visualization tools. Walker

emphasized that the framework was developed with broad scientific and agency consensus at the national, state, and regional levels. In Southern California, the framework is being implemented through the Southern California Wetlands Recovery Project, a cooperative of 18 public agencies.

Following Walker's presentation, two guest speakers provided external perspectives on the program. The first speaker was Karen Bane, the Southern California coordinator for the California State Coastal Conservancy, who described the Conservancy's work to restore multiple Southern California coastal wetlands, including Ormond Beach, Los Cerritos, and Tijuana. The Conservancy plans to require participation in the regional monitoring program as a condition of future grant agreements. She said the Conservancy is working with SCCWRP to onboard additional participants in the monitoring program. The second speaker was Lauren Garske-Garcia, representing the California Coastal Commission in place of Executive Director Dr. Kate Hucklebridge, who was unable to attend. Garske-Garcia explained that Coastal Commission staff served on the program's core development team. The Commission is planning to use its regulatory authority to develop permits that require participation in the monitoring program, and will work to align permit requirements across projects. Garske-Garcia thanked SCCWRP for providing leadership in this area.

Asked by Commissioner Pohl how the monitoring framework accounts for variability across geography and time, Walker said estuaries are classified into one of five archetypes, so comparisons of wetland health will be made within the same archetype only; additionally, researchers are working to extract historic wetland data from paper-based documents to enable comparisons across longer time scales. Asked by Commission Chair McFadden about efforts to standardize wetland monitoring requirements in discharge permits, Commissioner Walsh said her agency has begun working on this issue and that it will facilitate generation of more consistent, comparable data.

11. Exfiltration Workshop Outcome

Deputy Director Schiff presented a summary of the inaugural Joint Wastewater–Stormwater Workshop on Exfiltration, held February 10, 2026 at SCCWRP and co-hosted by the California Association of Sanitation Agencies (CASA) and the Southern California Stormwater Monitoring Coalition (SMC). Schiff began by explaining that a recent SCCWRP study used multiple lines of evidence to conclude that exfiltration of raw sewage from sanitary sewer pipes can occur in the San Diego River watershed and that this sewage is reaching receiving waters; however, the methodologies were novel and uncertainties remain regarding how prevalent the phenomenon is across Southern California and what are the subsurface transport pathways by which exfiltrated sewage reaches receiving waters. Schiff explained that when the SMC was developing its current five-year research agenda, exfiltration emerged as the SMC's number one research priority by a wide margin, and that the SMC wanted to study this issue in partnership with the wastewater community. The resulting workshop brought together 24 invited participants: eight from wastewater agencies, eight from stormwater agencies, four regulators, and four academics, working through two charge questions: What are the most significant challenges related to exfiltration, and what projects can be developed to address them? The workshop resulted in conceptualization of three collaborative priority research projects: (1) an intensive study in a small, well-characterized catchment using multiple measurement tools simultaneously

to characterize better and quantify exfiltration; (2) a study of subsurface transport pathways to characterize how exfiltrated sewage is reaching stormwater systems or receiving waters; and (3) development of a stormwater–wastewater action plan defining roles and responsibilities for when exfiltration is identified. Next steps include forming a subcommittee to develop scopes of work for each candidate project, with the goal of having scopes and a joint funding agreement between the SMC and CASA in place by the next fiscal year.

Two guest speakers offered external perspectives. The first speaker, Jared Voskuhl of CASA, began by emphasizing that exfiltration has legal and regulatory implications for wastewater agencies, including TMDL compliance requirements for bacteria. Voskuhl expressed CASA's appreciation for the workshop's constructive, collaborative tone and said CASA views the workshop as a logical, appropriate next step on the exfiltration issue. Amanda Magee, the SMC Chair, was the second guest speaker. Magee praised the workshop for articulating the importance of investigating the exfiltration issue and for fostering collaboration and consensus on a path forward. She noted that the SMC has already committed funding for fiscal year 2026–27 to move this work forward and looks forward to a long-term partnership with the wastewater community.

Commissioners echoed the sentiments of the guest speakers. Commissioner McFadden noted the workshop's relevance in light of ongoing bacterial TMDL compliance challenges and commended both the stormwater and wastewater communities for engaging constructively. Asked by McFadden about prior exfiltration investigations, Schiff said there are numerous published studies, but because most are outside the United States, their applicability to Southern California’s wastewater and stormwater systems is unclear. Voskuhl added that exfiltration studies have been completed in the Santa Barbara area using different methods; Voskuhl said researchers rarely detected sewer exfiltration during this work. Asked by Commissioner Kozelka to clarify the specific methodological implications of using potable water to measure exfiltration volumes from pipes in the San Diego River watershed, Schiff said that potable water may be overestimating true exfiltration volumes because actual sewage solids could be plugging the locations where exfiltration with potable water is occurring; however, he added that a second line of evidence – biofilm community profiling – showed that sewage is found in downstream receiving waters, suggesting that sewage solids may not be capable of plugging all exfiltration points.

12. Emerging Contaminant Collaborative Project

Department Head Mehinto presented a progress report on a new collaborative project to develop a framework that California can use to prioritize among thousands of contaminants of emerging concern (CECs). Mehinto explained that large CEC datasets have been compiled across a variety of environmental matrices, habitats, and programs. Still, in the absence of a standardized CEC prioritization framework, agencies are making uncoordinated, potentially inconsistent decisions regarding CEC monitoring and management, largely based on their own best professional judgment. The project aims to develop a consensus-based framework that assigns CECs to a traffic-light-style tier of concern, ranging from low to very high concern. Each tier will correspond to a set of monitoring and management actions. An additional tier for "possible concern" would

capture the many CECs for which current data are insufficient to assign a tier. The goal is for the framework to be ready to pilot during the next Bight Regional Monitoring Program cycle.

Asked by Commissioner Ferrante how this project dovetails with similar CEC prioritization work elsewhere, Mehinto said that this work is closely aligned with other CEC prioritization frameworks. In particular, she noted that the San Francisco Estuary Institute has a similar effort and that SFEI's CEC lead is participating in this SCCWRP project. She added that it is not too late to add representatives from other agencies to the project committee if they are interested. Commissioner Wiborg commented that California's CEC management strategy should focus not just on CEC source control, but also on source reduction, as wastewater agencies are limited to offering solutions only on the source-control side.

13. Sensor Project

Department Head Elizabeth Fassman-Beck discussed a recently completed pilot project that uses low-cost sensors to automate real-time detection of illicit discharges, conducted in partnership with Orange County Public Works. Fassman-Beck explained that illicit discharge detection and elimination are required under stormwater discharge permits. Current detection methods include field monitoring, public hotlines, and a dry weather monitoring program. Fassman-Beck described the sensor system developed in partnership with the BoSL research group at an Australian university. The sensors measure water depth, electrical conductivity, temperature, turbidity, and velocity, plus the network includes cameras. The equipment is low-cost and designed for installation in storm drains. The sensors transmit data every six minutes via cellular connection, and outfitting an outfall costs $800. Automated email notifications are sent to the monitoring team, who then review the dashboard and camera images and decide whether to dispatch field staff for follow-up investigation. During the Orange County Public Works pilot project, multiple discharges were detected, compared to none detected under the legacy monitoring program. Fassman-Beck outlined broader potential applications of the technology beyond illicit discharge detection, including stormwater inflow detection in wastewater systems, characterization of persistent dry-weather flows, and wet-weather monitoring. She invited Commissioners to identify other use cases that the sensor technology's developers could adapt the technology for.

Commissioners reviewed CTAG's assessment of the technology's readiness for management applications. They agreed that managers are ready to engage in conversations about implementing the technology to help fulfill permit monitoring requirements. Commissioners expressed support for exploring adaptation of the technology for other applications, including monitoring for potential blockages in sewer systems and identifying the origins of persistent dry-weather flows in certain storm drains. Commissioners also stressed the need for cautious, strategic deployment of the technology, noting that it could raise liability concerns if the sensor network's cameras inadvertently captured images of members of the public. Weisberg added that SCCWRP staff are happy to participate in conversations between dischargers and their Regional Boards regarding the use of the technology if that would be helpful.

14. Fact Sheets
Communications Director Martindale began by reminding the Commission that they decided last quarter to wind down production of SCCWRP's educational fact sheet series. Although Commissioners see value in publishing the fact sheets, they are resource- and time-intensive to develop. Martindale presented the final two fact sheets for Commission review: Climate Solutions and Cell Bioassays. CTAG is recommending Commission approval of both for publication.

The Commission approved the fact sheets unanimously.

15. Other Business and Communications
None

16. Public Comments
None

17. Future Meeting Agenda Items
The Commission will be asked to approve SCCWRP's 2026-2027 research plan, budget, and salary resolution in June 2026. Commissioners requested the following agenda items for future Commission meetings: (1) A Bight '23 monitoring update; Weisberg suggested this item be scheduled for the September 2026 meeting, as the Sediment Quality synthesis report will not be published until late June 2026; (2) West Coast Ocean Health Dashboard, which is likely more appropriate for CTAG to review initially, given that the project is still in its early stages; (3) a presentation on the Bight '23 shellfish integrated risk assessment spanning bacteria/pathogens, microplastics, contaminants of emerging concern, and HAB toxins; Weisberg suggested the item be scheduled in about six months, when analyses for all four types of contaminants will be available; (4) a HABs/domoic acid update, given multiple recent, significant stranding events; (5) an update on a contagious avian influenza that recently sickened marine mammals in Northern California and has the potential to jump to humans; and (6) a briefing from SCCWRP's legal counsel on rules regarding remote Commissioner participation in Commission meetings.

Additional items mentioned included an SMC Stormwater BMP Monitoring Network Workshop scheduled for March 24, 2026, and inland HABs monitoring as a potential future agenda topic.

18. Adjournment
Commission Chair McFadden adjourned the meeting at 2:00 PM until the next Commission meeting on June 5, 2026 at 9:00 AM.

Attest:

Bryan Nece
Secretary