Commission’s Technical Advisory Group (CTAG)

Aug 2024 Meeting Summary

CTAG Summary

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CTAG Management Team

Vice Chair	Chair	Past Chair
Lauren Briggs	Ryan Kempster	David Laak

https://www.sccwrp.org/about/governance/ctag/

New CTAG Member(s)

Danny Tang

Replacing Sam Choi

OC SAN
ORANGE COUNTY SANITATION DISTRICT

https://www.sccwrp.org/about/governance/ctag/

CTAG Meeting Logistics

- In person vs. remote:
  - *CTAG not required to meet in person.*
  - *CTAG preferencing in person, with remote option.*
    - *For reference, 10 of 14 CTAG members/alternates attended Aug meeting in person.*

Two (2) Contracts Requiring Commission Approval

1. **Contract Title:** **Statewide Estuary Monitoring Program**

   Funding Agency & Amount: OPC - $989,000

   Relationship to CTAG-approved research plan: Regional Monitoring and Climate Resiliency themes.

   Project Description: Continuation of statewide estuary monitoring and includes development and application of climate resiliency indicators for estuaries and coastal lagoons.

2. **Contract Title:** **National Stormwater Center of Excellence**

   Funding Agency & Amount: USEPA - $371,104

   Relationship to CTAG-approved research plan: Stormwater BMPs.

   Project Description: EPA funded four Centers of Excellence nationally to address urban stormwater issues, and SCCWRP is co-lead for one of these Centers focused on the arid southwest region.

Fact Sheet Review

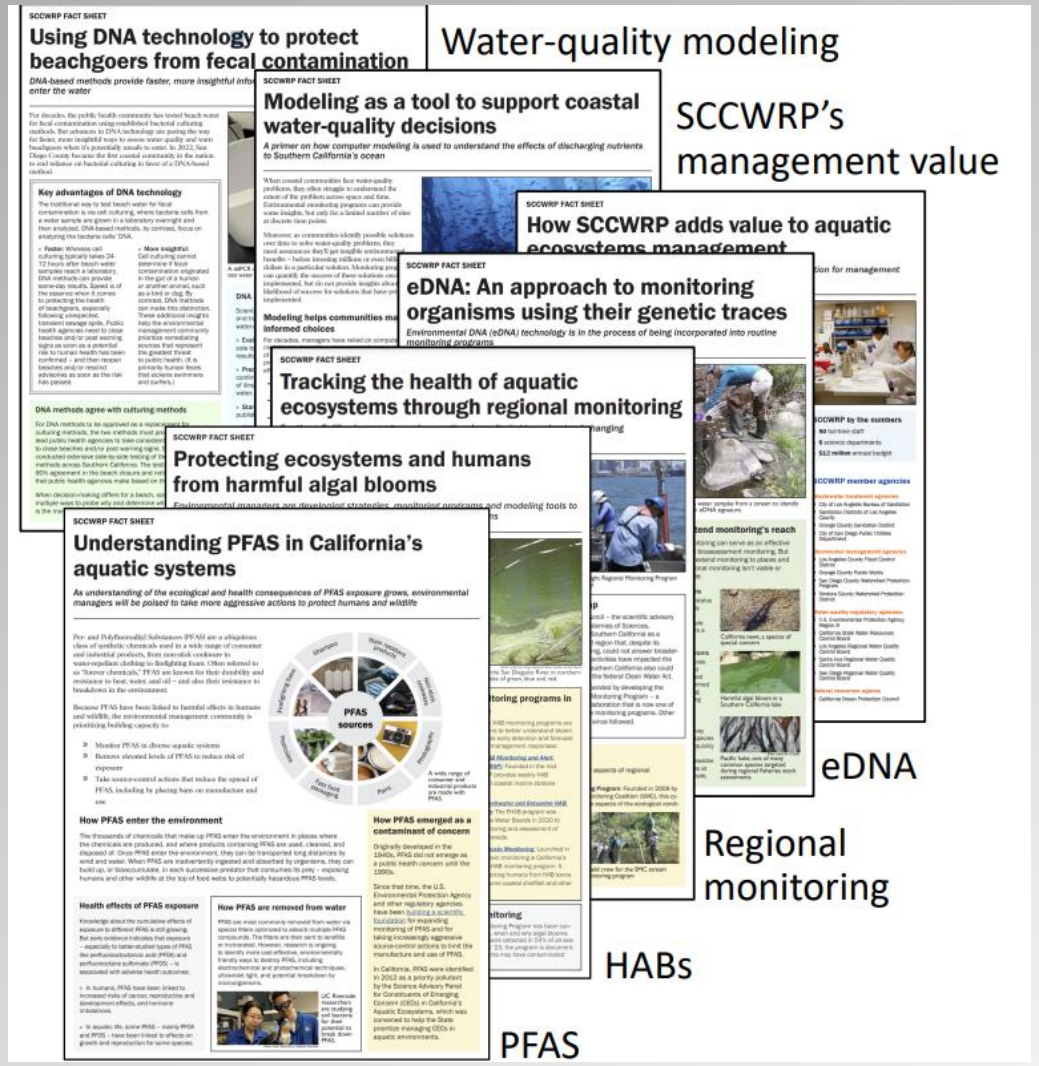
Seven (7) Fact Sheets published

- Water Quality
- Modeling
- SCCWRP's Management Values
- eDNA
- Regional Monitoring
- HABs
- PFAs

Three (3) Fact Sheets under review

- Microplastics
- HF183
- OAH

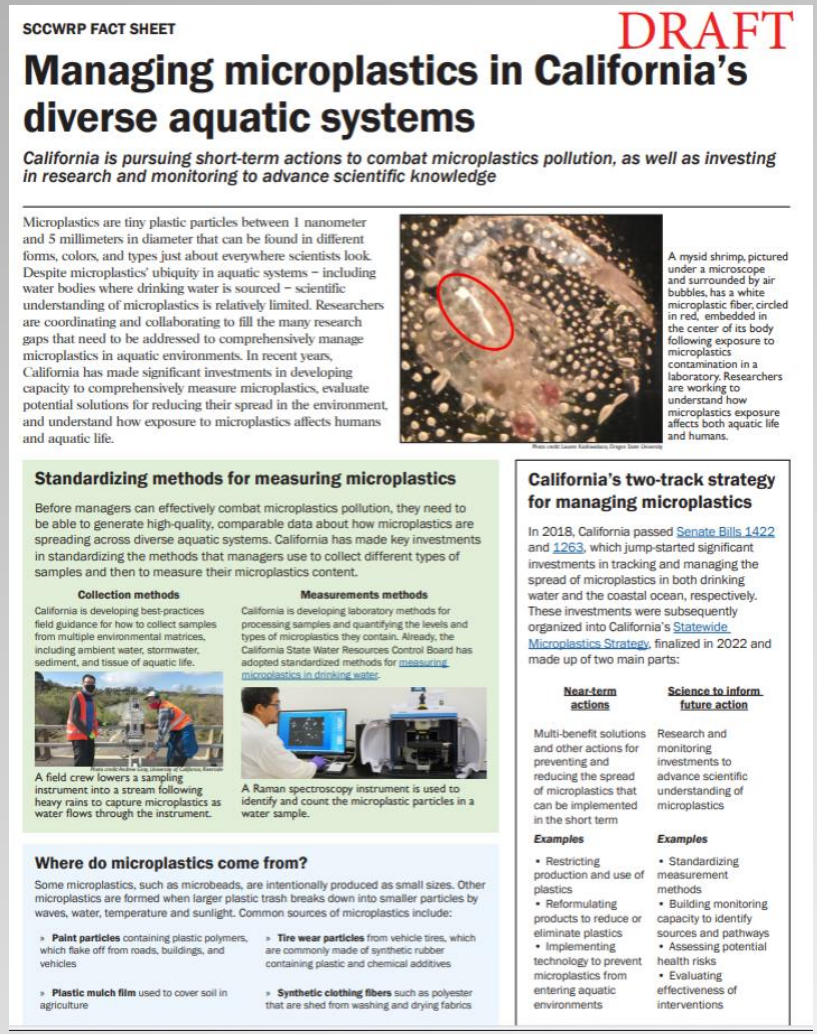
https://www.sccwrp.org/publications/fact-sheets/



Fact Sheet Review

Microplastics

- *SCCWRP incorporated additional CTAG comments after discussion at Aug meeting.*
- ***Members had opportunity to hold item for further review by providing comments by email by Aug 26th***
- ***Only minor comments received to date.***
- ***Ready for Commission approval.***



SCCWRP FACT SHEET

DRAFT

Managing microplastics in California's diverse aquatic systems

California is pursuing short-term actions to combat microplastics pollution, as well as investing in research and monitoring to advance scientific knowledge

Microplastics are tiny plastic particles between 1 nanometer and 5 millimeters in diameter that can be found in different forms, colors, and types just about everywhere scientists look. Despite microplastics' ubiquity in aquatic systems – including water bodies where drinking water is sourced – scientific understanding of microplastics is relatively limited. Researchers are coordinating and collaborating to fill the many research gaps that need to be addressed to comprehensively manage microplastics in aquatic environments. In recent years, California has made significant investments in developing capacity to comprehensively measure microplastics, evaluate potential solutions for reducing their spread in the environment, and understand how exposure to microplastics affects humans and aquatic life.

A mysid shrimp, pictured under a microscope and surrounded by air bubbles, has a white microplastic fiber, circled in red, embedded in the center of its body following exposure to microplastics contamination in a laboratory. Researchers are working to understand how microplastics exposure affects both aquatic life and humans.

Standardizing methods for measuring microplastics

Before managers can effectively combat microplastics pollution, they need to be able to generate high-quality, comparable data about how microplastics are spreading across diverse aquatic systems. California has made key investments in standardizing the methods that managers use to collect different types of samples and then to measure their microplastics content.

Collection methods

California is developing best-practices field guidance for how to collect samples from multiple environmental matrices, including ambient water, stormwater, sediment, and tissue of aquatic life.

A field crew lowers a sampling instrument into a stream following heavy rains to capture microplastics as water flows through the instrument.

Measurements methods

California is developing laboratory methods for processing samples and quantifying the levels and types of microplastics they contain. Already, the California State Water Resources Control Board has adopted standardized methods for measuring microplastics in drinking water.

A Raman spectroscopy instrument is used to identify and count the microplastic particles in a water sample.

California's two-track strategy for managing microplastics

In 2018, California passed Senate Bills 1422 and 1263, which jump-started significant investments in tracking and managing the spread of microplastics in both drinking water and the coastal ocean, respectively. These investments were subsequently organized into California's Statewide Microplastics Strategy, finalized in 2022 and made up of two main parts:

Near-term actions	Science to inform future action
Multi-benefit solutions and other actions for preventing and reducing the spread of microplastics that can be implemented in the short term	Research and monitoring investments to advance scientific understanding of microplastics
Examples	***Examples***
• Restricting production and use of plastics • Reformulating products to reduce or eliminate plastics • Implementing technology to prevent microplastics from entering aquatic environments	• Standardizing measurement methods • Building monitoring capacity to identify sources and pathways • Assessing potential health risks • Evaluating effectiveness of interventions

Where do microplastics come from?

Some microplastics, such as microbeads, are intentionally produced as small sizes. Other microplastics are formed when larger plastic trash breaks down into smaller particles by waves, water, temperature and sunlight. Common sources of microplastics include:

- **Paint particles** containing plastic polymers, which flake off from roads, buildings, and vehicles
- **Tire wear particles** from vehicle tires, which are commonly made of synthetic rubber containing plastic and chemical additives
- **Plastic mulch film** used to cover soil in agriculture
- **Synthetic clothing fibers** such as polyester that are shed from washing and drying fabrics

Climate Resiliency Research Plan

- CTAG elected to modify the Climate Change research theme to focus on Climate Resiliency due to overlap with other themes.
- A new research plan was presented to CTAG, but members expressed the need for more time to review and incorporate additional comments.
- The final plan will be presented at the Nov CTAG meeting.

CTAG Operating Procedures

Josh Westfall presented outcome of new SCCWRP document review process.

- CTAG piloting a new document review form to assist in effective CTAG review of SCCWRP documents.
- Members reminded that manuscript review is offered but NOT required.
- Members are also encouraged to follow their own internal process to facilitate review of documents that are of importance to their agency.

Subcommittee on Scientific Readiness

- At Commission request, CTAG meetings should be more technical and Commission meetings should be more policy based.
- Commission wants to make sure work is ready from a technical perspective so they can make the policy decisions.
    - Subcommittee formed to develop method of determining scientific readiness. Members include Grant Sharp, Josh Westfall, Ryan Kempster, and Lauren Briggs.

CTAG/SCCWRP Collaborative Project(s)

CTAG discussed potential collaborative projects submitted by SCCWRP and members:

- No consensus for single project could be reached.
- Two (2) projects selected as a compromise to appeal to all members.
  1. **Cost of Monitoring Study**
  2. **Mass Emissions Study**

CTAG asked to nominate representatives from each agency to participate in each study.

CTAG/SCCWRP Artificial Intelligence (AI) Project(s)

CTAG discussed potential AI projects submitted by SCCWRP and members:

- No consensus for single project could be reached.
- Two (2) projects selected as a compromise to appeal to all members.
  1. **Fish Video ID Study**
  2. **Wetland Satellite Image Monitoring Study**

SCCWP to investigate feasibility of each study and report back at Nov CTAG meeting.

Future Agenda Items for Consideration

1. Statewide Estuary Monitoring Overview.
2. Modelling Plan Based on Revised NWRI Report.
3. Feasibility of Proposed AI Projects.
4. Project Plan(s) for Joint CTAG/SCCWRP Project.
5. Plans for Next SCCWRP Symposium.
6. Climate Resiliency Research Theme Overview.
7. Report on outcome of subcommittee findings on Scientific Readiness