Mission

To assess the impacts of contaminants in fish and shellfish on beneficial uses in California water bodies through statewide monitoring under the Surface Water Ambient Monitoring Program (SWAMP), synthesize data and information from other bioaccumulation studies, and develop and maintain an internet portal that presents this information to decision-makers and the public in a form that they can easily use.

Background and Description

California has a long history of employing the technique of “bioaccumulation monitoring” – measuring the concentrations of pollutants in fish, bivalves, and other aquatic biota to assess impacts on beneficial uses. In the 1970s, the California State Water Resources Control Board (State Water Board) initiated two major statewide bioaccumulation monitoring programs. The Toxic Substances Monitoring Program (TSMP), initiated in 1976, measured pollutants in fish and invertebrates in freshwater and estuarine habitats. The TSMP primarily targeted water bodies with known or suspected water quality impairments, and successfully identified and documented many hotspots of contamination. The State Mussel Watch Program (SMWP) was initiated in 1977 to provide information on long-term trends in water quality in coastal marine waters and to identify specific areas with elevated concentrations. In 1998, a third statewide bioaccumulation monitoring program, the Coastal Fish Contamination Program (CFCP), was established. This program was developed to assess the health risks of consumption of sport fish and shellfish from nearshore waters along the entire California coast. Over the years, these programs yielded a wealth of useful information on water quality in California. However, the datasets generated by these programs had several limitations with regard to answering questions that are high priorities for water quality managers: much of the sampling was biased toward characterization of polluted areas; many areas were not sampled adequately, including areas with significant fishing activity; most of the sampling, though focused on sport fish, was not tailored to the
development of consumption advice; the dataset was also not tailored to evaluation of risks to piscivorous wildlife through monitoring of prey species; and long-term time series for detecting trends in sport fish or other wildlife contamination were lacking.

In 2000, the State Water Board, responding to a bill passed by the California legislature, developed a plan to restructure their existing water quality monitoring programs (including TSMP, SMWP, and CFCP) and create a Surface Water Ambient Monitoring Program (SWAMP) for water quality that addresses all water bodies statewide using consistent and objective monitoring, sampling and analytical methods, consistent data quality assurance protocols, and centralized data management. Sampling under the three monitoring programs ended in 2003, as SWAMP began to take shape.

In 2005 SWAMP began establishing a foundation for a new monitoring program to provide a systematic statewide assessment of the condition of California water bodies with respect to bioaccumulation. The first step taken was to provide funds for a review of the data generated by the previous statewide programs and other efforts.

SWAMP formed the Bioaccumulation Oversight Group (BOG) in 2006 to develop plans for and to guide the statewide assessment of the impact of bioaccumulation of contaminants on beneficial uses. In 2007 SWAMP initiated a new Bioaccumulation Monitoring Program to address the need for systematic statewide information on this topic. This effort marked the beginning of a new long-term, statewide, comprehensive bioaccumulation monitoring program for California surface waters.

In 2009 the BOG expanded its role by becoming a workgroup of the California Water Quality Monitoring Council (Monitoring Council). In 2021, the BOG was renamed the Safe to Eat Workgroup (STEW) to improve communication with broader audiences about the Workgroup and its activities. In this role as a Monitoring Council workgroup, the STEW has assumed broader responsibilities in guiding the development of the Monitoring Council’s Safe to Eat Portal and in coordinating and planning bioaccumulation monitoring across multiple agencies.

**Need for the Workgroup**

Prior to the formation of the STEW (formerly the BOG) and the inception of statewide surveys of bioaccumulation in 2007 under SWAMP, there was a lack of information on the statewide impact of contaminant bioaccumulation on the fishing and aquatic life beneficial uses of California waters. SWAMP has addressed this need with systematic statewide monitoring of contaminants in sport fish in California lakes and reservoirs, coastal waters, and rivers and streams. The STEW provides the guidance and peer review of the monitoring and synthesis conducted on this topic that is needed to ensure these efforts are technically sound and of optimum value to water quality managers.
The STEW provides the guidance and review needed for development and maintenance of the “Is It Safe to Eat Fish and Shellfish?” component of the Monitoring Council’s “My Water Quality” website (i.e., the Safe to Eat Portal). This website presents information from SWAMP and other programs on contaminants in California fish and shellfish to the public in a form that they can readily access and use to reduce their exposure to mercury and other contaminants of concern.

The STEW serves as a forum for coordination of bioaccumulation monitoring in California. STEW discussions have created partnerships between state and regional SWAMP monitoring efforts, and between SWAMP and other programs such as the Regional Monitoring Program for Water Quality in the San Francisco Bay and the Southern California Bight Regional Monitoring Program. In 2020, the STEW began to take a more intentional approach to developing partnerships with California Native American Tribes and community-based organizations that represent communities that rely most heavily on fishing for consumption, subsistence, sustenance, and cultural purposes (see the Bioaccumulation Monitoring Program Realignment for more information). These partnerships promote efficient use of monitoring resources and provide for more coherent and relevant assessment of conditions across the state.

The STEW advises the Monitoring Council and other agencies on data and information needs relating to management efforts to reduce the impact of contaminant bioaccumulation on the beneficial uses of California water bodies.

Scope and Objectives

Scope

The STEW will promote coordination of statewide bioaccumulation monitoring efforts and the dissemination of this information in a usable form to water quality managers, policy-makers, partners, and the public.

The STEW will also build systems to promote a more inclusive environment around this work, welcome a diverse array of people into the Workgroup, and foster a culture where all participate freely in workgroup activities.

Objectives

- Incorporate and operationalize justice, equity, diversity, inclusion, and belonging principles throughout all STEW activities
- Incorporate and operationalize open data and open science principles for core SWAMP data, including data accessibility, quality and integrity, literacy, use, and flow
• Conduct and promote comprehensive statewide bioaccumulation monitoring for the State of California, with SWAMP statewide monitoring as a core element

• Promote the coordination of major bioaccumulation monitoring efforts across the state to ensure efficient use of resources and the generation of comparable data to provide for more comprehensive statewide assessments

• Communicate bioaccumulation monitoring information to agency staff, decision-makers at the federal, state, and local levels, Tribal partners, program partners, and the public

• Include appropriate representation by governmental agencies, non-governmental organizations, and Tribal partners with a significant role in communicating information on contaminants in fish and shellfish to Californians.

**Membership and Representation**

Membership on the STEW is open to all individuals, agencies, organizations, and Tribes that have an interest in California bioaccumulation monitoring, assessment, and information. Members are expected to not only represent the mandates and vision of their agency, organization, or Tribe, but to serve as liaisons between their agency, organization, or Tribe and the STEW.

The current [STEW membership](#) includes State and Regional Water Board staff and representatives from other agencies and organizations including the U.S. Environmental Protection Agency (USEPA), the California Department of Fish and Wildlife (CDFW), the Office of Environmental Health Hazard Assessment (OEHHA), Moss Landing Marine Laboratories (MLML), the San Francisco Estuary Institute (SFEI), and the Southern California Coastal Water Research Project (SCCWRP). Collectively, the members of the STEW possess varying levels of experience with bioaccumulation monitoring.

The STEW has also convened a Peer Review Panel that reviews and provides feedback on monitoring plans and products. The members of the Peer Review Panel are internationally-recognized authorities on bioaccumulation monitoring.

To inquire about STEW membership please contact the STEW Co-Chair, Anna Holder ([anna.holder@waterboards.ca.gov](mailto:anna.holder@waterboards.ca.gov)).

**General Membership Responsibilities**

- Prepare for, attend, and conscientiously participate in STEW meetings
- Support the development of working group materials or deliverables (e.g. review and provide constructive feedback)
• Identify needs and challenges related to bioaccumulation to be addressed by the STEW
• Assist on subcommittees to help accomplish the objectives of the STEW

Co-chair Responsibilities

The co-chairs work cooperatively to ensure that STEW initiatives progress towards the mission and objectives. The co-chairs are specifically responsible for:

• Hosting and facilitating quarterly STEW meeting dates and creating agendas, as appropriate
• Reporting to the Monitoring Council on STEW progress, activities, and issues at least annually
• Meeting with the Justice, Equity, Diversity, and Inclusion (JEDI) Workgroup at least annually to strategically re-evaluate JEDI objectives and revise STEW goals and deliverables accordingly
• Overseeing various subcommittees to ensure they continue to make progress towards the goals for which they were established
• Nominating and/or overseeing the formation of new subcommittees (and their goals) or disbanding existing subcommittees that have completed their tasks or become inactive, with approval of such changes to be provided by the membership of the STEW
• Maintaining the diversity of the STEW through outreach to organizations, agencies, and Tribes identified as important to STEW efforts
• Maintain current STEW webpages, portals, and email lists

Monitoring Council Advisor Responsibilities

In addition to the General Membership Responsibilities, Monitoring Council Advisors should also:

• Participate in strategic planning initiatives with workgroup co-chairs to assess and redefine goals and suggested realistic deliverables, as necessary

Subcommittees

The STEW may form standing or ad hoc subcommittees to focus on specific technical or programmatic areas with approval of the Co-Chairs. Subcommittees will be formed on an as-needed basis to address a specific need. The subcommittees will provide a mechanism for more detailed and intensive participation and discussion. Each subcommittee shall select a leader who will serve as liaison and report to the Co-Chairs.
Each subcommittee leader shall provide a report on progress and recommendation during regularly scheduled STEW meetings. Individuals or organizations with relevant expertise may serve on subcommittees.

- Each subcommittee will define objectives and goals which they will bring to the co-chairs for approval.
- Each goal should have a timeframe and defined scope and deliverable(s).
- Recommendations and work products will be reviewed by the Co-Chairs and presented to the STEW for approval.
- Subcommittees are encouraged to reach out beyond the STEW for any resources that relate to the subcommittee topic.
- Subcommittees are encouraged to have a diversity of participants (e.g. Tribes, state agencies, scientific researchers, local government and non-governmental organizations) that directly relate to subcommittee objectives.

**Subcommittee Leader Responsibilities**

Each subcommittee will have a leader or co-leads appointed by that subcommittee. The subcommittee leader will:

- Encourage the subcommittee to meet as often as necessary to work toward completing the goal(s)/deliverable(s) for which they are responsible.
- Facilitate subcommittee meetings.
- Report back to the Co-Chairs and to the STEW at regularly scheduled meetings. These brief reports should include: (1) the progress and accomplishments of the subcommittee, (2) action items that the subcommittee is working on, and (3) any challenges or issues the subcommittee faces.
- Provide an annual update to the Co-Chairs that includes (1) a summary of the previous year’s activities, (2) listing of the members of the subcommittee, (3) the plans and direction of the subcommittee relative to its stated goals.

**Relationship to the California Water Quality Monitoring Council**

The STEW is a workgroup of the California Water Quality Monitoring Council. The Monitoring Council establishes common policies and guidelines for the workgroups and the programs they represent; acts as a clearinghouse for standards, guidelines, and collaboration; resolves key issues that affect multiple workgroups; provides support for workgroup actions; and improves visibility of workgroup efforts. The STEW will keep the Monitoring Council apprised of progress towards workgroup goals and will raise issues
to the Monitoring Council that cannot be resolved within the workgroup or that may affect multiple workgroups of the Monitoring Council.

Meeting Frequency and Governance

The STEW is based on a spirit of collaboration, open exchange of ideas, and respectful dialogue. Meetings will be open, informal, and consensus driven. The STEW will generally meet quarterly, but may elect to change the frequency at its discretion.

STEW meetings will be led by two Co-Chairs, who will be responsible for setting meeting agendas, facilitating discussions during the meeting, tracking action items, and distributing meeting notes. Monitoring Council staff may assist in these activities.

Meeting dates, locations and agendas will be decided on by Co-Chairs and distributed via the STEW Email List and posted on the STEW Meetings Page. A standing item will be included in the agenda to identify or suggest agenda items for future meetings. In addition, any member requesting to add or revise an agenda topic may do so by sending an email to the Co-Chairs at least two weeks prior to the upcoming STEW Meeting. Final agenda content, order of presentations, and speakers or presenters will be determined by the Co-Chairs. The final agenda will be posted on the STEW Meetings Page approximately one week prior to the upcoming STEW meeting.

Meeting Procedures

The Co-Chairs will work together to facilitate the meeting according to the agenda, including presentations, discussions, and decision-making. Co-Chairs will take meeting notes (or delegate the responsibility to another working group member) and will distribute to the STEW and post on the STEW Meetings Page. Any comments, or edits to meeting notes, should be submitted to Co-Chairs prior to or at the following STEW meeting. An updated version of the meeting notes will be posted to the STEW Meetings Page, as appropriate.

Pertinent products, such as meeting agendas, notes, and presentations (for which presenter approval for posting is obtained) will be posted on the STEW Meetings Page by State Water Resources Control Board support staff.

Communication

STEW members are encouraged to communicate regularly on subjects of interest or work assignments that might arise and to reach out to STEW members and colleagues in other organizations, local agencies and authorities, potential affected parties, and potential partners.
All communications of the STEW with the Monitoring Council will be directed by the Co-Chairs.

With respect to discussing the activities of the STEW in other forums, only Co-Chairs may formally represent the STEW, unless decided otherwise by the STEW. However, any member may report on STEW activities in a factual manner. Representation of the STEW and contact with the media should remain the purview of the Co-Chairs.

Members will represent their agency, organization, or Tribe in good faith, ensuring that critical issues, documents, products, or positions are taken back to managers and colleagues at their respective agency, organization, or Tribe for dissemination and, in appropriate cases, feedback. This “information loop” is an important function of the STEW and will facilitate consistent information sharing so that policies and procedures related to bioaccumulation monitoring, assessment, reporting, and management are consistent among member agencies and partners to the extent practicable.

Decision-Making Process

**Consensus-Based Decision-Making Process:** STEW members will seek to reach agreement on a course of action to address an issue or set of related issues through consensus, working together to find mutually acceptable solutions.

**Successful consensus processes will follow these guiding principles:**

- **Consensus Decision-Making** – Participants make decisions by agreement rather than majority vote.
- **Flexibility** – Participants design a process and address the issues in a manner they deem most appropriate to the situation.
- **Shared Control/Ground Rules** – Participants share responsibility with the facilitator setting and maintaining the ground rules and a process for creating outcomes.
- **Commitment to Implementation** – All stakeholders commit to carrying out their agreement.

**Stakeholders follow these elements of a Consensus-Based Decision:**

- All Members agree with the proposed decision and are willing to carry it out;
- No Member will block or obstruct the decision or its implementation; and,
- All Members will support the decision.
Possible Levels of Consensus

Consensus can take several forms by individual members, including the following:

- I can say an unqualified "yes"!
- I can accept the decision.
- I can live with the decision.
- I do not fully agree with the decision; however, I will not block it and will support its implementation.

When consensus cannot be achieved by the STEW or a subcommittee, the organization will respect divergent views, seek technical guidance, and move to majority vote.

Voting Process

The STEW has agreed on the following guidelines for decision-making when a consensus is not met. All Members are encouraged to participate in the discussion and identification of concerns. Each organization represented in the working group will be granted one vote.

- **Discussion of the item:** The item is discussed with the goal of identifying opinions and information on the topic at hand. The general direction of the group and potential proposals for action are often identified during the discussion.

- **Identification and addressing concerns:** If consensus is not achieved, each dissenter presents their concerns on the proposal, potentially starting another round of discussion to address or clarify the concern. The dissenting party/parties may supply an alternative proposal or a process for generating one, to consider unique or shared concerns be addressed. To allow time for resolution of the concern, a vote will be sought at the next STEW meeting.

- **Call for a vote:** The facilitator of the decision-making body (i.e., Co-Chair(s) or subcommittee lead) calls for a vote on the proposal, as reflected in the meeting agenda. At the meeting, each organization represented states their agreement or disagreement with the proposal. A majority of the votes cast (one per organization) determines the outcome.

Charter Amendment Process

If any STEW member(s) would like to propose amendments to this Charter, all they need to do is email the Co-Chair(s) with their amendment recommendation and the Co-Chairs will add an item to discuss the amendment to an upcoming agenda.

*This STEW Charter was last updated in Jan 2022.*