SCCWRP FACT SHEET

How SCCWRP adds value to aquatic ecosystems management

The applied-science research agency builds a rigorous technical foundation for management decision-making

The **Southern California Coastal Water Research Project (SCCWRP)** is an applied sciences institute working to incorporate rigorous, fully vetted research into the decisions and actions of Southern California's environmental management community. Since its founding as a public-sector research agency in 1969, SCCWRP has been developing strategies, tools and technologies that both regulatory and regulated agencies rely on to more effectively protect and enhance the health of Southern California's coastal ocean and the watersheds that drain to it.

SCCWRP mission

To enhance the scientific foundation for management of Southern California's ocean and coastal watersheds

SCCWRP's value proposition

Establishing an unbiased scientific foundation for action: SCCWRP helps managers decide when and how to take actions that are most likely to be effective – and conversely, when actions are premature or unlikely to succeed.

Fostering collaborative management forums: SCCWRP brings together member agencies from the regulated and regulatory sides of the table to co-govern SCCWRP. In the process, disparate agencies engage in meaningful dialogue and mutually beneficial collaborations as they work toward consensus and agreement on what the science says.

Building broad scientific consensus: SCCWRP works proactively to build broad consensus among leading scientific experts around the world – given that managers are unlikely to take action based on the findings and recommendations of a single organization.

Elevating emerging science: Long before policies are being crafted and disagreements among management agencies can arise, SCCWRP works proactively to brief its member agencies on emerging issues in environmental management. SCCWRP's goal is to prevent inter-agency conflicts by sharing comprehensive, unbiased scientific information and insights about thought processes and priorities at the local, state and federal levels.

Aligning to member agencies' needs: SCCWRP's research agenda is developed collaboratively with SCCWRP's 14 member agencies, ensuring SCCWRP is pursuing science optimally aligned to meet managers' present-day needs as well as long-term goals and priorities.

Cost-leveraging research funding: Every dollar that SCCWRP's 14 member agencies invest in SCCWRP – whether through annual member dues or via contracts and grants – is leveraged about 25-fold via partnerships, external funds, and in-kind services.

Ways that SCCWRP supports adoption of emerging science

SCCWRP works closely with the environmental management community to maximize adoption and use of emerging science. SCCWRP provides guidance and assistance in the form of:

Training: SCCWRP invests in workshops, seminars, demonstrations, and written manuals to teach managers how to use new methods, tools and technologies.

Quality assurance: SCCWRP facilitates intercalibration and other quality-assurance exercises to ensure multiple organizations can reliably and consistently produce high-quality, comparable data.

Technology transfer: SCCWRP facilitates beta testing, calibration and validation of new tools, methods and technologies to ensure end users are optimally positioned to use and benefit from them.

Follow-through: At every stage of the journey to adopt new science, SCCWRP partners with end users to work through problems, identify solutions and chart next steps.

SCCWRP by the numbers

- **50** full-time staff
- **6** science departments
- **$12 million** annual budget

SCCWRP member agencies

Wastewater treatment agencies

- City of Los Angeles Bureau of Sanitation
- Sanitation Districts of Los Angeles County
- Orange County Sanitation District
- City of San Diego Public Utilities Department

Stormwater management agencies

- Los Angeles County Flood Control District
- Orange County Public Works
- San Diego County Watershed Protection Program
- Ventura County Watershed Protection District

Water-quality regulatory agencies

- U.S. Environmental Protection Agency, Region 9
- California State Water Resources Control Board
- Los Angeles Regional Water Quality Control Board
- Santa Ana Regional Water Quality Control Board
- San Diego Regional Water Quality Control Board

Natural resources agency

- California Ocean Protection Council

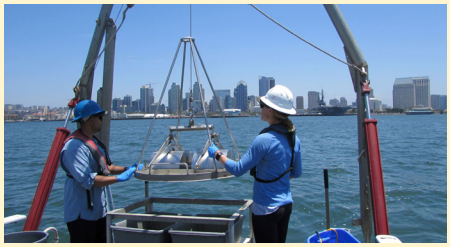
SCCWRP's management impact

Signature SCCWRP accomplishments that speak to the breadth and depth of the organization's influence on management include:

Regional monitoring assessments

SCCWRP brings together disparate organizations to design, implement and manage geographically encompassing, regional monitoring programs that produce new insights about the health of the coastal ocean and the watersheds that drain to it. Programs facilitated by SCCWRP serve as national models for how to design and administer regional monitoring collaborations. Programs include:

» **Southern California Bight Regional Monitoring Program:** This cyclical monitoring effort brings together more than 90 organizations to build a multi-faceted picture of the health of 1,439 square miles of coastal waters.



» **Southern California Stormwater Monitoring Coalition (SMC) Regional Watershed Monitoring Program:** The freshwater counterpart to the Bight program tracks the health of the 4,300 miles of streams across 15 major watershed areas that drain to Southern California's coastal ocean.

Protection of beach water quality

SCCWRP is a national leader in developing stronger, more effective strategies for protecting beachgoers from fecal contamination, including next-generation DNA-based methods that improve the speed and precision of identifying and measuring fecal contamination. Water-quality managers have used these insights to:

» Prioritize Southern California beaches for investigating potential sources of contamination

» Make decisions about how to manage persistent fecal contamination signals, particularly during wet weather

Biological tools for ecological health assessments

SCCWRP has developed cutting-edge biological assessment tools for scoring the health of aquatic systems by studying the condition of the biological communities living in them. The most advanced of these tools, known as indices of biotic integrity, can simplify condition into a single numerical condition score, and they've been widely adopted and incorporated into routine monitoring programs across California.

» **California Stream Condition Index and Algal Stream Condition Index:** This pair of biology-based scoring tools assigns a numerical score to wadeable streams statewide, ensuring the health of streams is directly comparable statewide.

» **Benthic Response Index:** This biology-based scoring tool assigns a numerical score to coastal seafloor sediment, ensuring the biological health of different coastal environments is directly comparable.

Foundation for management action

Southern California environmental managers have relied on SCCWRP's rigorous, unbiased science to help them develop:

- **Watershed and coastal ocean management plans**
- **Biological objectives for freshwater environments**
- **Sediment quality objectives**
- **Microbial water quality standards for beach ocean water**
- **Total maximum daily loads (TMDLs) to cap pollution loading**

Research portfolio

SCCWRP's research portfolio is organized around eight major themes; each research theme produces insights that help managers decide how to make decisions that optimally protect water quality, aquatic ecosystems and public health.

- » Bioassessment
- » Contaminants of Emerging Concern
- » Ecohydrology
- » Microbial Water Quality
- » Eutrophication
- » Stormwater BMPs
- » Climate Change
- » Regional Monitoring

More reading

SCCWRP at 50: A Look Back at Five Decades of Progress and Accomplishments (2019)

SCCWRP fact sheet series