

Southern California Stormwater Monitoring Coalition <http://www.socalsmc.org/>

Completed SMC Project: Design of Regional Bioassessment Monitoring Program

The design of the [Regional Bioassessment Monitoring Program](#) was completed by the SMC in December 2007. A key partner was the Surface Water Ambient Monitoring Program (SWAMP).

There are over 5,000 stream and river miles in the coastal range of southern California which provide valuable aquatic resources for both humans and wildlife. Uses include fish habitat and fishing, drinking water, swimming and other recreational uses, water augmentation and groundwater recharge, agriculture, and many others.

Southern California's growing population has placed stress on these resources as a result of habitat alteration, hydromodification through increased imperviousness, flood control, water augmentation and diversion, discharge of treated and industrial wastewaters, and contributions from urban runoff. At this time, the regional health of southern California's streams and rivers is not clearly understood because only 29% of their miles are monitored on an ongoing basis. Some watersheds have many sampling locations and are well-monitored, but the status of other watersheds remains virtually unmonitored. This uneven level of effort is due mostly to the presence of in-stream discharges, where monitoring is mandated. Otherwise, monitoring is typically not conducted. As a result, monitoring occurs mainly in locations where impacts are expected and the potential for a biased picture of aquatic health is likely.

Monitoring is currently conducted by over a dozen different organizations that vary in design, frequency, and indicators selected for measurement. Even where designs are similar, often the field techniques, laboratory methods, and quality assurance requirements are not comparable, so cumulative assessments are infeasible. Additionally, there is no overarching information management system, so sharing data is extremely labor intensive if not entirely impracticable.

The goal of the project was to describe a large-scale, regional monitoring program of southern California's coastal streams and rivers. The objective was to create a comprehensive monitoring design that integrates many elements of the individualized monitoring programs that currently exist within the region. The design addresses comparability in the field and the laboratory, performance-based QA guidelines, information management system for sharing data, and assessment of endpoints for stream health. The integrated regional monitoring program is designed to be collaborative, so that each individual program can assess its own conditions but also contribute in answering regional questions about the overall health of southern California's streams and rivers.

Implementation of the Regional Bioassessment Monitoring Program will be initiated as part of a subsequent SMC project.