

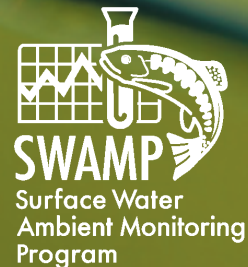
New Web Postings

SWAMP documents, including regional watershed assessments, fact sheets and technical reports are available for download at <http://www.waterboards.ca.gov/swamp/reports.html>.

New postings include:

- *Water Quality Assessment of the Condition of California Coastal Waters and Wadeable Streams.*
- Fact sheet for statewide coastal waters assessment results.
- Fact sheet for statewide wadeable streams assessment results.

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New SWAMP Bioassessment Protocols Coming Soon

The Water Board's Surface Water Ambient Monitoring Program (SWAMP) will soon release its official procedures for collecting bioassessment samples and associated physical habitat data.

Assessments of the ecological condition of perennial streams rely on indicators such as biotic assemblages (for example, fish, benthic macroinvertebrates, periphyton) and the physical attributes of the stream channel and surrounding riparian area. The biotic assemblage and physical habitat parameters can reveal whether a stream is healthy or degraded.

The new guidance document will include two complementary procedures for sampling benthic macroinvertebrate assemblages and a suite of procedures for measuring physical habitat and chemical conditions associated with these samples. Collectively, these new procedures are designed to produce repeatable quantitative measures of a stream's physical/habitat condition and benthic invertebrate assemblages.



These protocols replace the widely used California Stream Bioassessment Procedure (CSBP) developed by the California Department of Fish and Game. Protocol development was done in collaboration with Department of Fish and Game and other interested parties. The SWAMP procedures are largely compatible with the CSBP, but take advantage of enhancements to the quantification of physical habitat condition developed by the EPA for its Environmental Monitoring and Assessment Program. The new procedures also align SWAMP benthic macroinvertebrate sampling methods with those prevalent throughout the western United States.

SWAMP on the Web

For more information regarding the SWAMP program, please visit : <http://www.waterboards.ca.gov/swamp/>. To subscribe to The SWAMP Monitor, please visit http://www.waterboards.ca.gov/lyrisforms/swrcb_subscribe.html.





The physical/habitat scoring methods can be used as a stand-alone evaluation or in conjunction with a bioassessment sampling event. This information can be used to classify stream reaches, associate physical and chemical condition with biotic condition and help explain patterns in the biological data. Because bioassessments are used to answer a variety of questions, the component measures of the SWAMP protocols were designed as independent modules that can be added or subtracted to match the goals of the sampling.

Accurate use of bioassessment methods requires field training and implementation of quality assurance measures throughout the field season. SWAMP is working to establish quality assurance procedures for bioassessment data.



<http://www.waterboards.ca.gov/swamp/reports.html#statewide>

The protocols will be available on the SWAMP Web site in early 2007 [<http://www.waterboards.ca.gov/swamp/reports.html#statewide>].

SWAMP Quality Assurance Management Plan



The SWAMP Quality Assurance Management Plan is a comprehensive oversight and coordination document for SWAMP. It contains program-specific administrative information, as well as technical material pertaining to sample handling and analysis. The Quality Assurance Management Plan serves as a valuable resource for all SWAMP staff and contributors.

SWAMP comparability is contingent upon meeting the requirements of the Quality Assurance Management Plan. The document includes measurement quality objectives for the program's wide range of contributors, methods and analytes. Measurement quality objectives define items such as reporting limits, quality control samples and holding times. In order for a project or program to be SWAMP-comparable, it must meet or exceed all measurement quality objectives including the required corrective actions. The measurement quality objectives, along with Information Management System compatibility, are the basis for achieving comparability with SWAMP.

The Quality Assurance Management Plan originated in 2002 and is currently under revision by the SWAMP Quality Assurance Team. The document follows the EPA's content and format guidelines for another quality document — the quality assurance project plan (QAPP). This ensures a comprehensive programmatic document and provides a valuable template for SWAMP's contributing projects.



When finalized, the SWAMP Quality Assurance Management Plan will be available on the SWAMP Web site at <http://www.waterboards.ca.gov/swamp/reports.html#statewide>.

Did You Know?

Two New Programs in Development

Two statewide monitoring programs are in the initial stages of development. The first is a bioaccumulation monitoring program involving human health risk assessment from eating fish. The goal of the study is to assess fish tissue contamination in lakes and reservoirs throughout the state. A recent review of bioaccumulation studies performed over the last 30 years revealed a serious lack of tissue data for most lakes and reservoirs. This effort will first categorize lakes into high, medium and low fishing use and then develop a cost-effective design to begin monitoring these lakes in the spring of 2007. The design should address beneficial uses associated with aquatic life and human health. The initial implementation will focus primarily on human health. This screening-level survey is being coordinated with the state's Office of Environmental Health Hazard Assessment.

The second statewide program will focus on the design and implementation of an expanded statewide perennial streams survey by the spring of 2008. This effort would develop a coordinated and comprehensive statewide monitoring design which would integrate bioassessment efforts currently funded through SWAMP and the Nonpoint Source program with existing bioassessment efforts associated with local and regional bioassessment efforts. A key feature of the design will be the identification of relationships between land use stressors and response indicators.