

EXECUTIVE SUMMARY

Adequate and accurate monitoring and assessment are the cornerstones to preserving, enhancing, and restoring water quality. The information gathered from monitoring activities is critical to protect the beneficial uses of water, develop water quality standards, conduct federal Clean Water Act assessments, and to determine the effects of pollution and of pollution prevention programs.

The federal Clean Water Act gives states and territories the primary responsibility for implementing programs to protect and restore water quality. In its Section 106(e)(1), the Clean Water Act requires the U. S. Environmental Protection Agency (USEPA) to determine that a state is monitoring the quality of navigable waters and compiling and analyzing data on water quality. In fact, before USEPA will award Section 106 grant funds, states must report their monitoring and assessment activities and submit that information in their obligatory Section 305(b) reports.

To meet those Clean Water Act requirements and provide comprehensive information on the status of beneficial uses of California's surface waters, The State Water Resources Control Board and the Water Boards introduced SWAMP in 2001.

To meet Clean Water Act objectives, SWAMP should answer the following questions:

- What is the overall quality of California's surface waters?
- To what extent is surface water quality changing over time?
- What are the problem areas and areas needing protection?
- What level of protection is needed?
- How effective are clean water projects and programs?

But SWAMP was envisioned to do more than simply fulfill statutory obligations. The program was designed to stretch beyond those federal requirements and coordinate a statewide framework of high quality, consistent, and scientifically defensible methods and strategies to improve the monitoring, assessment, and reporting of California's water quality.

The Strategy presents SWAMP's vision to fulfill California's Clean Water Act responsibilities and our "blueprint" for improving our monitoring, assessment and reporting activities to generate a statewide commitment to achieving better water quality through better monitoring and assessment.

Elements of a State Water Monitoring and Assessment Program

1. Monitoring Program Strategy
2. Monitoring Objectives
3. Monitoring Design
4. Core Indicators of Water Quality
5. Quality Assurance
6. Data Management
7. Data Analysis/Assessment
8. Reporting
9. Programmatic Evaluation
10. General Support and Infrastructure

To help states fulfill their federal requirements, USEPA produced Elements of a State Water Monitoring and Assessment Program (U. S. Environmental Protection Agency, 2003), which identifies the 10 basic elements of a state water quality monitoring program. The USEPA document referred to as USEPA "Elements" serves as a tool to help USEPA and the individual states determine whether a monitoring program meets the prerequisites of Clean Water Act Section 106 (e)(i). This Strategy outlines SWAMP's activities in each of the 10 basic USEPA elements. In each area, we first report the current status of our program relative to Clean Water Act statutory requirements. We then discuss our activities and plans to protect and restore California's water quality, emphasizing those actions SWAMP must take to have a technically defensible program.

Full implementation of our Strategy will take 10 years, as suggested by USEPA, and will require significant additional resources.

Appendix A of this Strategy paper includes USEPA's evaluation criteria for a state's monitoring and assessment program, as well as SWAMP's "self appraisal" of our program's current status and our ability to make progress on implementation.



MEETING AND EXCEEDING THE 10 REQUIRED ELEMENTS FOR A SUCCESSFUL PROGRAM

I. Strategy

SWAMP's vision is that water quality is comprehensively¹ measured to protect beneficial uses and that our protection and restoration efforts are adequately evaluated. This will require a comprehensive SWAMP strategy to meet the water quality management needs of the California Water Boards and address all California surface waters, including streams, rivers, lakes, reservoirs, estuaries, coastal areas and wetlands. This strategy document lays out a preliminary strategy to be further developed by the SWAMP Roundtable². The SWAMP Strategy is a long-term plan, including a 10-year schedule for complete implementation. The Strategy is comprehensive in scope, covering monitoring objectives, monitoring design, water quality indicators, quality assurance, data management, data analysis/assessment, reporting, programmatic evaluation, general support, and infrastructure planning.

The existing SWAMP program being implemented by the Regional Water Boards consists of 12 separate programs focused on regional priorities but unified by a common set of field methods, quality assurance guidelines, and data management. Regional Water Board staff have been reluctant to develop a broader strategy because no resources have been identified for implementation. In fiscal year 2005-2006, the SWAMP Roundtable will refine the strategy outlined in this document as one of many steps to secure the additional resources that will enable comprehensive monitoring.

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1. Comprehensive implies that all waterbody types are monitored to assess all applicable beneficial uses to meet all Clean Water Act monitoring objectives.
 2. The SWAMP Roundtable is the coordinating entity for the program. Participants include staff from the State and Regional Water Boards, the Department of Fish and Game, the Marine Pollution Studies Laboratory, Moss Landing Marine Laboratories, contractors, and other interested entities.

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