

## SWAMP Strategic Plan Goals & Objectives

#	VISION STATEMENT	GOALS	OBJECTIVES
1	<p><b>Strategy</b></p> <p>To work with SWAMP's partners and with the California Water Quality Monitoring Council (CWQMC) to identify water quality management questions, define and prioritize assessment questions, and answer those questions with data and information that is provided to key decision makers and the public for management of water resources.</p>	<p>A SWAMP Assessment Framework that identifies key assessment questions, the methods by which to answer them, the thresholds against which to evaluate data, and the report cards that convey conditions to decision makers and the public.</p>	A specific and updated list of water quality management questions
			A list of assessment questions to elicit monitoring information critical to water resource management
			An updated SWAMP Assessment Framework document that lists assessment questions, specific and general methods for answering assessment questions, assessment thresholds, and reporting strategies
		<p>Integration of SWAMP with other Water Board programs to continually identify information needs, provide needed information, and achieve comparability with SWAMP QA and Data Management guidance</p>	A partnership with Water Board Nonpoint-Source (NPS) units
			A partnership with Water Board TMDL, Assessment, and Standards units
			A partnership with Water Board Stormwater units
			A partnership with Water Board NPDES, WDR, and 401 Certification and Wetlands units
			A partnership with Water Board Irrigated Lands and Agricultural Waiver units
			A partnership with Water Board Citizen Monitoring Program
			A partnership with the State Board's Division of Water Rights
		<p>Coordination with the CWQMC and regional monitoring programs to assess all beneficial uses in all waterbodies</p>	Coordination with the CWQMC
			Outreach to Agencies related to CWQMC
			Coordinated bioassessment in Lake Tahoe basin with Tahoe Reg Planning Agency, State of Nevada, and CA Tahoe Conservancy
			Coordination with the Klamath River Water Quality Monitoring Program
			Coordination with the Delta Regional. Monitoring Program
			Coordination with the San Francisco Bay Regional. Monitoring Program
			Coordination with the Sacramento River Watershed Program
			Coordination with the San Joaquin River Monitoring Program
			Coordination with the Central Coast Water Quality Data Synthesis Assessment and Management (SAM) Project
			Coordination with the Southern California Bight Regional Monitoring Program
Coordination with the San Gabriel River Watershed Monitoring Program			
<p>A coordinated system of statewide and Regional Board SWAMP monitoring programs focusing on high priority assessments.</p>	Development of new RMPs to cover additional regions of the State		
	Statewide Bioaccumulation Oversight Group (BOG) monitoring program to assess fish and shellfish consumption safety in streams, lakes, and coastal waters		
	Statewide Perennial Streams Assessment monitoring program to assess the condition of aquatic ecosystems in streams		
	Statewide Reference Condition monitoring program to evaluate benchmarks for aquatic ecosystem health		
	Statewide Stream Pollution Trends (SPoT) monitoring program to determine		

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			<p>whether stream contamination and toxicity are affected by land use change and resource management</p> <p>Regional Board Monitoring programs that make use of statewide monitoring networks and Regional designs to address Basin Plan priorities and contribute data to statewide assessments</p>
		A web-based reporting system that efficiently transfers information to decision makers and the public	<p>CWQMC web portals for fish consumption safety and aquatic ecosystem health in streams</p> <p>SWAMP website that posts SWAMP assessment products and draws target audiences</p> <p>SWAMP assistance to CEDEN to foster greater input and dissemination of comparable water quality data.</p>
		Effective programmatic and scientific review to document and improve performance	See Element 9, below
		Up-to-date SWAMP Strategy documents	SWAMP Strategy Report updated at least every 10 years
<b>2</b>	<b>Monitoring Objectives-</b>  To clearly articulate monitoring objectives as attainable targets for producing the information needed to answer assessment questions at the statewide and Regional levels	A specific and updated list of monitoring objectives that can be incorporated into all statewide, regional and partner programs to guide monitoring designs that produces information to answer assessment questions for all beneficial uses and spatial scales in California	<p>A list of monitoring objectives as currently stated by SWAMP, other Water Board programs, and partner programs</p> <p>An updated list of monitoring objectives that aligns previous objectives into a clearly stated list of objectives that can be adopted by all monitoring programs at all scales</p> <p>Incorporate the five Clean Water Act Objectives:</p> <p>CWA 1. Establish, review, and revise water quality standards</p> <p>CWA 2. Determine water quality standards attainment</p> <p>CWA 3. Identify causes and sources</p> <p>CWA 4. Support the implementation of water management programs</p> <p>CWA 5. Evaluate program effectiveness</p> <p>A specific subset of monitoring objectives that are incorporated and addressed by SWAMP statewide and Regional monitoring programs</p> <p>Sharing and alignment of objectives with partner programs</p>
<b>3</b>	<b>Monitoring Design-</b>  To develop scientifically sound monitoring designs to guide efficient collection of data to meet SWAMP's monitoring objectives with available resources, and to	Statistically rigorous, peer-reviewed monitoring designs that address statewide monitoring objectives and guide the four SWAMP statewide programs to meet their objectives	<p>Peer-reviewed monitoring design for Bioaccumulation Oversight Group (BOG) statewide program</p> <p>Peer-reviewed monitoring design for statewide Perennial Streams Assessment (PSA) program</p> <p>Peer-reviewed monitoring design for Reference Condition statewide program</p> <p>Peer-reviewed monitoring design for Stream Pollution Trends (SPoT) statewide program</p>
		Statistically rigorous, peer-reviewed monitoring designs that	

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	coordinate monitoring designs with the CWQMC and partners.	address objectives for monitoring conducted by Regional Board Water Boards	
		A SWAMP Monitoring Framework to facilitate efficient coordination of SWAMP field and laboratory effort	A Monitoring Framework document that identifies common indicators, sites and schedules to minimize redundant effort and maximize data sharing to achieve monitoring objectives of multiple programs with different scales and assessment questions
		A process by which SWAMP engages with the CWQMC and partner programs to optimize their monitoring designs and achieve efficiencies through coordination of indicators, surveys, and analyses	An inventory of monitoring designs from selected partner programs
		Implementation of SWAMP monitoring designs through field work, sample collection, and laboratory analysis	Statewide Monitoring Programs
			Regional Monitoring Programs
		An assessment of freshwater beaches to determine if they are safe for swimming	
<b>4</b>	<b>Indicators-</b>  To review and select indicators that appropriately represent the condition of the environmental attributes and beneficial uses to be assessed and diagnose the causes and sources of impairment.	A specific and updated list of appropriate monitoring indicators representative of the status of ecological attributes of concern for management of all appropriate beneficial uses	A list of currently identified status indicators from SWAMP and partner programs that are representative of ecological attributes of concern
			A specific and updated list of status indicators that need to be developed to address ecological attributes of concern that currently are not adequately addressed
			Bioassessment Indicator Development
			An updated list of currently available and developing status indicators that sufficiently represent ecological and other attributes critical to supporting all beneficial uses in all types of waterbodies
			A list of currently identified diagnostic indicators from SWAMP and partner programs
		A specific and updated list of diagnostic indicators capable of determining the causes and sources of beneficial use impairment in all waterbody types	A specific and updated list of diagnostic indicators that need to be developed to address types of impairment that currently are not adequately addressed
			An updated list of currently available and developing diagnostic indicators that sufficiently address impairment of all beneficial uses in all types of waterbodies
			Development of protocols and metrics for invertebrate bioassessment
		SWAMP capability to assist in the development of needed indicators	Development of protocols and metrics for algae bioassessment
			Development of protocols and metrics for diagnostic indicators
<b>5</b>	<b>Quality Assurance-</b>	SWAMP data of sufficient quality and with sufficient documentation	Quality Assurance Program Plan (QAPrP) and documentation
			Effective tools and guidance for SWAMP QA

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	To develop, implement, and maintain the quality assurance tools and capabilities needed by SWAMP, and shared with partner programs, to allow comparable data from many sources to be used in comprehensive water quality assessments.	to be used in a range of SWAMP water quality assessments	Method Quality Objectives (MQOs)		
			QA procedures for SWAMP data management		
			QA procedures for bioassessment		
			QA procedures for other SWAMP programs		
			QA procedures for SWAMP marine matrices		
			QAPP/ QA document review		
			Audits		
			Up-to-date website		
			QA reporting		
			QA research		
		Guidance and tools for partner programs to facilitate data comparability and allow water quality assessments based on combined data sets	Coordination of QA within SWAMP and with partner programs		
			QA procedures to facilitate comparability		
			Support for citizen monitoring		
			SWAMP Help Desk		
<b>6 Data Management-</b>  To manage the flow of data from initial measurement, through acquisition and storage in the data bases, to data output and assessment, so that accurate information is available in a timely manner.	A data management system that maintains the integrity of SWAMP data and metadata, documents data quality from initial measurement to final assessment, and efficiently retrieves data for SWAMP assessments.	Training on QA procedures			
		A SWAMP database capable of storing ambient monitoring data elements			
		Data comparability within SWAMP and with partner programs			
		Data exchange within SWAMP and with its partners			
		Effective, well-aligned Regional Data Centers (RDCs)			
		Effective methods for extracting data from the SWAMP data base and CEDEN in formats useful for data assessment			
		<b>7 Data Analysis and Assessment-</b>  To provide a consistent science-based assessment framework that integrates data from SWAMP and other sources to effectively answer assessment questions and inform water quality management decisions at the State and Regional	A SWAMP Assessment Framework that integrates with the CWQMC Comprehensive Strategy and identifies key assessment questions, the methods by which to answer them, the thresholds against which to evaluate data, and the report cards that convey conditions to decision makers.	Strategy coordination with the CWQMC to identify waterbody types, beneficial uses, and management questions that SWAMP will address	
				A specific and updated list of water quality management questions to be addressed by SWAMP	
				A list of SWAMP assessment questions to elicit monitoring information critical to water resource management	
				An updated SWAMP Assessment Framework document that lists assessment questions, specific and general methods for answering assessment questions, assessment thresholds, and reporting strategies	
				Implementation of the SWAMP Assessment Framework to interpret data and provide information to monitoring partners, resource managers, and the	Guidance and tools to assist in 303(d)/305(b) assessments, consistent with the 303(d) listing policy
					Guidance and tools to integrate, where appropriate, data from different indicators and designs to generate efficient statewide assessments
					Guidance and tools to assess the extent of impairment in stream reaches

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	levels.	public	Guidance and tools to integrate data from statewide and Regional programs for 303(d)/305(b) and other assessments. Specific interpretive assessment products that address priority SWAMP assessment questions
		SWAMP capability to assist in the development of assessment tools	Biological Objectives
<b>8</b>	<b>Reporting</b>  To make all SWAMP data available to the public, and to provide reporting products that interpret data from SWAMP and other sources to most effectively answer assessment questions and support resource management decisions in a timely and publicly accessible manner.	A web-based reporting system that effectively transfers information to decision makers and the public	SWAMP website that posts SWAMP assessment products and draws target audiences A CWQMC fish and shellfish consumption safety web portal maintained by SWAMP Bioaccumulation Oversight Group (BOG) A CWQMC stream ecosystem health web portal maintained by the SWAMP Healthy Streams Partnership
		Timely and complete water quality reports and lists as required by the CWA, and consistent with current USEPA guidance.	SWAMP participation with the CWA 305(b)/303(d) Integrated Report
			Data available for preparation of the 303(d) list
			Data available for the Beach report
		A SWAMP water quality reporting strategy for the public that uses various formats and media such as brochures, fact sheets, report cards, and oral presentations.	Regular fact sheets summarizing SWAMP elements
			Regular fact sheets summarizing state and regional beneficial use status
		Effective communication with agency management	Presentations and briefings to management at the Water Boards and partner agencies
		Technical reports and peer reviewed journal articles resulting from SWAMP activities	Technical reports available within two years of data collection
		Reports for Agency management Special Topic Reports	Timely water quality information to agency managers and decision makers
		<b>9</b>	<b>Programmatic Evaluation-</b>  To conduct periodic reviews of each aspect of the program to determine its scientific validity, if it is being implemented as designed, and how well it
Enhancement of the CWQMC CalEPA audit with additional SWAMP-specific experts			
Regular external scientific review of SWAMP monitoring programs	Scientific review of SWAMP statewide monitoring programs		
	Scientific review of SWAMP Regional Board monitoring programs		
Internal programmatic review	Water Board Performance Measures Effective performance measures internal to SWAMP program		

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	serves the water quality decision needs of the State.		
10	<b>General Support and Infrastructure-</b>  To provide the specific support needed to implement a coordinated and comprehensive monitoring and assessment program.	Visibility and enhanced usefulness of SWAMP information through dissemination via the CWQMC web portals	
		Outreach and communication with resource managers and stakeholders to align SWAMP priorities and facilitate program support	
		Updated SWAMP Needs Assessment	Needs identified for expertise at State and Regional Boards to coordinate among Board programs
			Needs identified for Water Board and contract staff to conduct monitoring
			Needs identified for aligning partner assessments with SWAMP
		An effective inventory of monitoring activity in California to identify areas for SWAMP prioritization	Web-based inventories updated by staff from regional monitoring programs
			Enhanced CWQMC inventory
		Personnel support adequate to handle SWAMP contracting and administrative needs	
		Laboratory and field capability adequate to handle current and anticipated monitoring workload	
Assessment and comparability capabilities	SAFIT, etc.		
Documented history of key SWAMP communications, decisions, budgets, and products to support SWAMP institutional memory			