

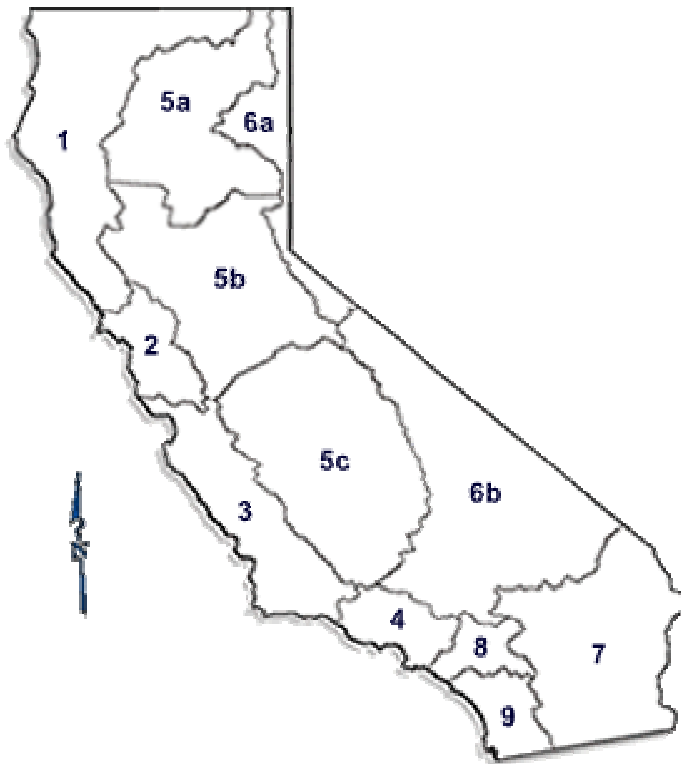
Section A4. SWAMP Program Organization

The SWAMP Program functions administratively under the leadership and auspices of the Assessment and TMDL Support Unit, within the TMDL Section of the Division of Water Quality at the California State Water Resources Control Board (SWRCB), and concurrently, is administered and managed regionally by SWAMP staff at the state's nine Regional Water Quality Control Boards (RWQCB's). The general mode of programmatic management and decision-making for administrative and technical issues is through consensus discussions that take place primarily at regular (bi-monthly) meetings of the SWAMP Roundtable. The Roundtable currently has representation from SWAMP staff at the SWRCB and all RWQCB's; representation from SWAMP staff from the California Department of Fish and Game, San Jose State University Foundation/Moss Landing Marine Laboratories, and the University of California-Davis/Granite Canyon Laboratory; and representation from the Morro Bay Foundation; and other agencies and organizations as desired and appropriate. Due to the complexity of describing the SWAMP program organization in detail, a thorough description of the SWAMP-specific programmatic organization and responsibilities is provided in **Appendix A**, along with all SWAMP participant contact information from Table 1 in Section A3.

General Overview of the State Water Resources Control Board and the Regional Water Quality Control Boards

The SWRCB was created by the Legislature of the state of California in 1967. The overall mission of the SWRCB is to ensure the highest reasonable quality of waters of the state, while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables the SWRCB to provide comprehensive protection for California's waters. The SWRCB consists of five full-time salaried members, each filling a different specialty position. Board members are appointed to four-year terms by the Governor and confirmed by the Senate. There are nine RWQCB's. The mission of the RWQCB's is to develop and enforce water quality objectives and implementation plans that will best protect the beneficial uses of the State's waters, recognizing local differences in climate, topography, geology and hydrology. Figure 1 provides a map of the geographic areas of jurisdiction of each RWQCB in California. Each RWQCB has nine part-time members appointed by the Governor and confirmed by the Senate. RWQCB's develop "basin plans" for their hydrologic areas, issue waste discharge requirements, take enforcement action against violators, and monitor water quality. The task of protecting and enforcing the many uses of water, including the needs of industry, agriculture, municipal districts, and the environment is an ongoing challenge for the SWRCB and RWQCB's.

Figure 1. Map of the nine California Regional Water Quality Control Board geographic areas of jurisdiction



- RWQCB 1 = North Coast Region**
RWQCB 2 = San Francisco Bay Region
RWQCB 3 = Central Coast Region
RWQCB 4 = Los Angeles Region
RWQCB 5 = Central Valley Region
 (5a) = Redding Office
 (5b) = Sacramento Office
 (5c) = Fresno Office
RWQCB 6 = Lahontan Region
 (6a) = South Lake Tahoe Office
 (6b) = Victorville Office
RWQCB 7 = Colorado River Basin Region
RWQCB 8 = Santa Ana Region
RWQCB 9 = San Diego Region

Overview of SWAMP-specific Program Organization

The primary functional organizational chart for the SWAMP program is shown in Figure 2, followed by organizational charts for SWAMP field and analytical laboratory contractual services in Figure 3 (California Department of Fish and Game Master Contract), Figure 4 (U.S. Geological Survey Master Contract), and Figure 5 (Contracts directly specified/administered by RWQCB's for SWAMP services).

RESPONSIBILITIES OF PRIMARY SWAMP STAFF AT PARTICIPATING ORGANIZATIONS

Contact information and organizational structure information was previously provided for key SWAMP staff at participating entities in Table 1 (Section A3) and in Figures 2-5 (Section A4). Because of the very large number of agencies, organizations, and individuals involved in this SWAMP Program, this section provides a summary only, and for primary staff only. A summary chart of the major field, laboratory, administrative, and technical reporting activities of all participating SWAMP entities is provided in Table 2 at the end of Section A4. Due to the complexity of describing the SWAMP program organization in detail, a thorough description of the SWAMP-specific programmatic organization and responsibilities is provided in **Appendix A**, along with all SWAMP participant contact information from Table 1 in Section A3.

Table 2, starting on the next page, provides a matrix of responsibilities and lists the entities involved in data collection efforts within the nine Regional Boards and the DWQ Clean Water Team, the Citizen Monitoring Program of the SWRCB.

Table 2a. Summary of SWAMP Field Activity Responsibilities for Organizations Conducting Statewide Services and for RWQCB 1 and 2

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Table 2b. Summary of SWAMP Laboratory, Administrative, and Technical Reporting Responsibilities for Organizations Conducting Statewide Services and for RWQCB 1 and 2			
Organization	SWAMP Laboratory Reporting	SWAMP Administrative Reporting	SWAMP Technical Reporting
Alabama Department of Environmental Management	Yes	Yes	Yes
Arizona Department of Environmental Quality	Yes	Yes	Yes
Arkansas Department of Environmental Quality	Yes	Yes	Yes
California Department of Water Resources	Yes	Yes	Yes
Colorado Department of Environmental Protection	Yes	Yes	Yes
Connecticut Department of Environmental Protection	Yes	Yes	Yes
Delaware Department of Natural Resources and Environmental Control	Yes	Yes	Yes
Florida Department of Environmental Protection	Yes	Yes	Yes
Georgia Department of Environmental Protection	Yes	Yes	Yes
Hawaii Department of Land and Natural Resources	Yes	Yes	Yes
Illinois Department of Environmental Protection	Yes	Yes	Yes
Indiana Department of Environmental Protection	Yes	Yes	Yes
Iowa Department of Natural Resources	Yes	Yes	Yes
Kansas Department of Environmental Protection	Yes	Yes	Yes
Kentucky Department of Environmental Protection	Yes	Yes	Yes
Louisiana Department of Environmental and Natural Resources	Yes	Yes	Yes
Maine Department of Environmental Protection	Yes	Yes	Yes
Maryland Department of the Environment	Yes	Yes	Yes
Massachusetts Department of Environmental Protection	Yes	Yes	Yes
Michigan Department of Environmental Protection	Yes	Yes	Yes
Minnesota Department of Natural Resources	Yes	Yes	Yes
Mississippi Department of Environmental Quality	Yes	Yes	Yes
Missouri Department of Conservation	Yes	Yes	Yes
Montana Department of Environmental Protection	Yes	Yes	Yes
Nebraska Department of Environmental Protection	Yes	Yes	Yes
Nevada Department of Conservation and Forestry	Yes	Yes	Yes
New Hampshire Department of Environmental Services	Yes	Yes	Yes
New Jersey Department of Environmental Protection	Yes	Yes	Yes
New Mexico Department of Environmental Quality	Yes	Yes	Yes
New York Department of Environmental Conservation	Yes	Yes	Yes
North Carolina Department of Environment and Natural Resources	Yes	Yes	Yes
North Dakota Department of Environmental Protection	Yes	Yes	Yes
Ohio Department of Natural Resources	Yes	Yes	Yes
Oklahoma Department of Environmental Protection	Yes	Yes	Yes
Oregon Department of Environmental Quality	Yes	Yes	Yes
Pennsylvania Department of Environmental Protection	Yes	Yes	Yes
Rhode Island Department of Environmental Management	Yes	Yes	Yes
South Carolina Department of Environmental and Natural Resources	Yes	Yes	Yes
South Dakota Department of Environmental Protection	Yes	Yes	Yes
Tennessee Department of Environment and Conservation	Yes	Yes	Yes
Texas Department of Environmental Protection	Yes	Yes	Yes
Utah Department of Environmental Quality	Yes	Yes	Yes
Vermont Department of Environmental Protection	Yes	Yes	Yes
Virginia Department of Environmental Quality	Yes	Yes	Yes
Washington Department of Ecology	Yes	Yes	Yes
West Virginia Department of Environmental Protection	Yes	Yes	Yes
Wisconsin Department of Natural Resources	Yes	Yes	Yes
Wyoming Department of Environmental Protection	Yes	Yes	Yes

[illegible]

Table 2c. Summary of SWAMP Field Activity Responsibilities for RWQCB 3, 4, and 5

Entity for whom service is being conducted	Agency, University, Corporation, or Other Entity Conducting Service (and showing contract "route" where can)	FIELD SAMPLE COLLECTION AND FIELD DATA MEASUREMENTS								
		Sample Collection					Pre-collect site recon	Probe measure	Flow/veloc measure	Phys Habit Assess
		Water	Sed	Tiss	Benth	Bugs				
Central Coast Regional Water Quality Control Board										
RWQCB 3: Central Coast Region	R3 staff	1				1	1	1	1	1
	R3 student contract staff	1				1	1	1	1	1
	R3 citizen monitors									
	CDFG Nimbus--Organics									
	CDFG/SJSUF--Metals									
	CDFG Nimbus/CSU Chico--ABL Bioassess									
	CDFG/SJSUF--Sample Collection		1	1						
	CDFG/UCD Granite Cyn--Tox Testing									
	CDFG/SJSUF/Applied Mar. Sci.--conv wq									
SWRCB/BC Labs										
Los Angeles Regional Water Quality Control Board										
RWQCB 4: Los Angeles Region	R4 staff	1					1	1	1	1
	R4 student contract staff									
	R4 citizen monitors									
	CDFG Nimbus--Organics									
	CDFG Nimbus--Conv WQ									
	CDFG/SJSUF--Metals									
	CDFG Nimbus/CSU Chico--ABL Bioassess					1	1	1	1	1
	CDFG/SJSUF--Sample Collection	1	1	1				1	1	
	CDFG/UCD Granite Cyn--Tox Testing									
	CDFG/SJSUF/Applied Mar. Sci.--conv wq									
CDFG/SJSUF/Sierra Foothills--conv wq										
Central Valley Regional Water Quality Control Board										
RWQCB 5: Central Valley Region	R5 staff	1	1			1	1	1	1	1
	R5 student contract staff	1	1			1	1	1	1	1
	R5 citizen monitors									
	CDFG/MLML/SJS Sample Collection									
	CDFG/UCD/Granite Cyn Tox Testing									
	CDFG/SJS/Applied Marine Sciences									
	SWRCB/UC Davis - Aquatic Toxicology Lab	1				1	1	1	1	1
	SWRCB/UC Davis - LAWR									
	SWRCB/UC Davis - Aquatic Limnology Lab									
	SWRCB/Plumas Corporation	1				1	1	1	1	1
	SWRCB/Northern Cal-Nevada RCD	1				1	1	1	1	1
	SWRCB/Twinning Laboratories									
	SWRCB/Weck Laboratories									
	SWRCB/Basic Laboratory									
	SWRCB/So. Dakota St. Univ.--Olsen Chem Lab									
	SWRCB/Countyof Madera--Public Wks	1								
	SWRCB/Sierra Foothill Laboratory									

Table 2d. Summary of SWAMP Laboratory, Administrative, and Technical Reporting Responsibilities for RWQCB 3, 4, and 5

Entity for whom service is being conducted	Agency, University, Corporation, or Other Entity Conducting Service (and showing contract "route" where can)	ANALYTICAL LABORATORY SERVICES								Other services (QA, Data Mgmt, Stats, Interp Rept)
		Org	Metal	Convent	Tox	Benthic	Biolog	Bact/	Sed	
		Chem	Chem	W.Q.	Test	Infauna	Assess	Path	charac	
Central Coast Regional Water Quality Control Board										
RWQCB 3: Central Coast Region	R3 staff									1
	R3 student contract staff									
	R3 citizen monitors									
	CDFG Nimbus--Organics	1								
	CDFG/SJSUF--Metals		1							
	CDFG Nimbus/CSU Chico--ABL Bioassess						1			1
	CDFG/SJSUF--Sample Collection									
	CDFG/UCD Granite Cyn--Tox Testing				1					1
	CDFG/SJSUF/Applied Mar. Sci.--conv wq			1					1	
	SWRCB/Creek Laboratory						1			
	SWRCB/BC Labs	1	1	1				1		
Los Angeles Regional Water Quality Control Board										
RWQCB 4: Los Angeles Region	R4 staff									1
	R4 student contract staff									
	R4 citizen monitors									
	CDFG Nimbus--Organics	1								
	CDFG Nimbus--Conv WQ			1						
	CDFG/SJSUF--Metals		1							
	CDFG Nimbus/CSU Chico--ABL Bioassess						1			1
	CDFG/SJSUF--Sample Collection									
	CDFG/UCD Granite Cyn--Tox Testing				1					1
	CDFG/SJSUF/Applied Mar. Sci.--conv wq			1				1		
	CDFG/SJSUF/Sierra Foothills--conv wq			1						
Central Valley Regional Water Quality Control Board										
RWQCB 5: Central Valley Region	R5 staff			1				1		1
	R5 student contract staff			1				1		
	R5 citizen monitors									
	CDFG/MLML/SJS Sample Collection									
	CDFG/UCD/Granite Cyn Tox Testing				1					
	CDFG/SJS/Applied Marine Sciences								1	
	SWRCB/UC Davis - Aquatic Toxicology Lab				1		1			1
	SWRCB/UC Davis - LAWR	1		1						
	SWRCB/UC Davis - Aquatic Limnology Lab			1						
	SWRCB/Plumas Corporation			1					1	
	SWRCB/Northern Cal-Nevada RCD			1					1	
	SWRCB/Twining Laboratories	1	1	1					1	
	SWRCB/Weck Laboratories		1							
	SWRCB/Basic Laboratory	1	1	1				1		
	SWRCB/So. Dakota St. Univ.--Olsen Chem Lab	1	1	1						
	SWRCB/Countyof Madera--Public Wks									
	SWRCB/Sierra Foothill Laboratory			1			1			

Table 2e. Summary of SWAMP Field Activity Responsibilities for Organizations Conducting Statewide Services and for RWQCB 6, 7, 8, 9 and DWQ

Entity for whom service is being conducted	Agency, University, Corporation, or Other Entity Conducting Service (and showing contract "route" where can)	FIELD SAMPLE COLLECTION AND FIELD DATA MEASUREMENTS								
		Sample Collection					Pre-collect	Probe	Flow/veloc	Phys Habit
		Water	Sed	Tiss	Benth	Bugs	site recon	measure	measure	Assess
Lahontan Regional Water Quality Control Board										
RWQCB 6: Lahontan Region	R6 staff	1				1	1	1	1	1
	R6 student contract staff									
	R6 citizen monitors									
	USGS--Carnelian Bay	1					1	1	1	1
	SWRCB/UC Santa Barbara-SNARL					1	1	1	1	1
	SWRCB/NEL Lab									
	SWRCB/High Sierra Labs									
	SWRCB/Desert Research Institute									
Colorado River Basin Regional Water Quality Control Board										
RWQCB 7: Colorado River Basin Region	R7 staff	1					1	1	1	1
	R7 student contract staff									
	R7 citizen monitors									
	CDFG Nimbus--Organics									
	CDFG Nimbus--Conv WQ									
	CDFG/SJSUF--Metals									
	CDFG Nimbus/CSU Chico--ABL Bioassess					1	1	1	1	1
	CDFG/SJSUF--Sample Collection	1	1				1	1		
	CDFG/UCD Granite Cyn--Tox Testing									
	CDFG/SJSUF/Applied Mar. Sci.--conv wq									
	CDFG/SJS/Babcock & Sons, Inc.									
	CDFG/SJSUF--Sierra Foothills conv wq									
	USGS-San Diego	1	1					1	1	
Santa Ana Regional Water Quality Control Board										
RWQCB 8: Santa Ana Region	R8 staff	1	1		1		1	1		1
	R8 student contract staff									
	R8 citizen monitors	1			1		1	1		1
	SWRCB/ABC Labs				1		1	1		1
	SWRCB/CRG Labs	1	1				1	1		1
	SWRCB/SCCWRP									
San Diego Regional Water Quality Control Board										
RWQCB 9: San Diego Region	R9 staff					1	1	1	1	1
	R9 student contract staff									
	R9 citizen monitors	1				1	1	1	1	1
	CDFG Nimbus--Organics									
	CDFG Nimbus--Conv WQ									
	CDFG/SJSUF--Metals									
	CDFG Nimbus/CSU Chico--ABL Bioassess					1	1	1	1	1
	CDFG/SJSUF--Sample Collection	1	1	1			1	1		
	CDFG/UCD Granite Cyn--Tox Testing									
	CDFG/SJSUF/Applied Mar. Sci.--conv wq									
	CDFG/SJSUF/Sierra Foothills--conv wq									
SWRCB/Division of Water Quality										
DWQ	DWQ SWAMP staff									
	DWQ Clean Water Team staff	1	1			1	1	1	1	1

Table 2f. Summary of SWAMP Laboratory, Administrative, and Technical Reporting Responsibilities for RWQCB 6, 7, 8, 9 and DWQ

Entity for whom service is being conducted	Agency, University, Corporation, or Other Entity conducting service (and showing contract "route" where can)	ANALYTICAL LABORATORY SERVICES								Other services (QA, Data Mgmt, Stats, Interp Rept)
		Org	Metal	Convent	Tox	Benthic	Biolog	Bact/	Sed	
		Chem	Chem	W.Q.	Test	Infauna	Assess	Path	charac	
Lahontan Regional Water Quality Control Board										
RWQCB 6: Lahontan Region	R6 staff			1						1
	R6 student contract staff									
	R6 citizen monitors									
	USGS--Carnelian Bay	1	1	1						1
	SWRCB/UC Santa Barbara-SNARL						1			1
	SWRCB/NEL Lab	1	1	1						
	SWRCB/High Sierra Labs			1						
	SWRCB/Desert Research Institute			1						
Colorado River Basin Regional Water Quality Control Board										
RWQCB 7: Colorado River Basin Region	R7 staff							1		1
	R7 student contract staff									
	R7 citizen monitors									
	CDFG Nimbus--Organics	1								
	CDFG Nimbus--Conv WQ			1						
	CDFG/SJSUF--Metals		1							
	CDFG Nimbus/CSU Chico--ABL Bioassess						1			1
	CDFG/SJSUF--Sample Collection									
	CDFG/UCD Granite Cyn--Tox Testing				1					
	CDFG/SJSUF/Applied Mar. Sci.--conv wq			1					1	
	CDFG/SJS/Babcock & Sons, Inc.							1		
	CDFG/SJSUF--Sierra Foothills conv wq			1						
	USGS-San Diego	1	1	1					1	1
Santa Ana Regional Water Quality Control Board										
RWQCB 8: Santa Ana Region	R8 staff									1
	R8 student contract staff									
	R8 citizen monitors									
	SWRCB/ABC Labs				1	1				
	SWRCB/CRG Labs	1	1	1				1	1	
	SWRCB/SCCWRP									1
San Diego Regional Water Quality Control Board										
RWQCB 9: San Diego Region	R9 staff									1
	R9 student contract staff									
	R9 citizen monitors									
	CDFG Nimbus--Organics	1								
	CDFG Nimbus--Conv WQ			1						
	CDFG/SJSUF--Metals		1							
	CDFG Nimbus/CSU Chico--ABL Bioassess						1			
	CDFG/SJSUF--Sample Collection									
	CDFG/UCD Granite Cyn--Tox Testing				1					
	CDFG/SJSUF/Applied Mar. Sci.--conv wq			1					1	
	CDFG/SJSUF/Sierra Foothills--conv wq			1						
SWRCB/Division of Water Quality										
DWQ	DWQ SWAMP staff									1
	DWQ Clean Water Team staff			1				1	1	1

Figure 2: State of California's **Surface Water Ambient Monitoring Program ("S.W.A.M.P.")**
Organizational Chart for Primary-Level Responsibilities

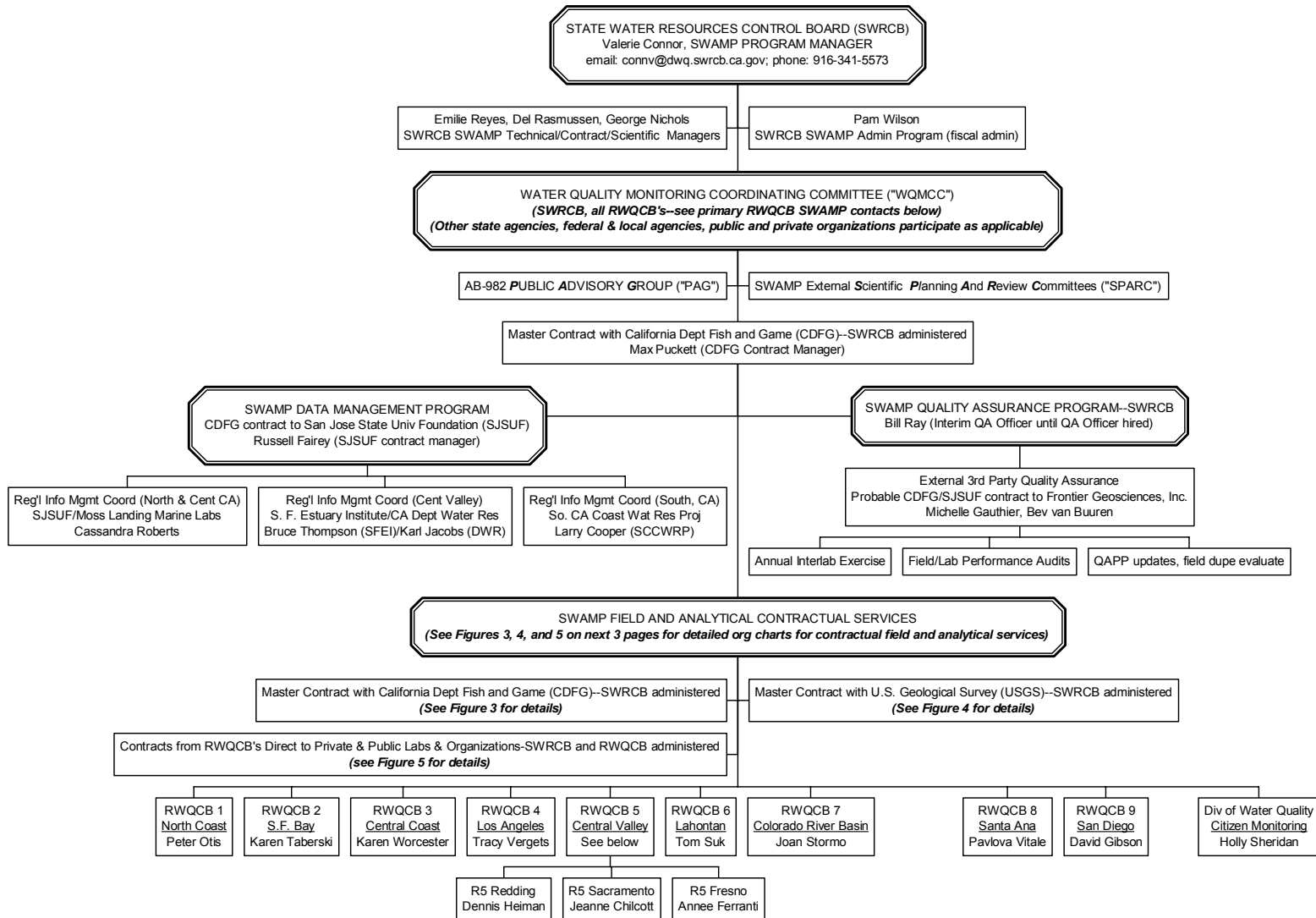
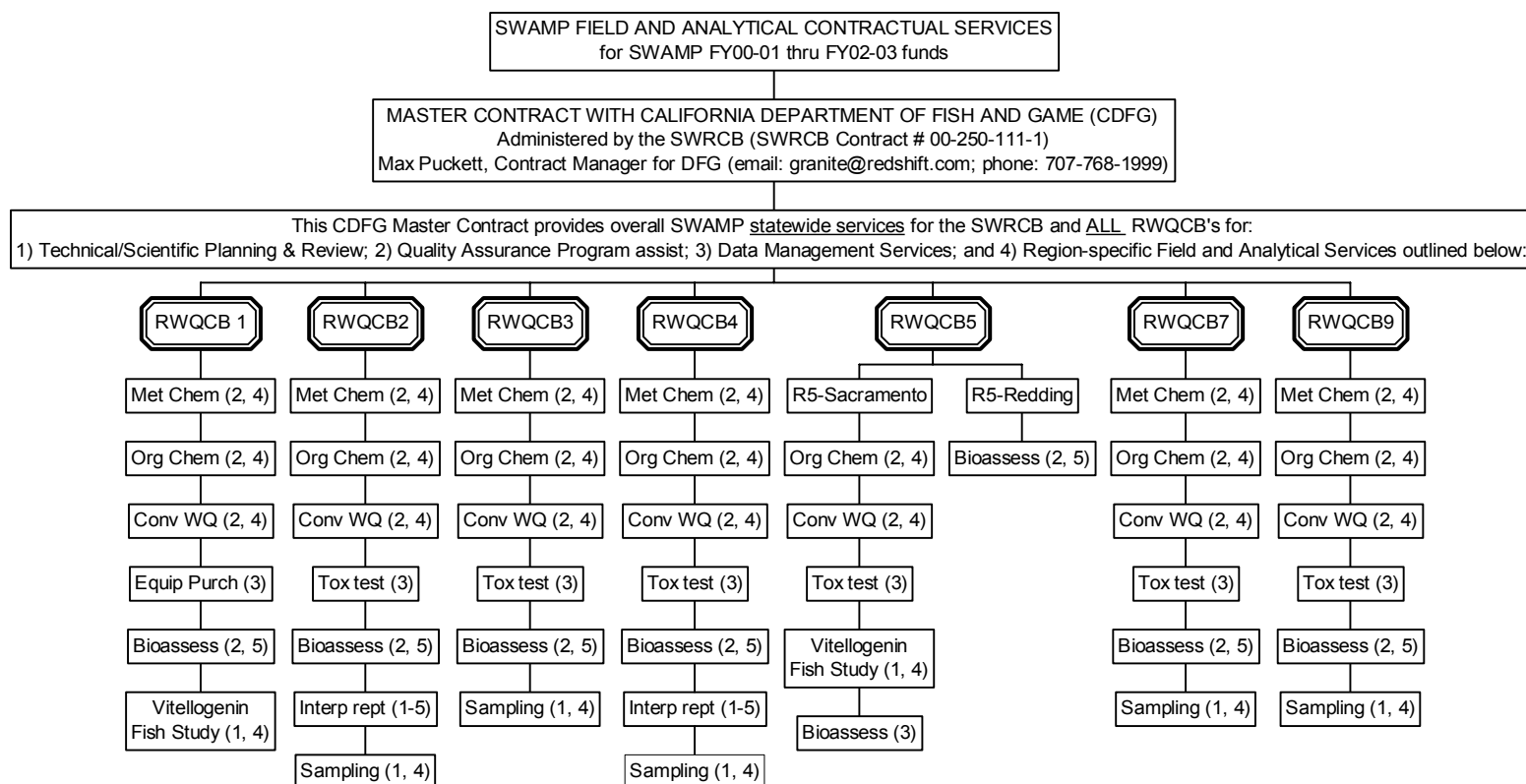


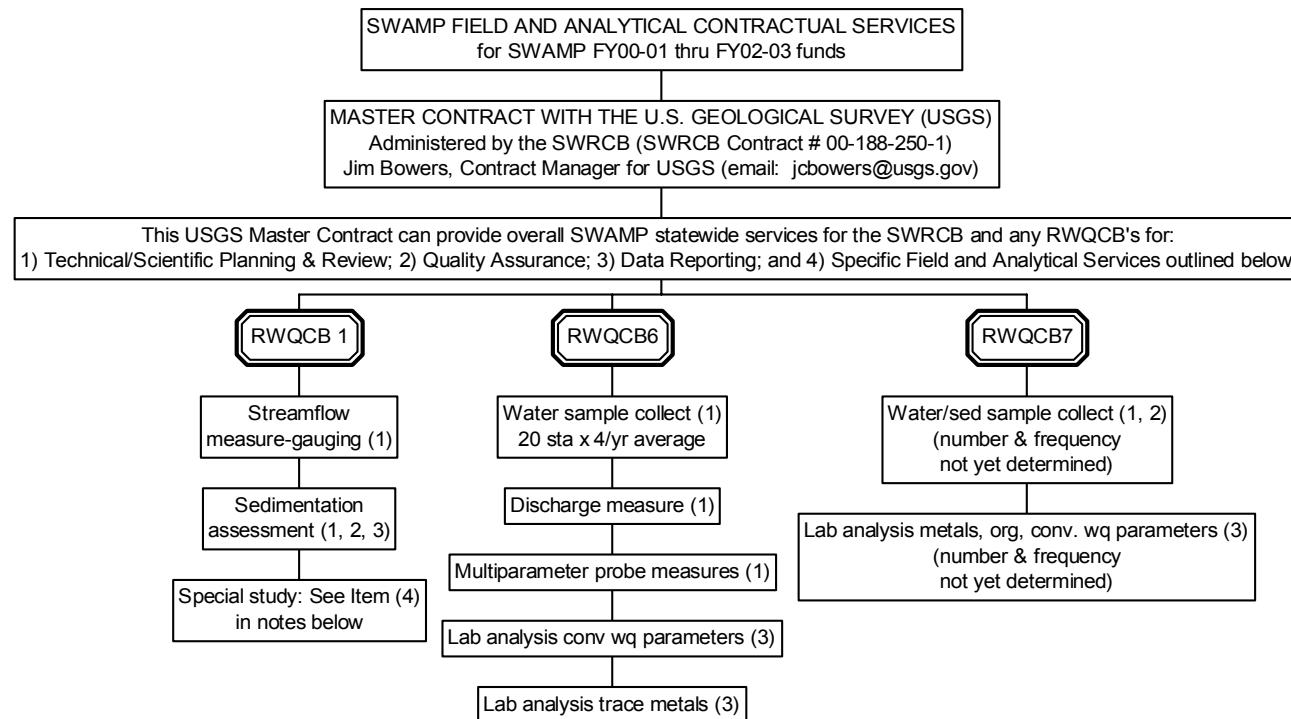
Figure 3. State of California's Surface Water Ambient Monitoring Program ("S.W.A.M.P.")
Details of Organizational Responsibilities for Field and Analytical Services
for the California Department of Fish and Game's Master Contract with the SWRCB



For the master Contract with CDFG, field and analytical services for specific Regional Boards, as listed by number (#) above & below, are provided by the following:

- 1) CDFG Moss Landing: Technical/scientific planning & review; quality assurance program; sample collect logistics & mgmt; contracts mgmt; interp rpts
- 2) CDFG Rancho Cordova/Nimbus: Technical/scientific planning & review; organic chemistry, conventional water quality, aquatic bioassessment; interp rpts
- 3) CDFG contract to UC Davis/Granite Canyon (Env. Tox. Dept.) & Aquatic Tox Lab (Vet Med): Technical/scientific planning & review, toxicity testing, interpretive reports; equipment purchases; vitellogenin fish studies & bioassessment & tox (UCD ATL).
- 4) CDFG contract to San Jose State Univ Fndtn/Moss Landing Marine Labs: Technical /scientific planning & review; statewide data management; trace metal & organic chem, sample collect & processing, sampling logistics & coordination, TSS/SSC, sed TOC, chlor-a; subcontract to Applied Marine Sciences (Houston, TX) for sed grain size, water TOC/DOC; subcontract to Sierra Foothills Lab (Jackson, CA) for boron; subcontract to CLS Labs (Rancho Cordova) for conv wq).
- 5) CDFG contract to California State University, Chico Research Foundation: Biological assessment field and analytical services.

Figure 4. State of California's Surface Water Ambient Monitoring Program ("S.W.A.M.P.")
Details of Organizational Responsibilities for Field and Analytical Services
for the U.S. Geological Survey Master Contract with the SWRCB



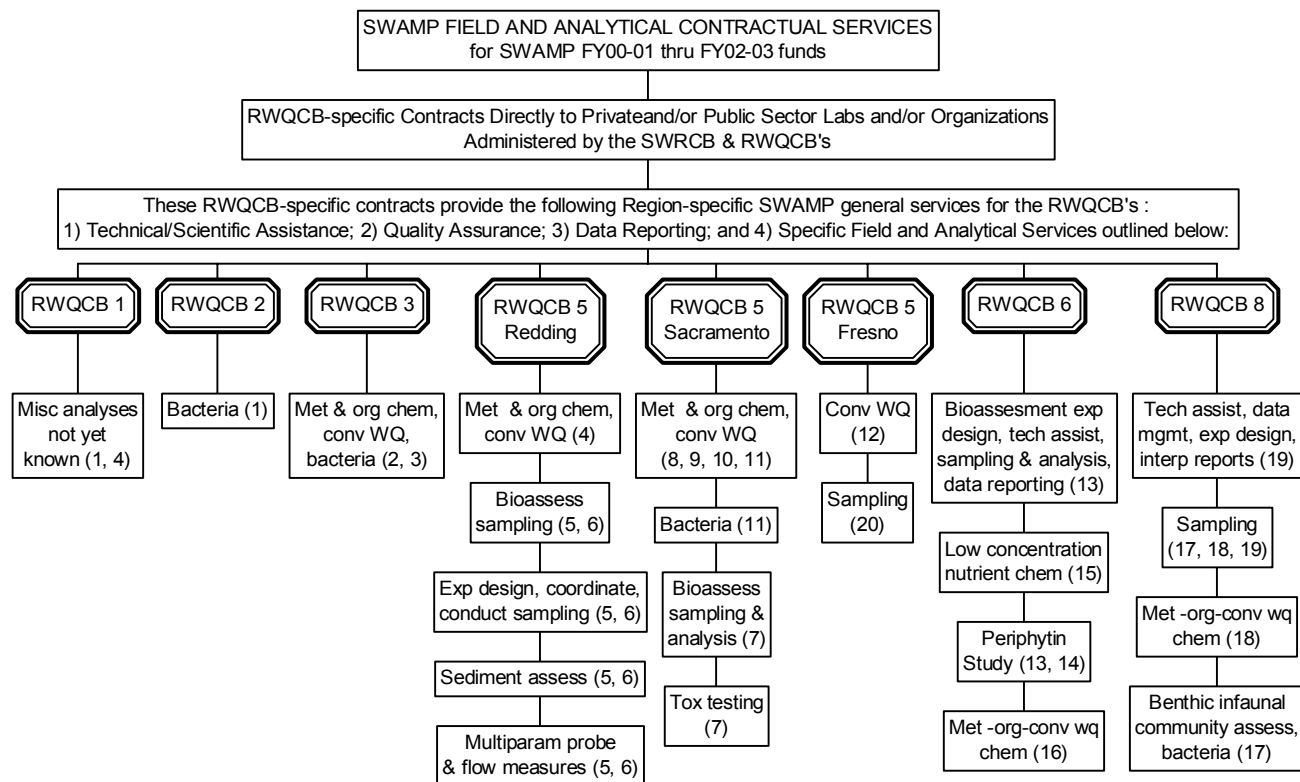
For the master Contract from SWRCB to USGS, the following outlines of field and analytical services are provided to Regional Boards, as shown above:

- 1) Collecting and processing of sediment, and/or water, and/or streamflow (discharge) samples or other materials from California surface waters, including the use of all appropriate QA/QC measures necessary to collect and process samples, as outlined in respective task orders;
- 2) Field sample collection of suspended sediment, bed material, and bedload samples, complete or partial particle-size distributions, routine maintenance and repairs to gage structures and instrumentation, and necessary water quality sampling, as outlined in respective task orders;
- 3) Conduct water quality analytical chemistry on field-collected environmental samples as outlined in respective Task Order;
- 4) Evaluate the Board's water availability methodology of using the rational and drainage area ratio methods at ungaged locations in northern coastal California from San Mateo County to Oregon (North Coast region). These methods are used to estimate selected streamflow characteristics, which are used to evaluate applications to appropriate water. These characteristics include daily streamflow, various monthly and seasonal statistics, mean-annual discharge, and selected flood-frequencies and magnitudes. Quantify the accuracy and bias of the techniques to estimate streamflow statistics, identify regions where they perform relatively well or poorly and identify the combination of factors that may affect their applicability.

Figure 5. State of California's Surface Water Ambient Monitoring Program ("S.W.A.M.P.")

Details of Organizational Responsibilities for Field and Analytical Services

for RWQCB-specific Contracts Direct to Private and/or Public Sector Labs and/or Organizations



1) Sequoia Analytical Labs (R1 & R2)--not thru swamp funds; 2) BC Laboratories, Inc. (R3); 3) Creek Environmental Laboratories, Inc. (R3); 4) Basic Laboratory, Inc. (R5-Redding); 5) Plumas Corporation (R5-Redding); 6) Northern California-Nevada Resource Conservation District (R5-Redding); 7) U.C. Davis Aquatic Toxicology Laboratory (R5-Sacramento); 8) Twining Laboratories, Inc. (R5-Sacramento); 9) Weck Laboratories (R5-Sacramento); 10) South Dakota State University/Olson Biochemical Laboratory (R5-Sacramento); 11) Sierra Foothills Laboratory, Inc. (R5-Sacramento); 12) U.C. Davis Aquatic Limnology Laboratory (R5-Fresno); 13) U.C. Sierra-Nevada Aquatic Resources Laboratory (R6); 14) Subcontract from U.C. SNARL to Professor Dean Blinn, No. Arizona University (R6); 15) High Sierra Water Laboratory, Inc. (R6); 16) Contract Lab (not yet known) (R6); 17) ABC Laboratories, Inc. (R8); 18) CRG Laboratories, Inc. (R8); 19) Southern California Coastal Waters Research Project (R8); 20) County of Madera Public Works Department.