
January
2000

State Water Resources Control Board

LEGISLATIVE REPORT

SUMMARY OF INFORMATION FROM
SURFACE WATER MONITORING PROGRAMS

APPENDIX TO THE
PLAN FOR IMPLEMENTING A
COMPREHENSIVE PROGRAMS FOR
MONITORING AMBIENT SURFACE AND
GROUNDWATER QUALITY

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INTRODUCTION

The FY 1999-2000 Budget Act Supplemental Report Language requires the State Water Resources Control Board (SWRCB) to report to the Chairs of the Joint Legislative Budget Committee and Senate and Assembly fiscal committees on:

1. The specific watersheds and coastal resources where ambient surface water quality monitoring has been conducted or contracted for during the three-year period beginning July 1, 1997. The report shall include the dates the sites were monitored, the type of monitoring, the pollutants monitored for, the results of the monitoring, and expenditures.
2. The specific groundwater basins where ambient water quality monitoring has been conducted or contracted for during the three-year period beginning July 1, 1997. The report shall include the dates the sites were monitored, the type of monitoring, the pollutants monitored for, the results of the monitoring, and expenditures.
3. A plan for implementing a comprehensive program for monitoring ambient surface water quality and groundwater quality, and how the Governor's 2000-01 budget proposal fits within this plan.

This document presents summaries of the detailed information requested for surface water monitoring programs as discussed above. This appendix focuses specifically on the activities of the SWRCB and RWQCBs.

Prior to this Fiscal Year (FY) 1999-00, the SWRCB had no ongoing statewide ambient groundwater monitoring program. SWRCB's Division of Clean Water Programs (DCWP), and the Regional Water Quality Control Boards (RWQCBs) have groundwater monitoring efforts at targeted locations such as underground storage tank sites, U.S. Department of Defense facilities, waste disposal sites, and pesticide applicator sites. In the past, the SWRCB has annually supplemented the Department of Water Resource's groundwater monitoring budget through interagency agreements.

The SWRCB water quality monitoring and assessment budget was augmented in this fiscal year by \$500,000 to monitor priority groundwater basins on a rotational basis under contract with the U.S. Geological Survey (USGS). The SWRCB is developing an interagency agreement with USGS to monitor ambient groundwater quality. A workplan for FY 1999-00 groundwater monitoring with sampling locations, schedule, and analytes is in preparation.

SUMMARY OF INFORMATION FROM SURFACE WATER MONITORING PROGRAMS

The SWRCB conducts the following four ambient surface water quality programs:

Toxic Substances Monitoring Program (TSMP)

The TSMP was initiated in 1976 to provide a uniform statewide approach to the detection and evaluation of the occurrence of toxic substances in fresh and estuarine waters of the State through the analysis of fish and other aquatic life. The California Department of Fish and Game (DFG), on contract with the SWRCB, collects and analyzes samples for the TSMP. Sampling stations are selected primarily by the nine Regional Water Quality Control Boards (RWQCBs).

The TSMP measures concentrations of toxic chemicals in fish. These findings are evaluated to determine whether the fish may be unsafe to eat and whether the contaminants may be dangerous to the health of the fish themselves. The results are published periodically as SWRCB reports.

California State Mussel Watch Program (SMWP)

The SMWP was initiated in 1977, and like TSMP, it provides a uniform statewide approach to the detection and evaluation of the occurrence of toxic substances in the waters of California's bays, harbors, and estuaries. This is accomplished through the analysis of resident and transplanted mussels and clams. The DFG, on contract with the SWRCB, collects and analyzes samples for the SMWP. Sampling stations are selected primarily by the six coastal RWQCBs.

The SMWP measures concentrations of toxic chemicals in shellfish. Those concentrations are evaluated to determine whether the shellfish may be unsafe to eat and whether chemicals may be present at levels above those allowed by RWQCB standards. The results appear periodically as SWRCB reports.

Coastal Fish Contamination Study (CFCS)

The CFCS, initiated in 1998, is designed to determine whether it is safe to eat fish and shellfish from the California coastline. Fish and shellfish from coastal sport fishing areas are collected and analyzed for contaminants in the CFCS. The SWRCB provides funding under an interagency agreement with the DFG for collection and analysis, and to the Office of Environmental Health Hazard Assessment (OEHHA) for health risk assessment of the data. Results obtained in the CFCS are evaluated by OEHHA to determine whether issuance of a fish consumption guidance or health advisory is needed for a particular sport fishing area.

Toxicity Testing Program (TTP)

The TTP was initiated in 1988 to monitor and assess the toxicity of California's surface waters using toxicity tests with aquatic species. Physical, chemical, and toxicological procedures are used to identify the causal agent of toxicity. This process is known as Toxicity Identification Evaluation (TIE). Chemical analysis of organophosphorus (OP) pesticides are performed with Enzyme Linked Immunosorbant Assay (ELISA) or with Gas Chromatography/Mass Spectrophotometry (GC/MS). Sometimes samples are analyzed with both procedures.

The TTP identifies water courses that may be unsafe for some forms of aquatic life because of chemical contamination, and can also identify the cause(s) of impairment. Results are published periodically as SWRCB and RWQCB reports and as articles in scientific journals.

Table 1 presents the program budget and the number of stations sampled in the first three programs in FYs 1997-98 through 1999-00 (CFCS started in FY 1998-99). Chemicals analyzed in the TSMP, SMWP, and CFCS are listed in Table 2. Table 3 provides the summary of the Toxicity Testing Program. Figure 1 is a state map showing sampling locations for each of the four programs.

Sections 1 through 8 provide the sampling schedules for the first three programs for FYs 1997-98 through 1999-00 (CFCS started in FY 1998-99). Results of chemical analysis are only available for TSMP for FY 1997-1998 (Section 9). Section 10 presents the TTP sampling schedule and results starting with 1997.

Table 1. Summary of Tissue Monitoring Programs

Monitoring Program	Fiscal Year	Number of Sampling Stations	Budget (\$)
Toxic Substances Monitoring Program	1997-98	55	190,000
	1998-99	51	168,000
	1999-00	102	300,000
State Mussel Watch Program	1997-98	46	110,000
	1998-99	36	132,000
	1999-00	61	180,000
Coastal Fish Contamination Study ¹	1998-99	65	324,000
	1999-00	63	324,000

1. Started in FY 1998-99

Table 2. Chemical List for Tissue Monitoring Programs

Trace Elements

Aluminum	Arsenic	Nickel	Lead
	Cadmium		Selenium
	Chromium		Silver
	Copper		Titanium
	Mercury		Zinc
	Manganese		

Pesticides and PCBs

aldrin	endosulfan I
chlordene, alpha	endosulfan II
chlordene, gamma	endosulfan sulfate
cis-chlordane	endrin
cis-nonachlor	ethion
oxadiazon	HCH, alpha
oxychlordane	HCH, beta
trans-chlordane	HCH, gamma
trans-nonachlor	HCH, delta
chlorpyrifos	heptachlor
dacthal	heptachlor epoxide
DDD, o,p'	hexachlorobenzene
DDD, p,p'	methoxychlor
DDE, o,p'	parathion, ethyl
DDE, p,p'	parathion, methyl
DDMU,p,p'	PCB 1248
DDT, o,p'	PCB 1254
DDT, p,p'	PCB 1260
Diazinon	PCT 5460
dichlorobenzophenone-p,p'	tetradifon
dicofol	toxaphene
dieldrin	tributyltin

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Table 3. Summary of Toxicity Testing Program

FY – Budget (Contractors)	Regional Board	Project
1997/98 - \$327,500 (U.C. Davis, U.C. Santa Cruz)	Region 3	Salinas River basin project
	Region 4	Calleguas Creek project
	Region 5	Willow Slough project, irrigation runoff and tailwater pond project in Yolo County
1998/99 - \$385,000 (U.C. Davis)	Regions 3, 4, 5, 8, & 9	Specific identification of toxic chemicals in CWA 303(d) listed waterways
	Region 5	Sacramento River basin project, irrigation runoff from alfalfa fields in Yolo County
1999/00 - \$355,000 (U.C. Davis)	Region 3	Salinas River basin follow-up project, specific identification of toxic chemicals in the Salinas River basin
	Region 4	Follow-up on Revolon Slough and Calleguas Creek projects
	Region 5	Follow-up on Sacramento River project

SECTION 1

Toxic Substances Monitoring Program

Sampling Schedule for FY 1997-98

(Note: No sampling was conducted in Region 2)

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997 TSMP Sampling Stations for Region 1

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
1	108.10.00	Big Lagoon	1	*	*	\$3,738	
	111.12.01	Eel River/Scotia	1	*	*	\$3,738	
	114.24.12	Lake Sonoma	2	*	*	\$5,376	
	105.11.08	Klamath River/Klamath Glen	1	*	*	\$3,738	
	106.12.03	Trinity River/Willow River	1	*	*	\$3,738	
	114.21.10	Laguna de Santa Rosa/Stony Point	1	*	*	\$3,738	
	114.11.23	Russian River/Wohler Bridge	1	*	*	\$3,738	
	114.23.00	Mark West Creek	1	*	*	\$3,738	
	114.11.05	Russian River/Duncans Mills	1	*	*	\$3,738	
Total Cost						\$35,280	

* Means full scan for all organics or metals.

New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997 TSMP Sampling Stations for Region 3

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
3	315.32.##	Arroyo Burro Lagoon	1	*	*	\$3,738	
	315.31.##	Devereaux Slough	1	*	*	\$3,738	
Total Cost = \$7,476							

* Means full scan for all organics or metals. ## New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997 TSMF Sampling Stations for Region 4

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost+ (\$)	Comments
4	403.12.06	Calleguas Creek	1	*	*	\$3,738	
	403.11.04	Revolon Slough	1	*	*	\$3,738	
	403.11.91	Mugu Lagoon	1	*	*	\$3,738	
	403.11.02	Rio de Santa Clara/Oxnard Drain	1	*	*	\$3,738	
	405.15.04	San Gabriel River	1	*	*	\$3,738	
	405.12.90	Harbor Park Lake	2	*	*	\$5,376	Collect carp and bass.
	404.21.07	Malibou Lake	1	*	*	\$3,738	Collect bass.
	405.23.##	Tujunga Wash	1	*	*	\$3,738	
	404.26.01	Sherwood Lake	1	*	*	\$3,738	
	405.21.##	Lake Balboa	1	*	*	\$3,738	
Total Cost. = \$39,018							

* Means full scan for all organics or metals.

New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997 TSMP Sampling Stations for Region 5

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
5	508.10.45	Sacramento River/Keswick Dam	1		Cd,Cu,Zn	\$2,327	
	551.20.00	Mendota Pool	1		Hg	\$2,221	
	551.20.00	Mendota Pool	1		Se	\$121	No charge for Sample Collection/Admin.
	511.##.##	Cache Creek/Lower	10		Hg	\$3,310	Largemouth Bass or catfish individual samples.
	541.20.16	Mud Slough	1		Hg	\$2,221	
	544.00.##	Old River	1		Se	\$2,221	Sample at Federal CVP pump diversion - upstream Grant Line Canal.
	544.00.##	San Joaquin River/Highway 4	1		Se	\$2,221	
	541.10.92	San Joaquin River/Crows Landing	1		Se	\$2,221	
	544.00.##	San Joaquin River	1		Se	\$2,221	Confluence of Empire Tract, Venice Island, and Medford Island.
	544.00.90	San Joaquin River/Mossdale	1		Se	\$2,221	ALTERNATE STATION.
						Total Cost = \$19,084	

New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997 TSMP Sampling Stations for Region 6

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
6	635.20.##	Bear Creek	1		*	\$2,951	
	634.10.##	Saxon Creek/d/s Meyers Landfill	1	*	*	\$3,738	
	632.10.##	Bryant Creek/d/s Mountaineer Creek	1		*	\$2,951	Collect benthic invertebrates.
	632.10.##	Mountaineer Creek	1		*	\$2,951	Collect benthic invertebrates.
	603.20.??	Bishop Creek	1		*	\$2,951	
	636.00.##	Independence Creek	1		*	\$2,951	
	634.10.##	Upper Truckee River	1		*	\$2,951	Collect between HWY 50 (Carrows Restaurant) and Trout Creek.
	634.10.##	Echo Lake	1		*	\$2,951	Alternate station. Collect from Upper or Lower.
	633.20.##	Red Lake Creek	1		*	\$2,951	Alternate station.
	603.10.##	Lake Mary	1		*	\$2,951	Alternate station.
Total Cost = \$21,444							

* Means full scan for all organics or metals. ## New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997 TSMP Sampling Stations for Region 7

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
7	728.00.90	Salton Sea/South	1	*	*	\$3,738	
	728.00.92	Salton Sea/North	1	*	*	\$1,638	No charge for Sample Collection/Admin.
	715.40.08	Palo Verde Outfall Drain	1	*	Se	\$3,008	
	719.47.00	Coachella Valley Stormwater Channel	1	*	Se	\$3,008	
	723.10.01	Alamo River/Calipatria	1	*	Se	\$3,008	
	723.10.02	New River/Westmorland	1	*	*	\$3,738	
	719.47.00	Coachella Valley Stormwater Channel	1	*	Se	\$3,035	Sediment.
	715.40.08	Palo Verde Outfall Drain	1	*	Se	\$3,035	ALTERNATE STATION. Sediment.
	723.10.01	Alamo River/Calipatria	1	*	Se	\$3,035	ALTERNATE STATION. Sediment.
Total Cost =						\$21,173	

* Means full scan for all organics or metals. ## New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997 TSMP Sampling Stations for Region 8

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost+ (\$)	Comments
8	801.11.09	San Diego Creek/Barranca Pkwy.	1	*	*	\$3,738	
	801.11.07	San Diego Creek/Michelson Dr.	1	*	*	\$3,738	
	801.11.96	Peters Canyon Channel	1	*	*	\$3,738	
	801.11.05	Delhi Channel	1	*	*	\$3,738	
	801.11.##	Upper Newport Beach/Newport Dunes	1	*	*	\$3,738	
	801.11.##	Lower Newport Bay/Rhine Channel	1	*	*	\$3,738	
	801.25.00	Santa Ana River/Prado Dam	1	*	*	\$3,738	ARCHIVE SAMPLE.
	801.11.00	Huntington Harbour/Anaheim Bay	1	*	*	\$3,738	ARCHIVE SAMPLE.
						Total Cost = \$22,428	

* Means full scan for all organics or metals. ## New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997 TSMP Sampling Stations for Region 9

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost+ (\$)	Comments
9	911.11.##	Tijuana River/Dairy Mart Road	1	*	*	\$3,738	
	902.11.##	San Margarita River/Stuart Mesa Road	1	*	*	\$3,738	
	907.11.##	San Diego River/Fashion Valley	1	*	*	\$3,738	
	906.40.##	Rose Creek	1	*	*	\$3,738	
	909.12.03	Sweetwater River/Interstate 805	1	*	*	\$3,738	
	910.20.##	Otay river	1	*	*	\$3,738	
	903.11.05	San Luis Rey River/Foussat Road	1	*	*	\$3,738	ARCHIVE SAMPLE.
	903.12.07	San Luis Rey River/Highway 15	1	*	*	\$3,738	ARCHIVE SAMPLE.
	901.20.03	San Juan Creek/La Novia Ave	1	*	*	\$3,738	ARCHIVE SAMPLE.
	901.20.04	Trabuco Creek/Oso Road	1	*	*	\$3,738	ARCHIVE SAMPLE.
						Total Cost = \$22,428	

* Means full scan for all organics or metals. ## New Station.

SECTION 2

Toxic Substances Monitoring Program

Sampling Schedule for FY 1998-99

(Note: No sampling was conducted in Region 2)

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998 TSMP Sampling Stations for Region 1

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
1	114.21.##	Laguna de Santa Rosa/Sebastopol Pond	5	*	*	\$10,290	
	114.21.##	Laguna de Santa Rosa/Occidental Road Pond	7	*	*	\$13,566	
Total Cost						\$23,856	

* Means full scan for all organics or metals. ## New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998 TSMP Sampling Stations for Region 3

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
3	309.10.18	Salinas River/Mouth	1	*,PAH	*	\$4,248	
	309.10.##	Salinas River below City of Salinas	1	*,PAH	*	\$4,248	
	309.10.02	Lower Tembladero Slough	1	*,PAH	*	\$4,248	
	309.10.04	Old Salinas River/Monterey Dunes Bridge	1	*,PAH	*	\$4,248	
Total Cost = \$16,992							

* Means full scan for all organics or metals. ## New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998 TSMP Sampling Stations for Region 4

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost+ (\$)	Comments
4	403.67.04	Arroyo Simi	1	*	*	\$0.0	Funded by Contaminated Sediments Account.
	405.15.97	Belvedere Park Lake	1	*	*	\$0.0	Funded by Contaminated Sediments Account.
	403.12.07	Conejo Creek	1	*	*	\$0.0	Funded by Contaminated Sediments Account.
	405.15.02	El Dorado Park Lake	1	*	*	\$3,738	
	404.23.04	Lindero Lake	1	*	*	\$3,738	
	402.20.12	Ventura River/Ojai	1	*	*	\$3,738	
	402.20.##	Ventura River	1	*	*	\$3,738	Collect u/s OVSD's discharge
	403.41.##	Santa Clara River/Torrey Road	1	*	*	\$3,738	
	405.15.##	MacArthur Park Lake	1	*	*	\$3,738	
Total Cost = \$22,428							

* Means full scan for all organics or metals.

New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998 TSMP Sampling Stations for Region 5

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
5	508.10.45	Sacramento River/Keswick Dam	1		*	\$2,951	Collect RBT.
	510.00.30	Sacramento R/Hood	2	*	Hg,Se	\$0.0	Analyze WCF & LMB both filet and whole (see footnote 1). No cost. Carry over from 1997.
	541.10.90	San Joaquin R/Vernalis	2	*	Hg,Se	\$0.0	Analyze WCF & LMB both filet and whole (see footnote 1). No cost. Carry over from 1997.
	535.70.03	Merced R/Hatfield St Rec Area	2	*	Hg,Se	\$0.0	Analyze WCF & LMB both filet and whole (see footnote 1). No cost. Carry over from 1997.
	535.30.##	Toulumne R/Shiloh Bridge	2	*	Hg,Se	\$4,074	Analyze WCF & LMB both filet and whole (see footnote 1).
	541.10.92	San Joaquin R/Crows Landing	1	*	Hg,Se	\$3,087	Collect WCF. Alternate LMB.
	541.20.16	Mud Slough	1	*	Hg,Se,As	\$3,166	Collect WCF. Alternates LMB, GSF, SB, or SQF.
	551.20.00	Mendota Pool	1		Hg,Se	\$2,300	Collect WCF. Alternates LMB, GSF, SB, or SQF.
	541.00.##	Old River/CVP Pumps	1	*	Hg,Se	\$3,087	Collect WCF. Alternates LMB, GSF, SB, or SQF.
	516.31.01	Camp Far West	1		Hg	\$0.0	Collect LMB. Analyze filet and whole (see footnote 1). No cost. Carry over from 1997.
	516.34.03	Rollins Reservoir	2		Hg	\$2,342	Alternate Station. Collect LMB. Analyze filet and whole.
	517.51.06	Bullards Bar/Willow Creek	2		Hg	\$2,342	Alternate Station. Collect LMB. Analyze filet and whole.
	517.14.##	Englebright Lake	2		Hg	\$2,342	Alternate Station. Collect LMB. Analyze filet and whole.
	518.12.##	Lake Oroville	2		Hg	\$2,342	Alternate Station. Collect LMB. Analyze filet and whole. Collect near Frazier Creek/North Fork Feather River.
						Total Cost = \$18,665	

* Means full scan for all organics or metals. ## New Station.
1. Analyze each sample both filet and whole. Include unused filet portion in whole analysis.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998 TSMP Sampling Stations for Region 6

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
6	632.10.##	Poison Creek	1		*	\$2,951	
	634.10.##	Heavenly Valley Creek	1	*	*	\$3,738	Sample near STPUD treatment plant.
	635.20.##	Cold Stream/u/s Donner Creek	1		*	\$2,951	
	637.20.##	Susan River/u/s Susanville	1		*	\$2,951	
	603.10.06	Crowley Lake	1		*	\$2,951	
	626.80.##	Little Rock Creek/u/s Reservoir	1		*	\$2,951	
	634.10.##	Upper Truckee River	1		*	\$2,951	
	630.30.##	Bridgeport Reservoir	1	*	*	\$3,738	Alternate station.
	637.31.##	Pine Creek	1		*	\$2,951	Alternate station.
	603.10.10	Convict Lake	1		*	\$2,951	Alternate station.
	634.10.##	Lake Tahoe/South Shore	1	*	*	\$3,738	Alternate station. Sample area influenced by Upper Truckee River.
	631.40.##	Little Walker River	1		*	\$2,951	Alternate station.
632.10.##	Silver King Creek	1		*	\$2,951	Alternate station.	
628.20.##	Holcomb Creek/d/s GreenLead Creek	1		*	\$2,951	Alternate station.	
Total Cost = \$21,444							

* Means full scan for all organics or metals. ## New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998 TSMP Sampling Stations for Region 7

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
7	728.00.90	Salton Sea/South	1	*	*	\$3,738	
	728.00.92	Salton Sea/North	1	*	*	\$1,638	No charge for Sample Collection/Admin.
	715.40.08	Palo Verde Outfall Drain	1	*	Se	\$3,008	
	723.10.58	New River/Inter Boundary	1	*	*	\$3,738	
	723.10.01	Alamo River/Calipatria	1	*	Se	\$3,008	
	723.10.02	New River/Westmorland	1	*	*	\$3,738	
	719.47.00	Coachella Valley Stormwater Channel	1	*	Se	\$3,035	Sediment.
	723.10.47	Alamo River/Inter Boundary	1	*	*	\$3,738	ALTERNATE STATION.
	715.40.08	Palo Verde Outfall Drain	1	*	Se	\$3,035	ALTERNATE STATION. Sediment.
	723.10.01	Alamo River/Calipatria	1	*	Se	\$3,035	ALTERNATE STATION. Sediment.
Total Cost =						\$21,903	

* Means full scan for all organics or metals. ## New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998 TSMF Sampling Stations for Region 8

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost+ (\$)	Comments
8	801.11.09	San Diego Creek/Barranca Pkwy.	1	*	*	\$3,738	
	801.11.07	San Diego Creek/Michelson Dr.	1	*	*	\$3,738	
	801.11.96	Peters Canyon Channel	1	*	*	\$3,738	
	801.11.05	Delhi Channel	1	*	*	\$3,738	
	801.11.##	Upper Newport Beach/Newport Dunes	1	*	*	\$3,738	
	801.11.##	Lower Newport Bay/Rhine Channel	1	*	*	\$3,738	
	801.11.00	Huntington Harbour/Anaheim Bay	1	*	*	\$3,738	ARCHIVE SAMPLE.
Total Cost = \$22,428							

* Means full scan for all organics or metals.

New Station.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998 TSMP Sampling Stations for Region 9

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost+ (\$)	Comments
9	907.11.##	Alvarado Creek	1	*	*	\$3,738	
	902.21.##	DeLuz Creek	1	*	*	\$3,738	Location to be determined by Regional Board.
	902.22.##	Sandia Canyon Creek	1	*	*	\$3,738	Collect by Sandia Creek Road.
	905.23.##	Felicita Creek/East Fork	1	*	*	\$3,738	Collect within Felicita County Park near Felicita Road crossing.
	909.12.##	F - G Street saltmarsh/Chula Vista	1	*	*	\$3,738	Collect at saltmarsh channel east of Marina Parkway near industrial buildings.
Total Cost = \$18,690							

* Means full scan for all organics or metals. ## New Station.

SECTION 3

Toxic Substances Monitoring Program

Sampling Schedule for FY 1999-00

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 TSMP Sampling Stations for Region 1

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
1	114.32.??	Lake Mendocino	3		*	\$6,198	Collect SB and LMB.
	114.24.17	Lake Sonoma/Warm Springs Arm	3		*	\$6,198	Collect SB and LMB.
	114.24.??	Lake Sonoma/Dry Creek Arm	3		*	\$6,198	Collect SB and LMB.
	114.63.??	Lake Pillsbury	3		*	\$6,198	Collect trout spp.
	114.21.10	Laguna de Santa Rosa/Stony Point	1	*	*	\$2,819	
	114.23.00	Mark West Creek	1	*	*	\$2,819	
	111.63.??	Lake Pillsbury	12		Hg	\$1,992	No collection costs. Individual LMB fillets.
	111.63.??	Lake Pillsbury	1		Hg	\$166	No collection costs. Individual BG fillet.
	111.63.??	Lake Pillsbury	1		Hg	\$166	No collection costs. Composite Sac. Pike.
	111.63.??	Lake Pillsbury	1	*	#	\$1,073	No collection costs. Composite LMB fillets.
	111.63.??	Lake Pillsbury	1	*	*	\$490	No collection costs. Composite LMB.
	111.63.??	Lake Pillsbury	1	*	*	\$490	No collection costs. Composite LMB.
Total Cost = \$34,807							

* Means full scan for metals and organics.
 # As, Cd, Hg, Ni, and Se.

?? Station Number to be determined.

TABLE I
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 TSMP Sampling Stations for Region 2

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
2	201.12.??	Soule Joule Reservoir	3		Hg	\$5,655	Collect bass spp.
	204.20.??	Lake Merritt	1	*	Hg	\$2,638	Collect SH (legal size).
	??	Tomales Point	1		Hg	\$1,885	Collect SB (legal size).
						Total Cost = \$10,178	

* Means full scan for metals and organics.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 TSMP Sampling Stations for Region 3

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
3	304.10.02	Maddel Creek	1	*	*	\$2,819	Collect STB.
	304.12.??	San Lorenzo River Lagoon	1	*,PAH	*	\$3,357	Collect STB.
	305.10.03	Pajaro River/d/s HWY 1 Brg	1	*,PAH	*	\$3,357	Collect STB.
	309.10.00	Salinas River Lagoon	1	*	*	\$2,819	Collect STB.
	307.00.01	Carmel Lagoon	1	*	*	\$2,819	Collect STB.
	308.00.01	Big Sur River	1	*	*	\$2,819	Collect STB.
	310.13.??	San Simeon Lagoon	1	*	*	\$2,819	Collect STB.
	310.13.??	Pico Creek Lagoon	1	*	*	\$2,819	Collect STB.
	310.24.??	San Luis Obispo Creek Lagoon	1	*	*	\$2,819	Collect STB.
	310.31.??	Arroyo Grande Creek Lagoon	1	*	*	\$2,819	Collect STB.
	312.10.00	Santa Maria River/Mouth	1	*,PAH	*	\$3,357	Collect STB.
	314.1?.??	Santa Ynez River Lagoon	1	*	*	\$2,819	Collect STB.
	315.31.??	Goleta Slough Lagoon	1	*,PAH	*	\$3,357	Collect STB.
	315.34.00	Carpenteria Marsh	1	*	*	\$2,819	Collect STB.
						Total Cost = \$41,618	

* Means full scan for metals and organics.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 TSMP Sampling Stations for Region 4

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
4	404.25.01	Westlake Lake	1	*	*	\$2,819	
	402.10.??	Ventura River/u/s Ojai Valley Treatment Plant	1	*	*	\$2,819	
	402.10.??	Ventura River/ d/s Ojai Valley Treatment Plant	1	*	*	\$2,819	
	403.11.00	Santa Clara River Estuary	1	*	*	\$2,819	
	403.67.08	Arroyo Simi/Medeara Road	1	*	*	\$2,819	
	403.64.03	Arroyo Conejo/d/s Forks	1	*	*	\$2,819	
	403.12.06	Callegues Creek	1	*	*	\$2,819	
	405.21.06	Los Angeles River/Los Feliz Road	1	*	*	\$2,819	
	405.12.03	Los Angeles River	1	*	*	\$2,819	
	405.15.04	San Gabriel River	1	*	*	\$2,819	
	404.21.05	Malibu Cr/u/s Tapia Discharge	1	*	*	\$2,819	
	404.21.04	Malibu Cr/Tapia Park	1	*	*	\$2,819	
	405.52.01	Puddingstone Reservoir	1	*	*	\$2,819	
	404.21.07	Malibu Lake	1	*	*	\$2,819	
						Total Cost = \$39,466	

* Means full scan for metals and organics.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 TSMP Sampling Stations for Region 5

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
5	511.20.??	Putah Creek/South Fork	1	*	Hg	\$2,638	Collect LMB. Coordinate with CALFED.
	508.10.45	Sacramento River/Keswick Dam	2		*	\$4,132	Collect RBT.
	551.20.00	Mendota Pool	1		Hg,Se	\$1,938	Collect WCF.
	515.30.??	Yuba River/Goldfields	1		Hg	\$1,885	Collect LMB. Coordinate with CALFED.
	541.20.??	San Joaquin River/Landers Ave.	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	541.10.92	San Joaquin River/Crows Landing	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	541.10.90	San Joaquin River/Vernalis	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	544.00.??	San Joaquin River/Bowman Road	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	544.00.30	San Joaquin River/HWY 4	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	531.30.91	Stockton Deep Water Channel	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	531.30.??	Smith Canal/Yosemite Park	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	544.00.??	San Joaquin River/Potato Slough	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	544.00.??	San Joaquin River/Turner Cut	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	544.00.32	Paradise Cut/Tracy	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	544.00.??	Middle River/Bullfrog	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	544.00.??	White Slough/d/s Disappointment Sl	1		Hg,Se	\$1,938	Collect LMB. Coordinate with CALFED.
	544.00.??	Mokelumne River/d/s Consumme River	1		Hg	\$1,885	Collect LMB. Coordinate with CALFED.
	544.00.??	Sycamore Slough/Mokelumne River	1		Hg	\$1,885	Collect LMB. Coordinate with CALFED.
	531.11.??	Consummes River/Road E13	1		Hg	\$1,885	Collect LMB. Coordinate with CALFED.
						Total Cost = \$39,504	

* Means full scan for metals and organics.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 TSMP Sampling Stations for Region 6

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
6	637.20.??	Susan River/u/s Susanville	1	*	*	\$2,819	
	637.20.25	Susan River/d/s Piute Creek	1	*	*	\$2,819	
	637.20.??	Gold Run Creek	1	*	*	\$2,819	
	635.20.??	Trout Creek	1	*	*	\$2,498	Sample below golf course in Truckee.
	634.10.??	Upper Truckee River/d/s HWY 50	1	*	*	\$2,819	
	634.10.??	Tal Lac Lagoon	1	*,PAH,TPH TBT		\$3,860	
	634.10.??	Tahoe Keys/Sailing Lagoon Marina	1	*,PAH,TPH TBT		\$3,860	
	634.10.??	Tahoe Keys/Sailing Lagoon	1	*,PAH,TPH TBT		\$3,860	
	630.10.??	East Walker River/u/s Bridgeport Reservoir	1		*	\$2,066	
	630.10.??	East Walker River/State Line	1		*	\$2,066	
	601.00.??	Lee Vining Creek	1	TPH		\$2,094	
	603.20.??	Owens River	1	TPH		\$2,094	Sample east of Bishop.
	628.20.??	Deep Creek/Arrowbear	1	*		\$2,498	
	630.00.??	Buckeye Creek	1		*	\$2,066	
	630.00.??	Robinson Creek	1		*	\$2,066	
						Total Cost = \$38,238	

* Means full scan for metals and organics.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 TSMP Sampling Stations for Region 7

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
7	723.10.01	Alamo River/Calipatria	1	*,PAH	As,Se	\$3,158	
	723.10.47	Alamo River/International Boundry	1	*,PAH	As,Se	\$3,158	
	715.50.90	Colorado River/u/s Imperial Dam	1	*,PAH	As,Se	\$3,158	
	723.10.02	New River/Westmorland	1	*,PAH	As,Se	\$3,158	
	791.47.00	Coachella Valley Stormwater Channel	1	*,PAH	As,Se	\$3,158	
	715.40.08	Palo Verde Outfall Drain	1	*,PAH	As,Se	\$3,158	
	728.00.90	Salton Sea/South	1	*,PAH	As,Se	\$3,158	
	723.10.30	Central Drain	1	*,PAH	As,Se	\$3,158	
	728.10.48	Greeson Drain	1	*,PAH	As,Se	\$3,158	
	723.10.21	Holtville Main Drain	1	*,PAH	As,Se	\$3,158	
	723.10.31	South Central Drain	1	*,PAH	As,Se	\$3,158	
	723.00.03	Reservation Main Drain	1	*,PAH	As,Se	\$3,158	
	723.10.??	Alamo River	2	DDT		\$878	Sediment. No collection costs. Region will collect samples.
	723.10.??	New River	2	DDT		\$878	Sediment. No collection costs. Region will collect samples.
Total Cost = \$39,652							

* Means full scan for metals and organics. ?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 TSMP Sampling Stations for Region 8

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
8	801.11.09	San Diego Creek/Barranca Pkwy.	1	*	*	\$2,819	
	801.11.07	San Diego Creek/Michelson Dr.	1	*	*	\$2,819	
	801.11.96	Peters Canyon Channel	1	*	*	\$2,819	
	801.11.05	Delhi Channel	1	*	*	\$2,819	
	801.11.99	Upper Newport Beach/Newport Dunes	1	*	*	\$2,819	
	801.11.89	Lower Newport Bay/Rhine Channel	1	*	*	\$2,819	
	801.71.07	Big Bear Lake/Dam	1	*	*	\$2,819	Collect in spring 2000.
	801.71.10	Big Bear Lake	1	*	*	\$2,819	Collect in spring 2000.
	801.71.12	Big Bear Lake/Rathbone Creek	1	*	*	\$2,819	Collect in spring 2000.
	802.31.00	Lake Elsinore	1	*	*	\$2,819	Collect in spring 2000.
Total Cost = \$28,190							

* Means full scan for metals and organics.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 TSMP Sampling Stations for Region 9

Region	Station Number	Station Name	No. of Samples	Organics		Metals		Cost	Comments
9	904.51.??	San Marcos Creek/Sante Fe Road	1	*	*	*	*	\$2,819	
	904.61.07	Escondido Creek/Elfin Forest Park	1	*	*	*	*	\$2,819	
	904.31.??	Agua Hedionda Creek/d/s El Camino Real	1	*	*	*	*	\$2,819	
	904.21.02	Buena Vista Lagoon	1	*	*	*	*	\$2,819	
	902.11.??	Santa Margarita River/u/s Stuart Mesa Road	1	*	*	*	*	\$2,819	
	902.22.??	Rainbow Creek/u/s Willow Glen Road	1	*	*	*	*	\$2,819	
	902.32.??	Murieta Creek/USGS Gaging Station	1	*	*	*	*	\$2,819	
	901.13.??	Aliso Creek/u/s Pacific Drive	1	*	*	*	*	\$2,819	
	904.10.??	Loma Alta Creek/u/s College Blvd	1	*	*	*	*	\$2,819	
Total Cost =								\$28,190	

* Means full scan for metals and organics.

?? Station Number to be determined.

SECTION 4

State Mussel Watch Program

Sampling Schedule for FY 1997-98

(Note: No sampling was conducted in Regions 1 and 4)

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997-98 SMWP Sampling Stations for Region 2

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
2	203.0	Tomales Bay/Shell Beach	1			Hg \$1,192	
	203.1	Tomales Bay/Vincent Landing	1			Hg \$1,192	
	203.3	Tomales Bay/Walker Creek Mouth 1	1			Hg \$1,192	
	203.5	Tomales Bay/Walker Creek Mouth 2	1			Hg \$1,192	
	203.7	Tomales Bay/Walker Creek Mouth 3	1			Hg \$1,192	
	???	Tomales Bay/Walker Creek Mouth 4	1			Hg \$1,192	
	203.8	Tomales Bay/Marshall	1			* \$2,090	
	203.9	Tomales Bay/Nicks Cove	1			Hg \$1,192	
	???	Salmon Creek/Marshall-Petaluma Brdg	1			Hg \$1,192	
	???	salmon Creek/u/s of mine	1			Hg \$1,192	
	210.1	Walker Creek/Mine Creek	1			Hg \$1,192	
	210.3	Walker Creek/mid stream	1			Hg \$1,192	
	???	Walker Creek/USGS stream gauge	1			Hg \$1,192	
	???	Walker Creek/u/s of Highway 1	1			Hg \$1,192	
	???	Napa River/Tubbs Lane	1	*	*	\$2,802	
	???	Napa River/Larkmead Lane	1	*	*	\$2,802	
	???	Napa River/Pope Street	1	*	*	\$2,802	
	???	Napa River/Yountville Cross Road	1	*	*	\$2,802	
	???	Sonoma Creek/Aqua Caliente Road	1	*	*	\$2,802	
	???	Sonoma Creek/Petaluma Road	1	*	*	\$2,802	
	???	Sonoma Creek/Watmaugh Road	1	*	*	\$2,802	
	???	Guadalupe River/Almaden Expy	1			Hg \$1,192	
	329.2	Guadalupe River/Hicks Road	1			Hg \$1,192	
	???	Alamitos Creek/Almaden Road	1			Hg \$1,192	
						Total Cost = \$40,776	

* Means full scan for all organics or metals. ??? = Station numbers yet to be determine.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997-98 SMWP Sampling Stations for Region 3

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
3	???	Pajaro River/Thurwacker Bridge	1	*, PAH	*	\$3,312	
	???	Corralitos Creek/u/s Pajaro River	1	*, PAH	*	\$3,312	
	???	Pajaro River/Chittenden	1	*, PAH	*	\$3,312	
	???	Pajaro River/Betabel	1	*, PAH	*	\$3,312	
	???	Uvas Creek/u/s Pajaro River	1	*, PAH	*	\$3,312	
	???	Llagas Creek/Bloomfield	1	*, PAH	*	\$3,312	
	???	Pacheco Creek/u/s Pajaro River	1	*	*	\$2,802	
	???	Tequisquita Slough/u/s Pajaro River	1	*, PAH	*	\$3,312	
	???	Tres Pinos Creek/u/s San Benito River	1	*	*	\$2,802	
	???	Clear Creek	1	*, PAH	*	\$3,312	
	???	San Benito River/d/s Hernandez Road	1	*	*	\$2,802	
Total Cost = \$34,902							

* Means full scan for all organics or metals.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997-98 SMWP Sampling Stations for Region 8

Region	Station Number	Water Body	No. of Samples	Cost (\$)		Comments
				Organics	Metals	
8	708.0	Anaheim Bay/Navy Marsh	1	* PAH	*	\$3,312
	713.0	Huntington Harbour/Edinger Street	1	* PAH	*	\$3,312
	726.6	Newport Bay/Mariners Drive	1	* PAH	*	\$3,312
	726.4	Newport Bay/Rhine Channel/End	1	* PAH	*	\$3,312
	723.4	Newport Bay/Turning Basin	1	* PAH	*	\$3,312
	721.0	Newport Bay/Entrance	1	* PAH	*	\$3,312
Total Cost = \$19,872						

* Means full scan for all organics or metals.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 7-061-250-0
1997-98 SMWP Sampling Stations for Region 9

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
9	893.0	San Diego Bay/Laurel Street	1	*, PAH	*, As Ni, Se	\$3,549	
	???	San Diego Bay/North Island Naval Air Station	1	*, PAH	*, As Ni, Se	\$3,549	
	887.0	San Diego Bay/Evans Street	1	*, PAH	*, As Ni, Se	\$3,549	
	883.1	San Diego Bay/Chollas Creek	1	*, PAH	*, As Ni, Se	\$3,549	
	883.6	San Diego Bay/7th Street Channel	1	*, PAH	*, As Ni, Se	\$3,549	
Total Cost = \$17,745							

* Means full scan for all organics or metals.

SECTION 5

State Mussel Watch Program

Sampling Schedule for FY 1998-99

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998-99 SMWP Sampling Stations for Region 1

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
1	3.0	Crescent City/Control	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	10.0	Trinidad Head	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	202.0	Bodega Head	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	100.0	Mad River Slough	1	*	*	\$2,802	
	101.0	Samoa Bridge/West	1	*	*	\$2,802	
	106.0	Fields Landing	1	*	*	\$2,802	
	###	Freshwater Slough	1	*,PAH	*	\$3,312	
	###	14th St. Drain	1	*,PAH	*	\$3,312	
	###	14th St. Drain	1	*	*	\$1,071	
Total Cost = \$16,101							

* Means full scan for all organics or metals.

New Station.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998-99 SMWP Sampling Stations for Region 2

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
2	203.0	Tomales Bay	1	* ,PAH	*	\$0.0	Funded by SMW Endowment.
	306.0	San Francisco Bay/Fort Baker	1	* ,PAH	*	\$0.0	Funded by SMW Endowment.
	336.0	J. Fitzgerald	1	* ,PAH	*	\$0.0	Funded by SMW Endowment.
	???	Petaluma/To Be Determined	3	*	*	\$8,406	
	???	Tomales Bay/To Be Determined	10		Hg	\$11,920	
	???	Walker Creek/To Be Determined	2		Hg	\$2,384	
	???	Chileno Creek/To Be Determined	2		Hg	\$2,384	
	???	San Leandro Bay/To Be Determined	3	*	*	\$8,406	
	???	Salmon Creek/To Be Determined	2		Hg	\$2,384	
Total Cost = \$35,884							

* Means full scan for all organics or metals. ??? = Station numbers yet to be determine.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998-99 SMWP Sampling Stations for Region 4

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
4	601.0	LA Harbor/National Steel	1	*, PAH	*	\$0.0	Funded by SMW Endowment.
	616.0	LA Harbor/Consolidated Slip	1	*, PAH	*	\$0.0	Funded by SMW Endowment.
	662.0	Royal Palms	1	*, PAH	*	\$0.0	Funded by SMW Endowment.
	508.1	Mugu Drainage 1	1	*, PAH	*	\$3,312	
	618.0	LA Harbor/Angels Gate	1	*, PAH	*	\$3,312	
	648.0	Malibu	1	*, PAH	*	\$3,312	
	650.0	Santa Monica	1	*, PAH	*	\$3,312	
	???	Cabrillo Beach	1	*, PAH	*	\$3,312	
Total Cost = \$16,560							

* Means full scan for all organics or metals.

??? = Station numbers yet to be determine.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998-99 SMWP Sampling Stations for Region 3

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
3	404.0	Sandholdt Bridge	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	414.0	Pacific Grove	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	450.0	Point Conception	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	405.8	Salinas River Lagoon	1	*,PAH	*	\$3,312	
	###	Tembladero Slough/d/s Salinas River	1	*,PAH	*	\$3,312	
	###	Salinas River/Chualar BR	1	*,PAH	*	\$3,312	
	###	Salinas River/d/s San Ardo	1	*,PAH	*	\$3,312	
	###	Santa Maria River Lagoon	1	*,PAH	*	\$3,312	
	###	Goleta Slough	1	*,PAH	*	\$3,312	
	###	Carpenteria Marsh	1	*,PAH	*	\$3,312	
Total Cost =						\$23,184	

* Means full scan for all organics or metals.

New Station.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998-99 SMWP Sampling Stations for Region 8

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
8	715	Huntington Harbor/Warner Ave Brdg	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	724	Newport Bay/Highway 1 Bridge	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	725	Newport Bay/Crows Nest	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	708.0	Anaheim Bay/Navy Marsh	1	*,PAH	*	\$3,312	
	713.0	Huntington Harbour/Edinger Street	1	*,PAH	*	\$3,312	
	726.6	Newport Bay/Mariners Drive	1	*,PAH	*	\$3,312	
	726.4	Newport Bay/Rhine Channel/End	1	*,PAH	*	\$3,312	
	723.4	Newport Bay/Turning Basin	1	*,PAH	*	\$3,312	
Total Cost = \$16,560							

* Means full scan for all organics or metals.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 8-038-250-0
1998-99 SMWP Sampling Stations for Region 9

Region	Station Number	Water Body	No. of Samples	Organics	Metals	Cost (\$)	Comments
9	750.0	Oceanside	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	894.1	SD Bay/Harbor Is/E basin/Storm Dr2	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	899.2	San Diego Bay/Sheiter Island	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	###	San Diego Bay/B Street	1	*,PAH	*	\$3,312	
	883.8	San Diego Bay/Switzer Creek	1	*,PAH	*	\$3,312	
	883.4	San Diego Bay/Continental Marine	1	*,PAH	*	\$3,312	
	886.2	San Diego Bay/Silvergate	1	*,PAH	*	\$3,312	
	883.1	San Diego Bay/Chollas Creek	1	*,PAH	*	\$3,312	
	883.6	San Diego Bay/7th Street Channel	1	*,PAH	*	\$3,312	
						Total Cost = \$19,872	

* Means full scan for all organics or metals.

New Station.

SECTION 6

State Mussel Watch Program

Sampling Schedule for FY 1999-00

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 SMWP Sampling Stations for Region 1

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
1	100.0	Mad River Slough	1	*,PAH	*	\$3,500	
	205.0	Bodega Harbor/Spud Point Marina	1	*,PAH	*	\$3,500	
	102.6	Humboldt Bay/J Street	1	*,PAH	*	\$3,500	
	103.4	Humboldt Del Norte Pier	1	*,PAH	*	\$3,500	
	??	Humboldt Bay/F Street	1	*,PAH	*	\$3,500	
	??	Crescent City Harbor/Elk Slough	1	*,PAH	*	\$3,500	Mouth of Elk slough.
	2.1	Crescent City Harbor Jetty	1	*,PAH	*	\$3,500	
	10.0	Trinidad Head	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	3.0	Crescent City/Control	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	202.0	Bodega Head		*,PAH	*	\$0.0	Funded by SMW Endowment.
						Total Cost = \$24,500	

* Means full scan for metals and organics.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 SMWP Sampling Stations for Region 2

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
2	??	San Francisco Bay Tributaries	24	*	Hg	\$30,048	No collection cost. Resident bivalves.
	??	Tomales Bay	10		Hg	\$15,990	
	??	Castro Cove	3	PCB		\$1,317	No collection cost. Resident bivalves.
	203.0	Tomales Bay	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	306.0	San Francisco Bay/Fort Baker	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	336.0	J. Fitzgerald	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
						Total Cost = \$47,355	

* Means full scan for metals and organics.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 SMWP Sampling Stations for Region 3

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
3	??	Santa Maria River Lagoon	1	*,PAH	*	\$3,500	TFC.
	??	Sisquoc River/Santa Maria River Mouth	1	*,PAH	*	\$3,500	TFC.
	??	Cuyama River/HWY166	1	*,PAH	*	\$3,500	TFC. Station above Reservoir.
	??	Orcutt Creek/Main Street	1	*,PAH	*	\$3,500	TFC.
	??	Santa Maria River/HWY 1	1	*,PAH	*	\$3,500	TFC.
	404.0	Sandholdt Bridge	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	414.0	Pacific Grove	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	??	Jalama	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
Total Cost =						\$17,500	

* Means full scan for metals and organics.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 SMWP Sampling Stations for Region 4

Region	Station Number	Station Name	No. of Samples	Organics		Metals		Cost	Comments
4	601.0	LA Harbor/National Steel	1	* ,PAH	*		\$0.0	Funded by SMW Endowment.	
	??	LA Harbor/Berth 206	1	* ,PAH	*		\$3,500		
	??	LA Harbor/Berth 220	1	* ,PAH	*		\$3,500		
	616.0	LA Harbor/Consolidated Slip	1	* ,PAH	*		\$0.0	Funded by SMW Endowment.	
	662.0	Royal Palms	1	* ,PAH	*		\$0.0	Funded by SMW Endowment.	
	617.9	Cabrillo Beach/Ocean Side	1	* ,PAH	*		\$3,500		
	618.0	LA Harbor/Angels Gate	1	* ,PAH	*		\$3,500		
	609.4	Long Beach/Queensway bay	1	* ,PAH	*		\$3,500		
	650.0	Santa Monica	1	* ,PAH	*		\$3,500		
	648.0	Malibu	1	* ,PAH	*		\$3,500		
	Total Cost = \$24,500								

* Means full scan for metals and organics.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 SMWP Sampling Stations for Region 8

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
8	715.0	Huntington Harbor/Warner Ave Bldg	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	713.0	Huntington Harbour/Edinger Street	1	*,PAH	*	\$3,500	
	724.0	Newport Bay/Highway 1 Bridge	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	725.0	Newport Bay/Crows Nest	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	726.6	Newport Bay/Mariners Drive	1	*,PAH	*	\$3,500	
	726.4	Newport Bay/Rhine Channel/End	1	*,PAH	*	\$3,500	
	723.4	Newport Bay/Turning Basin	1	*,PAH	*	\$3,500	
	723.0	Newport Bay/Bay Island	1	*,PAH	*	\$3,500	
	728.4	Upper Newport Bay/MacArthur	1	*,PAH	*	\$3,500	
	726.0	Newport Bay/Rhine Channel/Upper	1	*,PAH	*	\$3,500	
	727.0	Garden Grove/Wintersburg Channel	1	*,PAH	*	\$3,500	
	708.0	Anaheim Bay/Navy Marsh	1	*,PAH	*	\$3,500	
	Total Cost = \$31,500						

* Means full scan for metals and organics.

TABLE 1
TO
TASK ORDER No. 2 TO INTERAGENCY AGREEMENT No. 9-034-250-0
1999-00 SMWP Sampling Stations for Region 9

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
9	901.0	San Diego Bay/Degaussing Station	1	*,PAH	*	\$3,500	
	899.4	San Diego Bay/Shelter Is/Fuel Dock	1	*,PAH	*	\$3,500	
	898.0	Commercial Basin/Carlton Street	1	*,PAH	*	\$3,500	
	895.6	San Diego Bay/Grape St Storm Drain	1	*,PAH	*	\$3,500	
	894.8	Laural Street Storm Drain	1	*,PAH	*	\$3,500	
	883.8	San Diego Bay/Switzer Creek	1	*,PAH	*	\$3,500	
	887.0	San Diego Bay/Evans Street	1	*,PAH	*	\$3,500	
	883.1	San Diego Bay/Chollas Creek	1	*,PAH	*	\$3,500	
	883.6	San Diego Bay/7th Street Channel	1	*,PAH	*	\$3,500	
	893.5	San Diego Bay/B Street Pier	1	*,PAH	*	\$3,500	
	894.1	SD Bay/Harbor Is/E Basin/Storm Dr2	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	899.2	San Diego Bay/Shelter Island	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
	750.0	Oceanside	1	*,PAH	*	\$0.0	Funded by SMW Endowment.
Total Cost = \$35,000							

* Means full scan for metals and organics.

SECTION 7

Coastal Fish Contamination Study

Sampling Schedule for FY 1998-99

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-069-250-0
1998-99 CFCS Sampling Stations for Region 1

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
1	100?	Trinidad	4	*	*	\$8,804	Collect RCM, Red Crab, Perch spp., & Greenling.
	100?	Humboldt Bay	4	*	*	\$8,804	Collect Red Crab, Perch spp., Jack Smelt, & Leopard Shark
	100?	Elk River	4	*	*	\$8,804	Collect Bivalves, Halibut spp., Perch sp., & Leopard Shark
	100?	Humboldt Bay/North Jetty	6	*	*	\$13,206	Collect Rock Fish spp., Perch spp., Wolf Eel, Salmon spp., RCM, & RBM
	100?	Point Arena Pier	3	*	*	\$6,603	Collect Red Crab, Greenling & Perch sp.
	100?	Spud Point Breakwater	2	*	*	\$4,402	Collect Red Crab & Perch spp.
	100?	Crescent City	1	*	*	\$2,201	Collect Perch spp.
	100?	Salt Point State Park	1	*	*	\$2,201	ALTERNATE STATION. Collect rock fish spp.
	100?	Bodega Harbor	2	*	*	\$4,402	ALTERNATE STATION. Collect Red Crab & RCM.
						Total Cost = \$52,824	

? Station Number to be determined.

* Organics = Full scan.
 * Metals = As, Cd, Hg, Se.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-069-250-0
1998-99 CFCs Sampling Stations for Region 2

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
2	??	Tomales Bay	3		Hg, As	\$4,374	Collect Angel Shark.#
	??	Tomales Bay	2		Hg, As	\$2,916	Collect Bat Ray.#
	??	Tomales Bay	1		Hg, As	\$1,458	Collect Brown Smooth Hound Shark.#
	??	Tomales Bay	3		Hg, As	\$4,374	Collect crab. Include heptapancreas analyze.
	??	Tomales Bay	3		Hg	\$4,224	Collect Jack Smelt.
	??	Tomales Bay	8		Hg, As	\$11,664	Collect Leopard Shark.#
	??	Tomales Bay	3		Hg	\$4,224	Collect rockfish.
	??	Tomales Bay	3	*	*	\$6,603	Collect Shiner Perch.
	??	Tomales Bay	3	*	*	\$3,003	No collection costs. Analyze Calif. Halibut.
	??	Tomales Bay	9		Hg	\$2,517	No collection costs. Analyze shellfish. Including 3 samples for methyl-Hg.
	??	San Francisco	2	*, PAHs		\$2,594	Report PCB congeners. No collection costs.
	??	Berkeley	2	*, PAHs		\$2,594	Report PCB congeners. No collection costs.
						Total Cost = \$55,579	

* Organics = Full scan.

* Metals = As, Cd, Hg, Se.

?? Station Number to be determined.

Archive part of sample for possible organic/inorganic As analysis.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-069-250-0
1998-99 CFCS Sampling Stations for Region 3

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
3	3001	Santa Cruz Wharf	2	*	*	\$4,402	Collect WC and BRS or BLS.
	3006	Cayucos Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	3004	Santa Barbara Jetty	2	*	*	\$4,402	Collect WC and BRS or BLS.
	3005	Capitola Wharf	2	*	*	\$4,402	Collect WC and BRS or BLS.
	3030	Toro Creek Beach	2	*,PAH	*	\$5,422	Collect WC and BRS or BLS.
	3007	Pismo Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	3014	Goleta Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	3019	Santa Maria River Beach	2	*,PAH	*	\$5,422	Collect WC and BRS or BLS.
	3017	Pajaro River Beach	2	*,PAH	*	\$5,422	Collect WC and BRS or BLS.
	3018	Salinas River Beach	2	*	*	\$4,402	Collect WC and BRS or BLS.
	3012	Monterey Bay kelp beds	2	*	*	\$4,402	Collect KB and GR.
	3013	Moss Landing Beach	2	*	*	\$4,402	Collect WC and BRS or BLS.
	Total Cost = \$55,893						

* Organics = Full scan.
* Metals = As, Cd, Hg, Se.

TABLE 1
TO
TASK ORDER No. # TO INTERAGENCY AGREEMENT No. 8-069-250-0
1998-99 CFCS Sampling Stations for Region 4

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
4	4002	McGrath State Beach or Hollywood Beach	2	*	*	\$4,402	Collect BRS and CC.
	4003	Channel Islands Harbor	2	*	*	\$4,402	Collect WC and BRS or BLS.
	4004	Ventura Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	4005	Port Hueneme Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	4006	Ventura Marina Jetty	2	*	*	\$4,402	Collect WC and BRS or BLS.
	4007	Big Sycamore to Pt. Mugu	2	*	*	\$4,402	Collect WC and BRS or BLS.
	4008	Party Boats from Ventura or Ci Harbor to Islands	2	*	*	\$4,402	Collect KB and CS.
	4009	Belmont Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	4010	Catalina Island Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	4011	Santa Monica Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	4012	Venice Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	4013	Hermosa Beach Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	Total Cost = \$52,824						

* Organics = Full scan.
 * Metals = As, Cd, Hg, Se.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-069-250-0
1998-99 CFCS Sampling Stations for Region 8

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
8	8001	Seal Beach	2	*	*	\$4,402	Collect BRS and CC.
	8002	Huntington Beach Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	8003	Huntington Beach	2	*	*	\$4,402	Collect BRS and CC.
	8004	Newport Beach	2	*	*	\$4,402	Collect BRS and CC.
	8005	Newport Beach Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	8006	Balboa Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	8007	Newport Jetties	2	*	*	\$4,402	Collect WC and BRS or BLS.
	8008	Newport Bay	2	*,TBT	*	\$5,302	Collect SSB and DT or PH.
	8009	Orange County Outfall Area 1	2	*	*	\$4,402	Collect KB and CS.
	8010	Emma and Eva Oil Platforms	2	*	*	\$4,402	Collect KB and CS.
	8011	Anaheim Bay	2	*	*	\$4,402	Collect KB and CS.
	8012	Orange County Outfall Area 2	2	*	*	\$4,402	Collect KB and CS.
Total Cost = \$53,724							

* Organics = Full scan.
 * Metals = As, Cd, Hg, Se.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 8-069-250-0
1998-99 CFCS Sampling Stations for Region 9

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
9	9001	Chula Vista Marina Pier-J ST	2	*	*	\$4,402	Collect BSB and SSB.
	9003	Oceanside Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	9004	La Jolla kelp bed	2	*	*	\$4,402	Collect KB and CS.
	9005	Mission Bay Jetty (south)	2	*	*	\$4,402	Collect WC and BRS or BLS.
	9006	Ocean Beach Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	9007	Point Loma kelp bed	2	*	*	\$4,402	Collect KB and CS.
	9008	Shelter Island Pier	2	*	*	\$4,402	Collect BSB and SSB.
	9009	Fifth Avenue Marina Pier	2	*	*	\$4,402	Collect BSB and SSB.
	9010	Imperial Beach Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	9011	Aqua Hedionda Lagoon	2	*	*	\$4,402	Collect WC and BRS or BLS.
	9012	Crystal Pier	2	*	*	\$4,402	Collect WC and BRS or BLS.
	9013	Crosby Street Pier	2	*	*	\$4,402	Collect BSB and SSB.
						Total Cost = \$52,824	

* Organics = Full scan.
 * Metals = As, Cd, Hg, Se.

SECTION 8

Coastal Fish Contamination Study

Sampling Schedule for FY 1999-00

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-035-250-0
1999-00 CFCS Sampling Stations for Region 1

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
1	1001	Crescent City	2	*	*	\$4,646	Collect Perch spp. and TPS.
	1002	Trinidad	2	*	*	\$4,646	Collect RCM and BLR.
	1003	Humboldt Bay/Del Norte St Pier	2	*	*	\$4,646	Collect RRC and Perch spp.
	1004	Elk River	3	*	*	\$6,969	Collect RRC, Halibut spp., and Perch sp.
	1005	Humboldt Bay/North Jetty	3	*	*	\$6,969	Collect clam sp., RRC, and perch spp.
	1006	Point Arena Pier	3	*	*	\$6,969	Collect RRC, Perch sp, and Rock Fish sp.
	1007	Spud Point Breakwater	2	*	*	\$4,646	Collect RRC, and Perch spp.
	1008	Salt Point State Park	1	*	*	\$2,323	Collect Rock Fish spp.
	1009	Bodega Harbor	2	*	*	\$4,646	Collect RRC and RCM.
	Total Cost =						\$46,460

* Organics = Full scan.
 * Metals = As, Cd, Hg, Se.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-035-250-0
1999-00 CFCS Sampling Stations for Region 2

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
2	20??	San Francisco Coastline	2	*	*	\$4,646	Collect salmon spp. and WSP.
	20??	Marin Coast	3	*	*	\$6,969	Collect salmon spp., WSP, and Vermillion Rock Fish.
	20??	Baker Beach (S.F.)	1	*	*	\$2,323	Collect striped bass.
	20??	Pacifica Pier (San Mateo)	5	*	*	\$13,729	Collect WC, RRC + RRC hepatopancreas, DC + DC hepatopancreas. SHS, Vermillion Rock Fish.
	20??	Princeton Jetty (San Mateo)	5	*	*	\$12,672	Collect JS, WC, SHS, Vermillion Rock Fish, DC + DC hepatopancreas.
	20??	San Mateo Coast	3	*	*	\$6,969	Collect WSP, Halibut spp., Vermillion Rock Fish.
	20??	Devils Slide (San Mateo)	1	*	*	\$3,380	Collect DC + DC hepatopancreas.
	20??	Pacifica Pier (San Mateo)	0	*	*	\$1,057	Additional analysis of same WC sample with skin on.
	20??	Princeton Jetty (San Mateo)	0	*	*	\$1,057	Additional analysis of same WC sample with skin on.
Total Cost =						\$52,802	

* Organics = Full scan.

* Metals = As, Cd, Hg, Se.

?? Station Number to be determined.

TABLE I
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-035-250-0
1999-00 CFCS Sampling Stations for Region 3

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments	
3	3001	Santa Cruz Wharf	2	*	*	\$4,646	Collect WC and BRS or BLS.	
	3006	Cayucos Pier	2	*	*	\$4,646	Collect WC and BRS or BLS.	
	3004	Santa Barbara Jetty	2	*	*	\$4,646	Collect WC and BRS or BLS.	
	3005	Capitola Fishing Wharf	2	*	*	\$4,646	Collect WC and BRS or BLS.	
	3030	Toro Creek Beach	1	*,PAH	*	\$2,861	Collect WC.	
	3007	Pismo Pier	1	*	*	\$2,323	Collect WC.	
	3014	Goleta Pier	2	*	*	\$4,646	Collect WC and BRS or BLS.	
	3017	Pajaro River Beach	2	*,PAH	*	\$5,722	Collect WC and BRS.	
	3018	Salinas River Beach	2	*	*	\$4,646	Collect WC and BRS or BLS.	
	3012	Monterey Bay kelp beds	2	*	*	\$4,646	Collect rock fish and perch sp.	
	3013	Moss Landing Beach	2	*	*	\$4,646	Collect WC and BRS or BLS.	
	30??	Elkhorn Slough	2	*	*	\$4,646		
	30??	To be determined at a later date.	0	*	*	\$1,057	Additional analysis of same WC sample with skin on. Sample to be determined at later date.	
	30??	To be determined at a later date.	0	*	*	\$1,057	Additional analysis of same WC sample with skin on. Sample to be determined at later date.	
	Total Cost = \$54,834							

* Organics = Full scan.
* Metals = As, Cd, Hg, Se.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-035-250-0
1999-00 CFCS Sampling Stations for Region 4

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
4	4002	McGrath State Beach or Hollywood Beach	2	*	*	\$4,646	Collect BRS and CC.
	4003	Channel Islands Harbor	2	*	*	\$4,646	Collect WC and BRS or BLS.
	4004	Ventura Pier	3	*	*	\$6,969	Collect WC, BRS, and CC.
	4005	Port Hueneme Pier	2	*	*	\$4,646	Collect WC and BRS or BLS
	4006	Ventura Marina Jetty	3	*	*	\$6,969	Collect WC, WHS, and BRS or BLS.
	4008	Party Boats from Ventura or C. I. Harbor to Islands	2	*	*	\$4,646	Collect KB and rock fish sp.
	4009	Belmont Pier	2	*	*	\$4,646	Collect WC and BRS or BLS.
	4010	Catalina Island Pier	3	*	*	\$6,969	Collect KB, OPE, and BKS.
	4011	Santa Monica Pier	2	*	*	\$4,646	Collect WC and BRS or BLS.
	4012	Venice Pier	2	*	*	\$4,646	Collect WC and BRS or BLS.
	4013	Hermosa Beach Pier	2	*	*	\$4,646	Collect WC and BRS or BLS.
	4014	San Gabriel River/PCH	2	*	*	\$4,646	Collect WC and BRS or BLS.
	40??	To be determined at a later date.	0	*	*	\$1,057	Additional analysis of same WC sample with skin on. Sample to be determined at later date.
	40??	To be determined at a later date.	0	*	*	\$1,057	Additional analysis of same WC sample with skin on. Sample to be determined at later date.
						Total Cost = \$64,835	

* Organics = Full scan.
 * Metals = As, Cd, Hg, Se.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-035-250-0
1999-00 CFCS Sampling Stations for Region 8

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
8	8001	Seal Beach	2	*	*	\$4,646	Collect BRS and CC.
	8002	Huntington Beach Pier	2	*	*	\$4,646	Collect WC and BRS or BLS.
	8003	Huntington Beach	2	*	*	\$4,646	Collect BRS and CC.
	8004	Newport Beach	2	*	*	\$4,646	Collect other than BRS and CC.
	8005	Newport Beach Pier	2	*	*	\$4,646	Collect WC and perch sp.
	8006	Balboa Pier	2	*	*	\$4,646	Collect WC and perch sp.
	8007	Newport Jetties	2	*	*	\$4,646	Collect WC and BRS or BLS.
	8008	Newport Bay	2	*,TBT	*	\$5,121	Collect SSB and PH.
	8010	Emma and Eva Oil Platforms	2	*	*	\$4,646	Collect KB and perch sp.
	8011	Anaheim Bay	2	*	*	\$4,646	Collect WC and perch sp.
	8013	Esther Platform	2	*	*	\$4,646	Collect KB and perch sp.
	80??	To be determined at a later date.	0	*	*	\$1,057	Additional analysis of same WC sample with skin on. Sample to be determined at later date.
	80??	To be determined at a later date.	0	*	*	\$1,057	Additional analysis of same WC sample with skin on. Sample to be determined at later date.
						Total Cost = \$53,695	

* Organics = Full scan.
 * Metals = As, Cd, Hg, Se.

?? Station Number to be determined.

TABLE 1
TO
TASK ORDER No. 1 TO INTERAGENCY AGREEMENT No. 9-035-250-0
1999-00 CFCS Sampling Stations for Region 9

Region	Station Number	Station Name	No. of Samples	Organics	Metals	Cost	Comments
9	9001	Chula Vista Marina Pier-J ST	1	*	*	\$2,323	Collect BSB.
	9002	San Clemente Pier	2	*	*	\$4,646	Collect WC and BRS.
	9003	Oceanside Pier	2	*	*	\$2,323	Collect WC and BLS.
	9004	La Jolla kelp bed	1	*	*	\$2,323	Collect KB.
	9005	Mission Bay Jetty (south)	2	*	*	\$4,646	Collect WC and BRS or BLS.
	9006	Ocean Beach Pier	2	*	*	\$4,646	Collect WC and BRS or BLS.
	9007	Point Loma kelp bed	1	*	*	\$2,323	Collect CSH or rock fish sp.
	9009	Fifth Avenue Marina Pier	2	*	*	\$4,646	Collect BSB and SSB.
	9010	Imperial Beach Pier	2	*	*	\$4,646	Collect WC and BRS or BLS.
	9011	Aqua Hedionda Lagoon	2	*	*	\$4,646	Collect WC and BRS or BLS.
	9012	Crystal Pier	2	*	*	\$4,646	Collect WC and BRS or BLS.
	9013	Coronado Pier	2	*	*	\$4,646	Collect BSB and SSB.
	90??	To be determined at a later date.	0	*	*	\$1,057	Additional analysis of same WC sample with skin on. Sample to be determined at later date.
	90??	To be determined at a later date.	0	*	*	\$1,057	Additional analysis of same WC sample with skin on. Sample to be determined at later date.
						Total Cost = \$50,897	

* Organics = Full scan.
* Metals = As, Cd, Hg, Se.

?? Station Number to be determined.

SECTION 9

Toxic Substances Monitoring Program
Results of Chemical Analysis for FY 1997-98

Table 1
Toxic Substances Monitoring Program
Preliminary Summary of 1997 Data: Trace Elements in Fish (ppm, wet weight)

Station Number	Station Name	Species Code	Tissue	Sample Date	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc
105.11.08	Klamath R/Klamath Glen	SCP	W	08/27/97	0.022	0.0110	0.080	0.3800	0.0150	0.037	0.1050	0.170	0.0010	7.07
106.12.03	Trinity R/Willow Creek	RBT	W	08/28/97	0.019	0.0170	0.065	0.3800	0.0030	0.016	0.1670	0.300	0.0010	14.60
108.10.00	Big Lagoon	STB	W	08/27/97	0.327	0.0040	0.032	1.5000	0.0210	0.052	0.0150	0.250	0.0100	15.80
111.12.01	Eel R/Scotia	SCP	W	08/26/97	0.004	0.0120	0.036	0.3200	0.0110	0.030	0.0130	0.190	0.0010	7.34
114.11.05	Russian R/Duncans Mills	SKR	F	08/08/97	0.047	<0.0001	<0.001	0.1400	0.0005	0.155	<0.0002	0.090	0.0010	2.53
114.11.23	Russian R/Wohler Brg	LMB	F	08/07/97	0.016	<0.0001	<0.001	0.1300	<0.0001	0.257	<0.0002	0.120	<0.0003	3.05
114.11.23	Russian R/Wohler Brg	LMB	L	08/07/97	0.083	0.0200	0.355	2.1300	<0.0001	NA	0.0190	0.980	0.0010	19.90
114.21.10	Laguna de Santa Rosa/Stony Pt	SKR	F	08/07/97	<0.004	<0.0001	<0.001	0.1400	0.0030	0.075	0.0030	0.100	<0.0003	3.06
114.23.00	Mark West Creek	BG	F	08/07/97	0.022	<0.0001	0.001	0.1200	<0.0001	0.107	<0.0002	0.110	<0.0003	3.91
114.23.00	Mark West Creek	BG	L	08/07/97	0.282	0.0380	0.378	1.9800	0.0100	NA	0.0320	0.820	0.0030	19.30
114.24.12	Lake Sonoma	LMB	F	09/30/97	0.040	<0.0001	<0.001	0.1200	<0.0001	0.472	<0.0002	0.150	0.0010	2.59
114.24.12	Lake Sonoma	LMB	L	09/30/97	0.364	0.1750	0.369	5.9000	0.0010	NA	0.0260	2.030	0.0300	20.90
114.24.17	Lake Sonoma/Upper Warm Spr Arm	LMB	F	09/30/97	0.027	<0.0001	<0.001	0.1100	0.0010	0.370	0.0010	0.140	<0.0003	2.39
114.24.17	Lake Sonoma/Upper Warm Spr Arm	LMB	L	09/30/97	0.174	0.0590	0.480	4.9700	0.0400	NA	0.0310	1.730	0.0060	22.40
315.31.00	Devereaux Slough	LJM	F	08/21/97	5.980	<0.0001	<0.001	0.0900	0.0010	0.061	0.0020	0.680	<0.0003	5.37
315.31.00	Devereaux Slough	LJM	L	08/21/97	5.060	0.0440	0.888	0.7100	<0.0001	NA	0.0540	0.830	0.0010	9.60
403.11.02	Rio de Santa Clara/Oxnard Drain	GAM	W	07/16/97	0.104	0.0100	0.053	0.8700	0.0300	0.012	0.0580	0.350	0.0140	14.70
403.11.02	Rio de Santa Clara/Oxnard Drain	GAM	W	07/16/97	0.113	0.0110	0.052	0.9500	0.0340	0.011	0.0050	0.370	0.0150	16.30
403.11.04	Revolon Slough	FHM	W	07/16/97	0.171	0.0520	0.074	0.8000	0.0150	0.014	<0.0002	1.190	0.0050	15.70
403.11.91	Mugu Lagoon	GSS	F	07/16/97	2.760	0.0030	<0.001	0.1400	0.0004	0.117	0.0020	0.160	0.0010	1.65
403.11.91	Mugu Lagoon	GSS	L	07/16/97	22.300	1.0100	0.911	3.1300	<0.0001	NA	0.0120	2.190	0.3380	9.22
403.12.06	Calleguas Creek	FHM	W	07/16/97	0.078	0.0140	0.059	0.5900	0.0210	0.014	0.0180	0.440	0.0070	17.10
403.12.06	Calleguas Creek	FHM	W	07/16/97	0.052	0.0170	0.072	0.6100	0.0230	0.012	0.0400	0.440	0.0080	16.40
404.21.07	Malibou Lake	LMB	F	07/17/97	0.040	<0.0001	<0.001	0.0900	<0.0001	0.061	0.0010	0.870	<0.0003	2.27
404.26.01	Sherwood Lake	LMB	F	07/17/97	0.166	0.6200	0.279	6.4100	<0.0001	NA	0.0380	3.110	0.0040	20.40
404.26.01	Sherwood Lake	LMB	F	07/17/97	0.007	<0.0001	<0.001	0.0800	0.0002	0.214	<0.0002	0.110	<0.0003	2.04
405.12.90	Harbor Park Lake	CP	F	07/15/97	0.006	<0.0001	0.072	0.3300	<0.0001	NA	0.0180	1.330	0.0020	35.00
405.12.90	Harbor Park Lake	LMB	F	07/15/97	<0.004	<0.0001	0.003	0.0800	<0.0001	0.004	0.0010	0.330	<0.0003	8.38
405.12.90	Harbor Park Lake	LMB	L	07/15/97	0.081	0.0310	0.440	5.9400	0.0110	0.029	0.0010	0.250	<0.0003	2.24
405.15.91	San Gabriel R/Coyote Cr	TL	W	07/18/97	0.092	0.0030	0.048	0.9100	0.0410	0.004	0.0660	0.280	0.0100	19.40
405.23.08	Big Tujunga Wash	TL	W	07/18/97	0.108	0.0400	0.165	2.1200	0.0770	0.003	0.0770	0.240	0.1110	14.20
508.10.45	Sacramento R/Keswick Dam	RCH	W	07/18/97	0.042	0.0020	0.036	1.6900	0.0060	0.109	<0.0002	0.170	0.0020	18.90
508.10.45	Sacramento R/Keswick Dam	RBT	F	12/23/97	<0.004	0.0010	0.020	0.2500	<0.0001	0.017	0.0070	0.150	<0.0003	2.49
508.10.45	Sacramento R/Keswick Dam	RBT	L	12/23/97	0.632	0.5440	0.386	151.0000	0.0130	NA	0.2670	10.800	0.2290	22.10
603.20.33	Bishop Creek	BN	F	09/11/97	0.134	0.0002	<0.001	0.1700	<0.0001	0.039	<0.0002	0.430	<0.0003	3.87
603.20.33	Bishop Creek	BN	L	09/11/97	0.368	0.1380	0.406	47.0000	<0.0001	NA	0.0160	4.770	0.4510	35.50

L = Liver. F = Filet. W = Whole Body. < = Below Indicated Detection Limit. NA = Not Analyzed.
 Species codes are listed in Table 3.

Table 1
Toxic Substances Monitoring Program
Preliminary Summary of 1997 Data: Trace Elements in Fish (ppm, wet weight)

Station Number	Station Name	Species Code	Tissue	Sample Date	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc
633.20.07	Unnamed Tributary to Red Lake Cr	BK	F	09/16/97	0.091	0.0020	0.010	0.2200	<0.0001	0.020	<0.0002	0.600	<0.0003	3.60
633.20.07	Unnamed Tributary to Red Lake Cr	BK	L	09/16/97	0.195	0.7070	0.474	6.0500	<0.0001	NA	0.0130	2.930	0.0420	26.00
634.10.00	Upper Truckee River/d/s HWY 50	BN	F	09/17/97	0.011	<0.0001	0.003	0.1900	<0.0001	0.037	0.0005	0.060	<0.0003	2.66
634.10.00	Upper Truckee River/d/s HWY 50	BN	L	09/17/97	0.141	0.0280	0.150	39.7000	<0.0001	NA	0.0100	2.810	0.2800	27.00
634.10.06	Saxon Cr/d/s Meyers Landfill	RBT	F	09/17/97	<0.004	<0.0001	<0.001	0.2300	<0.0001	0.031	<0.0002	0.050	<0.0003	3.01
634.10.06	Saxon Cr/d/s Meyers Landfill	RBT	L	09/17/97	<0.004	0.0150	0.406	25.4000	<0.0001	NA	0.0060	0.610	0.3260	24.00
635.20.30	Bear Creek	RBT	F	09/23/97	0.017	0.0004	0.008	0.2300	<0.0001	0.021	0.0030	0.130	<0.0003	3.35
635.20.30	Bear Creek	RBT	L	09/23/97	0.160	0.0810	0.464	34.9000	0.0060	NA	0.0030	2.500	0.3180	39.40
636.00.18	Independence Cr	BN	F	09/23/97	0.051	<0.0001	<0.001	0.2000	<0.0001	0.024	<0.0002	0.060	<0.0003	3.27
636.00.18	Independence Cr	BN	L	09/23/97	0.129	0.0280	0.469	37.2000	0.0030	NA	0.0060	2.200	0.5850	29.60
719.47.00	Coachella Valley Stormwater Ch	TL	F	11/17/97	NA	NA	NA	NA	NA	NA	NA	????	NA	NA
723.10.01	Alamo R/Calipatria	CCF	F	11/20/97	NA	NA	NA	NA	NA	NA	NA	????	NA	NA
723.10.02	New R/Westmorland	CCF	F	11/20/97	0.026	<0.0001	0.004	0.1700	0.0003	0.024	0.0004	0.360	0.0002	2.76
723.10.02	New R/Westmorland	CCF	L	11/20/97	0.187	0.0150	0.422	1.5600	0.0270	NA	0.0060	3.230	0.0020	19.30
723.10.58	New R/Inter Boundary	CP	F	12/10/97	0.058	<0.0001	0.004	0.2400	0.0001	0.037	0.0010	0.460	0.0020	5.93
728.00.90	Salton Sea/South	TL	F	11/20/97	0.542	<0.0001	<0.001	0.1300	<0.0001	0.003	0.0030	1.310	<0.0003	2.34
728.00.90	Salton Sea/South	TL	L	11/20/97	1.030	0.0320	0.302	1.2600	0.0320	NA	0.3050	6.650	0.0080	25.20
728.00.92	Salton Sea/North	ORC	F	11/18/97	0.718	<0.0001	0.008	0.1600	<0.0001	0.011	0.0030	1.360	<0.0003	1.78
728.00.92	Salton Sea/North	ORC	L	11/18/97	0.666	0.0020	0.764	0.7600	<0.0001	NA	0.0100	2.040	0.0020	16.40
801.11.05	Delhi Channel	PRS	W	06/18/97	0.085	0.0040	0.006	0.6800	0.0200	0.011	0.0020	1.090	0.0040	10.70
801.11.07	San Diego Cr/Michelson Dr	PRS	W	06/19/97	0.134	0.0290	0.043	0.6500	0.0260	0.046	<0.0002	1.550	0.0040	13.60
801.11.09	San Diego Cr/Barranca Pkwy	PRS	W	06/19/97	0.148	0.0230	0.036	0.4800	0.0200	0.014	<0.0002	1.060	0.0060	13.60
801.11.89	Lower Newport Bay/Rhine Ch	CH	F	07/11/97	0.427	0.0010	<0.001	0.6600	0.0050	0.024	0.0002	0.320	<0.0003	4.05
801.11.89	Lower Newport Bay/Rhine Ch	CH	L	07/11/97	1.080	0.0520	0.394	4.3800	0.0770	NA	0.0160	3.260	0.0020	22.20
801.11.96	Peters Canyon Channel	PRS	W	06/19/97	0.057	0.0480	0.029	0.4100	0.0100	0.015	<0.0002	0.850	0.0010	23.70
801.11.96	Peters Canyon Channel	PRS	W	06/19/97	0.063	0.0470	0.034	0.4300	0.0150	0.012	<0.0002	0.880	0.0010	23.30
801.11.99	Upper Newport Bay/Newport Dunes	DT	F	06/20/97	1.480	<0.0001	<0.001	0.1100	<0.0001	0.028	0.0004	0.700	0.0010	3.83
801.11.99	Upper Newport Bay/Newport Dunes	DT	L	06/20/97	5.180	0.1850	0.677	22.1000	0.0090	NA	0.0290	2.540	0.0340	73.00
902.11.01	Santa Margarita R/Stuart Mesa Rd	GAM	W	06/24/97	0.058	0.0030	0.006	0.4700	0.0020	0.018	<0.0002	0.160	0.0060	16.40
906.40.01	Rose Cr/d/s Mission Bay Dr	GAM	W	06/23/97	0.065	0.0020	0.023	0.5800	0.0560	0.012	<0.0002	0.210	0.0030	16.90
906.40.01	Rose Cr/d/s Mission Bay Dr	GAM	W	06/23/97	0.057	0.0020	0.024	0.6400	0.0620	0.012	<0.0002	0.220	0.0030	16.40
907.11.03	San Diego R/u/s Taylor St	BG	F	06/23/97	0.023	<0.0001	0.004	0.1200	<0.0001	0.015	<0.0002	0.340	<0.0003	2.69
907.11.03	San Diego R/u/s Taylor St	BG	L	06/23/97	0.221	0.0160	0.502	1.0800	<0.0001	NA	0.0100	2.060	0.0010	16.30
909.12.03	Sweetwater R/Interstate 805	LMB	W	06/22/97	0.012	0.0010	0.004	0.1800	0.0090	0.022	<0.0002	0.130	0.0005	10.80
910.20.05	Otay R/Apache Service Pond	BG	F	06/22/97	0.031	<0.0001	<0.001	0.0700	0.0003	0.053	<0.0002	0.360	<0.0003	3.29
910.20.05	Otay R/Apache Service Pond	BG	L	06/22/97	0.237	0.0140	0.576	1.5600	<0.0001	NA	0.0220	2.220	0.0010	20.90
911.11.04	Tijuana R/Dairy Mart Rd	GAM	W	06/22/97	0.052	0.0010	0.017	0.4100	0.0190	0.012	<0.0002	0.330	0.0110	12.80

L = Liver. F = Filet. W = Whole Body. < = Below Indicated Detection Limit. NA = Not Analyzed.
 Species codes are listed in Table 3. ??? Reanalyzing data.

TABLE 2
Toxic Substances Monitoring Program
Preliminary Summary of 1997 Data: Organic Chemicals in Fish (ppb, wet weight)

Station Number	Station Name	Species Code	Tissue Type	Sample Date	Aldrin	Chlor-dane	alpha-Chlor-dane	cis-Chlor-dane	gamma-Chlor-dane	trans-Chlor-dane	trans-Nona-chlor	Oxy-chlor-dane	Total Chlor-dane	Chlor-pyrifos	Dacthal
105.11.08	Klamath R/Klamath Glen	SCP	W	08/27/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
106.12.03	Trinity R/Willow Creek	RBT	W	08/28/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
108.10.00	Big Lagoon	STB	W	08/27/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
111.12.01	Eel R/Scotia	SCP	W	08/26/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
114.11.05	Russian R/Duncans Mills	SKR	F	08/08/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
114.11.23	Russlan R/Hohler Brg	SKR	W	08/07/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
114.21.10	Laguna de Santa Rosa/Stony Pt	SKR	F	08/07/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
114.23.00	Mark West Creek	BG	W	08/07/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	6.8	<5.0	26.8	<10.0	<5.0
114.24.12	Lake Sonoma	LMB	F	09/30/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
114.24.17	Lake Sonoma/Upper Warm Spr Arm	LMB	F	09/30/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0

Station Number	Dieldrin	o,p' DDD	o,p' DDE	p,p' DDD	p,p' DDE	o,p' DDT	o,p' DDE	p,p' DDT	p,p' DDMU	p,p' DOMS	Total DDT	Dicofol	Diazinon	Endo-sulfan I	Endo-sulfan II	PCB 1254	PCB 1260	Total Toxaphene	Chemical Group A	
105.11.08	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	NA	ND	NA	<5.0	<5.0	NA	<5.0	<70.0	<85.0	<15.0	<20.0
106.12.03	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	NA	ND	NA	<5.0	<5.0	NA	<5.0	<5.0	NA	<15.0	<20.0
108.10.00	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	NA	ND	NA	<5.0	<5.0	NA	<5.0	<5.0	NA	<15.0	<20.0
111.12.01	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	NA	ND	NA	<5.0	<5.0	NA	<5.0	<5.0	NA	<15.0	<20.0
114.11.05	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	5.0	5.0	NA	<5.0	<5.0	NA	<5.0	<5.0	NA	<15.0	<20.0
114.11.23	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	12.0	12.0	NA	<5.0	<5.0	NA	<5.0	<5.0	NA	<15.0	<20.0
114.21.10	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	NA	60.0	NA	<5.0	<5.0	NA	<5.0	<5.0	NA	<15.0	<20.0
114.23.00	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	NA	60.0	NA	<5.0	<5.0	NA	<5.0	<5.0	NA	<15.0	<20.0
114.24.12	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	NA	ND	NA	<5.0	<5.0	NA	<5.0	<5.0	NA	<15.0	<20.0
114.24.17	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	NA	ND	NA	<5.0	<5.0	NA	<5.0	<5.0	NA	<15.0	<20.0

Station Number	alpha-HCH	beta-HCH	delta-HCH	gamma-HCH (Lindane)	Total HCH	Hepta-chlor epoxide	Hepta-chlor benzene	Hexa-chloro benzene	Methoxy-chlor	Oxa-diazon	Ethyl Para-thion	Methyl Para-thion	PCB 1248	PCB 1254	PCB 1260	Total PCB	Total Toxaphene	Chemical Group A
105.11.08	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
106.12.03	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
108.10.00	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
111.12.01	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
114.11.05	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
114.11.23	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
114.21.10	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
114.23.00	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	26.8
114.24.12	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
114.24.17	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND

NA Means that the sample was not analyzed for the chemical.
 ND Means that the chemical was not detected.
 < Means that the chemical was not detected above the indicated limit of detection.
 Species codes are listed in Table 3.
 F = Fillet.
 W = Whole Body.

TABLE 2
Toxic Substances Monitoring Program
Preliminary Summary of 1997 Data: Organic Chemicals in Fish (ppb, wet weight)

Station Number	Station Name	Species Code	Tissue Type	Sample Date	Aldrin	alpha-Chlor-dene	cis-Chlor-dane	gamma-Chlor-dene	trans-Chlor-dane	cis-Non-chlor	trans-Mona-chlor	Oxy-chlor-dane	Total Chlor-dane	Chlor-pyrifos	Dacthal
315.31.00	Devereaux Slough	LJM	F	08/21/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
403.11.02	Rio de Santa Clara/Oxnard Drain	GAM	W	07/16/97	<5.0	<5.0	11.0	<5.0	14.0	47.0	140.0	67.0	265.0	<10.0	330.0
403.11.02	Rio de Santa Clara/Oxnard Drain	GAM	W	07/16/97	<5.0	<5.0	14.0	<5.0	50.0	50.0	140.0	73.0	282.8	<10.0	380.0
403.11.04	Revolon Slough	FHM	W	07/16/97	<5.0	<5.0	37.0	6.1	37.0	35.0	96.0	36.0	265.1	18.0	560.0
403.11.91	Mugu Legoon	GSS	F	07/16/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
403.12.06	Calleguas Creek	FHM	W	07/16/97	<5.0	<5.0	14.0	<5.0	17.0	17.0	39.0	<5.0	97.0	<10.0	18.0
403.12.06	Calleguas Creek	FHM	W	07/16/97	<5.0	<5.0	16.0	<5.0	17.0	47.0	6.7	117.7	<10.0	18.0	
404.21.07	Malibou Lake	LMB	F	07/17/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
404.26.01	Sherwood Lake	LMB	F	07/17/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
405.12.90	Harbor Park Lake	CP	F	07/15/97	<5.0	9.9	57.0	9.0	47.0	45.0	99.0	10.0	276.9	<10.0	<5.0

Station Number	Dieldrin	o,p' DDD	p,p' DDD	o,p' DDE	p,p' DDE	o,p' DDE	gamma-HCH (Lindane)	Total HCH	beta-HCH	delta-HCH	alpha-HCH	Hepta-chlor-epoxide	Hepta-chlor-epoxide	Hexa-chlor-benzene	Methoxy-chlor	Oxa-diazon	Ethyl Para-thion	Methyl Para-thion	PCB 1248	PCB 1254	PCB 1260	Total PCB	Endo-sulfate	Endo-sulfan	Endo-sulfan II	Total Endo-sulfan	Endrin	Ethion
315.31.00	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	NA	7.4	NA	<50.0	<5.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0	<20.0	
403.11.02	26.0	70.0	820.0	29.0	3600.0	7.4	3600.0	20.0	310.0	170.0	5019.0	20.0	310.0	<10.0	NA	5019.0	NA	<50.0	<50.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0	<20.0	<20.0	
403.11.02	25.0	75.0	910.0	29.0	3600.0	19.0	3600.0	19.0	330.0	180.0	5143.0	19.0	330.0	<10.0	NA	5143.0	NA	<50.0	<50.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0	<20.0	<20.0	
403.11.04	63.0	100.0	450.0	48.0	4800.0	200.0	4800.0	200.0	200.0	140.0	5938.0	200.0	200.0	<10.0	NA	5938.0	NA	79.0	79.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0	<20.0	<20.0	
403.11.91	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	43.0	<10.0	<10.0	<10.0	NA	43.0	NA	<50.0	<50.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0	<20.0	<20.0	
403.12.06	15.0	84.0	300.0	59.0	3900.0	150.0	3900.0	150.0	85.0	100.0	4678.0	150.0	85.0	<10.0	NA	4678.0	NA	<50.0	<50.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0	<20.0	<20.0	
403.12.06	16.0	94.0	300.0	64.0	4100.0	170.0	4100.0	170.0	100.0	120.0	4948.0	170.0	100.0	<10.0	NA	4948.0	NA	<50.0	<50.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0	<20.0	<20.0	
404.21.07	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	ND	<10.0	<10.0	<10.0	NA	ND	NA	<50.0	<50.0	<5.0	NA	NA	NA	NA	<15.0	<20.0	<20.0	<20.0
404.26.01	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	5.0	<10.0	<10.0	<10.0	NA	5.0	NA	<50.0	<50.0	<5.0	NA	NA	NA	NA	<15.0	<20.0	<20.0	<20.0
405.12.90	6.5	12.0	96.0	<10.0	220.0	<10.0	220.0	<10.0	<10.0	<15.0	328.0	<10.0	<10.0	<10.0	NA	328.0	NA	<50.0	<50.0	<5.0	NA	NA	NA	NA	<15.0	<20.0	<20.0	<20.0

Station Number	alpha-HCH	beta-HCH	delta-HCH	gamma-HCH (Lindane)	Total HCH	Hepta-chlor	Hepta-chlor-epoxide	Hexa-chlor-benzene	Methoxy-chlor	Oxa-diazon	Ethyl Para-thion	Methyl Para-thion	PCB 1248	PCB 1254	PCB 1260	Total PCB	Toxaphene	Chemical Group A
315.31.00	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	<100.0	ND	ND
403.11.02	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	110.7	814.0	1105.0
403.11.02	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	99.1	1010.0	1317.8
403.11.04	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	4.3	<15.0	9.5	<10.0	<10.0	<50.0	<50.0	<50.0	????	12000.0	12328.1
403.11.91	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
403.12.06	<2.0	<10.0	<5.0	7.0	7.0	<5.0	<5.0	3.4	<15.0	6.0	<10.0	<10.0	<50.0	<50.0	61.0	????	5000.0	5119.0
403.12.06	<2.0	<10.0	<5.0	7.0	7.0	<5.0	<5.0	3.5	<15.0	6.7	<10.0	<10.0	<50.0	<50.0	54.5	????	5400.0	5540.7
404.21.07	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
404.26.01	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
405.12.90	<2.0	<10.0	<5.0	<2.0	<2.0	<5.0	<5.0	<2.0	<15.0	9.6	<10.0	<10.0	<50.0	<50.0	169.0	444.0	<100.0	283.4

NA Means that the sample was not analyzed for the chemical.
 ND Means that the chemical was not detected.
 < Means that the chemical was not detected above the indicated limit of detection.
 F = Fillet.
 W = Whole Body.
 Species codes are listed in Table 3.
 ???? Reanalyzing data.

TABLE 2
Toxic Substances Monitoring Program
Preliminary Summary of 1997 Data: Organic Chemicals in Fish (ppb, wet weight)

Station Number	Station Name	Species Code	Tissue Type	Sample Date	Aldrin	alpha-Chlor-dene	cis-Chlor-dene	gamma-Chlor-dene	trans-Chlor-dene	cis-Mona-chlor	trans-Mona-chlor	Oxy-Chlor-dane	Total Chlor-dane	Chlor-pyrifos	Dacthal
405.12.90	Harbor Park Lake	LMB	F	07/15/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	6.3	<5.0	6.3	<10.0	<5.0
405.15.91	San Gabriel R/Coyote Cr	TL	W	07/18/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
405.21.17	Lake Balboa	TL	W	07/18/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
405.23.08	Big Tujunga Wash	RCH	W	07/18/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	6.0	<5.0	6.0	<10.0	<5.0
634.10.06	Saxon Cr/d/s Meyers Landfill	RBT	F	09/17/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
719.47.00	Coachella Valley Stormwater Ch	TL	F	11/17/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
723.10.01	Alamo R/Calipatria	CCF	F	11/20/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	9.5	<5.0	16.2	73.0	620.0
723.10.02	New R/Westmorland	CCF	F	11/20/97	<5.0	<5.0	8.6	<5.0	6.7	<5.0	8.4	<5.0	23.7	63.0	1100.0
723.10.58	New R/Inter. Boundary	CP	F	12/10/97	<5.0	7.3	<5.0	<5.0	6.0	<5.0	<5.0	<5.0	13.3	<10.0	<5.0
728.00.90	Salton Sea/South	TL	F	11/20/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0

Station Number	Dieldrin	o,p' DDD	o,p' DDE	o,p' DDE	p,p' DDT	p,p' DDT	p,p' DDMU	p,p' DDMU	P,p' DDMS	Total DDT	Dicofol	Diazinon	Endo-sulfan I	Endo-sulfan II	Endo-sulfan Sulfate	Total Endo-sulfan	Endrin	Ethion
405.12.90	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	<15.0	NA	14.0	NA	<50.0	<5.0	NA	NA	ND	<15.0	<20.0
405.15.91	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	<15.0	NA	ND	NA	<50.0	<5.0	NA	NA	ND	<15.0	<20.0
405.21.17	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	<15.0	NA	51.0	NA	<50.0	<5.0	NA	NA	ND	<15.0	<20.0
405.23.08	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	<15.0	NA	12.0	NA	<50.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0
634.10.06	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	<15.0	NA	ND	NA	<50.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0
719.47.00	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	<15.0	NA	16.0	NA	<50.0	<5.0	NA	NA	ND	<15.0	<20.0
723.10.01	23.0	17.0	53.0	17.0	<10.0	<10.0	34.0	<15.0	NA	2621.0	NA	<50.0	8.2	<70.0	<85.0	8.2	<15.0	<20.0
723.10.02	17.0	<10.0	32.0	<10.0	<10.0	<10.0	<15.0	<15.0	NA	482.0	NA	<50.0	8.0	<70.0	<85.0	8.0	<15.0	<20.0
723.10.58	<5.0	<10.0	20.0	<10.0	<10.0	<10.0	<15.0	<15.0	NA	80.0	NA	<50.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0
728.00.90	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<15.0	<15.0	NA	31.0	NA	<50.0	<5.0	NA	NA	ND	<15.0	<20.0

Station Number	alpha-HCH	beta-HCH	delta-HCH	gamma-HCH (Lindane)	Total HCH	Hepta-chlor-epoxide	Hexa-chloro-benzene	Methoxy-chlor	Oxa-diazon	Ethyl Para-thion	Methyl Para-thion	PCB 1248	PCB 1254	PCB 1260	Total PCB	Toxaphene	Chemical Group A
405.12.90	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	6.3
405.15.91	<2.0	<10.0	<5.0	<5.0	6.5	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	6.5
405.21.17	<2.0	<10.0	<5.0	<5.0	9.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	9.0
405.23.08	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	6.0
634.10.06	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
719.47.00	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
723.10.01	<2.0	<10.0	<5.0	<2.0	ND	<5.0	2.6	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	387.4
723.10.02	<2.0	<10.0	<5.0	<2.0	ND	<5.0	3.8	<15.0	<5.0	<10.0	<10.0	<50.0	130.0	110.0	240.0	390.0	438.7
723.10.58	<2.0	<10.0	<5.0	<2.0	ND	<5.0	6.3	<15.0	<5.0	<10.0	<10.0	66.0	51.0	<50.0	117.0	<100.0	13.3
728.00.90	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND

NA Means that the sample was not analyzed for the chemical.
 ND Means that the chemical was not detected.
 < Means that the chemical was not detected above the indicated limit of detection. Species codes are listed in Table 3.

TABLE 2
Toxic Substances Monitoring Program
Preliminary Summary of 1997 Data: Organic Chemicals in Fish (ppb, wet weight)

Station Number	Station Name	Species Code	Tissue Type	Sample Date	Aldrin		alpha-Chlor-dene	cis-Chlor-dane	gamma-Chlor-dene	trans-Chlor-dane	cis-Nona-chlor	trans-Nona-chlor	Oxy-chlor-dane	Total Chlor-dane	Chlor-pyrifos	Dacthal	
					p,p'	o,p'											
728.00.92	Salton Sea/North	ORC	F	11/18/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	25.3	
801.11.05	Delhi Channel	PRS	W	06/18/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	8.9	<5.0	8.9	<10.0	<5.0	
801.11.07	San Diego Cr/Michelson Dr	PRS	W	06/19/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0	
801.11.09	San Diego Cr/Barranca Pkwy	PRS	W	06/19/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0	
801.11.89	Lower Newport Bay/Rhine Ch	CM	F	07/11/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0	
801.11.96	Peters Canyon Channel	PRS	W	06/19/97	<5.0	<5.0	9.4	<5.0	<5.0	5.9	<5.0	11.0	<5.0	26.3	71.0	<5.0	
801.11.96	Peters Canyon Channel	PRS	W	06/19/97	<5.0	<5.0	<5.0	<5.0	<5.0	6.9	5.0	13.0	5.0	40.9	83.0	<5.0	
801.11.99	Upper Newport Bay/Newport Dunes	DT	F	06/20/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0	
902.11.01	Santa Margarita R/Stuart Mesa Rd	GAM	W	06/24/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0	
906.40.01	Rose Cr/d/s Mission Bay Dr	GAM	W	06/23/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	11.0	5.5	16.5	<10.0	<5.0	
Station Number	Dieldrin	o,p'	p,p'	o,p'	p,p'	o,p'	p,p'	o,p'	DDT	DDT	DDT	DDT	DDT	DDT	DDT	DDT	
728.00.92	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	190.0	NA	NA	NA	NA	NA	NA	<20.0	
801.11.05	5.5	<10.0	30.0	<10.0	<15.0	<15.0	<15.0	<15.0	190.0	NA	NA	NA	NA	NA	NA	<20.0	
801.11.07	11.0	<10.0	29.0	<10.0	<15.0	<15.0	<15.0	<15.0	189.0	NA	NA	NA	<85.0	<85.0	ND	<20.0	
801.11.09	<5.0	<10.0	11.0	<10.0	<15.0	<15.0	<15.0	<15.0	96.0	NA	NA	NA	NA	NA	ND	<20.0	
801.11.89	<5.0	<10.0	11.0	<10.0	<15.0	<15.0	<15.0	<15.0	141.0	NA	NA	NA	<85.0	<85.0	ND	<20.0	
801.11.96	9.6	<10.0	47.0	<10.0	740.0	22.0	38.0	882.0	NA	NA	NA	NA	NA	NA	ND	<20.0	
801.11.96	11.0	<10.0	54.0	<10.0	800.0	24.0	52.0	967.0	NA	NA	NA	NA	NA	NA	ND	<20.0	
801.11.99	<5.0	<10.0	12.0	<10.0	140.0	<10.0	<10.0	152.0	NA	NA	NA	<85.0	<85.0	ND	<20.0		
902.11.01	<5.0	<10.0	17.0	<10.0	74.0	<10.0	<10.0	91.0	NA	NA	NA	NA	NA	NA	ND	<20.0	
906.40.01	5.8	<10.0	<10.0	<10.0	8.7	<10.0	<10.0	8.7	NA	NA	NA	<70.0	<85.0	ND	<20.0		
Station Number	alpha-HCH	beta-HCH	delta-HCH	gamma-HCH	Total HCH	Hepta-chlor epoxide	Hexa-chloro-benzene	Methoxy-chlor	Oxa-diazon	Ethyl Para-thion	Methyl Para-thion	PCB 1248	PCB 1254	PCB 1260	Total PCB	Toxaphene	Chemical Group A
728.00.92	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<15.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
801.11.05	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<15.0	<15.0	8.7	<10.0	<10.0	<50.0	89.7	<50.0	89.7	495.0	509.4
801.11.07	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<15.0	<15.0	76.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	121.0	132.0
801.11.09	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<15.0	<15.0	100.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
801.11.89	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<15.0	<15.0	<5.0	<10.0	<10.0	272.0	74.9	<50.0	346.9	<100.0	ND
801.11.96	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<15.0	<15.0	42.0	<10.0	<10.0	<50.0	57.5	<50.0	57.5	405.0	440.9
801.11.96	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<15.0	<15.0	48.0	<10.0	<10.0	<50.0	67.6	<50.0	67.6	447.0	498.9
801.11.99	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<15.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
902.11.01	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<15.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0	ND
906.40.01	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<15.0	<15.0	68.0	<10.0	<10.0	<50.0	74.2	<50.0	74.2	<100.0	22.3

NA Means that the sample was not analyzed for the chemical.
 ND Means that the chemical was not detected.
 < Means that the chemical was not detected above the indicated limit of detection.

F = Filet.
 W = Whole Body.
 Species codes are listed in Table 3.

TABLE 2
Toxic Substances Monitoring Program
Preliminary Summary of 1997 Data: Organic Chemicals in Fish (ppb, wet weight)

Station Number	Station Name	Species Code	Tissue Type	Sample Date	Aldrin	alpha-Chlor-dene	cis-Chlor-dane	gamma-Chlor-dene	trans-Chlor-dane	cis-Mona-chlor	trans-Nona-chlor	Oxy-chlor-dane	Total Chlor-dane	Chlor-pyrifos	Dacthal
906.40.01	Rose Cr/d/s Mission Bay Dr	GAM	W	06/23/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	11.0	5.2	16.2	<10.0	<5.0
907.11.03	San Diego R/u/s Taylor St	BG	F	06/23/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
909.12.03	Sweetwater R/Interstate 805	LMB	W	06/22/97	<5.0	<5.0	5.8	<5.0	<5.0	10.0	31.0	5.8	52.6	<10.0	<5.0
910.20.05	Otay R/Apache Service Pond	BG	F	06/22/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0
911.11.04	Tijuana R/Dairy Mart Rd	GAM	W	06/22/97	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND	<10.0	<5.0

Station Number	Dieldrin	o,p' DDD	p,p' DDD	o,p' DDE	p,p' DDE	o,p' DDT	p,p' DDT	Hexa-chloro-benzene	Hepta-chlor-epoxide	Hepta-chlor	Total HCH	gamma-HCH (Lindane)	delta-HCH	beta-HCH	alpha-HCH	P,p' DDMU	P,p' DDMS	Total DDT	Dicofol	Diazinon	Endo-sulfan i	Endo-sulfan ii	Endo-sulfan sulfate	Total Endo-sulfan	Endrin	Ethion
906.40.01	5.8	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<2.0	<5.0	8.6	<10.0	<10.0	<10.0	<10.0	<10.0	NA	NA	8.6	NA	<50.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0
907.11.03	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<2.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	NA	NA	ND	NA	<50.0	<5.0	NA	NA	ND	<15.0	<20.0
909.12.03	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<2.0	<5.0	39.0	<10.0	<10.0	<10.0	<10.0	<10.0	NA	NA	39.0	NA	<50.0	<5.0	NA	NA	ND	<15.0	<20.0
910.20.05	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<2.0	<5.0	50.0	<10.0	<10.0	<10.0	<10.0	<10.0	NA	NA	50.0	NA	<50.0	<5.0	NA	NA	ND	<15.0	<20.0
911.11.04	<5.0	<10.0	14.0	<10.0	<10.0	<10.0	<10.0	<2.0	<5.0	40.0	<10.0	<10.0	<10.0	<10.0	<10.0	NA	NA	54.0	NA	<50.0	<5.0	<70.0	<85.0	ND	<15.0	<20.0

Station Number	alpha-HCH	beta-HCH	delta-HCH	gamma-HCH	Total HCH	Hepta-chlor	Hepta-chlor-epoxide	Hexa-chloro-benzene	Methoxy-chlor	Oxa-diazon	Ethyl Para-thion	Methyl Para-thion	PCB 1248	PCB 1254	PCB 1260	Total PCB	Toxaphene Group A
906.40.01	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<5.0	<2.0	<15.0	67.0	<10.0	<10.0	83.3	<50.0	<50.0	83.3	<100.0
907.11.03	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0
909.12.03	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<5.0	<2.0	<15.0	11.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0
910.20.05	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	<50.0	<50.0	<50.0	ND	<100.0
911.11.04	<2.0	<10.0	<5.0	<2.0	ND	<5.0	<5.0	<2.0	<15.0	<5.0	<10.0	<10.0	61.7	<50.0	<50.0	116.8	<100.0

NA Means that the sample was not analyzed for the chemical.
 ND Means that the chemical was not detected.
 < Means that the chemical was not detected above the indicated limit of detection. Species codes are listed in Table 3.

F = Filet.
 W = Whole Body.

TABLE 3
Toxic Substances Monitoring Program

1997 Freshwater Fish Code List *

Species Code	Common Name	Species Name	Family Name
BG	Blue gill	<i>Lepomis macrochirus</i>	Centrarchidae
BK	Brook Trout	<i>Salvelinus fontinalis</i>	Salmonidae
BN	Brown Trout	<i>Salmo trutta</i>	Salmonidae
CCF	Channel Catfish	<i>Ictalurus punctatus</i>	Ictaluridae
CP	Carp	<i>Cyprinus carpio</i>	Cyprinidae
FHM	Fathead Minnow	<i>Pimephales promelas</i>	Cyprinidae
GAM	Mosquitofish	<i>Gambusia affinis</i>	Poeciliidae
LMB	Largemouth Bass	<i>Micropterus salmoides</i>	Centrarchidae
PRS	Red Shiner	<i>Cyprinella lutrensis</i>	Cyprinidae
RBT	Rainbow Trout	<i>Oncorhynchus mykiss</i>	Salmonidae
RCH	California Roach	<i>Hesperoleucus symmetricus</i>	Cyprinidae
SCP	Sculpin	<i>Cottus sp.</i>	Cottidae
SKR	Sucker	<i>Catostomus sp.</i>	Catostomidae
SMB	Smallmouth Bass	<i>Micropterus dolomieu</i>	Centrarchidae
STB	Threespine Stickleback	<i>Gasterosteus aculeatus</i>	Gasterosteidae
TL	Tilapia	<i>Tilapia sp.</i>	Cichlidae

1997 Marine Fish Code List *

Species Code	Common Name	Species Name	Family Name
CM	Chub Mackerel	<i>Scomber japonicus</i>	Scombridae
DT	Diamond Turbot	<i>Hypsopsetta guttulata</i>	Pleuronectidae
GSS	Gray Smoothhound Shark	<i>Mustelus californicus</i>	Carcharhinidae
LJM	Longjaw Mudsucker	<i>Gillichthys mirabilis</i>	Gobiidae
ORC	Orangemouth Corvina	<i>Cynoscion xanthulus</i>	Sciaenidae

* Common and scientific fish names were obtained from Robins, C.R., R.M. Bailey, C.E. Bond, J.R. Brooker, E.A. Lachner, R.N. Lea, and W.B. Scott. 1991. Common and Scientific Names of Fishes from the United States and Canada. American Fisheries Society Special Publication 20, Bethesda, Maryland.

SECTION 10

Toxicity Testing Program
Sampling Schedule and Results (1997-2000)

Sampling Schedule and Results of the Toxicity Testing Program

YEAR/REGION/SAMPLING STATION	NO. OF SAMPLES/ SAMPLING PERIOD	ANALYSES	RESULTS
<p><u>1997</u> Region 5 Calaveras River French Camp Slough San Joaquin River @ Ingram Rd. Mokelumne River Orestimba Creek @ River Road San Joaquin River @ Laird Park TID Lateral #5 Feather River @ Yuba City Bear River Jack Slough Wadsworth Canal Gilsizer Slough</p>	<p>160 (4/97-9/97)</p>	<p>160 toxicity tests 13 TIEs 25 GC/MS OP scans 34 ELISA analyses for OP insecticides</p>	<p>Toxicity observed in 14 percent of the samples. Diazinon, chlorpyrifos, methyl parathion identified as causing the toxicity.</p>
<p>Yolo County Alfalfa Field Runoff</p> <p>Yolo County Tomato Field Runoff</p>	<p>12 (3/97-7/97)</p> <p>3 (4/97)</p> <p>2 (5/97-6/97)</p>	<p>12 toxicity tests 4 TIEs 12 ELISA analyses for OP insecticides</p> <p>3 toxicity tests</p> <p>2 toxicity tests 2 TIEs 2 GC/MS analyses 2 ELISA analyses for OPs</p>	<p>Toxicity observed in runoff from alfalfa fields through 7 irrigation events post OP insecticide application. No toxicity observed in runoff from tomato fields.</p> <p>Toxicity observed in all three samples. Toxicity in all three samples caused by OP insecticides.</p>
<p>Orestimba Creek @ River Rd.</p> <p>Sacramento Slough @ HW 113</p> <p><u>1997/98</u></p>	<p>1 (1/97)</p>	<p>1 toxicity test 1 TIE 1 GC/MS analysis 1 ELISA analysis</p>	<p>Toxicity observed in all three samples. Toxicity in all three samples caused by OP insecticides.</p>

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Region 4 Revolon Slough @ Wood Rd. Beardsley @ Central Ave. Santa Clara Drain @ La Vista Ave.	20 (10/97-7/98)	20 toxicity tests 7 TIEs 20 GC/MS chemical analyses	Toxicity observed in 7 of 20 samples. Toxicity caused by OP insecticides.
Region 5 Sacramento River d/s of Shasta Dam Sacramento River d/s Keswick Dam Clear Lake @ Hwy 273 Cow Lake @ Hwy 44 Cottonwood Creek u/s I-5 Sacramento River @ Red Bluff Battle Creek @ Gover Road Mill Creek @ Hwy 99 Deer Creek @ Hwy 99 Big Chico Creek @ Rose Butte Creek @ Butte Slough Rd. Stoney Road @ Hwy 32 Feather River Colusa Basin Drain Sacramento Slough American River Arcade Creek @ Norwood Ave. Sacramento River @ Freeport Dry Creek @ Walerga Rd.	89 (1/97-1/98)	89 toxicity tests	Toxicity observed in urban areas following rains.
Region 5 Yolo Tailwater Ponds A through L	29 (3/98-9/98)	29 toxicity tests 5 TIEs 5 ELISA analyses for OP insecticides	Toxicity observed in 4 tailwater ponds and in irrigation runoff from alfalfa and cotton fields treated with OP insecticides.

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Region 7 Alamo River @ Garst Rd.	4 (9/22-10/20)	4 toxicity tests 4 TIEs 4 ELISA analyses for OP insecticides	Toxicity observed in all four samples. Chlorpyrifos and diazinon responsible for the toxicity.
1998/99 Region 3 Salinas River Lagoon Salinas River below Blanco Drain Blanco Drain West Blanco Drain East Salinas River @ City of Salinas Storm Drain Quail Creek Salinas River @ Chualar Bridge Tembladero Slough	128 (9/98-10/99)	128 toxicity tests 10 TIEs 18 GC/MS pesticide scans 60 ELISA analyses for OP insecticides	Toxicity observed in two tributaries to Salinas River. OP insecticides were the cause of the toxicity.
Region 4 Arroyo Simi above waste treatment facility Arroyo Simi below waste treatment facility Conejo Creek	26 (10/97-7/98)	52 toxicity tests 10 TIEs 1 GC/MC OP pesticide scan	Toxicity observed in 5 of 8 sampling events. Toxicity caused by ammonia or OP insecticides.
1999/2000 Region 5 Irrigation runoff from Yolo Alfalfa Fields A through R	150 (4/99-6/00)	150 toxicity tests 30 TIEs	In data collected to date, toxicity observed in runoff from fields treated with OP insecticides but not in runoff from fields treated with pyrethroids.

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(Continued)

<p>Sacramento River @ Alamar Marina Colusa Basin Drain @ Knight's Landing Feather River d/s of Hwy. 99 Bridge Bear River u/s of confluence w/Feather River DWR Pumping Plan #1 off Hwy. 99 Obanion Outfall @ DWR Pumping Station Gilsizer Slough @ Lincoln Rd. Wadsworth Canal @ South Butte Rd. Yuba River @ Simpson Lane Bridge Feather River @ Yuba City Jack Slough @ Marysville Sacramento River @ City of Colusa Butte Slough @ Lower Pass Rd. Butte Creek @ Colusa Hwy/Gridley Rd. Main Drainage Canal @ Colusa Hwy/ Gridley Rd. Cherokee Canal @ Colusa Hwy/Gridley Rd.</p>	<p>963 (12/99-3/00)</p>	<p>93 ELISA analyses for diazinon 45 GC/MS scans for OP insecticides</p>	
<p><u>1999/2000</u> Regions 3, 4, 5, 8, & 9 Salinas River below Quail Creek Revolon Slough @ Wood Rd. Orestimba Creek @ River Rd. Arcade Creek @ Pilgrim Court Hines Channel @ Irvine Blvd. Tecolote Creek SD5</p>	<p>36 (11/99-12/00)</p>	<p>36 toxicity tests 18 TIEs 72 ELISA analyses for OP insecticides</p>	

(Continued)

(Continued)

<p>Region 3 Salinas River upstream of Quail Creek Salinas River downstream of Quail Creek Quail Creek just above confluence with Salinas River Quail Creek @ HW 101 Quail Creek @ greenhouse drain Quail Creek @ farm drain A Quail Creek @ farm drain B Salinas River upstream of Chular Creek Salinas River downstream of Chular Creek Chular Creek @ HW 101 Chular Creek @ greenhouse drain Chular Creek @ farm drain A Chular Creek @ farm drain B</p>	<p>80 (1/2000-1/01)</p>	<p>80 toxicity tests 8 TIEs 32 GC/MS chemical analyses 80 ELISA analyses for OP insecticides 105 bioassessment samples</p>	
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