

SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT
PROPOSAL FORM

LABORATORY ANALYSES

SECTION 1. INSTRUCTIONS TO BIDDERS

Seven (7) copies of the bidder's complete proposal to provide the services detailed are to be enclosed in a sealed envelope marked "Laboratory Analyses" and addressed to:

Bryan Nece, Administrative Officer
Southern California Coastal Water Research Project (SCCWRP)
3535 Harbor Blvd., Suite 110
Costa Mesa, CA 92626

All supplemental materials requested within this proposal must be attached to the Proposal. Any unauthorized conditions, limitations, or provisions attached to this proposal may be cause for rejection.

If a bidder wishes to withdraw its Proposal, the Bidder may do so without prejudice by delivery of written notice of withdrawal to the Administrative Officer at any time before the time fixed for the opening of bids.

Sealed bids will be received at SCCWRP's offices, 3535 Harbor Blvd., Suite 110, Costa Mesa, CA 92626, **up to the hour of 11:00 AM on October 3, 2011**, at which time, the Administrative Officer will open the bids. Bids received by facsimile or email will not be accepted.

All bidders should inform SCCWRP via email (bryann@sccwrp.org), FAX (714) 438-1016) or letter mail by September 21, 2011 of their intention to submit a bid. The notification is not mandatory, but is necessary to receive future updates to this bid notification. SCCWRP will hold a non-mandatory bidders meeting at 11:00 AM on September 21, 2011 at SCCWRP's Offices in Costa Mesa. This meeting is intended to provide bidders the opportunity to ask questions and request clarifications about this document. Bidders who are unable to attend may provide written requests for clarification prior to the meeting. SCCWRP's response to both written and oral questions will be sent to the bidders by email and posted on the SCCWRP web site (www.sccwrp.org).

This solicitation for proposals shall not be construed as obligating SCCWRP to award a contract or to pay any compensation for the information solicited.

SECTION 2. SCOPE OF WORK

Southern California Coastal Water Research Project (SCCWRP), a public agency for environmental research, requires support services for laboratory analyses. These services will be required on an "as needed" basis so this RFP is structured on a unit cost, task-order basis. Bidders are asked to provide pricing for each applicable element within this Scope of Work. At the bidder's discretion, bidders may provide one price or specify price breaks at different possible levels of effort as determined by types of analyses and support services of work (e.g., sample analysis for <25, 26-50, 51-100, or 100-250 samples). The bidder is asked to supply prices for the 2011/2012 fiscal year. The successful bidder will be offered the opportunity to revise their price quotes to incorporate a mutually agreeable adjustment for inflation or conditions. The actual number of samples for analysis will be awarded to the successful bidder(s) on a task order basis following execution of contract(s).

A description of the contracted work is outlined below. The scope is divided into a number of sections and subsections that reflect each specific work element:

- 2.1 Sample Handling and Logistical Support***
- 2.2 Nutrient Chemistry Laboratory Analyses***
- 2.3 Inorganic Chemistry Laboratory Analyses***
- 2.4 Organic Chemistry Laboratory Analyses***
- 2.5 Bacteriological Laboratory Analysis***

SCCWRP, at its option, may select separate bidders for each of the different elements.

SCCWRP requires the highest quality work from its contractors and expects them to produce samples and laboratory results that are consistent with, and comparable to, the State Water Board's Surface Water Ambient Monitoring Program (www.waterboards.ca.gov/water_issues/programs/swamp/tools.shtml#comparability) and the Bight Regional Monitoring Program (www.sccwrp.org/RegionalMonitoring/Bight'08/Documents). Where differences exist between this RFP and SWAMP or Bight Regional Monitoring, this RFP takes precedence. Bidders can recommend alternative methods or procedures from this RFP for a specific target analyte(s), but the alternative method must be described in detail and prices provided separately.

Successful bidders will be required to participate in Quality Assurance/Quality Control (QA/QC) activities to demonstrate comparability in data quality with SCCWRP partner agencies. QA/QC activities will include laboratory instrument intercalibration exercises as detailed in the Scope of Work section below. Participation in these activities shall be at the bidders' own expense, and the costs of participation should be included in the bid prices provided in this Proposal Form. NOTE: Failure to participate, or unsatisfactory performance, in these QA/QC activities will result in the cancellation of SCCWRP's contract with the bidder.

The successful bidder will provide the scope of services described in this RFP for up to a period of five years on an annual renewal basis. This work is not guaranteed and the quantity of these task orders is currently unknown.

Technical requirements for each work element

2.1 Sample Handling and Logistical Support

Product

The product of this service is to provide support to SCCWRP and its partner agencies for: 1) couriating or transferring samples from field sites, 2) processing samples within the laboratory, including chain-of-custody, filtering, weighing and drying of sediments, freezing or other preservation, and/or 3) shipping samples to other laboratories.

This service must be available to accommodate a sampling schedule that occurs 24-hour, 7 days a week.

Methods

Courier services must be available to meet sampling crews either on site (urban sites) or near freeway locations (sites that are rural or hard to access) 24 hours a day, 7 days a week.

Shipping of samples to other laboratories includes preparation of chain of custody forms, appropriate packaging to insure against sample breakage and shipping via overnight carrier. Dry ice must be used for samples that require freezing.

Sample processing and preservation for water samples can include: 1) filtering of water samples or treatment with a preservative including strong and weak acids and denaturing agents (NaN₃). Equipment required for filtration can include a manifold and vacuum source, disposable filter funnels, glass fiber filters or polycarbonate membranes, and filter forceps. Additional equipment for filtering water samples for microbiological analysis can include sterile PBS, ethanol, a bunsen burner or alcohol lamp, 2 ml screw cap microtubes, a liquid nitrogen dewer, and a -80C freezer.

Sample processing and preservation for sediment and tissue samples can include weighing samples using an analytical balance to determine sediment or tissue wet weight and dry weight, drying the sample in a drying oven, grinding or blending samples to a specified particle size range.

2.2 Nutrient chemistry

Product

The purpose of this element is to analyze samples of stormwater, marine water, or sediment for nutrient related constituents (Table 2-3). The final products will be computer files in the pre-defined formats similar to those described in the SWAMP data management strategy (<http://swamp.mpsl.miml.calstate.edu/swamp-comparability/database-comparability>) or previous Regional Monitoring Information Management Plan (see [www.sccwrp.org/Regional Monitoring/Bight'08/Documents](http://www.sccwrp.org/Regional%20Monitoring/Bight'08/Documents)), including field orders and analyte codes. All data are due within 45 days of sample delivery.

Equipment

Nutrients should be analyzed by nutrient-specific methods described below.

Sample Handling and Holding Time

All water column nutrient samples must be processed (filtered and/or preserved) within a 6-hour holding time from sample collection. Samples designated for total dissolved nitrogen (TDN), total dissolved kjeldahl nitrogen (TDKN), total dissolved phosphorus (TDP), nitrate, nitrite, nitrate+nitrite, ammonium, phosphate and silicate must be filtered using a glass fiber filter or polycarbonate filter of agreed-upon specified pore size.

All sediment samples must be processed and preserved within 72 hours.

Methods and Analytical Holding Times

Maximum acceptable method detection limits (MDLs) and analytical holding times for preserved samples are given by media in Table 2-3.

Water column nitrate, nitrite, nitrate+nitrite, ammonium, phosphate, and silicate (as soluble reactive phosphorus) will be analyzed by automated colorimetry using an autoanalyzer or flow injection analysis. Total nitrogen (TN) will be measured either by direct measurement of TN, or by measurement of Total Kjeldahl Nitrogen (TKN) and summation with nitrate + nitrite. Total nitrogen and total phosphorus will be analyzed by persulfate digestion and analysis of the resulting nitrate and phosphate by automated colorimetry. Total organic carbon will be determined for filtered sample water via the combustion infrared method. Total suspended solids will be analyzed using the gravimetric technique.

Sediment samples shall be extracted and purified prior to instrumental analyses using EPA-approved methods or equivalents. Surrogate standards should be spiked into the samples (including quality control samples) prior to extraction. Sediment or particulate total nitrogen and total organic carbon will be measured via an elemental analyzer. Sediment or particulate total phosphorus will be measured via high temperature combustion and automated colorimetry.

Quality Assurance/Quality Control

An intercalibration exercise among participating labs will be conducted in which certified or standard reference materials and environmental samples will be distributed and analyzed. Participation in group meetings regarding intercalibration and quality control issues is required by all participating labs.

2.3 Trace metal chemistry

Product

The purpose of this element is to analyze samples of freshwater (including stormwater runoff), marine water or sediment for trace metal constituents (Table 4). The final products will be computer files in the pre-defined formats similar to those described in the SWAMP data management strategy (<http://swamp.mpsl.mlml.calstate.edu/swamp-comparability/database-comparability>) or previous Regional Monitoring Information

Management Plan (see [www.sccwrp.org/Regional Monitoring/Bight'03/Documents](http://www.sccwrp.org/Regional%20Monitoring/Bight'03/Documents)), including field orders and analyte codes. All data are due within 45 days of sample delivery.

Equipment

Atomic absorption spectrometer (AAS), cold vapor atomic fluorescence spectroscopy (CVAFS), inductively coupled plasma atomic emission spectrometer (ICP-AES), and inductively coupled plasma mass spectrometer (ICP-MS) must be utilized for trace metals analyses. For mercury, cold vapor atomic fluorescence spectrometer (CVAFS) is preferred.

Sample Handling and Holding Time

All dissolved trace elements and metal samples must be processed and preserved within a 6-hour holding time from sample collection.

Methods

For trace metal analytes, sediment, tissue and water samples will be digested using a strong acid method (hydrochloric acid/nitric acid) and analyzed by graphite furnace AAS, ICP-MS and/or cold vapor atomic fluorescence spectroscopy (CVAFS) described in methods approved or recommended by EPA. Prior to analysis of any field samples, the laboratory should establish five-point calibration ranges for all the target analytes. The lowest point of each calibration curve must be equal to the maximum acceptable method detection limits (MDLs) for all the trace metals (Table 3). Initial MDLs for target analytes must be obtained and should not be higher than the maximum acceptable MDLs (Table 3). Sediment data are to be reported as dry weight. Alternative methods for marine water are acceptable, including trace metal extractions to remove interferences.

Quality Assurance/Quality Control

An intercalibration exercise among participating labs will be conducted in which certified or standard reference materials (e.g. CRM-10-050 (Lot #L516) from Resource Technology Corporation) will be analyzed. Participation in group meetings regarding intercalibration and quality control issues is required by all participating labs.

2.4 Trace Organic Chemistry

Product

The goal of this work element is to measure trace organic chemicals in freshwater (including stormwater runoff), marine water, sediment or tissue samples. Samples are to be analyzed for 41 PCB congeners (Table 5), 7 DDT and 6 chlordane components (Table 6), 24 PAH compounds (Table 7), 8 Pyrethroid pesticides (Table 8), 15 dioxin congeners (Table 9), TOC/TN, and moisture content (Table 2). Sediment samples should also be analyzed for TOC, TN, and grain size. The final products will be computer files in the pre-defined formats similar to those described in the SWAMP data management strategy (<http://swamp.mpsl.mlml.calstate.edu/swamp-comparability/database-comparability>) or previous Regional Monitoring Information Management Plan

(see [www.sccwrp.org/Regional Monitoring/Bight'03/Documents](http://www.sccwrp.org/Regional%20Monitoring/Bight'03/Documents)), including field orders and analyte codes. All data are due within 45 days of sample delivery.

Equipment

A gas chromatography/electron-capture detector (GC/ECD), gas chromatography/mass spectrometer (GC/MS) and elemental analyzer (for TOC/TN) shall be utilized for analysis of the target organic analytes. A calibrated microbalance shall be utilized for gravimetric determination of tissue lipid content. Other detectors are acceptable if they improve quantification of target compounds.

Methods

Sediment, tissue and water samples shall be extracted and purified prior to instrumental analyses using EPA-approved methods or equivalents. Representative surrogate standards should be spiked into the samples (including quality control samples) prior to extraction to track target analyte recovery through the sample processing protocol. Internal calibration is preferred as the quantitation method and internal standards are added to the samples before injection. PCBs and chlordane will be measured using a GC/ECD and a capillary column. Confirmation of peak identification is required and should be done using a GC/MS and capillary column under the identical chromatographic conditions to those used for the GC/ECD instrument. Selected Ion Monitoring (SIM) mode is preferred in order to achieve comparable detection sensitivity as with GC/ECD. Target PCB congeners (Table 5) should be measured individually (i.e. on a congener-specific basis). Chlordane will be measured as cis- and trans-chlordane, trans-nonachlor, heptachlor, heptachlor epoxide and oxychlordane (Table 6). DDTs (Table 6) may be analyzed by either GC/ECD or GC/MS. If GC/ECD is used for quantitation, confirmation of peak identity by GC/MS is required.

PAHs will be measured using a GC/MS and a capillary column. Chromatographic conditions should be so chosen that benzo[b]fluoranthene and benzo[k]fluoranthene can partially be resolved. Mass spectrometry full scan should be used in acquiring data to allow confirmation of positive peak identification by matching sample spectra with reference spectra. Pyrethroid analytes will be quantified by GC/MS or by GC-ECD after confirmation of their presence by GC-MS.

Prior to analysis of assigned samples, the laboratory should establish a minimum five-point calibration curve for all target analytes. The lowest point of each calibration curve must be equal to or less than the reporting limit (RL). The MDL for each target analyte must be obtained and should not be higher than the RL (Tables 4-8). Data are to be reported as dry weight with moisture content, or wet weight, as agreed upon with the SCCWRP project manager.

Quality Assurance/Quality Control

An intercalibration exercise will be conducted in which certified or standard reference materials and environmental samples will be analyzed for target analytes in Tables 5-9. The winning bidder must be comparable to those of

other participating agencies. Participation in group meetings regarding intercalibration is required.

2.5 Bacteriological Analyses

Product

The goal of this work element is to measure public health indicator bacteria collected from fresh and marine surface waters. Samples are to be analyzed for total coliform, fecal coliform, enterococcus and *E. Coli*. The final products will be computer files in the pre-defined formats similar to those described in the SWAMP data management strategy (<http://swamp.mpsl.mlml.calstate.edu/swamp-comparability/database-comparability>) or previous Regional Monitoring Information Management Plan (see [www.sccwrp.org/Regional Monitoring/Bight'03/Documents](http://www.sccwrp.org/Regional%20Monitoring/Bight%2003/Documents)), including field orders and analyte codes. All data are due within 45 days of sample delivery.

Equipment

Bacteria samples must be analyzed by indicator-specific methods described below.

Methods and Analytical Holding Time

Total coliform, fecal coliform, Enterococcus and *E. coli* will be analyzed using standard methods, within a 6-hour holding time from sample collection (Table 10). Methods may include membrane filtration, most probable number, and/or Idexx.

Quality Assurance/Quality Control

An intercalibration exercise among participating labs will be conducted. Participation in group meetings regarding intercalibration and quality control issues is required by all participating labs.

Table 1. Summary of target analytes by media.

Analyte Group	Constituent	Offshore, Bays, Harbors and Estuaries	Freshwater ^a	Sediment	Tissue
General	Grain Size			X	
	TSS	X	X		
	TDS		X		
	TDC		X		
	Alkalinity		X		
	Chloride		X		
	Hardness		X		
	Sulfate		X		
	Conductivity		X		
Nutrients	TOC	X	X	X	
	DOC	X	X		
	TN	X	X	X	
	TDN	X	X		
	NH4	X	X	X	
	NO2+NO3	X	X	X	
	SiO4	X	X		
	Urea	X	X		
	TP	X	X	X	
	TDP	X	X		
	PO4	X	X		
	TKN	X	X		
Metals	Aluminum	X	X	X	X
	Antimony	X	X	X	X
	Arsenic	X	X	X	X
	Beryllium	X	X	X	X
	Cadmium	X	X	X	X
	Chromium	X	X	X	X
	Copper	X	X	X	X
	Iron	X	X	X	X
	Lead	X	X	X	X
	Mercury	X	X	X	X
	Nickel	X	X	X	X
	Selenium	X	X	X	X
	Silver	X	X	X	X
	Zinc	X	X	X	X
Organics	DDTs		X	X	X
	PCBs		X	X	X
	PAHs		X	X	
	Chlordanes		X	X	X
	Pyrethroids		X	X	
	Lipids				X
	TCDDs		X		X
	Dieldrin		X	X	X

^a – includes stormwater runoff

Table 2. Target analytes and reporting levels for physiochemical analytes

Parameter	Accuracy	Precision ^(a)	Target Reporting Limit	Holding Time	
Alkalinity (Total Alkalinity as CaCO ₃)	Method Blank results < RL MS and MSD Recovery within 80-120%	Lab Replicate and MS/MSD RPD<25%	1 mg/L	6 hours	
Chloride			0.25 mg/L	28 days	
Hardness (Total Hardness as CaCO ₃)			1 mg/L	28 days	
Sulfate			1.0 mg/L	28 days	
TDS			N/A	10 mg/L	28 days
TSS			N/A	0.5 mg/L	28 days

Table 3. List of nutrient related analytes, accuracy, precision, target detection limits and analytical holding times.

Group	Parameter	Accuracy	Precision	Recovery	Target Reporting Limits	Analytical Holding Time
Water	Nitrate + Nitrite	Standard Reference Materials (SRM, CRM, PT) within 95% CI stated by provider of material. If not available then 80% to 120% of true value	Laboratory duplicate and MS/MSD 25% RPD	Matrix spike 80% - 120% of control limits at \pm 3 standard deviations based on actual lab data.	0.05 μ M	48 hours with cool to 4°C and with appropriate preservation or 28 days if frozen at maximum of -20°C
	Ammonium				0.05 μ M	
	SRP				0.01 μ M	
	SiO ₄				0.05 - 0.1 μ M	
	Nitrite				0.01 μ M	
	TN				0.2 μ M	
	TP				0.01 μ M	
	DOC				0.005 μ g L ⁻¹	
	TKN				2.5 μ M	
Sedi-ment	Wet/Dry Weight	N/A	25% RPD Laboratory duplicate minimum	NA	0.05 g	72 hours
	Grain size (%fines)	N/A	25% RPD Laboratory duplicate minimum	NA	0.5%	28 days
	%OC/%ON	Standard Reference Materials (SRM, CRM, and/or PT) within 95% CI stated by provider of material. If not available then 80% to 120% of true value	Laboratory duplicate, Blind Field duplicate, and/or MS/MSD 25% RPD Laboratory duplicate minimum.	NA	0.01 %	28 days
	%TP				0.05 %	28 days

* NA, Not Applicable

SRM, standard reference method

CRM, certified reference material

PT, Proficiency testing

CI, confidence interval

MS, matrix spike

MSD, matrix spike duplicate

RPD, relative percent difference

Table 4. List of metal analytes, accuracy, precision, target detection limits and analytical holding times.

<i>Parameter</i>	<i>Accuracy</i>	<i>Precision</i>	<i>Recovery</i>	<i>Water Target Detection Limits ($\mu\text{g L}^{-1}$)</i>	<i>Sediment Target Detection Limit ($\mu\text{g g}^{-1}$)</i>	<i>Analytical Holding Time</i>
Aluminum	Standard Reference Materials (SRM, CRM, and/or PT) within 95% CI stated by provider of material. If not available then 80% to 120% of true value	Laboratory duplicate, and MS/MSD 25% RPD	Matrix spike 80% - 120% of control limits at \pm 3 standard deviations based on actual lab data.	1	- ^a	28 days at 4 °C for water
Antimony				0.1		
Arsenic				0.1	1.6	
Beryllium				0.1	0.2	
Cadmium				0.1	0.02	6 months at -80 °C for sediments
Chromium				0.1	16	
Copper				0.1	7.0	
Iron				1	- ^a	
Lead				0.05	5.0	
Mercury				0.005	0.01	
Nickel				0.1	4.2	
Selenium				0.1	1.0	
Silver				0.1	0.2	
Zinc	0.1	20				

a= Report only detectable values

Table 5. List of PCB congeners, accuracy, precision, target detection limits and analytical holding times.

PCB congener	Accuracy	Precision	Recovery	Water Target Detection Limits (ng L ⁻¹)	Sediment Target Detection Limit (ng g ⁻¹ dry wt)	Tissue Detection Limit (ng g ⁻¹ wet wt)	Analytical Hold-ing Time
18	Standard Reference Materials (SRM, CRM, and/or PT) within 95% CI stated by provider of material. If not available then 80% to 120% of true value	Laboratory duplicate, and MS/MSD 25% RPD	Matrix spike 80% - 120% of control limits at ± 3 standard deviations based on actual lab data.	1	1	10	7 days until extraction, then 45 days until analysis. Store at -80 ° C
28				1	1	10	
37				1	1	10	
44				1	1	10	
49				1	1	10	
52				1	1	10	
66				1	1	10	
70				1	1	10	
74				1	1	10	
77				1	1	10	
81				1	1	10	
87				1	1	10	
99				1	1	10	
101				1	1	10	
105				1	1	10	
110				1	1	10	
114				1	1	10	
118				1	1	10	
119				1	1	10	
123				1	1	10	
126				1	1	10	
128	1	1	10				
138	1	1	10				
149	1	1	10				
151	1	1	10				
153	1	1	10				
156	1	1	10				
157	1	1	10				
158	1	1	10				
167	1	1	10				
168	1	1	10				

PCB congener	Accuracy	Precision	Recovery	Water Target Detection Limits (ng L ⁻¹)	Sediment Target Detection Limit (ng g ⁻¹ dry wt)	Tissue Detection Limit (ng g ⁻¹ wet wt)	Analytical Hold-ing Time
169				1	1	10	
170				1	1	10	
177				1	1	10	
180				1	1	10	
183				1	1	10	
187				1	1	10	
189				1	1	10	
194				1	1	10	
201				1	1	10	
206				1	1	10	

TABLE 6. List of DDT and chlordane target analytes, accuracy, precision, target detection limits and analytical holding times.

Parameter	Accuracy	Precision	Recovery	Sediment Target Detection Limits (ng g ⁻¹ dry wt)	Tissue Target Detection Limit (ng g ⁻¹ wet wt)	Analytical Holding Time
o,p'-DDT	Standard Reference Materials (SRM, CRM, and/or PT) within 95% CI stated by provider of material. If not available then 80% to 120% of true value	Laboratory duplicate, and MS/MSD 25% RPD	Matrix spike 80% - 120% of control limits at \pm 3 standard deviations based on actual lab data.	0.5	1.0	7 days until extraction, then 45 days until analysis. Store at -80 ° C
p,p'-DDT				0.5	1.0	
o,p'-DDD				0.5	1.0	
p,p'-DDD				0.5	1.0	
o,p'-DDE				0.5	1.0	
p,p'-DDE				0.5	1.0	
p,p'-DDMU				0.5	1.0	
cis-chlordane				1.0	1.0	
trans-chlordane				1.0	1.0	
trans-nonachlor				1.0	1.0	
heptachlor				1.0	1.0	
heptachlor epoxide				1.0	1.0	
oxychlordane				1.0	1.0	

TABLE 7. List of PAH target analytes, accuracy, precision, target detection limits and analytical holding times.

<i>Parameter</i>	<i>Accuracy</i>	<i>Precision</i>	<i>Recovery</i>	<i>Water Target Detection Limits ($\mu\text{g L}^{-1}$)</i>	<i>Sediment Target Detection Limit (ng g^{-1} dry wt)</i>	<i>Analytical Holding Time</i>
Naphthalene	Standard Reference Materials (SRM, CRM, and/or PT) within 95% CI stated by provider of material. If not available then 80% to 120% of true value.	Laboratory duplicate and MS/MSD 25% RPD	Matrix spike 80% - 120% of control limits at ± 3 standard deviations based on actual lab data.	0.05	50	7 days until extraction, then 45 days until analysis. Store at $-80\text{ }^{\circ}\text{C}$ in the dark
2-Methylnaphthalene				0.10	50	
1-Methylnaphthalene				0.10	50	
Biphenyl				0.10	50	
2,6-Dimethylnaphthalene				0.10	50	
Acenaphthylene				0.05	50	
Acenaphthene				0.05	50	
1,6,7-Trimethylnaphthalene				0.10	50	
Fluorene				0.10	50	
Phenanthrene				0.10	50	
Anthracene				0.10	50	
1-Methylphenanthrene				0.10	50	
Fluoranthene				0.10	50	
Pyrene				0.05	50	
Benzo[a]anthracene				0.05	50	
Chrysene				0.10	50	
Benzo[b]fluoranthene				0.10	50	
Benzo[k]fluoranthene				0.10	50	
Benzo[e]pyrene				0.10	50	
Benzo[a]pyrene				0.10	50	
Perylene	0.10	50				
Indeno[1,2,3-cd]pyrene	0.10	100				
Dibenzo[a,h]anthracene	0.10	100				
Benzo[g,h,i]perylene	0.10	100				

TABLE 8. List of Pyrethroid pesticide target analytes, accuracy, precision, target detection limits and analytical holding times.

Parameter	Accuracy	Precision	Recovery	Sediment Target Detection Limit (ng g ⁻¹ dry wt)	Analytical Holding Time
Bifenthrin	Standard Reference Materials (SRM, CRM, PT) within 95% CI stated by provider of material. If not available then 80% to 120% of true value	Laboratory duplicate, and MS/MSD 25% RPD	Matrix spike 80% - 120% of control limits at ± 3 standard deviations based on actual lab data.	1	7 days until extraction, then 45 days until analysis. Store at -80 °C
Permethrin				1	
Cypermethrin				1	
Cyfluthrin				1	
Deltamethrin				1	
Esfenvalerate				1	
Lambda-cyhalothrin				1	
Fenpropathrin				1	

Table 9. List of Dibenzo-Dioxins/Furans target analytes, accuracy, precision, target detection limits and analytical holding times.

Parameter	Accuracy	Precision	Recovery	Water Target Detection Limits (pg L ⁻¹)	Analytical Holding Time
2,3,7,8-Tetra CDD	Standard Reference Materials (SRM, CRM, PT) within 95% CI stated by provider of material. If not available then 80% to 120% of true value	Laboratory duplicate, and MS/MSD 25% RPD	Matrix spike 80% - 120% of control limits at ± 3 standard deviations based on actual lab data.	1.192	7 days until extraction, then 45 days until analysis. Store at -80 °C
1,2,3,7,8-Penta CDD				1.555	
1,2,3,4,7,8-Hexa CDD				1.108	
1,2,3,6,7,8-Hexa CDD				1.522	
1,2,3,7,8,9-Hexa CDD				1.791	
1,2,3,4,6,7,8-Hepta CDD				1.907	
Octa CDD				3.218	
2,3,7,8-Tetra CDF				1.240	
1,2,3,7,8-Penta CDF				1.101	
2,3,4,7,8-Penta CDF				1.127	
1,2,3,4,7,8-Hexa CDF				1.544	
1,2,3,6,7,8-Hexa CDF				1.267	
2,3,4,6,7,8-Hexa CDF				1.153	
1,2,3,7,8,9-Hexa CDF				2.203	
1,2,3,4,6,7,8-Hepta CDF				1.651	
1,2,3,4,7,8,9-Hepta CDF				2.027	
Octa CDF				2.585	

Table 10. List of bacteriological target analytes, accuracy, precision, target detection limits and analytical holding times.

Parameter	Accuracy	Precision ^(a)	Target Detection Limit	Holding Time
Enterococcus	Positive control and reference material = 80-120% recovery. Negative control = no growth on filter.	Lab Replicate RPD<25%	1 colonies/100 mL	6 hours at 4 °C in the dark
E. coli			2 MPN/100 mL	
Fecal coliform			2 MPN/100 mL	
Total coliform			2 MPN/100 mL	

SECTION 3. SPECIAL REQUIREMENTS AND INSTRUCTIONS

Bidders will be required to comply with the following special requirements and instructions during the performance of services rendered under this project:

General

- Insurance

Bidders shall, at their sole expense, maintain in effect at all times during the performance of services awarded under this Proposal Form, general liability insurance providing for bodily injury liability and property damage liability. The combined single limits of liability for bodily injury or property damage shall be One Million Dollars (\$1,000,000) for each occurrence and One Million Dollars (\$1,000,000) aggregate, with the policy naming Southern California Coastal Water Research Project Authority as Additional Insured. Further, workers compensation insurance shall be held and maintained as required by applicable laws of the State of California with a minimum amount and limit of One Million Dollars (\$1,000,000) for each accident. Bidders shall also hold automobile liability insurance (bodily injury and property damage liability), including coverage for all owned, hired, and non-owned automobiles, with the combined single limit of liability of Two Hundred Fifty Thousand Dollars (\$250,000) for any one accident or loss. Bidders shall provide SCCWRP with evidence that policies providing such coverage and limits are in full force and effect within ten (10) days of the award of any contracts by SCCWRP. Such certificates shall provide that not less than thirty (30) calendar days advance notice will be given to SCCWRP prior to cancellation, termination, or material alteration of said policies of insurance.

SECTION 4. BID EVALUATION PROCESS AND CRITERIA

Following the opening of bids, SCCWRP will evaluate and score the bids received. Each work element of each bid submitted will be evaluated using the following criteria and scoring system, with a maximum possible score of 100.

1. Price (40 points): The lowest bid price will receive the maximum score of 40 points, with higher bids receiving scores proportional to the lowest bid price. If separate prices are provided for different quantities, SCCWRP will evaluate the bid based on the quantity of service that is most likely to be awarded.
2. Qualifications and experience (40 points): Each bid will be rated on a scale of 0 to 40 points, based upon the bidder's demonstrated experience using the methodologies and equipment required for the work, relevant experience of the bidder's staff members, and contingency planning for equipment and personnel due to weather, equipment failure, or other emergencies.
3. Survey/intercalibration experience (20 points): Consistency in measurements among data providers is important to the SCCWRP's success. Each bid will be rated on a scale of 0 to 20 points on the bidder's demonstrated experience in achieving similarity to others in cooperative surveys and intercalibrations. Points will be awarded for participation in intercalibration exercise or integrated multi-organization cooperative program. Preference will be given to those bidders

with demonstrated comparability to other organizations participating in southern California regional surveys.

The bidder receiving the highest combined total score for each work element will be awarded a contract to perform the work. SCCWRP retains the right to award separate contracts for each of the work elements specified within the Proposal Form. SCCWRP also reserves the right to offer multiple contracts for the same element in order to meet holding times for specific analyses (i.e., nutrients or bacteria).

SECTION 5. PROPOSAL SUBMISSION

Bids

Bidders may submit bids for any or all of the work elements as detailed in this Proposal Form. The amount and locations of sampling stations, as well as the amount of samples for laboratory analyses, have not yet been determined. Bidders are asked to provide pricing for each element within the Scope of Work; at the bidder's discretion, bidders may provide one price or specify price breaks at different possible levels of effort as determined by the bidders, indicating the appropriate price differences for possible levels of work (i.e. cost per sampling site or sample analysis for <25, 26-50, 51-100, or 100-250 sites/samples). If bid prices will differ due to geographic factors (i.e. by region), indicate separate pricing for each region or depth. The actual number of sampling sites and samples to be analyzed will be determined prior to the execution of contracts with the successful bidder(s). For work elements not being bid, please indicate NO BID on the first line of those sections.

1. Sample Handling and Logistics

	Cost	
	Regular Business Hours	After Hours
Courier Services	\$ _____ per mile	\$ _____ per mile
Sample receiving, handling	\$ _____ per sample	\$ _____ per sample
Sampling shipping to other labs	\$ _____	\$ _____
Filtration and preservation	\$ _____ per sample	\$ _____ per sample
Sediment grinding	\$ _____ per sample	\$ _____ per sample
Sample wet weight/dry weight	\$ _____ per sample	\$ _____ per sample

7. Laboratory analysis for nutrients.

Number of samples	Price per Sample			
	Freshwater	Marine water	Sediments	Tissue
	\$ _____	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____	\$ _____

8. Laboratory analysis for trace metals.

Number of samples	Price per Sample			
	Freshwater	Marine water	Sediments	Tissue
	\$ _____	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____	\$ _____

9. Laboratory analysis for DDTs, Chlordanes and PCB.

Number of samples	Price per Sample		
	Water	Sediments	Tissue
	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____

10. Laboratory analysis for PAHs.

Number of samples	Price per Sample		
	Water	Sediments	Tissue
	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____

11. Laboratory analysis for Pyrethroid pesticides.

Number of samples	Price per Sample	
	Water	Sediments
	\$ _____	\$ _____
	\$ _____	\$ _____
	\$ _____	\$ _____
	\$ _____	\$ _____

12. Laboratory analysis for TCDDs.

Number of samples	Price per Sample
	Water
	\$ _____
	\$ _____
	\$ _____
	\$ _____

13. Laboratory analysis for Bacteria.

Number of samples	Price per Sample	
	Freshwater	Marine Water
	\$ _____	\$ _____
	\$ _____	\$ _____
	\$ _____	\$ _____
	\$ _____	\$ _____

Additional Information to Accompany Proposal Form

The following additional information must accompany this Proposal Form as detailed below. This additional information should not exceed eight (8) single-sided pages, 12 point times roman font, exclusive of resumes.

• **Statement of Qualifications**

Bidders are required to submit a Statement of Qualifications detailing the following information pertinent to the elements of work being bid. The document should include the following:

- a) a description of the firm;
- b) a listing of similar research-oriented activities performed within the last three years;
- c) a listing of equipment to be utilized to perform the work;
- d) a listing of personnel that will perform the work (include resumes as an appendix);
- e) a description of the bidder's participation in previous integrated multi-agency cooperative projects, including SCCWRP's Southern California Bight Regional Monitoring Program and/or SMC Regional Stream Monitoring Program;
- f) a description of the bidder's participation in previous intercalibration exercises such as those sponsored by SCCWRP and/or NOAA;
- g) a description of the bidders contingency plan detailing methods to complete the work being bid under the time frames indicated in the event of personnel and/or equipment failure;
- h) ability to achieve detection limits, especially in difficult media;
- i) certifications and permits - Bidders are required to list all relevant certifications and permits necessary and/or desirable to perform the work being bid;
- j) previous experience in data management and reporting, including data submittals in previous regional surveys or SWAMP formats (an example may be submitted as a separate attachment);
- k) descriptions of any alternative methods to those listed in this RFP that still meet the specified precision, accuracy and sensitivity requirements; and
- l) Capability to pick up, receive, and/or process samples at night, on weekend, or holidays.

SECTION 6. CERTIFICATION OF BIDDER

Name of corporation, partnership, or individual in whose behalf the bid is submitted:

Address: _____

City/State/Zip: _____

Phone: _____ FAX: _____ E-mail: _____

Tax Identification No.: _____

The full names and addresses of all persons and parties interested in the foregoing proposal as principals are as follows: (If bidder is a corporation or organization, give names of President, Secretary, and Treasurer; if bidder is a partnership, give the names of all partners.)

Name	Title
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I certify under penalty of perjury under the laws of the State of California that the foregoing representations are true and correct. Further, I certify that I have carefully examined the proposed work and the specifications as contained herein, and hereby propose to perform and complete all the work for this project as specified, in accordance with these specifications, and to furnish all materials and equipment necessary therefore to the satisfaction of SCCWRP, at the price(s) indicated within this document. In the event that this proposal is accepted by SCCWRP and the said work is awarded to the undersigned bidder, the said bidder agrees to sign and date, within seven (7) calendar days after it has been delivered or mailed to the bidder or its authorized agent, the Agreement for the performance of the work.

Signature of Bidder: _____

Title: _____ Date: _____