

**SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT
(SCCWRP)**

**REQUEST FOR PROPOSALS
WET WEATHER SAMPLING AND ANALYSIS**

I. INSTRUCTIONS TO BIDDERS

The Bidder's complete Proposal to provide the services detailed, are to be enclosed in a sealed envelope and marked "Wet Weather Sampling and Analysis" and addressed to:

Bryan Nece
Administrative Officer
7171 Fenwick Lane
Westminster, CA 92683-5218

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 considered cause for rejection.

If a Bidder wishes to withdraw its Proposal, the Bidder may do so without prejudice by delivering a 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, 7171 Fenwick Lane, Westminster, CA, up to the hour of 10:00 am on **Friday, September 27, 2002**, at which time, the bids will be opened by the Administrative Officer. Bids received by facsimile or E-mail will not be accepted.

All Bidders should inform SCCWRP via email (bryann@sccwrp.org), FAX (714.894.9699) or letter mail by September 5, 2002 of their intention to submit a bid. Notification is not mandatory, but is necessary to receive future updates to this bid notification. SCCWRP will hold a non-mandatory bidders meeting at 10:00 a.m. on September 5, 2002, at SCCWRP's office in Westminster. 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 verbal questions will be sent to the Bidders by E-mail 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 pay any compensation for the information solicited.

II. SCOPE OF WORK

The Southern California Coastal Water Research Project (SCCWRP) is working with a series of partners to develop water quality models that will be used to characterize loadings of bacteria, nutrients, pesticides, and trace metals in the Santa Monica Bay, Los Angeles River, Dominguez Channel and San Gabriel River watersheds. Model development will provide a better understanding of spatial and temporal patterns of pollutant loading from a variety of land use types, and will ultimately assist managers in assessing load and wasteload allocations and evaluation of different management actions supporting TMDL Implementation Plans. Results of the model development may also be used by the Contaminated Sediments Task Force (CSTF) in their evaluation of the relationship between runoff and long-term management strategies for dredged materials.

One of the models that SCCWRP will be developing is HSPF, a dynamic runoff model that requires multiple water quality samples over the course of an entire storm flow hydrograph. These concentration-time series need to be collected from a large variety of small, homogenous land use sites to calibrate the model, as well as from a limited number of larger mixed land use watershed sites to validate the model.

During the 2000-2001 and 2001-2002 wet season, SCCWRP contractors have collected water quality samples during approximately 40 site events. This RFP will build upon the existing data set by collecting data from additional storms and additional land use sites.

The selected contractor(s) will be required to assist SCCWRP in collecting the concentration time series necessary for model development. The contractor will be asked to collect data from at least five sites, but not necessarily during the same storm event. The contractor may also be asked to conduct the laboratory analysis associated with those samples. Additional site-events may be requested in the future.

Description of Work Elements

Task 1. Sampling set-up

Description

The contractor will be given a preliminary list of specific site locations (both land use and mass emission sites) in the Los Angeles area for wet weather sampling. The contractor will be required to set-up sampling activities at each site(s), including all necessary equipment and personnel training. The contractor must obtain the necessary encroachment permits to access the site(s). The contractor must make the necessary provisions to conduct the following at each site:

1. Rate and record flow at the site throughout the storm event(s). In all instances, the sites will be rateable for hydraulic flow (e.g. pipe, cement lined channel, weir, etc.).

2. Precipitation data must be collected from the sample sites. Use of existing precipitation gages is not allowable unless they are coterminous with a sampling location.
3. Collect water quality samples. Either automated or hand-sampling is allowable, so long as the sample is representative of the wet weather discharge. Most sites will only be sampled once, though a subset of sites may be sampled on two or more storms. In all cases, water quality samples must represent the entire hydrograph of the storm.

Product

The contractor shall prepare a site sampling plan that will at a minimum include the following:

1. a description of the sampling location including a map of the sampling site, sampling techniques or schematic, and all necessary information about land use and hydrography. Special considerations associated with specific locations (e.g. access or confined space issues) shall also be included
2. a list of constituents to be sampled at each location
3. a discussion of the equipment to be used, including the typical precision associated with the sampling equipment and minimum measurement units
4. analytical methods proposed for each constituent being sampled, including minimum detection levels
5. a protocol for ensuring that data can be collected from all appreciable storms during the sampling period
6. copies of necessary encroachment permits.
7. an ArcView shape file, or similar GIS file, that includes locations (with < 3 meter accuracy) of all sample sites and a table of latitude and longitude for each sampling site using a global positioning system.

Three draft copies of the sampling plan will be provided to SCCWRP for review and comment. Following receipt and incorporation of comments, the contractor will prepare and transmit 3 bound copies and one electronic version of the final sampling plan to SCCWRP.

Task 2. Wet weather sampling

Description

The contractor will be responsible for tracking storms into their sampling site(s). The decision to sample or not sample a specific storm event will be at the discretion of the contractor. However, the criteria for storm selection will be agreed to with SCCWRP during the sampling set-up phase.

Precipitation, flow and water quality sampling must occur over the entire course of the storm event. Precipitation and flow should be recorded at 15-minute intervals. Water quality sampling should target 10-12 individual samples over the entire hydrograph, and must capture rising flows, peak flows, and receding flows. Samples will be collected for suspended solids, nutrients (nitrate+nitrite, ammonia, TKN, total phosphorous), bacteria (total coliforms, fecal coliforms or *E. coli*, enterococcus), trace metals, polynuclear aromatic hydrocarbons (PAH), and chlorinated hydrocarbons (total DDT and total PCB). Water quality sampling shall occur such that no contamination of samples occurs that may bias results.

The contractor shall conduct equipment calibrations and maintain pre- and post-calibration logs for the field equipment used during the project.

The contractor will be responsible for supplying all sampling containers. They will also be responsible for maintaining communication with the analytical laboratory (see task 3) and delivering samples to the analytical laboratory. The contractor will be responsible for initiating a sample chain of custody and shall not violate holding times specified in Table 1.

The contractor will also be responsible for collating all precipitation, flow, and water quality data in electronic format. The electronic file structure for data submittal shall be in a relational database structure that will be supplied to the contractor by SCCWRP.

Product

The contractor shall submit to SCCWRP a deployment strategy that includes criteria for storm event mobilization, durations and termination. The strategy should also include a specific plan to minimize the occurrence of false starts. Following receipt of comments from SCCWRP, the deployment strategy will be finalized and resubmitted.

The contractor shall prepare and submit a sampling summary memo within 3 days following each sampling event. The memo should summarize what data was collected and which locations were sampled, any unanticipated occurrences, and proposed refinements for subsequent sampling events.

The contractor shall submit all precipitation and flow data in electronic format within 4 weeks of sampling.

Task 3. Water Quality Sample Analysis

Description

Table 1 lists the specific constituents required for analysis, including desired reporting levels and data quality objectives for precision and blank contamination. As part of the

proposal package, laboratories should address their QA/QC procedures and how they establish and quantify data quality objectives for accuracy.

Since storm sampling is inherently somewhat unpredictable and unscheduled, the contractor should explain the proposed logistics of obtaining and analyzing multiple samples from multiple locations after typical business hours, while meeting maximum holding time requirements for all constituents (e.g. 6-hour holding times for bacterial samples).

The contractor shall submit all data in electronic format. The electronic file structure for data submittal shall be in a relational database structure supplied to the contractor by SCCWRP.

Product

All project data shall be reported to SCCWRP in electronic format within 6 weeks of sample receipt. Also, the contractor is responsible for submitting a Quality Assurance review in hardcopy format for laboratory activities as listed in Table 1.

III. 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

Bidders are required to comply with all general terms and conditions, certifications, assurances, provisions, laws, regulations, statutes and standards set by the State Water Resources Control Board. This information is available on the Internet at www.dgs.ca.gov/contracts.

Insurance

Bidders shall, at their sole expense, maintain in effect the following insurance coverage and include SCCWRP as an additional insured on their policy:

Workers' Compensation insurance shall be held and maintained by the Bidders 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.

General Liability insurance shall be held and maintained by the Bidders covering all operations by or on behalf of the Bidders providing insurance 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.

Automobile Liability (Bodily Injury and Property Damage Liability) insurance shall be held by the Bidders, including coverage for all owned, hired, and non-owned automobiles. The combined single limit of liability shall be Two Hundred Fifty Thousand Dollars (\$250,000) for any one accident or loss.

Billing and Retention

The Bidders' shall provide invoices for work completed on a monthly basis. SCCWRP shall have the right to retain from the Bidders' earnings for each period for which payment is made an amount equal to ten percent (10%) of such earnings, pending satisfactory completion of the agreement.

Multiple Contractors

SCCWRP reserves the right to contract with multiple contractors. If the winning bidder is unable or unwilling to complete the necessary tasks under the contract, SCCWRP may offer a second bidder the opportunity to complete the tasks.

IV. PROPOSAL SUBMISSION

Content of Proposal

Proposals are limited to 10 single sided pages (Times New Roman, 12-point font), exclusive of resumes, and budgets. Bidders must submit five copies of their entire proposal package. The contents of the proposal should address the following:

1. Technical approach for the sampling and analysis
2. How the proposed approach will achieve the goals of the study as described above, while building upon the previous wet weather sampling and analysis
3. A Statement of Qualifications detailing the following information pertinent to the tasks being bid:
 - a. Description of the firm, including location of its local logistical headquarters and laboratory facilities. Storm event sampling is inherently a short-notice effort and potential contractors are asked to demonstrate their ability to mobilize quickly.
 - b. Listing of wet weather sampling and analysis activities performed within the last seven years. Bidders should also provide a description of the quality assurance activities they routinely undertake and any additional activities they plan to undertake on this project to ensure the highest quality data.
 - c. Listing of personnel (and their duties) that will perform the work (include resumes). The proposal should also indicate the number of people that could be mobilized for storm sampling, as well as the number of sites that

a bidder believes it can sample on a given storm, assuming sites are located approximately 15 miles from each other within the greater Los Angeles area.

Additional Information to Accompany Proposal Form

Qualifications and Team Organization

Include resumes for principal personnel who will participate in study approach. Bidder's should also include an organizational chart illustrating the roles and responsibilities of all members of the project team. This chart should also indicate the approximate percent of each team members' time that will be dedicated to this project. These items should be included as separate pages from the technical proposal

Budget

The proposed budget should be included as a separate page(s) from the technical proposal. Bids should be submitted on a per site-event or per sample basis. The exact number of site-events and samples required for contracting has not yet been determined. We anticipate a minimum of 10 site-events for the upcoming storm season, with a possibility of more. Bidders are asked to provide pricing for each task. For tasks 1 and 2, bidders are asked to provide separate pricing for a single storm event sampled at the site and for second storm events sampled at the same site. For task 3, bidders should provide a single price for each analyte type based on the assumption that samples will arrive in batches from each location following each storm event.

Storms are inherently difficult to predict and the onset may occur unexpectedly. However, it is critical to this study that the entire hydrograph be sampled for each storm event. Therefore, SCCWRP agrees to pay reasonable mobilization costs for false starts if a contractor deploys for anticipated storms that meet criteria established in the agreed upon deployment strategy, but that do not materialize. These false start costs should be included as a separate line item in the proposed budget. False start prices are meant to reimburse contractors for person-hours, not for any other items such as equipment failures or personnel/staffing problems.

Certain locations may require sampling from confined spaces such as stormdrain outlets. Contractors must have personnel who are qualified and possess all necessary certifications to perform confined space sampling. SCCWRP has allowed for a premium fee for special site set-up considerations that require enclosed space entry.

While this project is initially funded for sampling in the 2002-2003 storm season, there is also the possibility that SCCWRP will require additional assistance with the same activities in subsequent years. Bidders are also asked to provide a cost escalation factor that should be applied to their bids if similar work is required in each of the next two years.

Tasks 1 and 2. Sample site set-up and Wet weather sampling

	Price per site-event
Site setup and equipment	\$ _____
First storm event sampled at a site	\$ _____
Second storm event sampled at a site	\$ _____
False start	\$ _____
Enclosed space entry premium	\$ _____

Task 3. Water Quality Sample Analysis

Bids should be submitted on an analysis-by-analysis basis.

Analyte	Price Per Sample
Total Suspended Solids	\$ _____
Nitrate+nitrite	\$ _____
TKN	\$ _____
Ammonia	\$ _____
Total phosphorous	\$ _____
Total coliforms, Fecal coliforms or E. coli, enterococcus	\$ _____
Trace metals	\$ _____
PAHs	\$ _____
Chlorinated hydrocarbons	\$ _____

V. BID EVALUATION PROCESS AND CRITERIA

Following the opening of bids, a review panel will evaluate and score the bids received. The bids for all tasks will be considered as a package and used to make a single evaluation, using the following criteria and scoring system. A maximum score of 100 points is possible.

1. Price for Tasks 1-2 (25 points). The lowest bid price (based on site-event cost) will receive the maximum score of 25 points, with higher bids receiving scores proportional to the lowest bid price.
2. Price for Task 3 (25 pts). The lowest total bid price per site-event (i.e. lowest total analytical cost per site-event) will receive the maximum score of 25 points, with higher bids receiving scores proportional to the lowest bid price.
3. Qualifications and experience (35 pts). Each bid will be rated on a scale of 0 to 50 points, based upon each bidder's experience and qualifications with wet weather monitoring and laboratory analysis.
4. Demonstrated ability (15 pts) – Each bid will be rated on a scale of 0 to 15 points, based upon each bidder's demonstrated experience and ability to mobilize at both the field and laboratory levels.

The bidder receiving the highest total score for all tasks will be awarded the contract to perform the work.

TABLE 1. Constituent list, reporting levels, holding times and data quality objectives

Constituent	Reporting Level	Holding Time	Data Quality Objective
Total Suspended Solids	2 mg/L	7 days	+/- 10% RSD for laboratory duplicate samples No analyte detected in laboratory blanks at > RL
Total Coliform	20-240,000 MPN/100mL	6 hours	+/- 50% RSD for laboratory duplicate samples No analyte detected in laboratory blanks at > RL
Fecal Coliform or <i>E. Coli</i>	20-240,000 MPN/100mL	6 hours	
Enterococcus	20-240,000 MPN/100mL	6 hours	
Nitrate + Nitrite	0.05 mg/L	1-2 days	+/- 10% RSD for laboratory duplicate samples No analyte detected in laboratory blanks at > 2 RL
Ammonia	0.1 mg/L	7 days	
Total Kjeldhal Nitrogen	0.1 mg/L	7 days	
Total Phosphorus	0.01 mg/L	28 days	
Trace Metals			
Arsenic	1.0 ug/L	6 months	+/- 10% RSD for laboratory duplicate samples No analyte detected in laboratory blanks at > 3 RL
Cadmium	0.2 ug/L		
Chromium	1.0 ug/L		
Copper	1.0 ug/L		
Iron	50 ug/L		
Lead	1.0 ug/L		
Nickel	1.0 ug/L		
Silver	0.2 ug/L		
Zinc	1.0 ug/L		

Constituent	Reporting Level	Holding Time	Data Quality Objective
Polynuclear Aromatic Hydrocarbons			
1-Methylnaphthalene	0.10 ug/L	7 days extraction, 40 days analysis	+/- 30% RSD for laboratory duplicate samples for analytes > 10x the DL, No analyte detected in laboratory blanks at > 3 RL
1-Methylphenanthrene	0.10 ug/L		
2,6-DimethylNaphthalene	0.10 ug/L		
2,3,5-Trimethylnaphthalene	0.10 ug/L		
2-Methylphenanthrene	0.10 ug/L		
Acenaphthene	0.05 ug/L		
Acenaphthylene	0.05 ug/L		
Anthracene	0.10 ug/L		
Benz[a]anthracene	0.05 ug/L		
Benzo[a]pyrene	0.10 ug/L		
Benzo[g,h,i]perylene	0.10 ug/L		
Benzo[k]fluoranthene	0.10 ug/L		
Biphenyl	0.10 ug/L		
Biphenyl	0.10 ug/L		
Chrysene	0.10 ug/L		
Dibenz[a,h]anthracene	0.10 ug/L		
Fluoranthene	0.10 ug/L		
Fluorene	0.10 ug/L		
Methylanthracene	0.10 ug/L		
Indeno[1,2,3-c,d]pyrene	0.10 ug/L		
Naphthalene	0.05 ug/L		
Perylene	0.10 ug/L		
Phenanthrene	0.05 ug/L		
Pyrene	0.05 ug/L		

Constituent	Reporting Level	Holding Time	Data Quality Objective
Pesticides and PCBs			
DDTs (DDT, DDD, DDE)	0.02 ug/L	7 days extraction, 40 days analysis	+/- 30% RSD for laboratory duplicate samples for analytes > 10x the DL, No analyte detected in laboratory blanks at > 3 RL
Chlordane	0.02 ug/L		
Total PCBs	0.02 ug/L		