

**SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT  
(SCCWRP)  
REQUEST FOR PROPOSAL**

**PEAK DISCHARGE IMPACT STUDY**

**I. INSTRUCTIONS TO BIDDERS**

The Bidder's complete Proposal to provide the services detailed are to be enclosed in a sealed envelope marked "Peak Discharge Impact Study" 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 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 **9:00 am on September 16, 2002**, at which time, the Administrative Officer will open the bids. Bids received by facsimile or E-mail will not be accepted.

All Bidders should inform SCCWRP via email ([bryann@sccwrp.org](mailto:bryann@sccwrp.org)), FAX (714.894.9699) or letter mail by August 13, 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 1:00 p.m. on August 13, 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](http://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. BACKGROUND**

As areas undergo urban development, surfaces that allow stormwater to percolate into the ground are usually made less pervious. Alterations to natural drainage systems are constructed to convey storm runoff from urbanized areas. These alterations result in increases of both runoff volume and runoff rates in natural streams and rivers. Drainage alterations include straightening, lining, enlarging, deepening and clearing natural channels, constructing storm drains, curbs, and gutter, and other detention and conveyance devices<sup>1</sup>. The 2001 Los Angeles County Municipal Stormwater Permit recognizes these concerns and calls for a study to “evaluate peak flow control and to determine numeric criteria to prevent or minimize erosion of natural stream channels and banks caused by urbanization.” These concerns have also been recognized by the County of Ventura, who is currently undertaking a study of the effect of peak flow on natural streams.

Several reports and case studies on mostly perennial streams suggest that increased runoff volume and velocity from urbanization in watersheds with natural channels may contribute to channel enlargement (stream erosion), either through widening of the stream banks, downcutting of the streambed, or a combination of both. This change of the natural channel morphology may trigger instream habitat degradation. Despite continued research and field study, much of the reported information has been anecdotal and many questions remain<sup>2</sup>. For example, what magnitude and frequency of storm rainfall and runoff affect stream erosion? How much stream erosion will degrade natural stream habitat and how many years will it take to do so? How much development can occur before a stream response is observed? Finally, what BMPs can be used to mitigate future channel erosion?

Southern California has numerous stream reaches that are still in their “natural” condition. Some of the stream reaches have experienced erosion that might be caused by urbanization, as evidenced by field assessments and anecdotal information. The southern California region is expected to experience significant urbanization over the next decade and beyond.

The Southern California Stormwater Monitoring Coalition (SMC) is a partnership among Municipal Stormwater permittees and Regional Water Quality Control Boards in Southern California, and SCCWRP. The SMC has developed a clear vision of regional cooperation to identify stormwater impacts in receiving waters. A study to assess the potential connection between stream erosion and urbanization in natural drainage systems is one of the research projects that SMC considers necessary in southern California because of the study’s potential to influence future stormwater regulations. SCCWRP has been designated as the facilitator to spearhead this project.

### **III. GOALS OF THE STUDY**

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<sup>1</sup> Bedient, P.B., and Huber, W. C., 1988. Hydrology and Floodplain Analysis. New York, Addison-Wesley Publishing Co., pp650

<sup>2</sup> U.S. EPA, 1997. Urbanization and Streams: Studies of Hydrologic Impacts. Office of Water, Washington, D.C., 841-R-97-009

SCCWRP is requesting proposals from potential consultants to develop a study to: (1) assess the potential cause and effect relationships between stream erosion and urbanization in watersheds in Los Angeles County, California, with natural ephemeral drainage systems, and (2) relate the results of the Los Angeles County analysis to other watersheds in southern California. This study should assess whether there are links in a range of downstream negative and positive impacts, primarily those related to stream bank and streambed erosion and stream habitat degradation, and peak flows due to increased urbanization. If such links are found to exist, the study should determine the upstream factors contributing to increased peak flows and establish a means to quantitatively predict downstream negative and positive impacts due to changes in the identified factors. These factors would provide the basis for eventually establishing regulatory criteria for peak flows from smaller and more frequent storms. The study should also evaluate a range of erosion remedial measures associated with implementation of BMPs. While complete modeling of erosion/sedimentation processes are not included in this scope of work, the study should address the general sedimentation processes and effects associated with urbanization on natural ephemeral drainage systems to identify possible future study. This analysis should build upon the current study in Ventura County, rather than duplicate that effort.

### **Description of Work Elements**

#### **Task I**

The contractor shall conduct a literature review of studies pertaining to the effects of urbanization on natural ephemeral streams in semi arid climates and shall develop a study approach that addresses the goals of the study described above. The study approach can be based on computer models, field monitoring or a combination of both.

#### **Product I**

The contractor shall discuss the chosen approach and alternatives in a presentation to the SMC for approval. The contractor shall provide an annotated bibliography of the literature search.

#### **Task II**

The contractor shall prepare a detailed work plan, including costs and time line, based on the approved study approach agreed to in Task I.

#### **Product II**

The contractor shall present one unbound original and six copies of the detailed work plan to SCCWRP for approval by the SMC.

#### **Task III**

Pending approval from the SMC, the contractor shall implement the work plan.

#### **Product III**

The contractor shall provide quarterly written and oral updates of the progress of the study to the SMC.

Task IV

The contractor shall prepare one unbound original and six bound copies of a draft report of the study results. The draft report shall contain detailed sections on the approved study approach, the work plan, costs, data analysis, a discussion of results, and pertinent appendices containing supporting information.

Product IV

The contractor shall discuss the draft report in a presentation to the SMC for approval.

Task V

The contractor shall prepare one unbound original and ten bound copies of a final report. The final report shall contain the content as decided by the SMC in Task IV. If a computer model is used, the source code and a copy of the input/output files from all the computer runs for the study shall be submitted along with the final report.

Product V

The contractor shall describe the final report at the end of the contract period in a presentation to the SMC and other invited stakeholders. The final report shall be provided in MS Word and Acrobat .pdf format. All raw data shall be included in an electronic format to be decided by the SMC. Any computational models used will be submitted with documentation to be reviewed by the SMC.

**IV. SPECIAL REQUIREMENTS AND INSTRUCTIONS**

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

**General**

The Contractor is required to comply with all general terms and conditions, certifications, assurances, provisions, laws, and regulations.

**Insurance**

The Contractor 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.

#### **Determination of Satisfactory Progress**

Satisfactory progress will be determined through quarterly reports. These reports may be in written form, or at the request of SCCWRP, in the form of a presentation.

#### **Billing and Retention**

The Contractor shall provide invoices for work completed on a monthly basis. SCCWRP shall have the right to retain from the Contractor's 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.

#### **Ownership**

All interim, draft, and final documents, studies, graphics, maps, photographs, computer models, data sets, and reports prepared by the Contractor will be developed using public funds and are intended for public use. Public documents/products lose their status as privileged and proprietary and may not be used for proprietary development or profit.

#### **Length of Contract**

The term under this contract will be approximately two years. The proposal selected has to be finished by August 2004.

### **V. PROPOSAL SUBMISSION**

#### **Length and Content of Proposal**

Proposals are limited to 10 single spaced pages (Times New Roman, 12-point font), exclusive of team qualifications, resumes and budgets. Bidders must submit six copies of the entire proposal package.

Content should address the following:

- 1) What is the technical approach for the study?
- 2) How does the proposed approach meet the goals as described in the 'Goals of Study'?
- 3) What are the qualifications and experience of the Bidders' organization and those personnel that will be working on the proposed project?
- 4) Bidders are encouraged to include up to two additional pages (beyond the 10 page proposal) identifying optional studies that would build upon and/or expand the results of

the base study, should additional funding become available. Optional studies could include, but are not limited to, additional technical analysis and/or investigations that would expand the regional applicability of the study.

### **Additional Information to Accompany Proposal Form**

#### **Budget**

A maximum of \$230,000 is available for this study, exclusive of optional studies. Bidders should still submit costs for each task as well as a total cost for their proposal. These costs will be considered firm fixed fee proposals. The proposed budget should be included as a separate page(s) from the technical proposal. Detailed budgets for each study element outlining the proposed expenditures may be requested by SCCWRP from the winning Bidders.

#### **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.

## **VI. BID EVALUATION PROCESS AND CRITERIA**

Following the opening of bids, a review panel will evaluate the bids using the following criteria and scoring system. A maximum score of 100 points is possible.

1. Study approach. Each study approach will be rated based on the likelihood that it will meet the goals described under **Goals of Study**. (50 pts.)
2. Regional Applicability. Each proposal will be evaluated based on the degree to which the approach and results will have regional applicability to all members of the SMC, as well as build upon the ongoing effort in Ventura County. (10 pts.)
3. Qualifications and experience. Proposals will be rated based upon each bidder's qualifications and experience. (30 pts)
4. Cost. Each Bidder will be rated on its proposed cost of the study approach. (5 pts)
5. Schedule. Each bidder will be rated on how realistic its proposed schedule is for the completion of the study. (5 pts)

Following initial review of the bids, the top bidders will be required to verbally present their proposals at a mandatory panel interview that will take place on October 15, 2002 between 1:00 and 4:00 pm. The top bidders will be notified of their invitation to present by October 4, 2002. Each team may send no more than three

representatives to this interview, one of which must be the Project/Study Manager. A final selection will be made immediately following the interviews.