

# **Request for Proposals**

## **Laboratory Services for DNA/RNA Sequencing**

### **1.0 INTRODUCTION**

The Southern California Coastal Water Research Project (SCCWRP) is soliciting proposals from laboratories interested in providing DNA and RNA sequencing services to support SCCWRPs environmental monitoring programs.

### **2.0 BACKGROUND**

SCCWRP is a leading U.S. environmental research institute that works to enhance the scientific foundation for management of Southern California's ocean and coastal watersheds. Since its founding as a public agency in 1969, SCCWRP has been a champion of sound interdisciplinary approaches to solving complex challenges in water management. To learn more about SCCWRP, visit [www.sccwrp.org](http://www.sccwrp.org).

Several of SCCWRP's research areas and environmental monitoring programs employ molecular approaches for identifying organisms or communities of organisms that are of interest. These include analysis of microbes, including microbial communities and viromes, and pathogens in water and sediment, identification of prokaryotes responsible for important biogeochemical processes, and assessment of eukaryotic tissues, organisms, and communities used in environmental biomonitoring, such as fish, benthic invertebrates, and algae.

Successful bidders will be expected to use a variety of methods including Sanger sequencing and high throughput shotgun and amplicon sequencing methods (e.g. MiSeq, HiSeq) for whole genomes, metagenomes, and targeted genes in both single organism and mixed DNA samples. A variety of sample types may be provided for analysis (e.g. nucleic acid extracts, filters, tissue samples). Methods focusing on RNA and gene expression such as transcriptomics for an organism or tissue (e.g. RNAseq, Digital RNAseq), metatranscriptomics, and RNA virome sequencing should also be described, where appropriate. Bidders may bid on all or part of the services requested under this RFP or may form teams of multiple laboratories to provide a broader range of services.

### **3.0 RFP GUIDELINES**

All bidders should inform SCCWRP via email ([RFPIntention@sccwrp.org](mailto:RFPIntention@sccwrp.org)) by June 10, 2016 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 not conduct a pre-proposal conference for this RFP. Proposers who have questions about this RFP should email their questions to ([RFPQuestions@sccwrp.org](mailto:RFPQuestions@sccwrp.org)) by June 10, 2016. SCCWRP's response to the written questions will be sent to the bidders by email and posted on the SCCWRP website ([www.sccwrp.org](http://www.sccwrp.org)).

In the event it becomes necessary to modify or cancel this RFP or to provide additional information, an amendment will be issued to all respondents of this RFP. This solicitation for proposals shall not be construed as obligating SCCWRP to award a contract. All costs incurred in the preparation of a proposal and participation in this RFP and negotiation process shall be borne by the proposing firms.

#### **4.0 PROPOSAL SUBMISSION**

Proposals for this RFP must be submitted by hardcopy no later than 11:00 am (PST) on June 24, 2016. Proposals received after the stipulated date and time will not be considered.

Please submit four (4) hard copies of the bidder's proposal in a sealed envelope marked "DNA/RNA Sequencing" and addressed to:

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

#### **5.0 SCOPE OF SERVICES**

Bidders must provide a summary of their qualifications and experience demonstrating relevant expertise and capabilities for genomic and transcriptomic analysis. Qualifications statements should include all elements of the sample analysis process, including:

- Sample intake,
- Sample tracking and chain- of- custody,
- Sample preparation, extraction and amplification
- Sequencing, including preferred platforms, chemistries, and read lengths
- Quality control measures and assurances against contamination and sequencing error
- Preliminary data processing and initial bioinformatics
- Data delivery, including sequences pre- and post-bioinformatics pipeline.

Bidders should demonstrate their experience across a range of sample types, including summaries of their laboratory methods or Standard Operating Procedures (SOPs) to be used in determining genetic sequences, as well as a list of the equipment, including the software making up the bioinformatics pipeline, available for sample processing and analysis. Proposals should clearly describe the format for deliverables or options for different formats based on differential pricing.

Depending on the project, SCCWRP may provide samples in a variety of forms and matrices including, purified nucleic acids, bacteria or algae on filters, tissue, sediment, or soils. Options for differential pricing based on sample form should be clearly described.

Services will be required on an "as needed" basis so proposals should be structured on a unit cost, task-order basis. At present, the amount of samples for laboratory analyses has not yet been determined.

We anticipate issuing the contract for one year, with options to renew the contract annually for up to five years based on performance (NOTE: annual renewals will be at SCCWRP's discretion with no guarantees for annual renewal). Bidders are asked to provide pricing based on either a per-sample or a per-run basis and prices can be tiered based on volume of analysis. Costs should include any annual cost escalation factors (should the bidder wish to include them). Bidders may bid on all or part of the services requested under this RFP or may form teams of multiple laboratories to provide a broader range of services.

## 6.0 BID EVALUATION PROCESS AND CRITERIA

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

1. Price (40 points): The lowest bid price will receive the maximum score, with higher bids receiving scores proportional to the lowest bid price. If separate prices are received 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 (30 points): Each bid will be rated based on the bidder's demonstrated experience using the methodologies and equipment required for the work, and the relevant experience of the bidder's staff members.
3. Description of work flow (30 points): Each bid will be rated based on the described work flow in terms of effectiveness of the process, ability to track sample progress, and the estimated time necessary to complete analysis for various sample types. Bidders should provide information on the following elements of their work flow process:
  - a. *Sample receiving* – process in which samples are received, including time periods during which samples can be received, preferred method of sample delivery, ability to pick up samples, tracking and chains of custody procedures
  - b. *Processing time* – typical processing times necessary to provide results for various types of samples. Bidders should describe storage and handling procedures to minimize sample degradation (for RNA samples in particular).
  - c. *Quality Control* – procedures to ensure that data quality is not compromised by cross-contamination, inconsistent procedures, or other errors in the sequencing and analytical pipeline (e.g. use of mock communities or spikes with known sequences as a quality control measure for sequencing errors). Bidders should also include any established data quality objectives routinely used in this section
  - d. *Communication/sample progress* – processes for allowing clients to track the progress of their samples through the analytical pipeline
  - e. *Results delivery* – mechanism for delivering results, such as form of electronic delivery, flexibility in data formats, ancillary metadata that typically accompanies sequence data. Bidders should include a description of any preliminary data processing and initial bioinformatics that would be provided as part of their scope of services

A SCCWRP evaluation team will review each proposal. SCCWRP will request clarifications and additional information as needed. After the evaluation team individually scores each proposal, the scores will be tallied and the firms will be ranked based on the scores. The bidder receiving the highest combined total score for each work element will be awarded a contract to perform the services. SCCWRP retains the right to award separate contracts for different sample types or analyses specified in this RFP.

## 7.0 PROPOSALS SUBMISSION

Bidders may submit proposals for all or a portion of the services described in this RFP or may form teams to provide a more comprehensive scope of services. You are requested to provide thorough but concise responses. SCCWRP's evaluation procedure places a higher premium on thoroughness of presentation and information rather than on quantity of material included. The proposal shall contain the following sections:

- Section 1 – Executive Summary
- Section 2 – Work approach and procedures for each element described in Section 5.0 of this RFP for which a proposal is being submitted. This should include information on:
  - Sample receiving
  - Processing time
  - Communication through the sample analysis process
  - Results delivery

Proposals should clearly describe the format for deliverables or options of different formats based on different pricing.

- Section 3 – Qualifications and experience of both the laboratory and the individuals who would be conducting the requested analyses. This should include a description of the organization structure and designated points of contact
- Section 4 – Cost Information on a unit cost basis. Bidders may provide tiered prices based on project-specific or cumulative number of samples provided. Cost information should be provided in the following format. For each sample type bidders should submit cost information based on number of samples, number of runs, or indicate that that are not bidding on that sample type. For example, separate tables should be provided for DNA vs. RNA analysis or for high throughput vs. capillary electrophoresis methods. The cost information should also stipulate any cost escalation factor for multiple year contracts.

No. or range of samples	Sample Type				
	Extracted nucleic acids	Algal filters	Bacterial filters	Tissue	Sediment or soil
	Sample/run/ no bid	Sample/run/ no bid	Sample/run/ no bid	Sample/run/ no bid	Sample/run/ no bid

- Appendix A – Resumes of key personnel
- Appendix B – List of past clients and/or references
- Appendix C – Description of in-house bioinformatics experience and capabilities
- Appendix D – Detailed standard operating procedures (SOPs) for laboratory operations- OPTIONAL
- Appendix E – Detailed quality control/quality assurance plans - OPTIONAL