

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

**RELEVANCE OF EXISTING INFORMATION TO DEFINE THRESHOLDS OF PHYSIOLOGICAL EFFECTS  
OF LOW DISSOLVED OXYGEN ON CALIFORNIA ESTUARINE FISH SPECIES**

**I. INSTRUCTIONS TO BIDDERS**

The Bidder's complete Proposal to provide the services detailed are to be enclosed in a sealed envelope marked "Dissolve Oxygen Review" and addressed to:

Bryan Nece  
Administrative Officer  
3535 Harbor Blvd., Suite 110  
Costa Mesa CA 92626

All supplemental materials requested within this RFP must be attached to the Proposal. Any unauthorized conditions, limitations, or provisions attached to this RFP 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, 3535 Harbor Blvd. Suite 110, Costa Mesa CA, up to the hour of **5:00 pm on July 17, 2009**, 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 in writing of their intention to submit a bid by June 22, 2009 via email ([bryann@sccwrp.org](mailto:bryann@sccwrp.org)), FAX (714.755-3299) or letter mail. Although this notification is not mandatory, it is necessary to ensure receipt of future updates to the bid notification. SCCWRP will hold a non-mandatory bidders meeting from 1- 3 pm on June 29, 2009, at SCCWRP's office in Costa Mesa. This meeting is intended to provide Bidders the opportunity to ask questions and request clarifications about this document. SCCWRP's responses to 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**

In 1999, the USEPA Region 9 and the State Water Resources Control Board (SWRCB) launched an initiative to develop water quality objectives to address the impacts of nutrients and biostimulatory substances in California waterbodies. The initiative, termed the Nutrient

Numeric Endpoint (NNE) framework, involves developing numeric (quantitative) endpoints that will serve as guidance in translating narrative water quality objectives for nutrients and biostimulatory substances. The endpoints chosen are based on indicators of the biological response to eutrophication, rather than measures of nutrient concentration or loading. In addition to numeric endpoints, the NNE framework includes development of tools that link biological endpoints with nutrient inputs and potential management controls for Total Maximum Daily Load (TMDL) development and implementation.

The NNE framework was been previously developed for California lakes and streams. Since then, the NNE framework has been adapted for estuaries. The estuarine NNE framework proposed the use of dissolved oxygen plus a suite of biological response indicators as the basis for diagnosing impairment (EPA 2007). A subsequent document articulated a broad work plan to address data gaps, develop numeric endpoints and support the efficient and cost-effective development of TMDL tools for the estimated 290 estuaries in the State (McLaughlin and Sutula 2009; Appendix 1). This document suggests an estuarine classification scheme that includes eight estuarine water body types.

- Enclosed Embayment-
- Perennially Tidal Lagoon-
- Seasonally Tidal Lagoon
- Nontidal Lagoon
- Perennially Tidal River Mouth Estuary
- Seasonally Tidal River Mouth Estuary
- Open Embayment/Coastal Estuarine Front
- San Francisco Bay Estuary

In 2009, the SWRCB initiated a project to develop the NNE framework for estuaries (McLaughlin and Sutula 2009, Appendix 1). Over the next three years, the SWRCB plan consists of 3 major work elements:

Element 1: Refine E-NNE conceptual framework through an improved classification system, finalized list of biological response indicators for each estuarine class, and improved analysis of status of science and data gaps for endpoint development for each of the biological response indicators.

Element 2: Develop a DO numeric endpoint for California estuaries, excluding San Francisco Bay.

Element 3: Initiate statewide outreach and review of the conceptual framework for estuarine NNE development

Organization of the project consists of the following groups: 1) SWRCB, as the project lead, 2) the State and Regional Technical Advisory Group (STRTAG), which consists of the regulatory agencies, 3) the Coastal and San Francisco Bay stakeholder advisory groups (Coastal SAG and SFB SAG), which consist of the regulated community and environmental NGOs, 4) the Technical Team (TT), a team of regional experts that provides technical support to the SWRCB for endpoint development, and 5) the Science Advisory Board (SAB), which consists of a panel of

national or international experts who will provide peer-review of science supporting endpoint development.

The SWRCB has contracted with the Southern California Coastal Water Research Project (SCCWRP) as the lead contractor to provide technical support for the development of NNEs in California estuaries. SCCWRP is the lead of the TT.

The TT is responsible for producing technical documents to support the completion of Work Elements 1 and 2 (listed above). SCCWRP is requesting technical assistance to support Work Element 2.

### **III. GOALS AND GEOGRAPHIC SCOPE OF THE STUDY**

SCCWRP is requesting proposals from consultants to provide technical assistance in summarizing relevant information that will aid the SWRCB in selecting numeric dissolved oxygen endpoints for all California estuaries, excluding San Francisco Bay, from the State's border with Oregon to the border with Mexico.

Specifically, the objectives of this technical assistance are as follows:

- Work with the TT to develop a conceptual approach and identify native California fish species that would serve as indicator species for the development of dissolved oxygen numeric endpoints
- Summarize existing data and information on the physiological impacts of low dissolved oxygen on the life stages of selected native California fish species.

SCCWRP recognizes that experimental data may not be available for all California native estuarine fish species chosen in indicator organisms for the E-NNE development. Key components of the review will be the identification of data gaps and, where possible, extrapolation of existing data to these indicator organisms based on understanding of similarity among species. Thus the composition of the consultant must be such that they are qualified to make such judgments.

This study will complement the other major activities outlined in the Technical Team work plan (Appendix 2). Additional background on the NNE conceptual approach and work plan for NNE development in estuaries is given in Appendix 1.

### **IV. REQUIRED ELEMENTS OF CONCEPTUAL APPROACH**

Four fundamental elements are required to be incorporated into the conceptual approach used for this study:

1. Indicator organisms identified must be chosen to represent one or more of the applicable beneficial uses assigned to California estuaries, including MIGR, SPWN,

COMM, REC2, WILD, EST, MAR, COLD, WARM. All of these beneficial uses must have applicable indicator organisms.

2. The indicator organisms must consider bioregional variations in indicator organism distribution and/or environmental factors that could affect sensitivity to dissolved oxygen.
3. All estuarine classes identified through the TT must have representative indicator organisms. A preliminary list of estuarine classes is given in McLaughlin and Sutula (2009; Appendix 1).
4. The conceptual approach must consider the most sensitive life stages of the indicator organism.

### **Description of Work Elements**

*Task 1. Project Administration.* The contractor shall provide quarterly oral updates of the progress of the study to the SCCWRP.

*Deliverables:* 1) Quarterly oral updates of progress to SCCWRP.

#### **Task 1**

The contractor shall prepare a technical memo detailing the conceptual approach for the study and proposing candidate indicator organisms.

Deliverables: 1) Presentation of conceptual approach and candidate indicators to TT, 2) Technical memo detailing the conceptual approach for the study

#### **Task 2**

Pending review by the TT and approval from SCCWRP, the contractor shall conduct a review of existing information on the physiological impacts of low dissolved oxygen on the selected indicator organisms. The review will include a complete bibliography of sources. The contractors will address any feedback or comments from SCCWRP, the TT or external review by the Science Advisory Board.

*Deliverables:* 1) Draft literature review, 2) Final literature review

## **V. 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. SCCWRP reserves the right to recombine individual members of bidding teams if necessary to establish optimum combination of expertise.

### **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.

### **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 of this contract will be nine months. The contract must be concluded by March 31, 2010.

## **VI. 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 three copies of the entire proposal package.

Content should address the following:

- 1) **Technical approach** for the study, including how the proposed approach meets the goals of the described in 'Goals of Study' and 'Required Elements of Conceptual Approach'
- 2) **Qualifications and experience of the personnel that will be working on the proposed project.** Minimum qualifications for the consultant team are given below. Qualifications will be determined based on the composition of the consultant team as a whole. Bidders are encouraged to build teams to best accomplish project objectives:
  - a. Experience in the natural history and life stages of native estuarine fish species of California
  - b. Demonstrated understanding in the physiological impacts of low dissolved oxygen in estuarine fish. Research experience in physiological impacts of low dissolved oxygen and/ other physiochemical water quality parameters would be consider a plus).
  - c. Experience in studying estuarine fisheries in each of the following regions: North Coast (Border with Oregon to Russian River), SF Coast (Russian River to Pajaro River lagoon), Central Coast (Pajaro River Lagoon to Point Conception), South Coast (Point Conception to the border with Mexico).
  - d. Experience in state and federal threatened or endangered estuarine fish species.
- 3) **Team organization.** Proposals should specify how the each of the team members will participate to produce the product. Include resumes for principal personnel who will participate in the review. Bidders should also include information on whether graduate students will work on the project.

Proposals should include the length of time required to complete the work.

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

#### **Budget**

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. The maximum funding available for this study is \$75,000.

## **VII. 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. Conceptual Approach. Each study approach will be rated based on the likelihood that it will meet the goals described under **Goals of Study**. (15 pts.)
2. Qualifications and experience. Proposals will be rated based upon each bidder's qualifications and experience. (70 pts)
3. Cost. Each Bidder will be rated on the proposed cost of project. (10 pts)
4. Schedule. Each bidder will be rated on how realistic its proposed schedule is for the completion of the study. (5 pts)

#### **VIII. References**

K McLaughlin, M Sutula. Developing nutrient numeric endpoints and TMDL tools for California estuaries: An implementation plan. 2008. SCCWRP Technical Report 540. Costa Mesa, CA (<http://www.sccwrp.org/view.php?id=36>).