

**SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT
REQUEST FOR QUALIFICATIONS: TECHNICAL SUPPORT FOR DISSOLVED
OXYGEN OBJECTIVES IN SAN FRANCISCO BAY**

SECTION 1. INSTRUCTIONS TO BIDDERS

The Bidder's complete qualification package (Package) to provide the services detailed are to be enclosed in a sealed envelope marked "Dissolved Oxygen Objectives" and addressed to:

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

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

All Bidders should inform SCCWRP in writing of their intention to submit a qualification package by January 15, 2016 via email (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 an optional bidders meeting via conference call at January 20, 2016 at 10 am PDT. Access to teleconferencing information will be sent out to those to have sent an intent to bid and will also be posted on the RFP page of SCCWRP's website (www.sccwrp.org). 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.

If a bidder wishes to withdraw its Proposal, the Bidder may do so without prejudice sending an email to Bryan Nece (bryann@sccwrp.org) at any time before the time established for the opening of qualification packages.

Sealed qualification packages must be received at SCCWRP's offices, 3535 Harbor Blvd. Suite 110, Costa Mesa CA, by the hour of 12.00 pm on January 28, 2016, at which time, the Administrative Officer will open the qualification packages. Packages received by facsimile or E-mail will not be accepted.

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

Contracts will be awarded based on the qualifications packages received to provide the following technical support services (see details below), on a time and material basis: 1) convene experts and work towards consensus on key technical issues related to the dissolved oxygen objectives, conduct analyses, review and synthesize literature to answer specific technical questions, 2) provide expert advice, including written review of documents and participation at expert team meetings, and 3) assist in preparation of final project reports/documentation. These services will be required on an "as needed" basis. Consequently, this RFQ is structured on a time and materials, task-order basis.

SECTION 2. EXPERTISE SOUGHT

San Francisco Bay Water Board is reviewing the science supporting dissolved oxygen objectives in certain areas of San Francisco Bay (SFB). Southern California Coastal Water Research Project (SCCWRP), a public agency for environmental research, is providing technical support for this effort. The goal of this project is to develop a comprehensive vision of technical activities needed to support policy decisions on DO site-specific objectives and to initiate a subset of those technical activities.

As part of this, SCCWRP requires technical support services from individuals with expertise in developing dissolved oxygen objectives for estuaries. Specifically, the objectives of this technical assistance are as follows:

1. Provide technical support for completion of Suisun Marsh DO TMDL, including:
 - Science to support decisions on frequency and duration of time spent below chronic criteria
 - monitoring program to assess if uses are being met;
2. Support the development of a work plan to review science supporting DO objectives in other parts of San Francisco Bay;
3. Interact with and respond to the comments of an expert panel reviewing the work plan and technical work produced.

Additional background and context for expertise sought and specific requirements are given below. In conjunction with scientists and stakeholders San Francisco Bay Water Board has developed a nutrient management strategy (Water Board 2012). This strategy calls for, among other elements, review of the science supporting DO objectives, particularly with respect to intertidal habitats and tidal sloughs in SF Bay margins such as South SFB and Suisun Marsh, a habitat within Suisun Bay that has been listed for low

DO

(www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/suisunmarsh/html.shtml).a

Three studies that are directly relevant to this issue of DO objectives have been completed since the SFB Nutrient Management Strategy has been drafted.

The first study looked specifically at the relevance of existing objectives (Table 1) for application as numeric targets in Suisun Marsh. Towards this end, Bailey et al. (2014) initiated this work by completing a review of science supporting DO site-specific objectives in Suisun Marsh and Bay, based on the assemblages of species that utilize the Marsh. This study determined key species present in the Bay and Marsh, evaluated available DO tolerance data for these species or related surrogates, and calculated criteria for DO to the extent that appropriate data were available, utilizing the Virginia Province approach (www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/suisunmarsh/Basis%20For%20DO%20Objectives%20for%20Suisun%20Marsh.pdf). While alternative DO “criteria” were calculated, additional work is required. First, the document fell short of providing supporting information to interpret the allowable frequency and duration of departures from those criteria. Second, no recommendations were provided on the specific monitoring protocols and appropriate ways to use those data to determine compliance with objectives. Finally, policy decisions on DO objectives should also take into account “naturally-occurring” seasonal, diurnal and tidally-influenced periods of low DO, particularly in organic carbon-rich intertidal wetland habitats.

Second, a synthesis of Lower South Bay was completed (Crauder et al. 2015), focused on summarizing data and identifying major data or conceptual gaps in our understanding of nutrient sources and cycling in LSB and major indicators of ecosystem response in that subembayment. As a part of this effort, existing DO and pelagic vertebrates (fish) data were summarized; they found diurnal hypoxia in LSB tidal sloughs was prevalent throughout time series records. Causal linkages with slough hydrology, labile organic carbon and other sources of oxygen demand were proposed. These data were presented relative to the lowest DO in which fish species were observed to begin to make a linkage to biological endpoints of interest.

Third, Sutula et al. (in prep) analyzed the trends in DO relative to chlorophyll-a concentrations by subembayment in SF Bay. They found that, using USGS monitoring data, events in which Lower South Bay were below the 3-month median > 80% percent saturation objective were fairly frequent. However, they noted that a need to review the relevance and adequacy of scientific data supporting WQC for DO in LSB. Over the last

20 years, LSB has met 5.7 mg L⁻¹, the benchmark proposed by Best et al. (2007) that corresponds to the highest ecological condition category proposed for use by European Union estuaries. However, it has frequently not met the 3-month median percent saturation WQC of > 80%, a value that at summertime mean salinities and temperatures is equivalent to 7 mg L⁻¹. The question is whether 7 mg L⁻¹ is a reasonable expectation for LSB, given that this subembayment is strongly influenced by highly productive, intertidal habitats (Thebault et al., 2008; Shellenbarger et al., 2008).

SCCWRP is requesting qualifications from consultants to work as a team with SCCWRP to provide technical support activities.

The successful bidder will provide the scope of services described in this RFQ 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.

SECTION 3. PROPOSAL SUBMISSION

Qualification Packages

Bidders are required to submit a cover letter which summarizes the collective qualifications and experience of the consultant team they are proposing as support. This cover letter should specify up to three co-principal investigators for the contract and a lead. For each consultant on the team, a curriculum vitae of maximum length of 10 pages, one sided page, 12 point font Roman, which demonstrates their qualification and experience. Included in this curriculum vitae should be a narrative description of expertise and qualifications. In addition, billing rates should be provided in an additional table in the cover letter for each member of the team, including supporting staff.

In addition, the following information must be included on the cover page (Table 2).

Table 2. Additional information that must be included in the cover page (cut, paste and complete)

| |
|--|
| Name of corporation, partnership, or individual in whose behalf the bid is submitted: Address: _____ City/State/Zip: _____ Phone: _____ FAX: _____ E-mail: _____ Tax Identification No.: _____ |
|--|

Name

Title

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 qualifications, and hereby propose to perform and complete all the work for this project as specified 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: _____

SECTION 4. QUALIFICATION PACKAGE EVALUATION PROCESS AND CRITERIA

Following the opening of qualification packages, SCCWRP will evaluate and score them. Each package submitted will be evaluated using the following criteria and scoring system, with a maximum possible score of 100. Each qualification package will be rated on a scale of 0 to 100 points, based upon the bidder's demonstrated expertise in the area sought.

- Qualifications (40 points): Qualifications among team members should include:
 1. Academic background in aquatic sciences
 2. Specific expertise in:
 - Natural history of San Francisco Estuary native vertebrates and invertebrates, particularly in South Bay and in Suisun Marsh,
 - Ecotoxicology of aquatic organism with expertise in calculation of acute and chronic DO criteria,
 - Ecophysiology of aquatic organisms, with expertise in oxygen tolerance of vertebrates & invertebrates.
- Experience (40 points): Points for specific experience in:
 1. Applying the US EPA Virginia Province approach to develop DO criteria,

2. Experience providing technical support for development of DO criteria in naturally low DO environments such as tidal sloughs and intertidal wetlands
 3. Demonstrated experience in developing DO monitoring programs to assess attainment of DO criteria,
 4. Demonstrated knowledge of native invertebrates and vertebrates in South Bay and Suisun Marsh of San Francisco Bay,
- Cost (20 points): Points will be awarded on cost based on the average billing rate of the top three (or fewer) team members identified as principal investigators in the cover letter of your qualifications package.

The bidders receiving the highest score will be awarded a contract to perform the work.