SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT REQUEST FOR QUALIFICATIONS: EUTROPHICATION MODELING SERVICES

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 "Eutrophication Modeling Services" 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 December 28, 2018 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 bidder meeting via conference call at January 4, 2019 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 will be sent to the Bidders by E-mail and posted on the SCCWRP website.

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 5:00 pm on January 18, 2019, at which time, the Administrative Officer will open the qualification packages. Packages received by facsimile or Email 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.

SCCWRP anticipates awarding a contract based on the qualifications packages received to provide the following technical support services to assist in one or more of the following: 1) set up or refine, calibrate, and apply watershed loading models to simulate loading of nutrients and other

factors controlling waterbody responses to eutrophication (e.g. temperature, etc) 2) set up or refine, calibrate, and validate steady state or dynamic simulation models of eutrophication in estuaries and/or rivers .

Section 2. Expertise Sought

Eutrophication, defined as the accelerated delivery, in situ production, and/or accumulation of organic matter within an aquatic ecosystem (Howarth 1988, Nixon 1995, Cloern 2001), can have far-reaching ecological impacts, from headwater streams, lakes, estuaries to the coastal ocean (Valiela et al. 1992). These impacts include hypoxia, fish-kills, lowered fishery production (Glasgow and Burkholder 2000), loss or degradation of seagrass and other aquatic beds (Twilley 1985, Burkholder et al. 1992, McGlathery 2001), smothering of benthic macroinvertebrates, bivalves, and other organisms (Rabalais and Harper 1992), nuisance odors, impacts on aquatic life from increased frequency and extent of toxic harmful algal blooms, and poor water quality (Bates et al. 1989, Bates et al. 1991, Trainer et al. 2002). There are also a range of impacts to human health (algal toxins), drinking water (algal toxins, odors and disinfection biproducts) and recreation (nuisance blooms, loss of clarity, aesthetic impacts; Nixon 1995, Paerl et al. 2011). These impacts have significant economic and social costs (Turner et al. 1998). According to the U.S. Environmental Protection Agency (USEPA), eutrophication is one of the top three leading causes of water quality impairments of the nation's waters (US EPA 2001). Scientifically-based state water quality tools that relate these eutrophication targets to environmental drivers and management controls are needed to protect against adverse effects from eutrophication.

SCCWRP anticipates receiving awards from the State Water Board to conduct science to support the development of TMDLS or other regulatory or policy actions.

Specifically, the objectives of this technical assistance include:

- Set up, refine, validate and apply watershed loading models that simulate the surface water freshwater discharge, nutrient concentration and loads, temperature, suspended sediment, and DO source signatures of surface waters that contribute to downstream rivers, lakes, and estuaries.
- Set up, refine, validate, and apply receiving water quality models that simulate water body responses to environmental factors that control eutrophication, specifically with respect to algal and organic matter accumulation, sediment diagenesis, light limitations, etc. to benthic primary producers.

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 that is single sided, 12-point font, not to exceed 3 pages. The cover letter 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, plus a lead investigator. 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 lead or co-principal investigator of the team.

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)

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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.

- 1) Qualifications (50 points): Qualifications among team members should include:
 - Expertise setting up, calibrating and applying watershed loading model to simulate nutrients and other environmental factors that can contribute to eutrophication of downstream waterbodies.
 - Expertise in setting up, calibrating and applying hydrodynamic and eutrophication water quality models to capture external and in situ waterbody conditions that control responses to eutrophication.
 - Expertise applying models to support management conversations on nutrient or eutrophication management.
- 2) Experience (40 points): Points for experience will be awarded based on the extent of experience highlighted in the qualifications above. Experience applying watershed loading and receiving water models to Mediterranean coastal watersheds, estuaries and wadeable rivers will receive extra consideration.
- 3) Cost (10 points): Points will be awarded on cost based on the average billing rate of the top four (or fewer) team members identified as principal investigators in the cover letter of your qualifications package.

The team receiving the highest score will be awarded a contract to perform the work. SCCWRP does not anticipate splitting or awarding work among multiple teams. The team package must address all qualifications and experience required.