RECLAMATION
Managing Water in the West

U.S. Department of the Interior
Bureau of Reclamation

NOTICE OF INTENT TO AWARD

This Funding Announcement is not a request for applications. This announcement is to provide public notice of the Bureau of Reclamation's intention to fund the following project activities without full and open competition.

ABSTRACT	
Funding Announcement	BOR-MP-18-N012
Project Title	Investigating the Role of Nutrients in Food Resource Dynamics of the Sacramento-San Joaquin Delta
Recipient	University of California, Davis (UCD)
Principal Investigator / Program Manager	Steven Sadro
Anticipated Federal Amount	$885,246.00/FY18 $283,246.00
Anticipated Non-Federal Amount	$0.00
New Award or Continuation?	New Award
Anticipated Period of Performance	October 1, 2018 to September 30, 2023
Award Instrument	Cooperative Agreement
Statutory Authority	Public Law 102-575, Central Valley Project Improvement Act, Title 34, Sections 3406(b)(1) and 3407(e)
CFDA # and Title	15.512 Central Valley Project Improvement Act (CVPIA)
Single Source Justification Criteria Cited	(2) Continuation (4) Unique Qualifications
Reclamation Point of Contact	Erwin Van Nieuwenhuyse/ Thelma Mosley

OVERVIEW

Operation of the Central Valley Project (CVP) has been identified as a potential cause of a substantial reduction in the quantity and quality of habitat for Delta smelt, Longfin smelt and other native fish populations in the Sacramento-San Joaquin Delta-San Francisco Bay estuary (Bay-Delta). Delta smelt are of particular concern because they are listed as 'threatened' under the federal Endangered Species Act and 'endangered' under the state Endangered Species Act.

Although the precipitous decline in Delta smelt population abundance in recent years has been linked to a number of factors (including CVP operations), there is widespread scientific consensus that food limitation is among the most important. Consequently, measures to boost the abundance of Delta zooplankton, the primary food item for Delta smelt, feature prominently in the U.S. Fish and Wildlife Service (USFWS) 2008 Delta smelt Biological Opinion on the long-term operation of the CVP and in the state Natural Resources Agency's 2016 Delta Smelt Resiliency Strategy. This project builds on research conducted under a previous cooperative agreement between UCD and Reclamation indicating that the Sacramento Deepwater Ship Channel (SDSC) supports relatively high production of zooplankton favored by Delta smelt and that it may be possible to stimulate increased zooplankton production by adding nutrients (nitrate) to boost phytoplankton production.

RECIPIENT INVOLVEMENT

The UCD Environmental Science & Policy, Principal Investigator (PI) Steven Sadro, and staff will formulate the study designs and coordinate the data collection, analysis and interpretation for each component of the objectives.

UCD shall complete the following objectives.

Objective 1: Field sampling efforts designed to document and evaluate nutrient-phytoplankton-zooplankton dynamics over a wide range of contrasting aquatic environmental conditions in the Delta.

Objective 2: Measure water quality, phytoplankton and zooplankton dynamics along Antioch to West Sacramento longitudinal transect.

Objective 3: Document the ecosystem response of whole-system-scale nutrient addition experiments in the upper SDSC to determine the feasibility of using the SDSC to boost Bay-Delta food supplies.

RECLAMATION INVOLVEMENT

Substantial involvement on the part Reclamation is anticipated for the successful completion of the objectives to be funded by this award. In particular, Reclamation will be responsible for the following:

- Collaborate on the study design, methods and analysis.

SINGLE-SOURCE JUSTIFICATION

DEPARTMENT OF THE INTERIOR SINGLE SOURCE POLICY REQUIREMENTS
Department of the Interior Policy (505 DM 2) requires a written justification which explains why competition is not practicable for each single-source award. The justification must address one or more of the following criteria as well as discussion of the program legislative

history, unique capabilities of the proposed recipient, and cost-sharing contribution offered by the proposed recipient, as applicable.

In order for an assistance award to be made without competition, the award must satisfy one or more of the following criteria:

(1) Unsolicited Proposal – The proposed award is the result of an unsolicited assistance application which represents a unique or innovative idea, method, or approach which is not the subject of a current or planned contract or assistance award, but which is deemed advantageous to the program objectives;

(2) Continuation – The activity to be funded is necessary to the satisfactory completion of, or is a continuation of an activity presently being funded, and for which competition would have a significant adverse effect on the continuity or completion of the activity;

(3) Legislative intent – The language in the applicable authorizing legislation or legislative history clearly indicates Congress' intent to restrict the award to a particular recipient of purpose;

(4) Unique Qualifications – The applicant is uniquely qualified to perform the activity based upon a variety of demonstrable factors such as location, property ownership, voluntary support capacity, cost-sharing ability if applicable, technical expertise, or other such unique qualifications;

(5) Emergencies – Program/award where there is insufficient time available (due to a compelling and unusual urgency, or substantial danger to health or safety) for adequate competitive procedures to be followed.

Reclamation did not solicit full and open competition for this award based the following criteria:

(2) CONTINUATION

(4) UNIQUE QUALIFICATIONS

Single Source Justification Description:

Steven Sadro, and the Department of Environmental Science & Policy, at the University of California, Davis (UCD) are uniquely qualified to carry out these particular objectives of Investigating the Role of Nutrients in Food Resource Dynamics of the Sacramento-San Joaquin Delta project, focused on preventing the extinction of a listed fish species and provide scientific information for use in recovery efforts. Through a prior Financial Assistance agreement with Reclamation, UCD has spent years conducting the baseline monitoring and research to determine the system's likely response to nutrient addition and has developed working relationships with the City, Port and Flood Control Agency of West Sacramento as well as the Central Valley Regional Water Quality Control Board. This agreement will continue funding the broader initiative to increased zooplankton production by adding nutrients (nitrate) to boost

phytoplankton production, which will improve understanding of the relationship between nutrients and plankton production in the Delta and to use the SDSC as a tool for boosting Bay-Delta food supply for Delta smelt and other native fish populations. Because there is widespread scientific consensus that food limitation is among the most important. The recipient is the only entity conducting scientifically rigorous water quality and food resources investigations in the SDSC. Moreover, the research from this project can be utilized in future years to train the next generation of scientists who will work to help improve scientific understanding and science-based management of public resources.

STATUTORY AUTHORITY

Public Law 102-575, Central Valley Project Improvement Act, Title 34, Sections 3406(b)(1) and 3407(e). The following section, provided in full text, authorizes Reclamation to award this financial assistance agreement:

> SECTION 3406 (b) FISH AND WILDLIFE RESTORATION ACTIVITIES - The Secretary, immediately upon the enactment of this title, shall operate the Central Valley Project to meet all obligations under State and Federal law, including but not limited to the Federal Endangered Species Act, 16 U.S.C. 1531, et seq., and all decisions of the California State Water Resources Control Board establishing conditions on applicable licenses and permits for the project. The Secretary, in consultation with other State and Federal agencies, Indian tribes, and affected interests, is further authorized and directed to:(1) develop within three years of enactment and implement a program which makes all reasonable efforts to ensure that, by the year 2002, natural production of anadromous fish in Central Valley rivers and streams will be sustainable, on a long-term basis, at levels not less than twice the average levels attained during the period of 1967-1991; Provided, That this goal shall not apply to the San Joaquin River between Friant Dam and the Mendota Pool, for which a separate program is authorized under subsection 3406(c) of this title; Provided further, That the programs and activities authorized by this section shall, when fully implemented, be deemed to meet the mitigation, protection, restoration, and enhancement purposes established by subsection 3406(a) of this title; And provided further, *That in the course of developing and implementing this program the Secretary shall make all reasonable efforts consistent with the requirements of this section to address other identified adverse environmental impacts of the Central Valley Project not specifically enumerated in this section*
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> and
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> SECTION 3407(e) FUNDING TO NON-FEDERAL ENTITIES- If the Secretary determines that the State of California or an agency or subdivision thereof, an Indian tribe, or a nonprofit entity concerned with restoration, protection, or enhancement of fish, wildlife, habitat, or environmental values is able to assist in implementing any action authorized by this title in an efficient, timely, and cost effective manner, the Secretary is

authorized to provide funding to such entity on such terms and conditions as he deems necessary to assist in implementing the identified action.