

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	R15AN20003
Project Title	Delta Smelt Research and Refuge Population Development
Recipient	University of California, Davis (UC Davis)
Principal Investigator / Program Manager	Tien-Chieh Hung, Principal Investigator
Anticipated Federal Amount	\$9,996,222.00 / FY15: \$1,939,074.00
Cost Share	\$0.00
Total Anticipated Award Amount	\$9,996,222.00
New Award or Continuation?	New Award
Anticipated Period of Performance	March 1, 2015 through March 31, 2019
Award Instrument	Cooperative Agreement
Statutory Authority	Public Law 102-575, Central Valley Project Improvement Act, Title XXXIV, Section 3406 (b)(1) and Section 3407(e)
CFDA # and Title	15.512—Central Valley Project Improvement Act (CVPIA)
Single Source Justification Criteria Cited	(4) Unique Qualifications
Reclamation Point of Contact	Erwin Van Nieuwenhuyse / Megan Bryant

OVERVIEW

Operation of the Central Valley Project has been identified as a potential cause of a substantial reduction in the quantity and quality of habitat for delta smelt (*Hypomesus transpacificus*) in the Sacramento-San Joaquin Delta-San Francisco Bay estuary (Bay-Delta). Delta smelt are endemic

to the Bay-Delta and have been listed as Threatened by the US Fish and Wildlife Service and Endangered by the California Department of Fish and Wildlife. In 2002, delta smelt and three other pelagic fish populations underwent a step-decline to historic low levels that have persisted ever since. The precise causal mechanism of this decline remains unknown. There is thus an urgent need for a genetically-managed refugial population of delta smelt to serve as a critical safeguard against species extinction in the event that the natural population continues its decline. Maintaining a genetically diverse refugial population removed from the natural habitat would provide a seed-population for future rehabilitation. Surplus fish would be made available for use in experimental studies.

Over the past decade, the Fish Conservation & Culture Laboratory (FCCL), a satellite facility of UC Davis, has been engaged in an experimental research program focused on the successful breeding and genetic management of delta smelt. This research program is being conducted in collaboration with the Genomic Variation Lab (GVL) at UC Davis.

The objectives of the project are to: 1) Continue the development of a delta smelt refugial population as a safeguard against species extinction in the wild; 2) Create a genetically sound population of captive fish for research purposes, and 3) Conduct a series of experiments on smelt physiology, health, condition and behavior.

RECIPIENT INVOLVEMENT

The UC Davis Principal Investigator will perform the data collection activities of the investigations, including all logistics associated with this work; data management, data storage and retrieval; and the analysis and subsequent reporting of the results of the field and analytical work.

UC Davis shall complete the following objectives and provide the following deliverables.

Objective #1: Continue the development of a delta smelt refugial population

Objective #2: Delta smelt genetic management and monitoring

Objective #3: Conduct a series of experiments on smelt physiology, health, condition and behavior

Deliverables:

- Updated breeding plan for refuge-population-development, Jan 2018.
- Presentations of study results at the Interagency Ecological Program Workshop or another scientific conference;
- Manuscripts of study results suitable for publication in a peer reviewed journal

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:

- Collection of wild fish to serve as brood stock for refuge population
- Collaborate on delta smelt experiments with UC-Davis researchers
- Conduct salvage efficiency and other studies at Tracy Fish Collection Facility

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:

(4) UNIQUE QUALIFICATIONS

Single Source Justification Description:

Dr. Tien-Chieh Hung and UC Davis are uniquely qualified to carry out these particular objectives of the experimental research program, focused on the successful breeding and genetic management of delta smelt. Dr. Tien-Chieh Hung will oversee the operation of the FCCL, which is an off-campus facility in Byron, CA. The FCCL has over 15 years of experience in the capture and culture of all life stages of delta smelt. The refuge population represents a critical safeguard against species extinction. Maintaining a genetically diverse population in a refuge setting represents a population-bank for future rehabilitation of the species.

STATUTORY AUTHORITY

Central Valley Project Improvement Act (CVPIA), Public Law 102-575, Title XXXIV Section 3406 (b)(1) and Section 3407 (e):

(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.

and

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.