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-17-N025
Project Title	Drivers of Delta Smelt Health Condition and Reproduction
Recipient	University of California, Davis (UCD)
Principal Investigator / Program Manager	Dr. Swee Teh, Principal Investigator (PI) / Dr. James Hobbs, Co-PI
Anticipated Federal Amount	$1,490,439.00
Anticipated Non-Federal Amount	$0.00
New Award or Continuation?	New Award
Anticipated Period of Performance	January 1, 2017 through April 30, 2019
Award Instrument	Cooperative Agreement
Statutory Authority	Public Law 102-575, Central Valley Improvement Act (CVPIA), Section 3406(b)(1) and Section 3407(e)
CFDA # and Title	15.512— Central Valley Project Improvement Act
Single Source Justification Criteria Cited	**(4) Unique Qualifications**
Reclamation Point of Contact	Oliver (Towns) Burgess / Megan Bryant

OVERVIEW

Operation of the Central Valley Project (CVP) has been identified as a potential cause of reductions in the quantity and quality of habitat for Delta Smelt (*Hypomesus transpacificus*) and other native fish populations in the Sacramento-San Joaquin Delta-San Francisco Bay estuary (Bay-Delta). Other factors affecting smelt habitat include drought, contaminants and food

supply. Recent studies indicate considerable regional variation in the prevalence of contaminant effects and food shortage effects as well as possible interactions with drought. Surveys, conducted by the California Department of Fish and Wildlife (CDFW); included the Spring Kodiak Trawl (SKT) focused on adults, the summer townet survey (STN) focused on early juveniles and the Fall Midwater Trawl (FMWT), which targets juveniles and sub-adults, as well as the U.S. Fish and Wildlife Service (USFWS) Enhanced Delta Smelt Monitoring Program (EDSM). The Delta Smelt Resiliency Strategy initiative released in 2016 included actions to augment Delta outflow to push the low salinity zone westward during the summer and to route water through Yolo Bypass Toe Drain to promote food production. Starting in 2017, the U.S. Bureau of Reclamation and California Department of Water Resources will be seeking to evaluate the theorized benefit of outflow alteration for Delta Smelt in coordination with the USFWS, the CDFW, Interagency Ecological Program and the Collaborative Science and Adaptive Management Program/Collaborative Adaptive Management Team. To evaluate the effect of these actions on the smelt population, it is essential that as much data about the health, growth, diet, movement, and reproductive and habitat history of captured and cultured fish be gathered. This kind of information is essential to developing and quantifying performance measures for the Fall and Summer outflow actions as well as to improving overall understanding of the factors regulating Delta Smelt production. The University of California, Davis (UC Davis) will perform measures and analyses related to the health, growth, diet, and movement, reproductive and habitat history of captured and cultured Delta Smelt (or a suitable surrogate) captured by surveys that include the EDSM, SKT, STN, FMWT and others during 2017 and 2018 as well as on cryogenically-preserved smelt collected by these surveys in previous years.

RECIPIENT INVOLVEMENT

The UC Davis Principal Investigator (PI), the co-PI and staff will formulate the study designs and coordinate the data collection, analysis and interpretation for each component of the objectives and the outflow-related study proposals. They will also co-present the results at scientific workshops and conferences and will co-author submissions to peer-reviewed journals for publication.

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

Objective #1: Perform measures and analyses related to the health, growth, diet, and movement, reproductive and habitat history of captured and cultured Delta Smelt

Objective #2: Process and analyze otoliths

Objective #3: Create oral presentations / manuscript preparation

Deliverables:

- Oral or poster presentations of study results at a scientific conference as determined by co-PIs.
- Presentations to the IEP Science Management Team, Smelt Working Group, CAMT Delta, Smelt Scoping Team or other venue as determined by co-PIs.
- 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:

- Collaborate on the study design, methods and analysis, co-presenting poster or oral presentations and co-authoring peer reviewed publications. .

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. Swee Teh and the Department of Anatomy, Physiology and Cell Biology, School of Veterinary Medicine staff and Dr. James Hobbs at the Department of Wildlife, Fish and Conservation Biology at the University of California, Davis (UC Davis) are uniquely qualified to carry out these particular objectives of the Drivers of Delta Smelt Health Condition and Reproduction project, focused on preventing the extinction of a listed fish species and provide scientific information for use in recovery efforts. The UC Davis departments have significant expertise in developing and refining the protocols and techniques for collecting, preserving and processing smelt, including measuring their health. Through a prior Financial Assistance agreement with Reclamation, UC Davis has spent years developing and refining these methods and to train the staff to implement them. Moreover, the Aquatic Health Program at the School of Veterinary Medicine is the only source of cryogenically-preserved smelt that is needed to document smelt health and fecundity in previous years for comparison with smelt collected over the next two years. 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

Central Valley Project Improvement Act (CVPIA), Public Law 102-575, Title XXXIV Section 3406 (b)(16) and Section 3407 (e):

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

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.