

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-N029
Project Title	Central Valley Prediction and Assessment of Salmon (CVPAS)
Recipient	University of Washington
Principal Investigator / Program Manager	Dr. James Anderson, Principal Investigator
Anticipated Federal Amount	\$1,000,000.00
Anticipated Non-Federal Amount	\$0.00
New Award or Continuation?	New Award
Anticipated Period of Performance	Date of execution through December 31, 2020
Award Instrument	Cooperative Agreement
Statutory Authority	Public Law 85-624, 16 U.S.C. 661 et seq., as amended, and Section 7(a) Fish and Wildlife Coordination Act (FWCA), (70 Stat 1122; 16 U.S.C. 742f(a)), as limited and delegated by the Secretary of the Interior delegation of authority to the Bureau of Reclamation at 255 DM 1.1B, Section (d).
CFDA # and Title	15.517 Fish & Wildlife Coordination Act
Single Source Justification Criteria Cited	(4) Unique Qualifications
Reclamation Point of Contact	Dr. Joshua Israel / Crystal Oliver

OVERVIEW

The Bureau of Reclamation and the California Department of Water Resources operate the Central Valley Project (CVP) and State Water Project (SWP) to divert, store, and convey CVP and SWP water consistent with applicable law and contractual obligations. The U.S. Fish and Wildlife Service (FWS) Biological Opinion (BO)/Reasonable and Prudent Alternative (RPA) was completed on December 15, 2008, and the National Marine Fisheries Service BO/RPA was completed on June 4, 2009, which mandated additional habitat, hatchery, and operational activities to avoid jeopardizing ESA listed species and adversely modifying designated and proposed critical habitat associated with the long-term coordinated operation of the CVP and SWP.

Continuing efforts in the development for improved monitoring and science to provide better public information about ESA-listed species biological response, status, and trend to increase flexibility in water operations. The anticipated work will calibrate and implement a population forecasting tool to describe the impact of temperature and flow management, both significantly impacted by drought and shifting climates directly and indirectly, on the abundance, spatial distribution, productivity and life history diversity of juvenile salmonids in the Central Valley. During droughts and period of less predictable hydrometeorology, this information may prove important to quantifying ecological risks to salmonids, and their relationship to CVP water operations, for discerning possible hydro-system, habitat, and hatchery biological impacts due to drought conditions.

The primary purpose of the project is to enhance and expand data queries, alerts, and population forecasting tools to evaluate the impact of temperature and flow management on the abundance, spatial distribution, productivity, and life history diversity of juvenile salmonid in the Central Valley. The data has proven to be useful with measuring potential benefits and risks to ESA-listed salmonids of various scenarios being considered by agencies and stakeholders.

RECIPIENT INVOLVEMENT

The U of WA Principal Investigator and staff will perform the data collection activities including monitoring, modeling, and scientific studies to provide improved public information about ESA-listed species biological response, status, and trend to increase flexibility in water operations.

The objectives of the project will:

Objective 1: Extend and improve the SacPas real-time web-based secondary database and fish forecasting tools to other river systems in the Central Valley. Integrate environmental/fish data, fish passage/ survival models, output from water quality models and analysis tools in to a web-accessible fish analysis system.

Objective 2: Develop and implement a spatially referenced data inventory (e.g. as in DART) query system and website using open-source applications and tools to further research efforts to provide regionally integrated, publicly accessible datasets.

Objective 3: Provide monitoring, evaluation, and data products and services in support of associated ESA-mandated activities and to predict, track, and evaluate the efficacy of proposed or actual actions during water years 2018, 2019, 2020, and 2021.

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:

- Contributing to study design, selection of biological equations, and assisting with writing peer reviewed manuscripts.
- Participate in the study planning to ensure compliance with the National Environmental Policy Act and Endangered Species Act.

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. James Anderson and his Columbia Basin Research (CBR) team at the University of Washington are uniquely qualified to continue to carry out these particular objectives of the development of fish passage models, focused on spatially referenced data inventory or Sacramento Prediction and Assessment (SacPas) query system and website. In 1996, a full web service with fish passage river conditions and a model predicting the survival and movement of salmonids through the river was fully functional. Over the past two decades, the CBR team has created a system that is highly robust and efficient and has also developed tools that are highly transportable to meet the needs of management of Central Valley salmonid populations and the creation of the initial system SacDART back in 2015. The website (<http://www.cbr.washington.edu/>) provides data collected on Columbia River fish and water quality from 1932 through the current day.

Previous phases demonstrate the capability of Dr. Anderson's team to develop new tools and models for immediate use in understanding ESA-listed species response to changes in temperature and flow modifications. The CBR group is uniquely qualified providing decades of experience in developing databases and models of the movement and survival of juvenile and adult salmonids through larger river systems. The experience combined with the tools that were developed over two decades are highly applicable to meet the needs of fish and water management in the Central Valley. Because the system has evolved through experience in solving problems over decades the structure of the system is highly robust and efficient.

STATUTORY AUTHORITY

Public Law 85-624, 16 U.S.C. 661 et seq., as amended, and Section 7(a) Fish and Wildlife Coordination Act (FWCA), (70 Stat 1122; 16 U.S.C. 742f(a)), as limited and delegated by the Secretary of the Interior delegation of authority to the Bureau of Reclamation at 255 DM 1.1B, RM 526 Paragraph 6 F.(2) Fish and Wildlife, Section (d).

Section 6 F. (2) Fish and Wildlife:

The regional directors and the Director, Management Services Office, are delegated the authority pursuant to the Fish and Wildlife Coordination Act (16 USC 661-666c); Section 5 of the Endangered Species Act of 1973 (16 USC 1534); and Section 7(a) of the Fish and Wildlife Act of 1956[16 USC 742f(a)] to take the following actions, either directly or by providing financial assistance to non-Federal parties (255 DM 1.1.B.). Authority to award financial assistance agreements for projects associated with off-site locations [Paragraph 6.F.(2)(b)] is limited to the regional directors and Director, Management Services Office. The authority of the regional directors and Director, Management Services Office to award financial assistance agreements for all other projects authorized by this delegation can only be re-delegated to designated grants officers.

(d) monitor and evaluate the effect of Reclamation actions on fish and wildlife resources including Endangered Species Act-listed species.

The objectives of this agreement will improve understanding the effects of the drought on Endangered Species Act (ESA)-listed species' populations and habitats, as well as, modeling useful for operational decision-making during drought management periods.