



ACTION ITEM

Approval of an Amendment to a Contract with the University of California Davis

Summary: Council staff requests an amendment to a contract with the University of California, Davis (UC Davis) for an extension of time and addition of funds. The contract end date will extend from June 30, 2022, to February 1, 2023, and adds an additional \$226,649 for a contract total of \$522,829. This amendment will allow for the continuation of the project's work for an additional year to continue to fill critical gaps in knowledge regarding Delta Endangered Species Act (ESA)-listed anadromous species and habitat restoration, as well as leverage other agency-sponsored projects in furtherance of the coequal goals and the Science Action Agenda. This work supports the identification of the interactions between stressors, managed species, and communities, as well as the development of tools to support and evaluate habitat restoration. This work supports Science Action Agenda action areas 1B (tools for adaptive management), 2B (collaboration and accessibility), 3A (evaluating habitat restoration), and 4C (evaluating the relationship between flows and aquatic species). Multi-agency multi-year spring-run Chinook salmon rehabilitation and San Joaquin River restoration efforts are complex and ongoing, and this study is critical to evaluating their success.

REQUESTED ACTION

Council staff recommends that the Council approve a contract amendment with UC Davis (Contract #20028) to extend the end date from June 30, 2022, to February 1, 2023, and increase the contract amount by \$226,649 for a total contract amount of \$522,829.

The Executive Officer has delegated authority up to \$500,000 to enter into contracts on the Council's behalf. This amendment raises the total contract amount in excess of the Executive Officer's delegated authority and requires Council approval.

BACKGROUND

Spring-run Chinook salmon rehabilitation efforts are intensifying on the San Joaquin River. Through this work, over the last three years, Dr. Rypel at UC Davis has successfully tracked movement, behavior, reach-specific survival, and route selection for reintroduced juvenile spring-run Chinook salmon in this ecosystem. In the most recent study year, information on salmon tracking was combined with state-of-art habitat (fast limnological automated measurements (FLAMe)) and physiological (e.g., fish condition, survival, and RNA transcript) approaches. Results from this work are ongoing but have yielded actionable information on key habitats

and management strategies for promoting salmon life-cycles in the San Joaquin River and central Delta.

Through this amendment, UC Davis will further explore promising recent findings. First, the analysis of an additional year of juvenile salmon tracking will occur to glean more survival information across different water year conditions. This information would be integrated with expanded FLAME surveys, along with a second year of physiological assays using caged fish. UC Davis will also evaluate the 'transport effect' on salmon, in an attempt to explain consistently high losses of salmon through the restoration area. Numerous other synergies exist with new and ongoing telemetry work that will benefit from continuing this work. The ultimate goal is to provide actionable science and open access data, with a high potential to facilitate adaptive management in the San Joaquin River and central Delta.

JUSTIFICATION

This amendment is for an additional year of fieldwork and analysis to further explore promising findings and fill critical science gaps needed on other projects sponsored by state and federal agencies, who together are working to implement aspects of the Delta Plan. Amanda Agosta's presentation "investigation of a potential mortality hotspot for juvenile Chinook salmon" at the Bay-Delta Science Conference is such an example. Using Dr. Rypel's analysis, Agosta found the San Joaquin River and its fishes are highly impacted by habitat degradation and water exports and are of increasing concern to those managing the Delta's water and environmental resources. Amanda's preliminary results suggest that although survival has been low (2 percent), areas such as Frank's Tract are not always a mortality sink (death rates are greater than birth rates).

Dr. Rypel seeks to explore the use of multiple (two to three) smaller releases of tagged fish over a longer period, which may be especially important during critically dry years when survivorship is almost uniformly low. This work would also leverage and contribute to numerous other efforts throughout the Central Valley on ESA-listed fish: (1) a steelhead survival and telemetry study, (2) the maintenance of real-time telemetry stations at the state and federal water facilities, (3) a collaboration with Carlos Garza and the University of California, Berkeley to collect tissue and examine the role of the genotype of survival probability, and (4) co-locating 69kHz receivers to assist sturgeon biologists to understand green sturgeon habitat usage within the south Delta and the entire San Joaquin River ecosystem. This work was not initially anticipated because the partner agency in this effort, the California Department of Fish and Wildlife, had not confirmed their purchase of tags by the contract execution date. A telemetry funding sub-team has been initiated to better coordinate inter-agency funding, activities, and objectives.

CONTRACT CHANGES

The contract scope is changed to add an additional year of array maintenance to support tagging and genetic sampling by other agencies. As a result, several deliverable's timeframes will shift between year one and year two of the contract. For year one, these include: maintaining the array, delivering real-time detection data, and producing FLAME maps. Three deliverables have also been adjusted to year two: summary file with physiological data and analyses, summary file with transport effects data and statistics, and summary file with Frank's Tract results uploaded to BARD or similar data repository.

FISCAL INFORMATION

This amendment requests an additional \$226,649 to increase the contract total from \$296,180 to \$522,829. The contract end date would also extend from June 30, 2022, to February 1, 2023.

LIST OF ATTACHMENTS

No attachments

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