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INFORMATION ITEM

2025 Delta Research Awards and Delta Science Fellows

Summary

Council staff will present on the final selection of the 2025 Delta Research Awards (DRA) and 2025 Delta Science Fellows (DSF), authorized by the Council in Resolutions 2023-04 and 2023-06. Following a robust and independent review process facilitated by California Sea Grant, the Council, in consultation with the Delta Lead Scientist, has selected the awards for both funding opportunities. From the 2025 DRA, eight projects will be funded by the Council totaling \$5.9 million and two additional projects will be funded by the State Water Contractors, for a total of \$7.8 million. From the 2025 DSF, 8 projects will be funded, totaling \$1 million. Selected projects from both solicitations advance critical research needs identified in the 2022-2026 Science Action Agenda (SAA), as well as implementation of the Delta Plan. Project timelines begin by spring 2025 and range from 2 years (Delta Science Fellows) to 3 years (Delta Research Awards).

Background

Funding Research Matters More Than Ever

Amid environmental change that outpaces traditional science, the Delta Science Program (DSP) plays a critical role in closing the gap between research and decision-making by proactively funding cutting-edge, management-relevant science through the Science Action Agenda. Our solicitations address issues that might otherwise go unfunded due to agency mandates focused on regulatory-required science. We prioritize building partnerships among researchers, agencies, communities, and Tribes to ensure diverse perspectives are included. Many projects funded this round focus on involving marginalized voices, including local communities and Tribes, recognizing that Delta research directly affects people's lives and livelihoods in this highly managed system. Despite the importance of social science (the study of human society, behaviors, and institutions) to understanding and solving complex challenges in the Delta, it remains

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underfunded, and our program works to fill this gap while connecting science with other ways of knowing, including traditional knowledge. As federal funding hits a crescendo of uncertainty, state investments like this are more crucial than ever to ensure we continue our advancement of knowledge to achieve the coequal goals for the Delta.

The Science Program is Charged with Funding Research in the Delta

The statutory mission of the Delta Science Program is "to provide the best possible unbiased scientific information to inform water and environmental decision-making in the Delta ... [to] be carried out through funding research, synthesizing and communicating scientific information to policymakers and decision-makers, promoting independent scientific peer review, and coordinating with Delta agencies to promote science-based adaptive management," (Water Code section 85280(b)(4)).

Competitive Proposal Solicitations for Delta Research

To advance this mission, the Delta Science Program offers two recurring competitive research funding opportunities, the Delta Research Awards and the Delta Science Fellowships, in partnership with the UC San Diego, California Sea Grant (Sea Grant). Sea Grant has been a trusted partner for the Delta Science Program for decades, with their extensive expertise in administering sciencespecific research solicitations and awards.

Partnership with UC San Diego, Sea Grant

For over 20 years, the Delta Science Program, and the CALFED Science Program prior to 2010, has teamed up with California Sea Grant to launch the next generation of Delta scientists. We are now expanding that partnership to support even more critical research through the 2025 Delta Research Awards and Delta Science Fellowships. Together, these programs have supported hundreds of researchers, many of whom have gone on to build successful careers in science, often continuing to work in the Delta region. Their research has helped generate valuable scientific information to improve understanding and management of this vital and complex ecosystem.

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For the Delta Research Awards, the Council adopted Resolution 2023-04 in May 2023 to authorize an agreement with the University of California, San Diego (USCD), Sea Grant (Sea Grant), to administer, coordinate, and support the proposed 2023/2024 Delta Research Proposal Solicitation, including the sub-agreements for selected projects and amendments to the agreement, in an amount not to exceed six million dollars (\$6,000,000) for awards or seven million thirty-seven thousand two hundred and twenty-four dollars (\$7,037,224) for the entire agreement (including the \$6 million for awards).

For the Delta Science Fellowships, the Council resolved in September 2023 to authorize the preparation and execution of Contract No. DSC23011, and any amendments thereto, with the Regents of the University of California, San Diego, California Sea Grant for the class of 2024 Delta Science Fellows Program and the class of 2024/2025 Delta State Policy Fellows Program in an amount not to exceed \$2,303,194 for an initial term of up to three years, with an option to amend to extend the contract term for a period of up to one year with no increase in the amount of the overall contract amount.

2025 Delta Research Awards

The 2025 Delta Research Awards solicitation was in an amount of up to \$6 million (Council funds), generating a remarkable response with 63 applications totaling over \$50 million. This response clearly demonstrates the sustained need for research funding in the Delta science community, especially through competitive processes that identify the highest-quality, most management-relevant projects. After a rigorous selection process, eight projects were selected for awards by the Council, in consultation with the Delta Lead Scientist. With additional funding from the State Water Contractors, a total of 10 projects will be awarded, increasing the total funding amount to \$7.8 million. This solicitation focused on supporting research that promotes an integrated understanding of the Sacramento-San Joaquin Delta and Suisun Marsh, meaning that no single topic stands alone, but rather that all topics are connected and must be understood together to fully grasp the Delta's complex system.

In the solicitation, the Council emphasized co-produced research, where data and information are developed in partnership between researchers and communities.

Co-produced research is important because it connects scientists directly with communities, ensuring that research addresses real, on-the-ground needs and prioritizes questions that matter most to those living and working in the Delta. In recognition of the Science Action Agenda's (SAA) focus on the human dimensions of the Delta, including social, cultural, and economic aspects, projects with substantial social science components were eligible for additional points during review. The selected projects address a wide range of critical topics such as harmful algal blooms, eco-cultural restoration, Tribal Knowledge, subsidence, hydrology, acoustic telemetry, endangered species, and more. For more information about these projects, see Attachment 1. This solicitation is the DSP's third since 2019. A snapshot of recent Delta Research Awards is provided below:

Year	Total Award	# of projects	Partners	Science Action Agenda
2019	\$16.9 million	26	USBR, CDFW	2017-2021
2021	\$9.6 million	16	USBR, SWC	2017-2021
2025	\$7.8 million	10	SWC	2022-2026

2025 Delta Science Fellows

The Delta Science Fellowship program pairs the next generation of Delta scientists with academic and community mentors to conduct one- to two-year critical science investigations targeting high-priority Delta issues. Six graduate students and postdoctoral researchers were awarded a total of over \$1 million in Delta Science Fellowships. The selection process evaluated how early career scientists will work with research advisors at their academic institutions and community mentors at various agencies, non-governmental institutions, and other community-based organizations to carry out collaborative data analysis and research projects that are responsive to one or more of the priority Management Needs and associated Science Action(s) identified in the 2022-2026 SAA. Successful applicants include one masters student, three doctoral students, and two postdoctoral researchers. The awarded projects will explore a variety of topics including miniature acoustic tagging methods for Longfin smelt, developing novel eRNA methods to monitor Longfin and Delta smelt, tracking salinity intrusion using satellite imagery, modeling drivers

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of historical and future land use change in the Central Valley, incorporating climate change into modeling of environmental flows, and engaging local youth in Chinook salmon research. For more information about these projects, see Attachment 2.

Solicitation Evaluation Criteria

The Council's staff collaborated closely with California Sea Grant to evaluate proposals. Sea Grant organized several expert panel reviews, led by the Delta Lead Scientist, to review the technical aspects of the proposals. The evaluation of both Delta Research Award projects and Delta Science Fellows is based on multiple criteria, including:

- Scientific merit assesses whether the research addresses key uncertainties, fills information gaps, and is justified with the best possible information such as current scientific literature, Tribal expertise, traditional knowledge, and local knowledge. The research questions, methods, and data analysis must be well-defined and appropriate for achieving the goals of the study.
- The **project's relevance to the SAA** is determined by how well it aligns with the 2022-2026 science actions, its significance at regional and landscape scales, and its contributions to adaptive management or co-production of knowledge.
- **Broader impacts and equitable engagement** evaluate the extent of community and Tribal collaboration, outreach efforts, and benefits to vulnerable communities, including environmental justice considerations.
- Applicant teams were evaluated on relevant academic achievement, experience, and the demonstrated ability of the applicant team to complete the work.
- **Feasibility** considers whether the project has a well-structured implementation plan, logical timeline, and adequate resources, facilities, and administrative capacity.
- The Delta Research Awards incentivized a **strong social science component** with **extra points**, which involves approaches that highlight political, economic, social, or cultural dimensions of the Delta.
- For the Delta Research Awards only, **large projects** must also demonstrate **meaningful engagement** with resource managers, practitioners, and Delta communities through letters of support.

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Research Impact Assessment (RIA)

Council staff have also been working on developing a Research Impact Assessment (RIA) framework (inspired by the concept of return on investment) to comprehensively track the impact of DSP-funded research in advancing scientific understanding of the Delta, and informing decision-making and the public. Council staff plan to present on this framework in the coming months.

List of Attachments

Attachment 1: Information Sheet – 2025 Delta Research Awards

Attachment 2: Information Sheet – 2025 Delta Science Fellows

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