DEC 2025

2022-2026 Science Action Agenda Progress Summary Snapshot

Delta Stewardship Council
A CALIFORNIA STATE AGENCY

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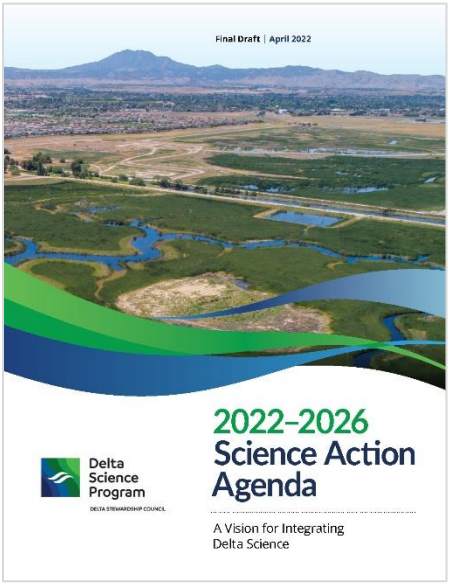
Snapshot Summary

The mission of the Delta Stewardship Council's (Council) Delta Science Program is to "provide the best possible unbiased scientific information to inform water and environmental decision-making in the [Sacramento-San Joaquin] Delta [(Delta)] … carried out through funding research, synthesizing and communicating scientific information to policymakers and decisionmakers, promoting independent scientific peer review, and coordinating with Delta agencies to promote science-based adaptive management." (Cal. Wat. Code 85280(b)(4))



To further the Delta Science Program's mission, the Council funds interdisciplinary research relevant to Delta management that advances science priorities identified by the community in the 2022-2026 Science Action Agenda (SAA), a document the Council received and accepted in April 2022.

To understand the progress made to date, the Delta Science Program conducted a Snapshot Progress Summary (Snapshot) to evaluate implementation of the 2022-2026 SAA. This Snapshot inventories the number of projects contributing to each of the Science Actions, the implementation progress of each project, and the amount of funding invested by the Council/Delta Science Program and its partners to date. Findings from the Snapshot will inform future Delta Science Program funding efforts, including possibly prioritizing funding for outstanding gaps in the SAA. Also, the Snapshot is one among other Council-led efforts[1] focused on communicating the impact of Council-funded research.

Bottom line: The DSP found that all six Management Needs and 22 of the SAA's 25 Science Actions are being advanced by funded projects.

Why Create a Science Action Agenda?

The SAA is a document created by and for the Delta science community. The Delta Science Program leads its development to identify the Science Actions needed to

[1] Other Council-led efforts include the Research Impacts Assessment (RIA) that evaluates management impacts from past funded projects. The RIA is in progress and is planned to be completed and released to the public end of 2026.

address Management Needs, fill knowledge gaps, and guide science investments in the Delta. By aligning 25 Science Actions with six Management Needs, the SAA helps to advance the Delta Science Program's mission of providing the best possible unbiased scientific information to inform water and environmental decision-making in the Delta (Figure 1).

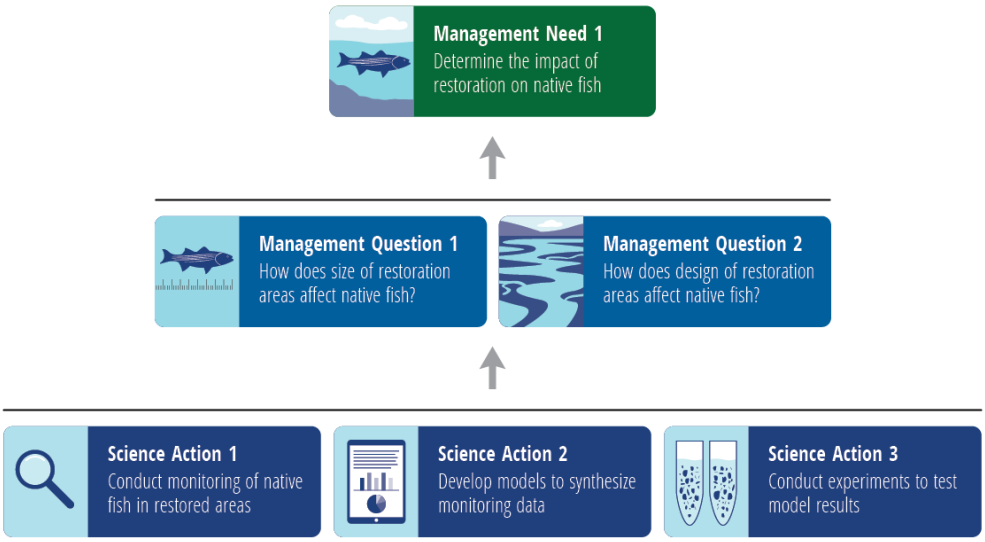


Figure 1. Connections between Management Needs, Management Questions, and Science Actions. This diagram is for illustrative purposes only and does not represent actual Management Needs or Science Actions.

The six overarching Management Needs[2] for the 2022-2026 SAA focus on:

1. Improving integration and coordination of research,
2. Enhancing monitoring and modeling,
3. Managing the Delta as a social ecological system,
4. Equitable management of Delta communities,
5. Species ecosystem health and
6. Climate change impacts and adaptive management.

The development of a new SAA occurs every five years, integrating the diverse perspectives and goals of state and federal agencies, nonprofits, and community-based organizations.

The SAA is a key part of the Delta Science Program's Delta Science Strategy, which is intended to serve the Delta science and management community and promote the

[2] The six SAA Management Needs are not listed in any order of importance or priority.

concept of One Delta, One Science. The Delta Science Strategy emphasizes collaboration and a unified approach to scientific research.

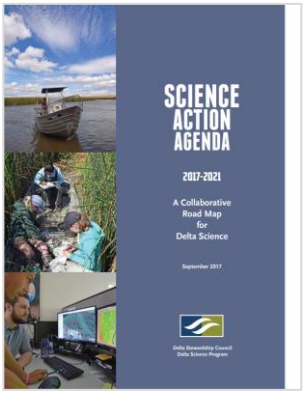
The SAA guides the Delta Science Program's funding, including competitive research solicitations and directed actions. It also guides other programmatic priorities, including the Delta Synthesis Working Groups, Cyanobacterial Harmful Algal Bloom Monitoring Strategy for the Delta, and the State of Bay Delta Science.

The Council, working as a critical funder of scientific research in the Delta, uses the SAA to scope and guide funding solicitations. According to the 2022-2023 Delta Crosscut Budget Report released in October 2024, the majority of funding in the Delta is allocated to monitoring, and less funding is dedicated to targeted research and synthesis. But research and synthesis are areas in which the Council's contributions have an outsized impact. From 2018 to 2023, the report shows the Council was consistently the third largest funder in the Delta overall.

Snapshot Goals: A Temperature Check to Guide Implementation

The Snapshot targets two goals:

1. Assessing the progress in implementing the 2022-2026 SAA to inform ongoing implementation of the SAA.
2. Informing future SAA iterations (e.g., striving for sufficient progress to be made across Management Needs and Science Actions before a new SAA is developed).



The previous iteration, the 2017-2021 SAA, included a progress summary at the end to evaluate implementation and inform the next iteration of the SAA. However, this is the first time a midpoint progress summary has been conducted. These goals will serve as a "temperature check" to help guide continued implementation.

Snapshot Process

This Snapshot identifies which Science Actions are being advanced, the number of projects advancing each Science Action, the status of projects (either initiated, ongoing, or completed), and the amount of funding

allocated by the Delta Science Program and its funding partners for implementation.

This Snapshot evaluates 30 Council/Delta Science Program-funded projects:

- Eight 2022 Delta Science Fellow (DSF) projects,
- Six 2025 DSF projects,
- Eight 2025 Delta Research Awards (DRA) and,
- Eight Directed Actions.

This Snapshot also evaluates externally funded projects:

- Eight SWC-funded projects.

Beginning in early 2025, Delta Science Program staff evaluated the Science Actions being addressed by 38 projects funded by the Delta Science Program and SWC. These projects were selected for the Snapshot because they were required to demonstrate implementation of the SAA in their proposals. Given that the SAA is a guiding document for prioritizing Delta research, it is important that Council-funded projects clearly contribute to implementation and help advance the mission of the Delta Science Program to provide the best possible unbiased scientific information to inform water and environmental decision-making in the Delta. A future final progress summary will include other projects, particularly non-Delta Science Program projects, to capture the full range of progress across the Delta in implementing the SAA.

For proposals that addressed multiple Science Actions, Delta Science Program staff assigned priority levels that identified a primary, secondary, and tertiary Science Action. These levels indicated the extent to which a project contributed to a given Science Action. While some project proponents deemed their projects addressed upward of ten Science Actions, only the top three Science Actions for each project were included in the Snapshot analyses. This is based on the rationale that a project can most meaningfully contribute to a limited number of Science Actions.

Findings

The DSP found that all six Management Needs and 22 of the 2022-2026 SAA's 25 Science Actions are being advanced by funded projects (Figure 2). The number of projects advancing each Science Action ranges from one project to 13 projects, with most Science Actions having three or fewer projects supporting their implementation.

Science Actions with the most DSP- and SWC-funded projects advancing them are:

- 5B “Identify thresholds in the survival and health of managed fish and wildlife species” (13 projects).
- 2A “Evaluate and update monitoring programs to ensure their ability to track and inform” (12 projects).
- 1A “Establish publicly accessible repositories, interactive platforms, and protocols” (10 projects).

Science Actions not being advanced by DSP- or SWC-funded projects included in the review are:

- 2C “Enhance flood risk models through a co-production process with Delta communities.”
- 6B “Evaluate individual and cumulative impacts and tradeoffs of drought management actions.”
- 6C “Evaluate the possible multi-benefits of management actions that promote groundwater recharge.”

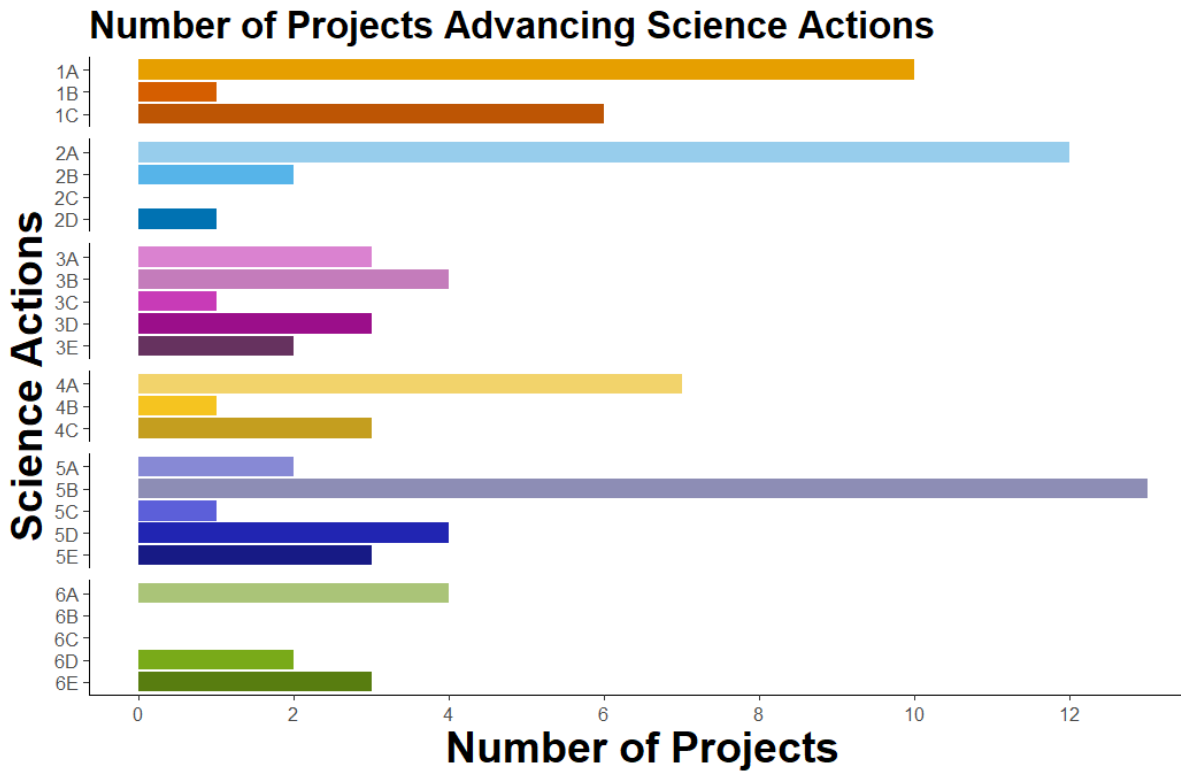


Figure 2. Number of projects advancing each Science Actions, faceted by Management Need. Blank areas indicate Science Actions that are not the focus of any funded projects assessed in this Snapshot. Because a project can address multiple Science Actions, it may be represented several times in the graph. For example, one project advances Science Actions 1C, 2A, and 5B. In Figure 2, that means the project is included in the count for each of those Science Actions.

Across the 38 projects evaluated, 45% advance three Science Actions, 42% advance two Science Actions, and 13% advance one Science Action. For projects that advance two or more Science Actions, 79% of those projects span multiple Management Needs, highlighting the cross-cutting nature of the research.

The status of projects is evenly distributed across “initiated,” “ongoing,” and “completed” (Figure 3). This metric is important to track the progress of projects funded to implement the SAA. Initiated projects account for 37% of the total projects, ongoing projects comprise 29%, and completed projects make up the remaining 34%. Most of the completed projects are two-year DSF projects that were funded in 2022. The ongoing projects are predominately funded by SWC and began

in 2023. Initiated projects are primarily the 2025 DSF and Delta Research Award projects, which started in spring 2025.

Given that two-thirds of the projects are not yet complete, and half of those are only just beginning, the overall progress of implementing the 2022-2026 SAA is in the earlier stages.

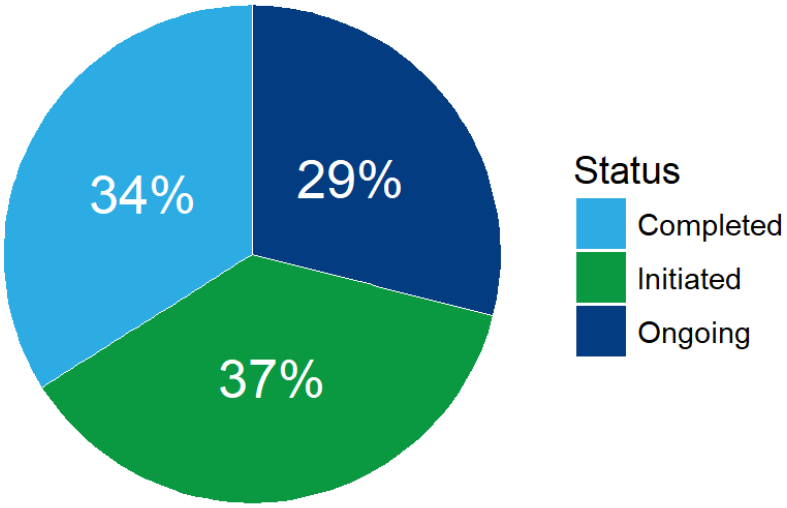


Figure 3. Percent of contributing projects that are initiated, ongoing, or completed

The total amount of funding allocated to the implementation of the 2022-2026 SAA to date is over $16 million (Figure 4). The solicitations that contribute the most significant amount of money to implementation are the 2025 Delta Research Awards ($5.6M) and projects funded by SWC in 2023 ($4.1M) and 2025 ($1.9M).

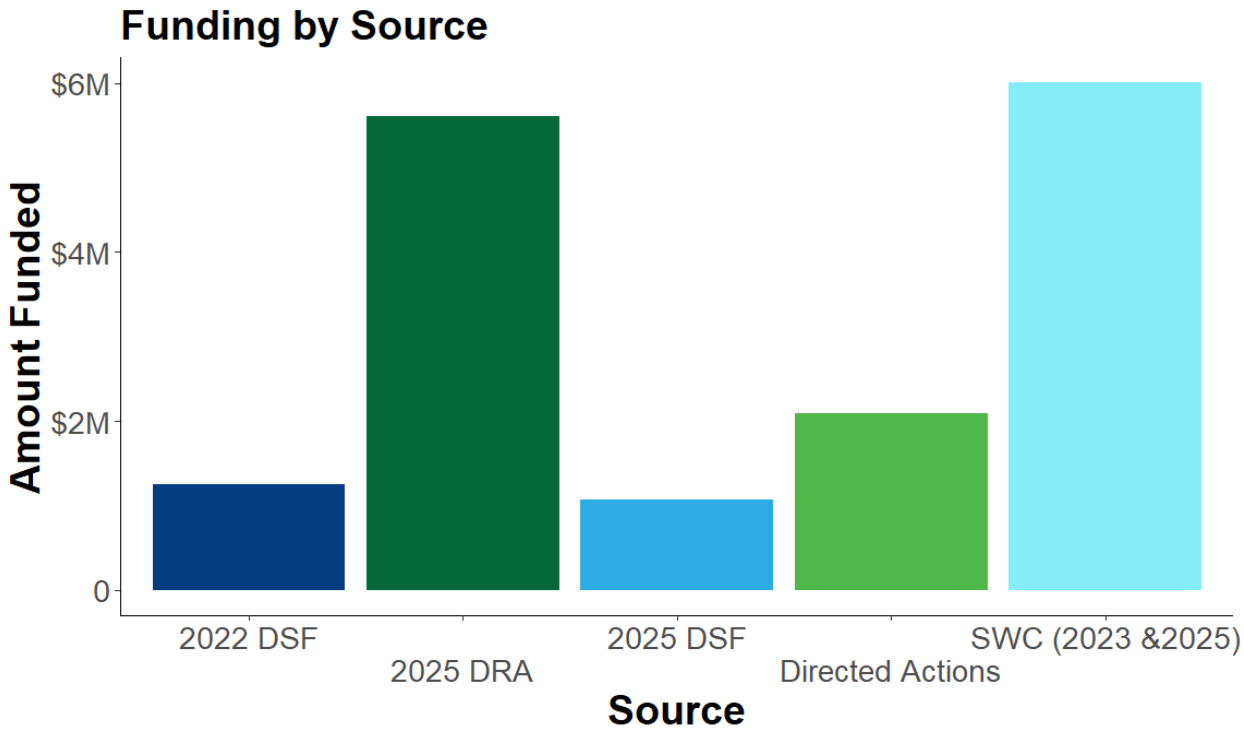


Figure 4. Funding amount by source (Delta Research Awards, Delta Science Fellows, Directed Action, or State Water Contractors)

The $16 million allocated to this SAA is roughly 40% of the funding allocated to the last SAA, which received over $42 million in investments between 2017 and 2021, including contributions from multiple external partner agencies. Budget reductions experienced by federal and California state agencies have impacted funding for the current SAA. Despite these limitations, it is promising to see that the projects funded by the DSP and partners are diverse and interdisciplinary.

While tracking the number of projects advancing each Science Action is important, it is also worth tracking the relative funding for each Science Action because the two metrics do not directly correlate. Considering only the primary Science Actions for each project, the most funded Science Action, 5D, "Integrate and expand on existing models of food web drivers," is receiving the most funding with ~$2.3 million funded of the total $16 million (Fig. 5). The next five most funded primary Science Actions are receiving ~$0.5 to $1.5 million, and the remaining Science Actions are each receiving $300,000 or less.

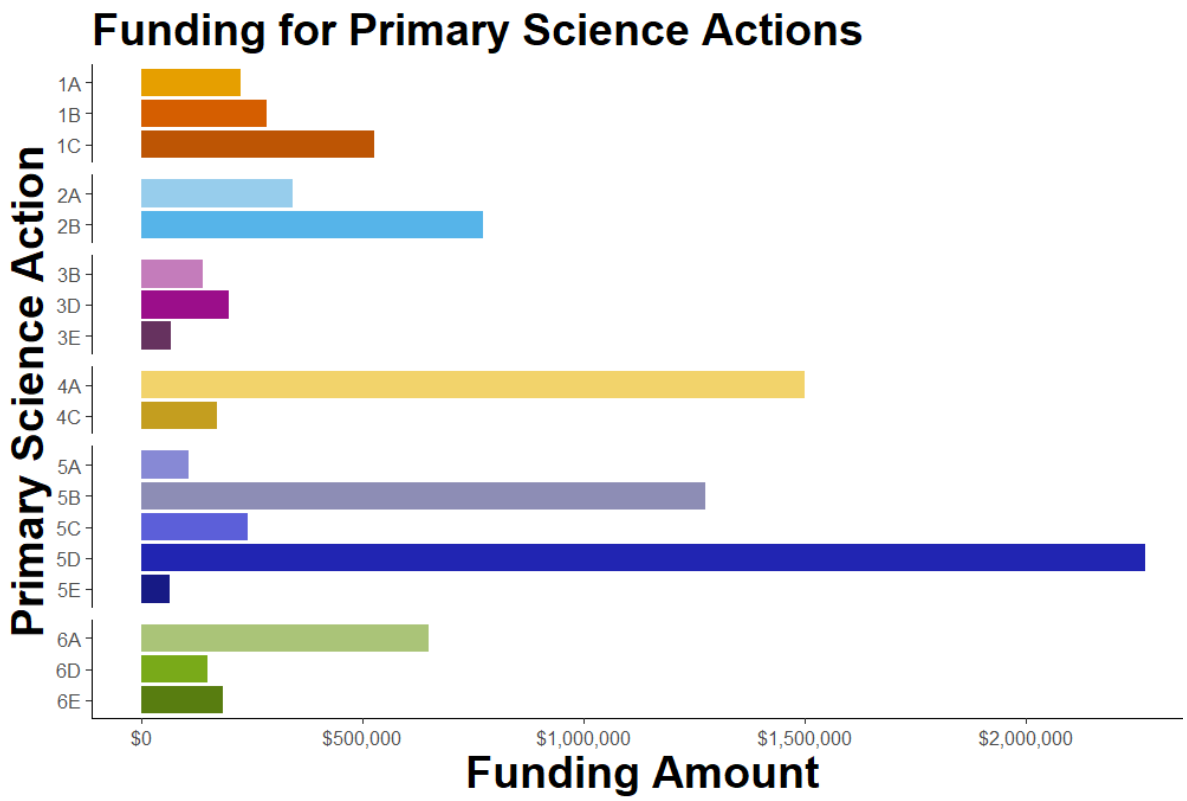


Figure 5. Funding amount for the project's primary Science Actions, by Management Need

What's Next

Based on the findings described above, the Delta Science Program is considering how to focus implementation efforts to better address Science Actions and Management Needs that have fewer projects advancing them compared to others. In 2026, the Delta Science Program plans to develop a public outreach effort (e.g., a survey, webinar, or meeting) to solicit feedback from the Delta community on this Snapshot and to learn about projects that are not included but are contributing to SAA implementation. This input will inform future Delta Science Program solicitations (e.g., focus on a subset of Science Actions that have made the least progress) and the development of the next SAA.

Further, **the Delta Science Program will conduct a more comprehensive progress summary closer to the end of the current SAA**. The progress summary will utilize the Delta Science Tracker and include all relevant projects, not just those funded by the Council/Delta Science Program or partners, to comprehensively assess all progress made in implementing the 2022-2026 SAA.