



INFORMATION ITEM

Social Science Integration: Update on Recent Efforts and Introduction of the new Social Science Extension Specialist

Summary

The Delta Reform Act envisions a resilient Sacramento-San Joaquin Delta (Delta) that supports healthy ecosystems and thriving communities, but current science remains largely focused on ecological conditions rather than social dimensions. Humans are a central part of the Sacramento-San Joaquin Delta system. Integrating the social sciences into environmental science and management in the Delta can contribute to a better understanding of the people who live, work, and recreate in and around the estuary, how the region impacts their health and well-being, and how their choices and behaviors influence environmental issues. Understanding these complex social-ecological systems can help decision makers develop solutions that balance community and ecological needs through processes that build trust and engagement.

Deepening our understanding of the Delta holistically will allow for more efficient and durable decision making, advancing the coequal goals through an interdisciplinary approach. The Delta Stewardship Council (Council) has worked to identify opportunities for greater integration of social sciences within the Council's work and the Delta more broadly. This effort includes contracting with California Sea Grant since 2020 for a Social Science Extension Specialist (SSES). Dr. Jessica Rudnick was the Council's first SSES, and Dr. Tara Pozzi is the new SSES, starting this year.

In today's meeting, Council staff will provide an overview of the history of social science integration in the Council's work and summarize key progress, including specific examples of social science application in the Delta, over the last five years. Staff will also introduce Dr. Tara Pozzi who will present on research priorities for the SSES during her tenure.

Background

In 2017, the [Delta Independent Science Board](https://deltacouncil.ca.gov/delta-isb/) (Delta ISB) published a review that described social science in the Delta as “sparse and sporadic” ([Delta ISB, 2017](https://rebrand.ly/9xt5ob7j)). In response to this report, the [Delta Science Program](https://rebrand.ly/9dyvovo) convened a six-person external [Social Science Task Force](https://rebrand.ly/j6uurge) (SSTF) to assess the state of social science in the Delta. The resulting 2020 report offered recommendations for integration of the social sciences (economics, psychology, political science, etc.) into Delta science, management, and decision making (see: [Social Science Task Force Report](https://rebrand.ly/jw6gksm)).

Efforts to integrate the social sciences within the Council’s work and the Delta more broadly aim to build better understandings of the interactions between the social and ecological dimensions of the Delta, advancing the State’s coequal goals of a reliable statewide water supply and a protected, restored Delta ecosystem in a manner that preserves the values of the Delta as a place. **In the context of natural resource management and conservation, the social sciences can: (1) help investigate why social phenomena, processes, or individual behaviors are occurring around an environmental issue; (2) anticipate social or economic future trends through modeling; (3) inform the design of planning or governance processes that are participatory and inclusive; and (4) evaluate the efficacy or equity implications of different policy and management approaches.**

An example of how the application of social science improved a Delta water governance effort is Franks Tract Futures planning. In 2019, the California Department of Fish and Wildlife, California State Parks, and the Department of Water Resources commissioned a co-design process to envision future scenarios for Franks Tract in the Sacramento-San Joaquin Delta. “Co-design” means that diverse groups and experts worked together to contribute ideas and values to develop and evaluate alternative futures. Franks Tract, a 3000-acre recreational hub and open water area in the central Delta, is critical to controlling ocean-driven salinity intrusion in the Delta. Ocean salinity intrusion is exacerbated by climate change, and this area has required expensive and disruptive short-term

management measures, such as the emergency drought barrier placed in False River outside of Franks Tract in 2015 and 2021. Emergency efforts like this are necessary to protect water supply reliability without a long-term solution in place. An Advisory Committee made up of Delta residents and business owners partnered with a Steering Committee of representatives from several State agencies to develop prospective restoration designs. This co-design effort was spearheaded by social scientists using social science methods, including spatially explicit mapping exercises and surveys. These methods elicited responses from participants on boating routes, launch sites, and preferred design concepts for the flooded island. When paired with an economic impact assessment - another social science method - and hydrodynamic modeling, the results provide a powerful tool for policymakers to be able to judge tradeoffs while generating community buy in. A final concept was proposed by the Advisory and Steering Committees that offered the best balance between project objectives and the opportunity to improve local conditions. While the Franks Tract Futures plan still lacks funding, the process demonstrates the value of integrating social science methods to build trust, develop partnerships, and plan for an uncertain future.

Current Social Science Integration Efforts

Social sciences deepen our understanding of the human dimension, enhance biophysical science, and can help build trust and efficacy in governance. The SSTF helped establish a pathway toward improved integration with their 2020 report. The report listed three main findings regarding the challenges to social science integration in the Delta: (1) limited social science capacity and investment, (2) research activities are ongoing, but there is no long-term vision for social science integration, and (3) design and evaluation of adaptive management is not informed by social sciences. These findings sparked several efforts at the Council to build social science capacity, some of which include:

- **Social Science Extension Specialist (SSES):** The Council contracts with California Sea Grant to conduct specialized research and outreach on the human dimensions of water and environmental management and policy in the Delta. This contract builds capacity for social science integration at the

Council. The contract for the first SSES, [Dr. Jessica Rudnick](https://rebrand.ly/5zpj1e) (<https://rebrand.ly/5zpj1e>), started in 2020. Dr. Rudnick was instrumental in launching the Delta Residents Survey and building the Social Science Community of Practice (see below for more information on both initiatives).

- **The [Bay-Delta Social Science Community of Practice \(CoP\)](https://rebrand.ly/lmxkfnl)** (<https://rebrand.ly/lmxkfnl>): A community of social science scholars, practitioners, and allies who are committed to advancing applicable and relevant research on the human dimensions of the San Francisco Bay and Delta. This collaborative community contributes to building a long-term vision and sharing strategies for social science integration in the Delta and beyond.
- **The [Social Science Integration Team \(SSIT\)](https://rebrand.ly/o3jjnk3)** (<https://rebrand.ly/o3jjnk3>): A group of Council staff working to identify opportunities for and support the integration of social science approaches in the agency's science, planning, communication, and public participation activities. This group also helps identify opportunities to hire staff with social science expertise which has expanded the Council's ability and capacity to integrate social science throughout the agency and beyond.

The SSES, CoP, and SSIT have all played a critical role in addressing the first two findings from the 2020 SSTF report by building capacity but there is still a lot of work to be done – particularly surrounding the SSTF report's finding 3, which will require us to reduce barriers to integrating new knowledge in future management decisions. Capacity building is also happening outside of the Council. The Delta Independent Science Board (ISB) supports and provides scientific oversight to the Council, which added two social scientists to the Board in 2020. Dr. Lisa Wainger, an environmental economist, and Dr. Tanya Heikkila, an environmental governance scholar, are both serving in their second five-year term. With increased capacity, the Council has worked to increase social science awareness, expertise, and capacity both internally and externally with our partners to overcome some of the identified barriers.

Some specific progress highlights from the past five years include:

- **The 2023 [Delta Residents Survey \(DRS\)](https://rebrand.ly/1qhkg1k)** (<https://rebrand.ly/1qhkg1k>), which collected representative data from over 2,200 people living in the Delta region to better understand their social and environmental well-being. By capturing shared values, concerns, and diverse experiences, the 2023 DRS provides insights that can inform more effective and equitable communication, outreach, and planning. This is intended to be a recurring survey that can track the well-being of an evolving population over time. Ongoing insights into the shared values and concerns of the Delta community could guide more effective management and governance strategies.
- Social science **criteria included as a weighted component of research funding solicitations** such as the [Delta Research Awards](https://rebrand.ly/jvvoiwq) (<https://rebrand.ly/jvvoiwq>) and [Delta Science Fellowship](https://rebrand.ly/oh95jhb) (<https://rebrand.ly/oh95jhb>), which explicitly encourage research on the Delta as a social-ecological system.
- The Council's **adoption of the [Tribal and Environmental Justice in the Sacramento-San Joaquin Delta Issue Paper](https://bit.ly/4qSIPll)** (<https://bit.ly/4qSIPll>) **and the [Delta Adapts Adaptation Plan](https://bit.ly/4i2yQVY)** (<https://bit.ly/4i2yQVY>), which provide paths forward for regional climate adaptation and better incorporating Tribal and environmental justice perspectives into the Council's work. These efforts increased attention to addressing power and resource inequalities prevalent in environmental resources challenges and can provide more robust justifications of stewardship actions or policies. Both efforts were informed by participatory social science.
- Completion of ***Making Science Whole: Embedding Social Science in Natural Science Workflows***, a companion piece to the draft 2026 Delta Science Plan. Developed by Council staff, this resource helps demystify social science and equip natural scientists with practical entry points for working with social scientists and social science data.
- **Hiring staff with social science expertise** has increased the amount of and capacity for social science integration in the Council's work. The social

scientists on Council staff have led interviews that were essential to the TEJ Issue Paper as well as the Delta Adapts Agriculture Adaptation Strategies. Social science staff also recently contributed to a paper published in San Francisco Estuary and Watershed Science: "Changing Paradigms of Knowledge Production: Interweaving Traditional Knowledge and Predominant Science in the Delta." This paper highlights that traditional knowledge can add significant value to ecosystem monitoring and management in the Delta, helping to fulfill state and federal directives.

These Council efforts have laid the groundwork for a stronger social science presence in the Delta. Efforts by others also demonstrate the growing value of social science, such as the interdisciplinary [COEQWAL](https://bit.ly/4p6mWws) (<https://bit.ly/4p6mWws>) project, the [Delta Protection Commission's](https://delta.ca.gov/) (<https://delta.ca.gov/>) [Socioeconomic Indicators Report](https://bit.ly/4pdFknf) (<https://bit.ly/4pdFknf>), and the [Wetland Regional Monitoring Program's](https://www.wrmp.org/) (<https://www.wrmp.org/>) [People and Wetlands Work Group](https://bit.ly/4oGfGaK) (<https://bit.ly/4oGfGaK>).

Social science in the Delta has come a long way since the 2020 Social Science Task Force Report, but the work is far from finished. Continued investment is needed to address barriers like funding and capacity, and to build partnerships that connect social and natural science and scientists to advance more resilient solutions to the diverse issues facing the Delta. Humans are a central part of the Delta system, and by continuing to support the social sciences, researchers and agencies can better navigate complex social-ecological challenges, foster trust with communities, and ultimately produce more equitable, actionable, and durable outcomes for Californians.

Introducing Dr. Tara Pozzi

One of the biggest boosts to social science capacity in the Delta has been the work of the SSES. The contract for Dr. Tara Pozzi's work as the SSES started in August 2025. Dr. Pozzi completed her PhD. at UC Davis. Dr. Pozzi was a 2022-24 Delta Science Fellow focused on climate adaptation; her fellowship assessed the needs of the adaptation governance system to address climate impacts. Through qualitative

interviews with 49 key informants and a quantitative survey that collected 299 responses, she identified key governance challenges and strategies to improve interorganizational collaboration on adaptation planning and implementation. This research informed the Council's Delta Adapts Climate Adaptation Plan, adopted in 2025—a clear example of how investing in social science at the fellowship level can impact public policy.

At today's meeting, Dr. Pozzi will present research priorities, including exploring the tradeoffs and opportunities of high-priority adaptation strategies, continuing the Delta Residents Survey, and developing a plan for long term social monitoring. She will also discuss her role in the Bay-Delta Social Science Community of Practice, UC Davis research community, and collaborative work groups in the Delta.

Fiscal Information

Not applicable.

List of Attachments

Not applicable.

Contact

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